Delineation of Areas Meeting Wetland and Other Waters Criteria

LAKEPORT CINEMA AND DRIVE-IN LAKE COUNTY CALIFORNIA

Prepared For:

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1.0 INTRODUCTION

1.1 Study Background

The Lakeport Cinema and Drive-In (Study Area) consists of 25.5 acres in Lakeport, California in Lake county. The Study Area is bounded on the north by ruderal fields, on the east by Manning Creek, on the south by light industrial development and ruderal fields and on the west by Soda Bay Road (Figure 1).

On January 14 and April 24, 2008, WRA conducted a routine wetland delineation in the Study Area to determine the presence of potential wetlands and waters subject to federal jurisdiction under Section 404 of the Clean Water Act. This report presents the results of this delineation.

1.2 Purpose of Study

The property owner is investigating potential lot-splitting option and has requested this study to assist with planning. The wetland delineation will be used to split the lot into parcels to develop with minimal wetlands and another parcel with majority wetlands for preservation.

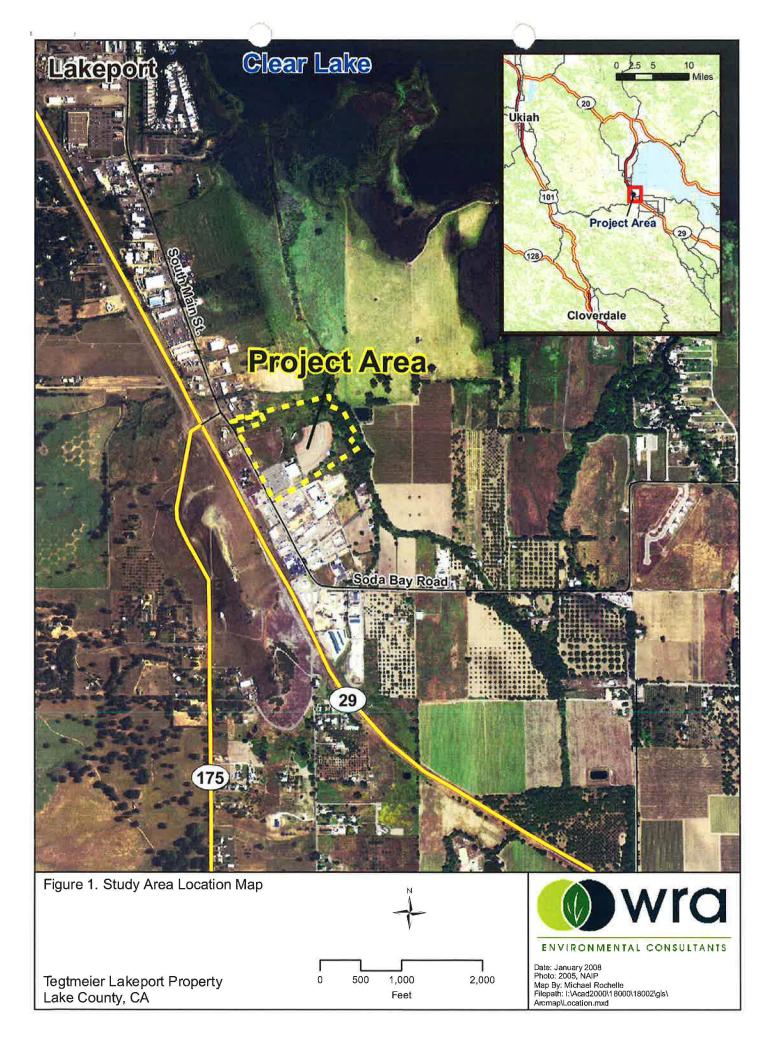
1.3 Regulatory Background

1.3.1 Section 404 of the Clean Water Act

Section 404 of the Clean Water Act gives the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps) regulatory and permitting authority regarding discharge of dredged or fill material into "navigable waters of the United States". Section 502(7) of the Clean Water Act defines navigable waters as "waters of the United States, including territorial seas." Section 328 of Chapter 33 in the Code of Federal Regulations defines the term "waters of the United States" as it applies to the jurisdictional limits of the authority of the Corps under the Clean Water Act. A summary of this definition of "waters of the U.S." in 33 CFR 328.3 includes (1) waters used for commerce; (2) interstate waters and wetlands; (3) "other waters" such as intrastate lakes, rivers, streams, and wetlands; (4) impoundments of waters; (5) tributaries to the above waters; (6) territorial seas; and (7) wetlands adjacent to waters. Therefore, for purposes of the determining Corps jurisdiction under the Clean Water Act, "navigable waters" as defined in the Clean Water Act are the same as "waters of the U.S." defined in the Code of Federal Regulations above.

In the Corps Rivers and Harbors regulations (33 CFR Part 329.4), the term "navigable waters of the U.S." is defined to include all those waters that are subject to the ebb and flow of the tide, and/or presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

In 2006, the Supreme Court addressed the jurisdictional scope of Section 404 of the Clean Water Act in Rapanos v. U.S. and in Carabell v. U.S. The decision provides two analytical standards for determining whether water bodies that are not traditional navigable waters (TNWs), including wetlands adjacent to those non-TNWs, are subject to CWA jurisdiction: (1) if the water body is relatively permanent, or if the water body is a wetland that directly abuts (e.g., the wetland is not separated from the tributary by uplands, a berm, dike, or similar feature) a relatively permanent water (RPW), or (2) if a water body, in combination with all wetlands adjacent to that water body, has a significant nexus with TNWs.



When determining whether a water body qualifies as TNW, relevant considerations include whether a Corps district has determined that the water body is a navigable waters of the U.S. pursuant to 33 CFR Section 329.14, or the water body qualifies as a navigable water of the U.S. under any of the tests set forth in 33 CFR Section 329, or a federal court has determined that the water body is navigable-in-fact under federal law for any purpose, or the water body in navigable-in-fact under the standards that have been used by the federal courts.

As a result, the EPA and Corps will assert jurisdiction over the following categories of water bodies: TNWs; all wetlands adjacent to TNWs; non-navigable tributaries of TNWs that are relatively permanent (i.e, tributaries that typically flow year-round or have continuous flow at least seasonally); and wetlands that directly abut such tributaries. In addition, the EPA and Corps will assert jurisdiction over every water body that is not an RPW if that water body is determined (on the basis of a fact-specific analysis) to a have a significant nexus with a TNW. The classes of water body that are subject to EPA and Corps jurisdiction only if such a significant nexus is demonstrated are: non-navigable tributaries that do not typically flow year-round or have continuous flow at least seasonally; wetlands adjacent to such tributaries; and wetlands adjacent to but that do not directly abut a relatively permanent, non-navigable tributary.

The limits of Corps jurisdiction under Section 404 as given in 33 CFR Section 328.4 are as follows: (a) *Territorial seas:* three nautical miles in a seaward direction from the baseline; (b) *Tidal waters of the U.S.:* high tide line or to the limit of adjacent non-tidal waters; (c) *Non-tidal waters of the U.S.:* ordinary high water mark or to the limit of adjacent wetlands; (d) *Wetlands:* to the limit of the wetland.

1.3.2 State Water Resources Control Board and Regional Water Quality Control Board

The Dickey Water Pollution Act of 1949 and Porter Cologne Act of 1969, established the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCB) in the State of California. The SWRCB and each RWQCB regulate activities in Waters of the State which include Waters of the U.S. Waters of the State are defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." Section 401 of the Clean Water Act gives the State broad latitude to protect water quality by regulating activities in streams, wetlands, and riparian areas.

The RWQCB regulates discharges of fill and dredged material under Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act through the State Water Quality Certification Program. State Water Quality Certification is necessary for all projects that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact Waters of the State. In order for a Section 404 permit to be valid, Section 401 of the Clean Water Act requires a Water Quality Certification or waiver to be obtained. The Water Quality Certification (or waiver) determines that the permitted activities will not violate water quality standards individually or cumulatively over the term of the action. Water quality certification must be consistent with the requirements of the Federal Clean Water Act, the California Environmental Quality Act, the California Endangered Species Act, and Porter-Cologne Act.

If a proposed project or portion of a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to Waters of the State, the RWQCB has the option to regulate the dredge and fill activity under its state authority in the form of Waste Discharge Requirements or Certification of Waste Discharge Requirements. In these cases, a

Water Quality Certification is not necessary under Section 401 of the Clean Water Act because federal jurisdiction does not apply.

1.3.3 California Department of Fish and Game

The California Department of Fish and Game (CDFG) is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. Streams and lakes, as habitat for fish, wildlife, and native plant species, are subject to jurisdiction by CDFG under Sections 1600-1616 of the State Fish and Game Code. Fish and Game Code Section 1602 requires any person, state or local governmental agency, or public utility to notify CDFG before beginning any activity that will do one or more of the following: 1) substantially obstruct or divert the natural flow of a river, stream, or lake; 2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or 3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

These regulated activities require a 1602 Lake and Streambed Alteration Agreement. Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFG.

The term stream, which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as follows: "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72). In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG ESD 1994). Riparian is defined as, "on, or pertaining to, the banks of a stream;" therefore, riparian vegetation is defined as, "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself" (CDFG ESD 1994).

2.0 SUMMARY OF POTENTIAL JURISDICTIONAL AREAS

Appendix A depicts the extent of Corps jurisdiction within the Study Area based on a wetland delineation conducted by WRA on January 14 and April 24, 2008. The acreage of potential Section 404 jurisdictional areas is summarized in Table 1 below.

Habitat	Size (acres) [Length (linear feet)]	Non-jurisdictional areas	Potential Jurisdictional Waters of the U.S. (acres)
Wetlands			
Seasonal wetlands	6.41 acres	÷	6.41
Riparian wetlands	0.42 acres	-	0.42
Other waters			
Perennial creeks	0.19 acres (821 l.f.)	-	0.19
Man-made drainage	0.06 acres (1,264 l.f.)	0.02 acres (383 l.f.)	0.04
Total	7.08 acres	0.02	7.06

Table 1. Summary of Potential Section 404 Jurisdictional Areas Within the Study Area

2.1 Waters of the U.S.

There is 0.02 acre of potentially jurisdictional "Waters of the U.S." in the Study Area. These waters include one Relatively Permanent Waters (RPW) with a defined ordinary high water mark (OHWM) that has seasonally continuous flow for over three months in addition to two non-RPW man-made drainage ditches and wetlands that directly abut or are adjacent to the RPW.

2.2 Waters of the State

All areas meeting criteria for wetlands and waters located within the Study Area, including wetlands that may be considered isolated or otherwise excluded from Corps jurisdiction, may be considered Waters of the State. Therefore, the Waters of the State total 7.08 acres within the Project Area.

2.3 California Department of Fish and Game

There is 2.15 acres of riparian habitat on Manning Creek in the eastern section of the Study Area subject to CDFG jurisdiction. These areas include portions of Manning Creek, abutting riparian areas and adjacent riparian wetlands.

3.0 METHODS

Prior to conducting field surveys, reference materials were reviewed, including the Soil Survey of Lake County, California (USDA 1989), the Lakeport USGS 7.5' quadrangle (USGS 1958), and aerial photos of the site.

A focused evaluation of indicators of wetlands and waters was performed in the Study Area on April 24, 2008. The methods used in this study to delineate jurisdictional wetlands and waters are based on the *U.S. Army Corps of Engineers Wetlands Delineation Manual* ("Corps Manual"; Environmental Laboratory 1987) and the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* ("Arid West Supplement"; Corps 2006). The routine method for wetland delineation described in the Corps Manual was used to identify areas potentially subject to Corps Section 404 jurisdiction within the Study Area. A general description of the Study Area, including plant communities present, topography, and land use was also generated during the delineation visits. The methods for evaluating the presence of wetlands and Other Waters of the U.S. employed during the site visit are described in detail below.

3.1 Potential Section 404 Waters of the U.S.

3.1.1 Wetlands

The Study Area was evaluated for the presence or absence of indicators of the three wetland parameters described in the Corps Manual (Environmental Laboratory 1987) and Arid West Supplement (Corps 2006).

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)

The three parameters used to delineate wetlands are the presence of: (1) hydrophytic vegetation, (2) wetland hydrology, and (3) 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 determination."

Data on vegetation, hydrology, and soils collected at sample points during the delineation site visit was reported on Arid West Supplement data forms. Once an area was determined to be a potential jurisdictional wetland, its boundaries were delineated using GPS equipment and mapped on a topographic map. The areas of potential jurisdictional wetlands were measured digitally using ArcGIS software. Indicators described in the Arid West Supplement were used to make wetland determinations at each sample point in the Study Area and are summarized below.

Vegetation

Plant species identified on the Study Area were 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-wetlands	34-66%
FACU	Usually found in non-wetlands	1-33%
UPL/NL	Upland/Not listed (upland)	<1%

The Arid West Supplement requires that a three-step process be conducted to determine if hydrophytic vegetation is present. The procedure first requires the delineator to apply the "50/20 rule" (Indicator 1) described in the manual. To apply the "50/20 rule", 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. In general, dominants are 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, ignoring + and - qualifiers, the sample point meets the hydrophytic vegetation criterion.

If the sample point fails Indicator 1 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 Indicator 2.

Indicator 2 is known as the Prevalence Index. The prevalence index is a weighted average of the wetland indicator status for all plant species within the sampling plot. Each indicator status is given a numeric code (OBL = 1, FACW = 2, FAC = 3, FACU = 4, and UPL = 5). Indicator 2 requires the delineator to estimate the percent cover of each species in every stratum of the community and sum the cover estimates for any species that is present in more than one stratum. The delineator must then organize all species into groups according to their wetland indicator status and calculate the Prevalence Index using the following formula, where A equals total percent cover:

$$PI = \frac{A_{OBL} + 2A_{FACW} + 3A_{FAC} + 4A_{FACU} + 5A_{UPL}}{A_{OBL} + A_{FACW} + A_{FAC} + A_{FACU} + A_{UPL}}$$

The Prevalence Index will yield a number between 1 and 5. If the Prevalence Index is equal to or less than 3, the sample point meets the hydrophytic vegetation criterion. However, if the community fails Indicator 2, the delineator must proceed to Indicator 3.

Indicator 3 is known as Morphological Adaptations. If more than 50 percent of the individuals of a FACU species have morphological adaptations for life in wetlands, that species is considered to be a hydrophyte and its indicator status should be reassigned to FAC. If such observations are made, the delineator must recalculate Indicators 1 and 2 using a FAC indicator status for this species. The sample point meets the hydrophytic vegetation criterion if either test is satisfied.

Hydrology

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 in the Arid West region). Evidence of wetland hydrology can include primary indicators, such as visible inundation or saturation, drift deposits, oxidized root channels, and salt crusts, or secondary indicators such as the FAC-neutral test, presence of a shallow aquitard, or crayfish burrows. The Arid West Supplement contains 16 primary hydrology indicators and 10 secondary hydrology indicators. 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.

The presence or absence of the primary or secondary indicators described in the Arid West Supplement was utilized to determine if sample points within the Study Area met the wetland hydrology criterion.

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 of time under wetland (anaerobic) conditions often possess characteristics that indicate they meet the definition of hydric soils. Hydric soils can have a hydrogen sulfide (rotten egg) odor, low chroma matrix color, generally designated 0, 1, or 2, used to identify them as hydric, presence of redox concentrations, gleyed or depleted matrix, or high organic matter content.

Specific indicators that can be used to determine whether a soil is hydric for the purposes of wetland delineation are provided in the NRCS *Field Indicators of Hydric Soils in the U.S.* (USDA 2006). The Arid West Supplement provides a list of 23 of these hydric soil indicators which are known to occur in the Arid West region. Soil samples were collected and described according to the methodology provided in the Arid West Supplement. Soil chroma and values were determined by utilizing a standard Munsell soil color chart (GretagMacbeth 2000).

Hydric soils were determined to be present if any of the soil samples met one or more of the 23 hydric soil indicators described in the Arid West Supplement.

3.1.2 Other Waters of the U.S.

This study also evaluated the presence of "Waters of the United States" other than wetlands potentially subject to U.S. Army Corps of Engineers jurisdiction under Section 404 of the Clean Water Act. Other areas, besides wetlands, subject to Corps jurisdiction include lakes, rivers and streams (including intermittent streams) in addition to all areas below the HTL in areas 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

Identification of the ordinary high water mark followed the Corps Regulatory Guidance Letter No. 05-05, Ordinary High Water Mark Identification (Corps 2005).

3.2 Waters of the State

The SWRCB and RWQCB have not established a formal wetland definition nor have they developed a wetland delineation protocol; however these agencies generally adhere to the same delineation protocol set forth by the Corps (Environmental Laboratory 1987; Corps 2006). Therefore, the methods used to determine potential Waters of the State were the same as those described above for potential Section 404 jurisdiction.

3.3 California Department of Fish and Game

CDFG jurisdiction over lakes and streams is to the top of bank, or edge of riparian vegetation as determined by the outer edge of dripline, whichever is further. Areas of potential CDFG jurisdiction under sections 1600-1616 of the State Fish and Game Code were identified in the field and areas calculated using GIS.

3.4 Significant Nexus Evaluation

Although no threshold for significant nexus has been established, the Jurisdictional Determination Form Instructional Guidebook (Corps 2007) contains guidelines for evaluating the presence of a significant nexus for a tributary and adjacent and abutting wetlands. The Guidebook requires an evaluation of the "relevant reach" of a tributary with respect to a delineation site to determine if the connection between this tributary and its adjacent and abutting wetlands have a significant effect (i.e., more than speculative or insubstantial) on the chemical, physical, and biological integrity of a traditional navigable water. The Guidebook also requires that the significant nexus evaluation be performed at the farthest downstream point of the relevant reach, prior to entering the next highest order stream. The following methods were used to support the evaluation of a significant nexus between the Study Area and the closest traditional navigable water (TNW).

3.4.1 Identifying the Relevant Reach and TNW

As defined by the Guidebook, a tributary is a natural, man-altered, or man-made water body that carries flow directly or indirectly into a TNW. The relevant reach as defined by the Guidebook is the entire reach of a stream between the point of confluence where two lower order streams meet to form a tributary, and downstream to the point where the tributary enters a higher order stream (e.g., the entire reach of a stream that is of the same order). ArcGIS, aerial photographs from Google Earth, USGS 7.5' quadrangle maps and field observations were utilized to determine the applicable relevant reach to the Study Area.

TNWs are jurisdictional waters of the U.S. determined by support documentation, a Federal court decision (33 CFR 329.14) or through an established test (33 CFR 329). Tests may determine if the water body is subject to the ebb and flow of the tide; is presently used, has been used or may be used to transport interstate or foreign commerce; is "navigable-in-fact", i.e., currently used or susceptible to use in its existing condition, for any commercial purpose involving navigation (33 CFR 328.3; 40 CFR 230.3). Corps districts maintain lists (33 CFR 329.16) of final determinations of whether particular water bodies qualify as navigable waters of the U.S. under the Rivers and Harbors Act of 1899 (33 USC 401-403). However, absence from the lists should not be taken as an indication that a water body is not navigable. ArcGIS, aerial photographs from Google Earth, USGS 7.5' quadrangle maps and field observations and photographs were utilized to determine the nearest TNW.

3.4.2 Determining Physical, Chemical and Biological Characteristics of the Relevant Reach

ArcGIS, field observations, review of previous studies and discussions with local agencies and residents were utilized to determine if the tributaries and wetlands within the Study Area have an insubstantial or speculative effect on the physical, chemical and/or biological integrity of the nearest TNW (Table 2).

Characteristic	Component	Purpose	Method of Analysis
Physical characteristics	Stream order and relevant reaches	Establish tributary boundaries and watersheds	ArcGIS and field observations
	Tributary conditions	Establish tributary geometry and size	Field observations: origin, width, depth, steepness of side slopes, substrate composition, tributary stability, presence of riffle pools, and tributary geometry
	Flow characteristics	Establish volume and duration of flow (RPW determination)	Anecdotal evidence and field observations
	Proximity to nearest TNW	Establish significance of tributary and TNW connectivity	ArcGIS
	Wetland extant and characteristics	Determine wetland connectivity with tributary	Wetland delineation data and delineation maps
Chemical characteristics	Point source pollutants	Determine type and effect of pollutants on nearest TNW	Land use history review, field observations,
	Non-point source pollutants		background literature review
Biological characteristics	Special status species	Determine presence and effects on biological	Field observations and review of previous
	Habitat	resources	biological studies, agency correspondence, and background literature

Table 2. Determining the Physical, Chemical and Biological Characteristics

3.5 Areas Exempt from Section 404 Jurisdiction

Some areas that meet the technical criteria for wetlands or Waters may not be jurisdictional under the Clean Water Act. Included in this category are some man-induced wetlands, which are areas that have developed at least some characteristics of naturally occurring wetlands due to either intentional or incidental human activities. Examples of man-induced wetlands may include, but are not limited to, irrigated wetlands, impoundments, or drainage ditches excavated in uplands, wetlands resulting from filling of formerly deep water habitats, dredged material disposal areas, and depressions within construction areas.

In addition, some isolated wetlands and waters may also be considered outside of Corps jurisdiction as a result of the Supreme Court's decision in *Solid Waste Agency of Northern Cook County (SWANCC) v. United States Army Corps of Engineers* (531 U.S. 159 (2001)). Isolated wetlands and waters are those areas that do not have a surface or groundwater connection to, and are not adjacent to a navigable "Waters of the U.S.", and do not otherwise exhibit an interstate commerce connection.

4.0 STUDY AREA DESCRIPTION

The Study Area is approximately 25.5 acres and is located in Lakeport, Lake County, California (Figure 1). Elevations range from approximately 1330 to 1345 feet NGVD. The Study Area is bounded by residential, commercial and light industrial development to the north, west and south; ruderal fields to the north and south; and Manning Creek with dense valley oak-Oregon ash riparian canopy to the east. A vineyard resides approximately 50 feet beyond Manning Creek to the east. The Study Area contains approximately 8.61 acres of developed sites primarily composed of paved and unpaved parking areas (drive-in movie theater) and buildings (indoor movie theater and projection booth).

Vegetation

Vegetation within the Study Area consists primarily of ruderal, non-native grass and herbaceous species in upland and seasonal wetland areas, and native trees and shrubs in the riparian areas. Dominant vegetation in upland areas include wild oats (*Avena barbata*, NL), rip-gut brome (*Bromus diandrus*, NI), soft chess (*Bromus hordeaceus*, FACU), redstem filaree (*Erodium cicutarium*, NL), cut-leaf geranium (*Geranium dissectum*, NL), bur clover (*Medicago polymorpha*, NL), shamrock clover (*Trifolium dubium*, FACU), purple vetch (*Vicia benghalensis*, NL), and common vetch (*Vicia sativa*, FACU).

Seasonal wetlands dominate the total wetland area within the Study Area. Seasonal wetlands support a mix of non-native and native graminoid and forb species including brown-head rush (*Juncus phaeocephalus*, FACW), velvet grass (*Holcus Ianatus*, FAC), Mediterranean barley (*Hordeum marinum*, FAC), chicory lettuce (*Lactuca pulchella*, FAC), bird's-foot trefoil (*Lotus corniculatus*, FAC), pennyroyal (*Mentha pulegium*, OBL), ryegrass (*Lolium multiflorum*, FAC), curly dock (*Rumex crispus*, FACW), moth mullein (*Verbascum blattaria*, FACW). Riparian wetlands support a woody dominated strata with minor herbaceous component including poison hemlock (*Conium maculatum*, FACW), Oregon ash (*Fraxinus latifolia*, FACW), valley oak (*Quercus lobata*, FAC), California rose (*Rosa californica*, FAC), Himalayan blackberry (*Rubus discolor*, FACW), and red willow (*Salix laevigata*, NL).

Hydrology

Natural hydrological sources for the Study Area include precipitation, surface run-off from adjacent lands, and occasional flood waters from Manning Creek. A drainage ditch lying between the indoor theater and the drive-in theater drains water from the parking lot and South Main Street into the center of the Study Area. This area is dominated by a large seasonally wet area that drains into a culvert on the northern boundary. A drainage ditch lying in the northwest section of the Study Area also drains water into this culvert, which flows through a shallow, wide channel in a ruderal field to the north of the Study Area. Flow continues north into a man-made drainage canal and then east into Manning Creek. Manning Creek , a blue line on the Lakeport Quadrangle (USGS 1958), flows for approximately 0.65 miles to the north where it enters Clear Lake.

Soils

The Soil Survey of Lake County, California (USDA 1989) indicates that the Study Area has three native soil types: Cole Variant clay loams, Henneke-Montara complex, and Still loams. These soil types are described in detail below and are shown in Figure 2:

Cole Variant clay loam, calcareous substratum (125). The Cole Variant consists of very deep, moderately well drained soils typically occurring on flood plains of 0 to 2 percent slopes. These soils formed in alluvium from mixed rock. Permeability and runoff are slow. Cole Variant soils are not considered hydric (USDA 1989).

Henneke-Montara complex (141). The Henneke-Montara complex consists of a mixture of Henneke gravelly loam and Montara clay loam. This complex is typically found on hills and mountains of 8 to 15 percent slopes. Henneke soils are shallow and somewhat excessively well drained, while Montara soils are shallow and well drained. Both soils were formed in material weathered from serpentinitic rock. Permeability is moderately slow and runoff is medium for both soils. The Henneke-Montara complex is not considered hydric (USDA 1989).

Still loam, stratified substratum (233). Still loams consist of very deep, well drained soils typically occurring on alluvial plains of 0 to 2 percent slopes. These soils formed in alluvium from mixed rock. Permeability is moderately slow and runoff is very slow. Still loam soils are not considered hydric (USDA 1989).

5.0 RESULTS

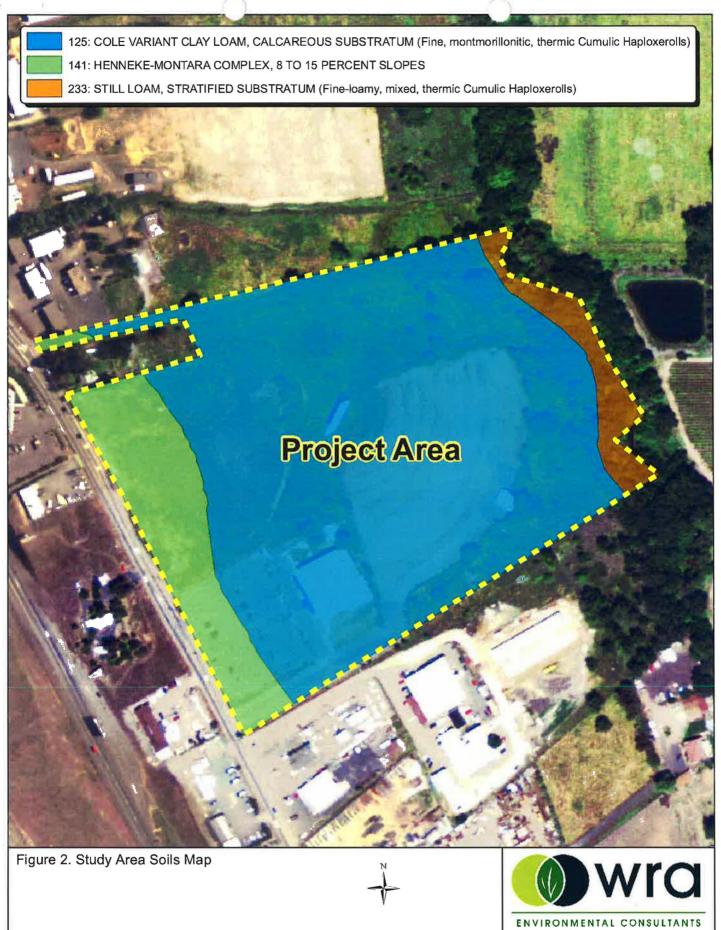
Vegetation, soils and hydrology data collected during delineation site visits are reported on standard Corps Arid West Region data forms in Appendix A. Potential Section 404 jurisdictional areas are described in the following sections and depicted in Appendix A. Photos of representative portions of the Study Area and sample points are shown in Appendix B. A list of plant species observed during the site visits is included in Appendix C. The significant nexus evaluation and map are included in Appendix D.

5.1 Potential Section 404 Waters of the U.S.

5.1.1 Wetlands

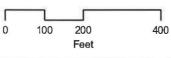
A large, contiguous seasonal wetland (NWI = PEMC, palustrine emergent wetland, seasonally flooded) identified as a potentially jurisdictional wetland is present surrounding the parking area of the drive-in movie theater within the center of the Study Area. Smaller seasonal wetlands reside in northwest section of the Study Area, bordering a contiguous disturbed area dominated by fill soils. All seasonal wetlands are dominated by FAC to OBL wetland species including brown-head rush, curly dock, Mediterranean barley, moth mullein and pennyroyal. Soils in areas identified as seasonal wetlands generally consist of native soils which contain redoximorphic features and/or a dark matrix. A few of the smaller seasonal wetlands exhibit vernal pool features including native forbs, such as calico flower and button celery, and dark soils. Vegetation in seasonal wetlands also passed the FAC-neutral test.

In general, the border between seasonal wetland and upland communities was determined primarily by changes in topography and vegetation. Areas without depressional features (i.e. toe-of-slope, sinks) and dominated by upland vegetation species were not included in the areas identified as potentially jurisdictional wetlands. Soils in the areas identified as uplands lacked hydric soil indicators or consisted of disturbed fill material that was difficult to characterize.



Date: January 2008 Photo: 2005, NAIP Map By: Michael Rochelle Filepath: I:\Acad2000\18000\18002\gis\ Arcmap\BA*.mxd

Tegtmeier Lakeport Property Lake County, CA



All wetlands mapped and presented in this report are likely to be considered jurisdictional by the Corps as they are directly connected to a navigable "Waters of the U.S." (Clear Lake). Water can flow overland and through the culvert on the northern boundary of the Study Area, through a manmade ditch before draining into Manning Creek and on to Clear Lake.

5.1.2 Other Waters of the U.S.

Two, two-foot wide unvegetated man-made drainage ditches run inside the Study Area, totalling 0.06 acre. The first ditch lies in the northwest section of the Study Area and generally runs from west to east, entering a culvert that continues drainage off-site to the north. The western-most portion of this ditch (0.02 acres) was dug in uplands and therefore may be exempt from Corps jurisdiction. The second ditch lies in the center of the Study Area, between the indoor and drive-in theaters, and generally runs from south to north, entering the large, contiguous seasonal wetland, which continues to flow into the same culvert on the northern boundary of the Study Area. Both ditches have clear connectivity to the wetlands within the Study Area and the relevant reach (Manning Creek) determined by the significant nexus evaluation (Section 5.4). Additionally, Manning Creek partially runs through the Study Area for a total of 0.019 acre.

5.2 Waters of the State

There are 7.06 acres of jurisdictional Waters of the State located within the Study Area boundary. These 7.06 acres are comprised of 0.25 acre of "other waters", 0.42 acre of riparian wetlands and 6.41 acres of seasonal wetlands as described aforementioned.

5.3 California Department of Fish and Game

The Department of Fish and Game may assume jurisdiction over the area within the "top of bank" of the seasonal drainage in the Study Area. Additionally, the riparian habitat along the bank's edge in eastern section of the Study Area also falls under their jurisdiction as sensitive riparian habitat for a total of 2.15 acres.

5.4 Significant Nexus

The wetlands within the Study Area have clear connectivity to and affect upon the nearest TNW (Clear Lake). This determination was made by analyzing the physical, chemical and biological connection between the wetlands and the nearest TNW (Appendix D, Table 3).

Type & flow pattern	Stream order	# of tributaries to TNW	Distance to TNW (mile Study Area	s) from	Length of reach (miles)	Drainage area (acres)	wetla	ociated ands w/in y Area
	S ITS - D		aerial	river	a da da da an	3	#	area (acres)
seasonal	3	1	0.64	0.69	4.7	6,038	11	6.83

5.4.1 Identifying the Relevant Reach and TNW

The nearest TNW is Clear Lake, approximately 0.65 miles downstream from the Study Area. It was determined that one relevant reach is present within the Study Area, Manning Creek, a blue line on the Lakeport 7.5' Quadrangle (USGS 1958).

5.4.2 Significant Nexus Determination of Relevant Reach

Physical Characteristics

Manning Creek is a seasonal stream with a stable and distinct OHWM and clear and direct connectivity to the nearest TNW, Clear Lake. Based on a review of aerial photographs and topographic maps, Manning Creek generally flows from south to north and appears to be a 3rd-order stream.

The wetlands and small man-made drainage ditches within the Study Area have clear overland surface connectivity with Manning Creek and thereon the nearest TNW, Clear Lake. The contiguous seasonal wetland conveys water via overland sheet flow into a culvert on the northern boundary of the Study Area. This culvert conveys flow via a narrow channel into an unlined man-made canal and into Manning Creek north of the Study Area. The riparian wetlands are contiguous to the large seasonal wetland and therefore convey flow along the same pattern. The small seasonal swale in the southwest corner of the Study Area conveys flow a via man-made drainage ditch and into the contiguous seasonal wetland. The small vernal pool-like seasonal wetlands in the western section of the Study Area connect to the contiguous seasonal wetland via overland sheet-flow approximately 150 linear feet.

Chemical Characteristics

No point source pollutants were observed along Manning Creek or the wetlands within the Study Area. Observations of aerial photographs and topographic maps coupled with land use interpretation within the watershed determined that point source pollutants outside of the Study Area are unlikely. Non-point source pollutants within the Study Area are minimal though may include road run-off from two parking areas and adjacency to roads. Non-point source pollutants within the watershed include run-off from roads, developed areas and agricultural fields.

Biological Characteristics

Within and outside of the Study Area, Manning Creek contains contiguous and dense riparian areas dominated by shrubs and trees including Oregon ash, valley oak, California buckeye, California rose, poison oak, Himalayan blackberry and snowberry. Due to at least seasonal flows, close proximity to the wetlands within the Study Area, and the large volume of upstream and wetland organic inputs, Manning Creek contributes significant biological resources to resident and downstream foodwebs including to the nearest TNW, Clear Lake.

5.5 Areas Exempt from Section 404 Jurisdiction

The western-most portion of the man-made drainage ditch (383 linear feet) in the northwest section of the Study Area was dug in uplands and may be exempt from Corps jurisdiction. All wetlands and "other waters" mapped and presented in this report are likely to be considered jurisdictional by the Corps as they were not created by human activities and are directly connected to a navigable "Waters of the U.S." (Hastings Slough and San Francisco Bay).

6.0 POTENTIAL CORPS OF ENGINEERS JURISDICTION

The Study Area has 6.83 acres of wetlands and 0.23 acres (1,702 linear feet) of "other waters" that may be considered jurisdictional under Section 404 of the Clean Water Act. The wetland areas were either seasonal wetlands or riparian wetlands dominated by hydrophytic vegetation with FAC, FACW and OBL classified plants. They also contained hydric soil and wetland hydrology indicators. In addition, these areas are tributary to a navigable "Waters of the U.S." and therefore meet the definition of jurisdictional wetlands and Other Waters for Section 404 of the Clean Water Act.

The conclusion of this delineation is based on conditions observed at the time of the field surveys conducted on January 14 and April 24, 2008.

7.0 REFERENCES

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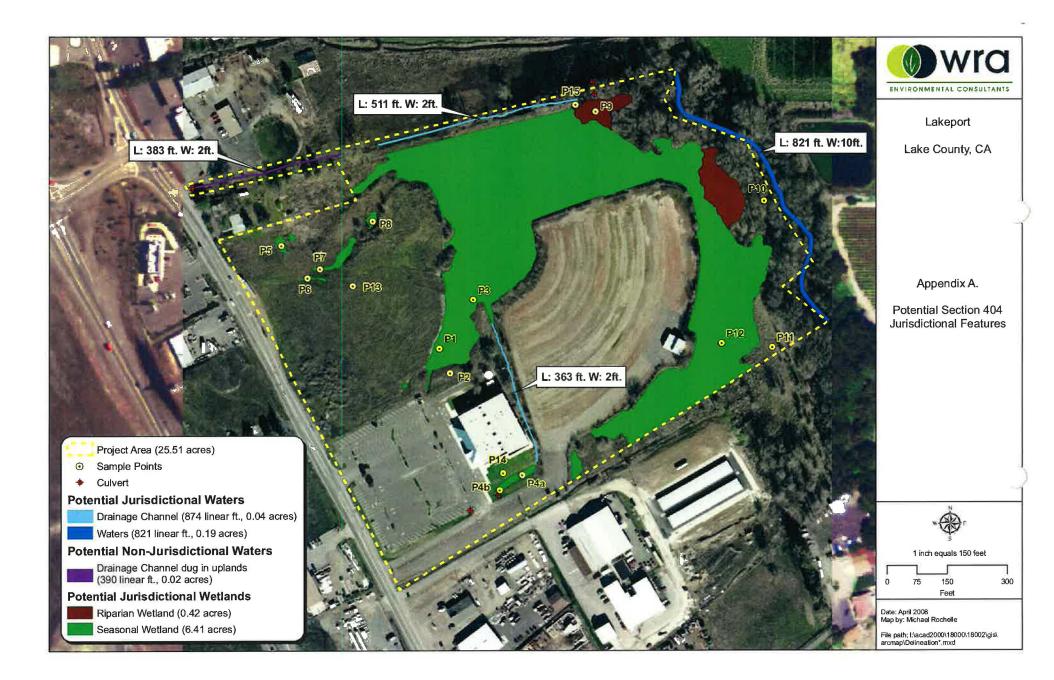
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Appendix A - Preliminary Section 404 Jurisdictional Map and Data Sheets



Wetlan network the second seco

Project/Site Lakeport Cinema and Drive-I	n City Lakeport	County Lake	Sampling Date 4/24/2008
Applicant/Owner John Tegtmeier		State CA	Sampling Point P1
Investigator(s) Geoff Smick, Aaron Arthu	r	Section,Township,Range	R9W,sec31
Landform (hillslope, terrace, etc.) floodpla	<u>in Local Reli</u>	ef (concave, convex, none) <u>none</u>	Slope(%) <u>0-3</u>
Subregion(LRR) LRR C (Medit. CA)	Lat: <u>39.016</u>	Long: <u>122.905</u>	Datum: NAD 27 (feet)
Soil Map Unit Name Cole Variant clay lo	bam	NWI classi	fication
Are climatic/hydrologic conditions on-site	typical for this time of year?	🛛 Yes 🔲 No 🛛 (If no, explain in i	remarks)
Are any of the following significantly distu	urbed?	oil 🔲 Hydrology 🛛 Are "Normal Circ	cumstances" present? 🛛 Yes 🔲 No
Are any of the following naturally problem	natic?	oil 🔲 Hydrology 🛛 (If needed, ex	plain any answers in remarks)
SUMMARY OF FINDINGS - Attach	site map showing sample	point locations, transects, impo	ortant features, etc.
Hydric Soil Present?	I Yes □ No I Yes □ No I Yes □ No	Is the Sampled Area within a Wetland?	⊠Yes □No
Remarks: All three wetland parameters and toe of slope.	present; therefore the sample po	oint is within a wetland. Wetland bour	ndary based on hydrophytic vegetation

VEGETATION

<u>Tree stratum</u> (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
	5		FAC	Number of Dominant Species 2 (A) that are OBL, FACW, or FAC?
2 3				Total number of dominant gpecies across all strata?
I Tree Stratum Total Cover:		- 0		% of dominant species that are OBL, FACW, or FAC?
Sapling/Shrub Stratum	-			Prevalence Index Worksheet
•				Total % cover of: Multiply by:
2.				OBL species x1
B.c	-			FACW species x2
L				FAC species x3
Sapling/Shrub Stratum Total Cover:				FACU species x4
Herb Stratum				UPL species x5
, Juncus phaeocephalus	75	yes	FACW	- Column Totals (A) (B)
2. Mimulus guttatus	10	no	OBL	
3. Lathyrus sp.	5	no	?	Prevalence Index = B/A =
. Rumex crispus	5	no	FACW	Hydrophytic Vegetation Indicators
5. Lactuca pulchella	1	no	FAC	Dominance Test is >50%
3. Bromus hordeaceus	1	no	FACU	Prevalence Index is = 3.0<sup 1
7. Hordeum marinum	1	no	FAC	Morphological adaptations (provide
3. Lotus corniculatus	1	no	FAC	supporting data in remarks)
Herb Stratum Total Cover: Woody Vine Stratum	99	•		Problematic hydrophytic vegetation ¹ (explain)
×				¹ Indicators of hydric soil and wetland hydrology
2.				must be present.
Woody Vine Stratum Total Cover:				Hydrophytic X Yes No
% Bare ground in herb stratum 1	% cover of	biotic crust		Vegetation Present ?

US Army Corps of Engineers

Arid West - Version 11-1-2006

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Profile description: (Describe to the depth needed	firm the absence of in	itors.)
Depth <u>Matrix</u> <u>Redox Features</u> (inches) <u>Color (moist)</u> % <u>Color (moist)</u> % <u>Type¹ Loc</u>	Texture	Remarks
12 10YR 2/1	clay	moist, not saturated
		i
2		
ype: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lin rdric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		oblematic Hydric Soils ³ :
Histosol (A1)	1cm Muck (As	-
Histic Epipedon (A2)	2cm Muck (A	
Black Histic (A3)	Reduced Vert	ic (F18)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5)(LRR C) Depleted Matrix (F3)	Red Parent M	
I cm Muck (A9)(LRR D)	Other (explain	i in remarks)
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)		
Thick Dark Surface (A12)		
Sandy Mucky Mineral (S1) Vernal Pools (F9)		dric vegetation and
Sandy Gleyed Matrix (S4)	wetland hydrolog	gy must be present.
estrictive Layer (if present):		
ype: <u>N/A</u>		
epth (inches):		
marks: Hydric soil present: (F9) dark chroma present within the top 6" within a closed d		ioil Present ? ⊠ Yes □ No
		ioil Present ? 🛛 Yes 🗋 No
DROLOGY etland Hydrology Indicators:	Jepression.	dary Indicators (2 or more required)
/DROLOGY etland Hydrology Indicators:	depression.	dary Indicators (2 or more required)
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YDROLOGY /etland 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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Ro Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Yes No ield Observations: Yes No urface water present? Yes No Ater table present? Yes No Pepth (inches):	bots (C3) Secon Cra Secon Wa Dra Dra Dra Dra Dra Dra Dra Dr	dary Indicators (2 or more required) ter Marks (B1)(Riverine) diment Deposits (B2)(Riverine) ft Deposits (B3)(Riverine) inage Patterns (B10) -Season Water Table (C2) n Muck Surface (C7) ayfish Burrows (C8) uration Visible on Aerial Imagery (C9) allow Aquitard (D3) C-Neutral Test (D5)
YDROLOGY etland Hydrology Indicators: imary 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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Ro Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Water-Stained Leaves (B9) eld Observations: Yes No urface water present? Yes No Depth (inches): includes capillary fringe) escribe recorded data (stream guage, monitoring well, aerial photos, etc.) if available. emarks: Wetland hydrology present: (B7) ponding observed on aerial photos and during ob	bots (C3) Secon Cra Secon Wa Dra Dra Dra Dra Dra Dra Dra Dr	dary Indicators (2 or more required) ter Marks (B1)(Riverine) diment Deposits (B2)(Riverine) ft Deposits (B3)(Riverine) inage Patterns (B10) -Season Water Table (C2) n Muck Surface (C7) ayfish Burrows (C8) uration Visible on Aerial Imagery (C9) allow Aquitard (D3) C-Neutral Test (D5)

Wetlan ??etermination Data Form - Arid We * Region

Project/Site Lakeport Cinema and Driv	′e-In	City Lakeport	County Lake		S	ampling Date <u>4/24/20</u>	08
Applicant/Owner <u>John Tegtmeier</u>				State <u>CA</u>	Sampl	ling Point P2	
Investigator(s) Geoff Smick, Aaron Ar	thur		Section, Towns	hip,Range T14N	I,R9W,sec31		
Landform (hillslope, terrace, etc.)uplar	nd fill	Local R	elief (concave, convex	, none) <u>none</u>		Slope(%) _0	1-3
Subregion(LRR) LRR C (Medit. CA)		Lat: <u>39.016</u>	Long	g: <u>122.905</u>		Datum: NAD 27 (feet)	
Soil Map Unit Name Cole Variant cla	y loam			NWI class	ification		
Are climatic/hydrologic conditions on-s	site typical f	or this time of year?	🛛 Yes 🔲 No	(If no, explain in	remarks)		
Are any of the following significantly d	isturbed?	Vegetation	Soil 🔲 Hydrology	Are "Normal Cir	cumstances"	present? X Yes] No
Are any of the following naturally prob	lematic?	□ Vegetation □	Soil 🔲 Hydrology	(If needed, e	xplain any an	swers in remarks)	
SUMMARY OF FINDINGS - Attac	ch site ma	ap showing sampl	e point locations, t	transects, imp	ortant featu	ires, etc.	
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	X Yes I □ Yes I □ Yes I	X No	ls the Sample within a Wetl		□Yes [2	⊠ No	
Remarks: Only one wetland hydrolog sample point. Sample poi			· · ·	hydric soil and we	etland hydrold	ogy not present at the	

VEGETATION

Tree stratum (use scientific names)	<u>Absolute</u> <u>% cover</u>	Dominant Species?	Indicator Status	Dominance Test Worksheet
1. Quercus lobata	5	yes	FAC	Number of Dominant Species 2 (A) that are OBL, FACW, or FAC?
2	(•	·	Total number of dominant 2 (B)
3				species across all strata?
4 Tree Stratum Total Cover:	5		<u>,</u>	% of dominant species that <u>100</u> (A/B) are OBL, FACW, or FAC?
Sapling/Shrub Stratum	/			Prevalence Index Worksheet
1.		22		Total % cover of: Multiply by:
2.				OBL species x1
3				FACW species x2
4.				FAC species x3
Sapling/Shrub Stratum Total Cover:		-		FACU species x4
Herb Stratum				UPL species x5
1. Lolium perenne	70	yes	FAC	Column Totals (A) (B)
2. Vicia sativa	10	no	FACU	
3. Rumex crispus	5	no	FACW	Prevalence Index = B/A =
4. Phalaris paradoxa	5	no	NL	Hydrophytic Vegetation Indicators
5. Holcus lanatus	5	no	FAC	Dominance Test is >50%
6. Lamium purpureum	1	no	NL	Prevalence Index is = 3.0<sup 1
7. Geranium dissectum	1	по	NL	Morphological adaptations (provide
8. Lathyrus sp.	1	no	?	supporting data in remarks)
Herb Stratum Total Cover: Woody Vine Stratum	98			Problematic hydrophytic vegetation ¹ (explain)
1				¹ Indicators of hydric soil and wetland hydrology
2.				must be present.
Woody Vine Stratum Total Cover:			2.3	Hydrophytic Ray - Charles
% Bare ground in herb stratum 2	% cover of	biotic crust		Vegetation Present ?
Remarks: Hydrophytic vegetation present: passe	s the dominance	e test.		

US Army Corps of Engineers

Depth <u>Mar</u>			x Features			Demedia
(inches) Color (mois	<u>st) %</u>	Color (moist)	% Type ¹	Loc1	Texture	Remarks
-12 <u>10YR 2/2</u>				; ;	sandy loam	fill soil (asphalt); no mottles
ype: C=Concentration, D			² Location: PL=Po		PC-Post Char	
ydric Soil Indicators: (A				ore ching,		Problematic Hydric Soils ³ :
 Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5)(I 1cm Muck (A9)(LRR D Depleted Below Dark S Thick Dark Surface (A' Sandy Mucky Mineral (Sandy Gleyed Matrix (Sandy Gleyeed Matrix (Sandy Gleyeed Matrix	LRR C) [])) [Surface (A11) [12) [(S1) [Sandy Redox (S5) Stripped Matrix (S Loamy Mucky Min Loamy Gleyed Ma Depleted Matrix (F Redox Dark Surfar Depleted Dark Surfar Redox Depression Vernal Pools (F9)	6) eral (F1) trix (F2) ⁷³⁾ ce (F6) rface (F7)		Other (exp	(A10)(LRR B) /ertic (F18) t Material (TF2) lain in remarks) f hydric vegetation and
Restrictive Layer (if prese						ology must be present.
	ent).					
		-				
Depth (inches):						
Depth (inches):					Hydri	c Soil Present ? 🗌 Yes 🛛 No
Remarks: No hydric soil inc	dicators present.					
Acmarks: No hydric soil inc HYDROLOGY Wetland Hydrology Indica Primary Indicators (any one	dicators present.				Sec	condary Indicators (2 or more required)
emarks: No hydric soil inc Primary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)(Nonr Sediment Deposits (B2) Drift Deposits (B3)(Non Surface Soil Cracks (B6) Inundation Visible on A	dicators present. ators: ators: aindicator is suffi riverine))(Nonriverine) riverine) 6) erial Imagery (B7	cient) Salt Crust (B1 Biotic Crust (B Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R	312) lebrates (B13) lfide Odor (C1) cospheres along Livi Reduced Iron (C4) Reduction in PLowed	0	(C3)	
emarks: No hydric soil ind YDROLOGY Vetland Hydrology Indica Primary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)(Nonr Sediment Deposits (B2) Drift Deposits (B3)(Non Surface Soil Cracks (B4) Inundation Visible on A Water-Stained Leaves Field Observations:	dicators present. ators: ato	cient) Salt Crust (B1 Biotic Crust (E Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Other (Explain	312) lebrates (B13) lfide Odor (C1) cospheres along Livi Reduced Iron (C4) Reduction in PLowed n in Remarks)	0	(C3)	condary 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)
Image: Semarks: No hydric soil incomparison Image: Semarks: Sema	dicators present.	cient) Salt Crust (B1 Biotic Crust (F Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Cher (Explain Depth (inches):	312) lebrates (B13) lfide Odor (C1) cospheres along Livi Reduced Iron (C4) Reduction in PLowed n in Remarks)	0	(C3)	condary 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)
Image: Semarks: No hydric soil incomparison of the soil incomparison of the soil of	dicators present. ators: ato	cient) Salt Crust (B1 Biotic Crust (B Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Conter (Explain Depth (inches): Depth (inches):	312) lebrates (B13) lfide Odor (C1) cospheres along Livi Reduced Iron (C4) Reduction in PLowed n in Remarks)	0	(C3)	condary 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)
Image: Semarks: No hydric soil incomparison includes capillary fringe)	dicators present. ators: a indicator is suffi iverine))(Nonriverine) iriverine) 6) erial Imagery (B7 (B9) Yes 🛛 No Yes 🖾 No Yes 🖾 No	cient) Salt Crust (B1 Biotic Crust (B Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Conter (Explain Depth (inches): Depth (inches):	312) tebrates (B13) fide Odor (C1) zospheres along Livi Reduced Iron (C4) Reduction in PLowed n in Remarks)	I Soils (C6	(C3)	condary 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)
Image: Semarks: No hydric soil incomposition Image: Semarks:	dicators present. ators: a indicator is suffi iverine))(Nonriverine) iriverine) 6) erial Imagery (B7 (B9) Yes 🛛 No Yes 🖾 No Yes 🖾 No	cient) Salt Crust (B1 Biotic Crust (B Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Conter (Explain Depth (inches): Depth (inches):	312) tebrates (B13) fide Odor (C1) zospheres along Livi Reduced Iron (C4) Reduction in PLowed n in Remarks)	I Soils (C6	(C3)	condary 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)
Jemarks: No hydric soil ind IVDROLOGY Vetland Hydrology Indica Primary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)(Nonr Sediment Deposits (B3)(Nonr Surface Soil Cracks (B4) Inundation Visible on A Water-Stained Leaves Field Observations: Surface water present? Vater table present? Saturation Present? Saturation Present? Describe recorded data (str	dicators present. ators: a indicator is suffi iverine))(Nonriverine) iriverine) 6) erial Imagery (B7 (B9) □ Yes ⊠ No □ Yes ⊠ No □ Yes ⊠ No □ Yes ⊠ No □ Yes ⊠ No	cient) Salt Crust (B1 Biotic Crust (B Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Conter (Explain Depth (inches): Depth (inches):	312) tebrates (B13) fide Odor (C1) zospheres along Livi Reduced Iron (C4) Reduction in PLowed n in Remarks)	I Soils (C6	(C3)	condary 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)
Image: Semarks: No hydric soil incomparison includes capillary fringe)	dicators present. ators: a indicator is suffi iverine))(Nonriverine) iriverine) 6) erial Imagery (B7 (B9) □ Yes ⊠ No □ Yes ⊠ No □ Yes ⊠ No □ Yes ⊠ No □ Yes ⊠ No	cient) Salt Crust (B1 Biotic Crust (B Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Conter (Explain Depth (inches): Depth (inches):	312) tebrates (B13) fide Odor (C1) zospheres along Livi Reduced Iron (C4) Reduction in PLowed n in Remarks)	I Soils (C6	(C3)	condary 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)

Wetlanch Petermination Data Form - Arid Wert Region

Project/Site Lakeport Cinema and Drive-In	City Lakeport	County Lake	Sampling Date 4/24/2008
Applicant/Owner John Tegtmeier		State CA	A Sampling Point P3
Investigator(s) Geoff Smick, Aaron Arthur		Section, Township, Range	> T14N,R9W,sec31
Landform (hillslope, terrace, etc.)floodplain	Local Re	lief (concave, convex, none) <u>n</u>	oneSlope(%) 0-3
Subregion(LRR) LRR C (Medit. CA)	Lat: <u>39.016</u>	Long: 122.90	5 Datum: NAD 27 (feet)
Soil Map Unit Name <u>Cole Variant clay loam</u>		NW	/I classification
Are climatic/hydrologic conditions on-site typica	al for this time of year?	🛛 Yes 🔲 No 🛛 (If no, exp	plain in remarks)
Are any of the following significantly disturbed?	Vegetation S	ioil 🔲 Hydrology Are "Nor	mal Circumstances" present? 🛛 Yes 🔲 No
Are any of the following naturally problematic?	□ Vegetation □ S	oil 🛛 Hydrology (If nee	eded, explain any answers in remarks)
SUMMARY OF FINDINGS - Attach site	nap showing sample	point locations, transects	s, important features, etc.
Hydrophytic Vegetation Present?X YesHydric Soil Present?X YesWetland Hydrology Present?X Yes	□ No	Is the Sampled Area within a Wetland?	🛛 Yes 🗌 No
Remarks: All three wetland parameters prese and toe of slope.	nt; therefore the sample p	ooint is within a wetland. Wetla	nd boundary based on hydrophytic vegetation

VEGETATION

Tree stratum (use scientific names)	<u>Absolute</u> % cover	Dominant	Indicator Status	Dominance Test Worksheet
1		Species?		Number of Dominant Species <u>1</u> (A) that are OBL, FACW, or FAC?
2			2. 57 The second se	Total number of dominant(B) species across all strata?
4 Tree Stratum Total Cover:				% of dominant species that(A/B) are OBL, FACW, or FAC?(A/B)
Sapling/Shrub Stratum				Prevalence Index Worksheet
1				Total % cover of: Multiply by:
2.				OBL species x1
3.				FACW species x2
4				FAC species x3
Sapling/Shrub Stratum Total Cover:				FACU species x4
Herb Stratum				UPL species x5
1. Lolium multiflorum	80	yes	FAC	Column Totals (A) (B)
2. Lactuca pulchella	5	no	FAC	
3. Rumex crispus	5	no	FACW	Prevalence Index = B/A =
4. Juncus phaeocephalus	5	no	FACW	Hydrophytic Vegetation Indicators
5. Hordeum marinum	1	no	FAC	Dominance Test is >50%
6. Lotus corniculatus	1	no	FAC	Prevalence Index is = 3.0<sup 1
7. Eryngium sp.	1	no	?	Morphological adaptations (provide
8				supporting data in remarks)
Herb Stratum Total Cover: Woody Vine Stratum	97			Problematic hydrophytic vegetation ¹ (explain)
1				¹ Indicators of hydric soil and wetland hydrology
2.				must be present,
Woody Vine Stratum Total Cover:				Uudrophutia
% Bare ground in herb stratum 3	% cover of	biotic crust		Hydrophytic Vegetation Present ?
Remarks: Hydrophytic vegetation present: passe	s dominance tes	st.		

Depth <u>Matrix</u> (inches) Color (moist) %	Color (moist) %	Type ¹ Loc ¹	Texture	Remarks	
12 10YR 2/1			clay	no mottles	
	<u> </u>	<u> </u>			
			-	-	
	,,				
una: C=Concentration D=Depletion PM=	Padurad Matrix 21 aget	ion: PL=Pore Lining		- M-Motrix	
ype: C=Concentration, D=Depletion, RM= ydric Soil Indicators: (Applicable to all L				Problematic Hydric S	oils ³ :
Histosol (A1)	Sandy Redox (S5)		1cm Muck (/	-	
	Stripped Matrix (S6)		2cm Muck (/		
	Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2)		Reduced Ve	ertic (F18)	
	Depleted Matrix (F3)		Red Parent Other (explain		
1cm Muck (A9)(LRR D)	Redox Dark Surface (F6)			an in remaine)	
Depleted Below Dark Surface (A11)					
	Redox Depressions (F8) Vernal Pools (F9)		³ Indicators of k	nydric vegetation and	
Sandy Gleyed Matrix (S4)				logy must be present.	
Restrictive Layer (if present):				- 3)	
Type: N/A					
Depth (inches):					
	ma present within the top 6" v	within a closed depr		Soil Present ? 🛛	Yes 🗌 No
emarks: Hydric soil present: (F9) dark chro	ma present within the top 6" v	within a closed depr	ression.		
IYDROLOGY		within a closed depr	ression.	Soil Present ?	
emarks: Hydric soil present: (F9) dark chro IYDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator is suffic	cient)	within a closed depr	ression.	ondary Indicators (2 or Vater Marks (B1)(River	more required)
emarks: Hydric soil present: (F9) dark chro	cient) □ Salt Crust (B11)	within a closed depr	ression.	ndary Indicators (2 or /ater Marks (B1)(River ediment Deposits (B2)	more required) ine) (Riverine)
emarks: Hydric soil present: (F9) dark chro IYDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator is suffic Surface Water (A1) High Water Table (A2) Saturation (A3)	cient)			ondary Indicators (2 or /ater Marks (B1)(River ediment Deposits (B2) rift Deposits (B3)(Rive	more required) ine) (Riverine) rine)
emarks: Hydric soil present: (F9) dark chro YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator is suffic Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)(Nonriverine)	cient) ☐ Salt Crust (B11) ☐ Biotic Crust (B12) ☐ Aquatic Invertebrates (I ☐ Hydrogen Sulfide Odor	B13) • (C1)		ndary Indicators (2 or /ater Marks (B1)(River ediment Deposits (B2) rrift Deposits (B3)(Rive rrainage Patterns (B10 rry-Season Water Tabl	more required) ine) (Riverine) rine)) e (C2)
emarks: Hydric soil present: (F9) dark chro YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator is suffic Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)(Nonriverine) Sediment Deposits (B2)(Nonriverine)	cient) ☐ Salt Crust (B11) ☐ Biotic Crust (B12) ☐ Aquatic Invertebrates (I ☐ Hydrogen Sulfide Odor ☐ Oxidized Rhizospheres	B13) · (C1) s along Living Roots	Seco Seco	ndary Indicators (2 or Vater Marks (B1)(River ediment Deposits (B2) Irift Deposits (B3)(Rive Irainage Patterns (B10 Iry-Season Water Tabl hin Muck Surface (C7)	more required) ine) (Riverine) rine)) e (C2)
emarks: Hydric soil present: (F9) dark chro YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator is suffic Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)(Nonriverine) Sediment Deposits (B2)(Nonriverine) Drift Deposits (B3)(Nonriverine)	cient) ☐ Salt Crust (B11) ☐ Biotic Crust (B12) ☐ Aquatic Invertebrates (I ☐ Hydrogen Sulfide Odor ☐ Oxidized Rhizospheres ☐ Presence of Reduced I	B13) · (C1) s along Living Roots iron (C4)	Seco Seco W S C C C C C C C C C C C C C	andary Indicators (2 or Vater Marks (B1)(River ediment Deposits (B2) Irift Deposits (B3)(Rive irrainage Patterns (B10 Iry-Season Water Tabl hin Muck Surface (C7) Irayfish Burrows (C8)	more required) ine) (Riverine) rine)) e (C2)
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Wetlan

Project/Site Lakeport Cinema and Drive-In	City Lakeport	County Lake		Sampling Date 4/24/2008
Applicant/Owner John Tegtmeier			State CA	Sampling Point P4a
Investigator(s) Geoff Smick, Aaron Arthur		Section,Townsh	nip,Range <u>T14N</u>	N,R9W,sec31
Landform (hillslope, terrace, etc.)floodplain	Local Relie	ef (concave, convex,	none) <u>none</u>	Slope(%) 0-3
Subregion(LRR) LRR C (Medit. CA)	Lat: <u>39.016</u>	Long	: 122.905	Datum: NAD 27 (feet)
Soil Map Unit Name <u>Cole Variant clay loam</u>			NWI class	ification
Are climatic/hydrologic conditions on-site typical for	or this time of year?	Yes 🗆 No 🛛	(If no, explain in	remarks)
Are any of the following significantly disturbed?	Vegetation D Sc	oil 🛛 Hydrology	Are "Normal Cir	rcumstances" present? 🛛 Yes 🛛 No
Are any of the following naturally problematic?	Vegetation Sc	oil 🔲 Hydrology	(If needed, e	explain any answers in remarks)
SUMMARY OF FINDINGS - Attach site ma	ap showing sample r	point locations, tr	ansects, imp	ortant features, etc.
Hydrophytic Vegetation Present?Image: YesImage: YesHydric Soil Present?Image: YesImage: YesImage: YesWetland Hydrology Present?Image: YesImage: YesImage: Yes	□ No	Is the Sampled within a Wetla		🛛 Yes 🗌 No
Remarks: All three wetland parameters present;	; therefore the sample po	oint is within a wetlan	ıd.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant	Indicator Status	Dominance Test Worksheet
1		Species?		Number of Dominant Species <u>2</u> (A) that are OBL, FACW, or FAC?
2				Total number of dominant(B)(B)
4 Tree Stratum Total Cover:	•			% of dominant species that are OBL, FACW, or FAC?
Sapling/Shrub Stratum	· · · · · · · · · · · · · · · · · · ·			Prevalence Index Worksheet
1				Total % cover of: Multiply by:
2.				OBL species x1
3				FACW species x2
4				FAC species x3
Sapling/Shrub Stratum Total Cover:				FACU species x4
Herb Stratum				UPL species x5
1. Lolium multiflorum	50	yes	FAC	Column Totals (A) (B)
2. Vulpia bromoides	20	yes	FACW	
3. Bromus hordeaceus	5	no	FACU	Prevalence Index = B/A =
4. Rumex crispus	5	no	FACW	Hydrophytic Vegetation Indicators
5. Festuca arundinacea	5	no	FAC	Dominance Test is >50%
6. Trifolium dubium	5	no	FACU	Prevalence Index is = 3.0<sup 1
7. Cerastium glomeratum	1	no	FACU	Morphological adaptations (provide
8. Erodium cicutarium	1	no	NL	supporting data in remarks)
Herb Stratum Total Cover: Woody Vine Stratum	95	6		Problematic hydrophytic vegetation ¹ (explain)
1				¹ Indicators of hydric soil and wetland hydrology
2				must be present.
Woody Vine Stratum Total Cover:				
% Bare ground in herb stratum 5	% cover of	biotic crust		Vegetation Present ?
Remarks: Hydrophytic vegetation present: passe Medicago polymorpha 1% NL).	s dominance tes	st. (Additional I	nerbs present: L	upinus bicolor 1% NL; Plantago lanceolata 1% FAC;

US Army Corps of Engineers

Depth	iption: (Describe Matrix		Rec	dox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc1	Texture	Remarks
0-12	10YR 2/2		????	?			loam	redox disappears on wetting
Type: C=Co	ncentration, D=Dep	letion RM=	Reduced Matrix	² Location	n: Pl =Po	re Lininc	, RC=Root Char	nnel. M=Matrix
	ndicators: (Applic					C Lining		Problematic Hydric Soils ³ :
Histosol (Sandy Redox (S				1cm Muck	-
Histic Ep			Stripped Matrix				2cm Muck	
Black His			Loamy Mucky M				Reduced V	
	Sulfide (A4)		Loamy Gleyed N					t Material (TF2)
	Layers (A5)(LRR (Depleted Matrix				Other (exp	lain in remarks)
	k (A9)(LRR D) Below Dark Surfac		Redox Dark Sur Depleted Dark S					
	rk Surface (A12)		Redox Depressi					
	ucky Mineral (S1)		Vernal Pools (F9				³ Indicators of	f hydric vegetation and
	eyed Matrix (S4)	_		- ,				ology must be present.
	ayer (if present):					_		
Type: N/A								
	es):						Hydri	ic Soil Present ? 🛛 Yes 🗌 No
Depth (inch				edox disappe	aring upo	n wetting		ic Soil Present ? 🛛 Yes 🗌 No
Depth (inch Remarks: _{Hyd}	es): dric soil present: (F	6) dark chro		edox disapper	aring upo	n wetting		ic Soil Present ? 🛛 Yes 🗌 No
Depth (inch Remarks: _{Hyd} IYDROLOG Wetland Hyd	es):	6) dark chro	oma present with n	edox disapper	aring upo	n wetting	д. <u>Sec</u>	condary Indicators (2 or more required)
Depth (inch Remarks: Hyd IYDROLOG Wetland Hyd Primary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo Surface S Innundation	es): dric soil present: (F sY rology Indicators: ators (any one india vater (A1) er Table (A2)	6) dark chro 6) cator is suffi cator is suffi ne) ne) ne)	cient) Salt Crust (I Salt Crust (I Salt Crust (I Aquatic Invst Hydrogen S Oxidized Rł Presence o Recent Iron	B11) (B12) ertebrates (B1 Sulfide Odor (C hizospheres a f Reduced Iroi Reduction in	13) C1) Ilong Livir n (C4) PLowed	ng Roots	G. (C3) (C3) (6) (C3)	
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Depth (inch Remarks: Hyd IYDROLOG Wetland Hyd Primary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo Surface S Inundation Water-Sta Field Observ Surface water	es): dric soil present: (F iY rology Indicators: ators (any one indic vater (A1) er Table (A2) h (A3) rks (B1)(Nonriverir Deposits (B2)(Nonriverir oil Cracks (B6) h Visible on Aerial h of Sible on Aerial ined Leaves (B9) ations: present? Y	6) dark chro cator is suffi rriverine) ne) Imagery (B7	cient) Salt Crust (I Salt Crust (I Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rł Presence o Recent Iron Other (Expl Depth (inches)	B11) : (B12) ertebrates (B1 Sulfide Odor (C hizospheres a f Reduced Iroi i Reduction in ain in Remark	13) C1) Ilong Livir In (C4) PLowed (s)	ng Roots	G. (C3) (C3) (6) (C3)	condary 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 (C Shallow Aquitard (D3)
Depth (inch Remarks: Hyd HYDROLOG Wetland Hyd Primary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo Surface S Inundation Water-Sta Field Observ	es): dric soil present: (F iY rology Indicators: ators (any one indic vater (A1) er Table (A2) h (A3) rks (B1)(Nonriverir Deposits (B2)(Nonriverir oil Cracks (B6) h Visible on Aerial h of Sible on Aerial ined Leaves (B9) ations: present? Y	6) dark chro cator is suffi ne) nriverine) ne) Imagery (B7	cient) Salt Crust (I Salt Crust (I Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rt Presence o Recent Iron Other (Expl	B11) : (B12) ertebrates (B1 Sulfide Odor (C hizospheres a f Reduced Iroi i Reduction in ain in Remark	13) C1) Ilong Livir In (C4) PLowed (s)	ng Roots	G. (C3) (C3) (6) (C3)	condary 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 (C Shallow Aquitard (D3)
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Depth (inch Remarks: Hyd IYDROLOG Wetland Hyd Primary Indica Surface V High Water Saturation Water Ma Sediment Surface S Inundation Water-Sta Field Observ Surface water Water table p Saturation Pro includes cap	es): dric soil present: (F if rology Indicators: ators (any one india Vater (A1) er Table (A2) h (A3) rks (B1)(Nonriverin Deposits (B2)(Nonriverin toil Cracks (B6) h Visible on Aerial tined Leaves (B9) ations: present?Y esent?Y llary fringe)	6) dark chro cator is suffi ne) nriverine) ne) Imagery (B7 ies 🛛 No ies 🖾 No ies 🖾 No	cient) Cient) Salt Crust (Sa	B11) (B12) ertebrates (B1 Sulfide Odor (C hizospheres a f Reduced Iron Reduction in ain in Remark 	13) C1) Ilong Livir n (C4) PLowed (s)	ng Roots Soils (C	(C3)	condary 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 (C Shallow Aquitard (D3) FAC-Neutral Test (D5)
Depth (inch Remarks: Hyd IYDROLOG Wetland Hyd Primary Indica Surface V High Wate Saturation Water Ma Sediment Surface S Inundation Water-Sta Field Observ Surface water Water table p Saturation Pro includes capi	es): dric soil present: (F if rology Indicators: ators (any one india Vater (A1) er Table (A2) h (A3) rks (B1)(Nonriverin Deposits (B2)(Nonriverin toil Cracks (B6) h Visible on Aerial tined Leaves (B9) ations: present?Y esent?Y llary fringe)	6) dark chro cator is suffi ne) nriverine) ne) Imagery (B7 ies 🖾 No ies 🖾 No guage, mon	cient) Cient) Salt Crust (Salt Crust (Salt Crust (Aquatic Inve	B11) (B12) ertebrates (B1 sulfide Odor (C hizospheres a f Reduced Iro Reduction in ain in Remark : : photos, etc.) i	13) C1) Ilong Livir n (C4) PLowed ks) if availabl	ng Roots Soils (C	G. Sec (C3) (C3) 6) Wetland Hydr	condary 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 (C Shallow Aquitard (D3) FAC-Neutral Test (D5)
Depth (inch Remarks: Hyd IYDROLOG Wetland Hyd Primary Indica Surface V High Wate Saturation Water Ma Sediment Surface S Inundation Water-Sta Field Observ Surface water Water table p Saturation Pro includes capi	es): dric soil present: (F sy rology Indicators: ators (any one india Vater (A1) er Table (A2) h (A3) rks (B1)(Nonriverin Deposits (B2)(Nonriverin toil Cracks (B6) h Visible on Aerial tined Leaves (B9) ations: present?Y resent?Y esent?Y llary fringe).	6) dark chro cator is suffi ne) nriverine) ne) Imagery (B7 ies 🖾 No ies 🖾 No guage, mon	cient) Cient) Salt Crust (Salt Crust (Salt Crust (Aquatic Inve	B11) (B12) ertebrates (B1 sulfide Odor (C hizospheres a f Reduced Iro Reduction in ain in Remark : : photos, etc.) i	13) C1) Ilong Livir n (C4) PLowed ks) if availabl	ng Roots Soils (C	G. Sec (C3) (C3) 6) Wetland Hydr	condary 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 (C Shallow Aquitard (D3) FAC-Neutral Test (D5)
Depth (inch emarks: Hyd IYDROLOG Vetland Hyd Primary Indica Surface V High Wate Saturation Water Ma Sediment Sediment Drift Depo Surface S Inundation Water-Sta Field Observ Surface water Vater table p Saturation Pro includes capi	es): dric soil present: (F sy rology Indicators: ators (any one india Vater (A1) er Table (A2) h (A3) rks (B1)(Nonriverin Deposits (B2)(Nonriverin toil Cracks (B6) h Visible on Aerial tined Leaves (B9) ations: present?Y resent?Y esent?Y llary fringe).	6) dark chro cator is suffi ne) nriverine) ne) Imagery (B7 ies 🖾 No ies 🖾 No guage, mon	cient) Cient) Salt Crust (Salt Crust (Salt Crust (Aquatic Inve	B11) (B12) ertebrates (B1 sulfide Odor (C hizospheres a f Reduced Iro Reduction in ain in Remark : : photos, etc.) i	13) C1) Ilong Livir n (C4) PLowed ks) if availabl	ng Roots Soils (C	G. Sec (C3) (C3) 6) Wetland Hydr	condary 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 (C Shallow Aquitard (D3) FAC-Neutral Test (D5)

Wetlan ?) etermination Data Form - Arid Wert Region

Project/Site Lakeport Cinema and Drive-In	City Lakeport	County Lake	Sampling Date 4/24/2008
Applicant/Owner John Tegtmeier		State CA	Sampling Point P4b
Investigator(s) Geoff Smick, Aaron Arthur		Section, Township, Range T14N, R	9W,sec31
Landform (hillslope, terrace, etc.) floodplain	Local Re	lief (concave, convex, none) <u>none</u>	Slope(%) 0-3
Subregion(LRR) LRR C (Medit. CA)	Lat: <u>39.016</u>	Long: 122.905	Datum: NAD 27 (feet)
Soil Map Unit Name <u>Cole Variant clay loam</u>		NWI classific	ation
Are climatic/hydrologic conditions on-site typica	al for this time of year?	🛛 Yes 🔲 No 🛛 (If no, explain in re	marks)
Are any of the following significantly disturbed?	Vegetation	Soil 🔲 Hydrology 🛛 Are "Normal Circu	mstances" present? 🛛 Yes 🛛 No
Are any of the following naturally problematic?	Vegetation	Soil 🔲 Hydrology 🛛 (If needed, expl	lain any answers in remarks)
SUMMARY OF FINDINGS - Attach site	nap showing sample	point locations, transects, import	tant features, etc.
Hydric Soil Present?	□ No □ No □ No	Is the Sampled Area 🛛 🛛 🖾	Yes 🗌 No
Remarks: All three wetland parameters prese	nt; therefore the sample	point is within a wetland.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1	<u>_78 COVEL</u>			Number of Dominant Species <u>3</u> (A) that are OBL, FACW, or FAC?
2				Total number of dominant <u>3</u> (B) species across all strata?
4 Tree Stratum Total Cover:		-		% of dominant species that <u>100</u> (A/B) are OBL, FACW, or FAC?
Sapling/Shrub Stratum		-		Prevalence Index Worksheet
1.				Total % cover of: Multiply by:
2.				OBL species x1
3.				FACW species x2
4.				FAC species x3
Sapling/Shrub Stratum Total Cover:				FACU species x4
Herb Stratum				UPL species x5
1. Hordeum marinum	40	yes	FAC	Column Totals (A) (B)
2. Juncus patens	20	yes	FAC	
3. Lolium multiflorum	20	yes	FAC	Prevalence Index = B/A =
4. Limnanthes douglasii ssp. nivea	5	no	OBL	Hydrophytic Vegetation Indicators
5. Bromus hordeaceus	5	no	FAC	Dominance Test is >50%
6. Trifolium dubium	5	no	NL	Prevalence Index is $$
7. Cerastium glomeratum	<1	no	FACU	Morphological adaptations (provide
8. Erodium cicutarium	<1	no	NL	supporting data in remarks)
Herb Stratum Total Cover: Woody Vine Stratum	97	÷		Problematic hydrophytic vegetation ¹ (explain)
1				¹ Indicators of hydric soil and wetland hydrology
2.				must be present.
Woody Vine Stratum Total Cover:		-		Hydrophytic X Yes INO
% Bare ground in herb stratum 5	% cover of	biotic crust		Vegetation Present ?
Remarks: Hydrophytic vegetation present: veget	ation passes do	minance test.		

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e depth needed ocument the indicator or confirm the abs Redox Features % Color (moist) % Type ¹ Loc ¹ Tex 10YR 6/8 5 loam Loam Loam	Sampling Point P4b
% Color (moist) % Type ¹ Loc ¹ Tex	ence of inors.)
	xture Remarks
	redox disappears on wetting
n, RM=Reduced Matrix. ² Location: PL=Pore Lining, RC=Ro	ot Channel, M=Matrix
	tors for Problematic Hydric Soils ³ :
	n Muck (A9) (LRR C)
	n Muck (A10)(LRR B) duced Vertic (F18)
	d Parent Material (TF2)
Depleted Matrix (F3)	ner (explain in remarks)
Redox Dark Surface (F6) (11) Depleted Dark Surface (F7)	
Redox Depressions (F8)	
	ators of hydric vegetation and
wetlar	nd hydrology must be present.
	Hydric Soil Present ? 🛛 Yes 🗌 No
is sufficient)	Secondary Indicators (2 or more required)
is sufficient)	□ Water Marks (B1)(Riverine)
Salt Crust (B11)	Sediment Deposits (B2)(Riverine)
☑ Biotic Crust (B12) ☐ Aquatic Invertebrates (B13)	☐ Drift Deposits (B3)(Riverine) ☐ Drainage Patterns (B10)
Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
rine) Oxidized Rhizospheres along Living Roots (C3)	Thin Muck Surface (C7)
	Crayfish Burrows (C8)
ery (B7) Other (Explain in Remarks)	FAC-Neutral Test (D5)
ery (B7) DOther (Explain in Remarks)	
No Depth (inches):	
ery (B7) DOther (Explain in Remarks)	
 Mo Depth (inches):	d Hudrologu Brocont 2 M Yee 🗍 Ne
Image: Wetlan Image: Wetlan Image: Wetlan Image: Wetlan Image: Wetlan Image: Wetlan	nd Hydrology Present ? 🛛 Yes 🗌 No
 Mo Depth (inches):	nd Hydrology Present ? 🛛 Yes 🗌 No
Image: Provide the series of the series o	ld Hydrology Present ? ⊠ Yes □ No
Image: Wetlan Image: Wetlan Image: Wetlan Image: Wetlan Image: Wetlan Image: Wetlan	nd Hydrology Present ? ⊠ Yes □ No
Image: monitoring well, aerial photos, etc.) if available.	ld Hydrology Present ? ⊠ Yes □ No
Image: monitoring well, aerial photos, etc.) if available.	nd Hydrology Present ? 🛛 Yes 🗌 No
 Presence of Reduced Iron (C4) Recent Iron Reduction in PLowed Soils (C6) 	Crayfish Burrows (C8

Wetlan Petermination Data Form - Arid West Region

Project/Site Lakeport Cinema and Drive-In	City Lakeport	County Lake	Sampling Date 4/24/2008
Applicant/Owner John Tegtmeier		State CA	Sampling Point P5
Investigator(s) Geoff Smick, Aaron Arthur		Section, Township, Range T14N,	R9W,sec31
Landform (hillslope, terrace, etc.)floodplain	Local Re	lief (concave, convex, none) <u>none</u>	Slope(%) <u>0-3</u>
Subregion(LRR) LRR C (Medit. CA)	Lat: <u>39.016</u>	Long: 122.905	Datum: NAD 27 (feet)
Soil Map Unit Name Cole Variant clay loa	am	NWI classifi	cation
Are climatic/hydrologic conditions on-site ty	ypical for this time of year?	🛛 Yes 🔲 No 🦳 (If no, explain in re	emarks)
Are any of the following significantly disturb	bed?	Soil 🔲 Hydrology 🛛 Are "Normal Circi	umstances" present? 🛛 Yes 🔲 No
Are any of the following naturally problema	atic?	Soil 🔲 Hydrology 👘 (If needed, exp	olain any answers in remarks)
SUMMARY OF FINDINGS - Attach s	ite map showing sample	point locations, transects, impor	rtant features, etc.
Hydric Soil Present?	Yes INo Yes No Yes No	Is the Sampled Area	☑ Yes □ No
Remarks: All three wetland parameters p and depressional topography.	present; therefore the sample p	point is within a wetland. Wetland bound	dary based on hydrophytic vegetation

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Consise?	Indicator Status	Dominance Test Worksheet
1		Species?		Number of Dominant Species <u>1</u> (A) that are OBL, FACW, or FAC?
2				Total number of dominant(B)(B)
4 Tree Stratum Total Cover:				% of dominant species that(A/B) are OBL, FACW, or FAC?(A/B)
Sapling/Shrub Stratum				Prevalence Index Worksheet
1				Total % cover of: Multiply by:
2.				OBL species x1
3				FACW species x2
4				FAC species x3
Sapling/Shrub Stratum Total Cover:		-		FACU species x4
Herb Stratum				UPL species x5
1. Juncus phaeocephalus	65	yes	FACW	Column Totals (A) (B)
2. Hordeum marinum	15	no	FAC	
3. Rumex crispus	5	no	FACW	Prevalence Index = B/A =
4. Downingia pulchella	1	no	OBL	Hydrophytic Vegetation Indicators
5. Ebilobium ciliatum	1	no	FACW	Dominance Test is >50%
6. Lotus humistratus	1	no	NL	Prevalence Index is = 3.0<sup 1
7. Carex sp.	1	no	?	Morphological adaptations (provide
8. Asteraceae sp.	1	no	?	supporting data in remarks)
Herb Stratum Total Cover: Woody Vine Stratum	90			Problematic hydrophytic vegetation ¹ (explain)
1				¹ Indicators of hydric soil and wetland hydrology
2.				must be present.
Woody Vine Stratum Total Cover:				Hydrophytic My Charles
% Bare ground in herb stratum 10		-		Vegetation Present ?
Remarks: Hydrophytic vegetation present: passe	es dominance te	st.		

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Profile description: (Describe to the depth needed	n the absence of ir. tors.)
(inches) Color (moist) % Color (moist) % Type ¹ Loc ¹	Texture Remarks
0-12 10YR 2/1	clay
	•
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining	g, RC=Root Channel, M=Matrix
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Sandy Redox (S5)	1cm Muck (A9) (LRR C)
□ Histic Epipedon (A2) □ Stripped Matrix (S6) □ Black Histic (A3) □ Loamy Mucky Mineral (F1)	C 2cm Muck (A10)(LRR B)
□ Hydrogen Sulfide (A4) □ Loamy Gleyed Matrix (F2)	☐ Reduced Vertic (F18) ☐ Red Parent Material (TF2)
Stratified Layers (A5)(LRR C)	Other (explain in remarks)
1cm Muck (A9)(LRR D) Redox Dark Surface (F6)	
Depleted Below Dark Surface (A11)	
□ Thick Dark Surface (A12) □ Redox Depressions (F8) □ Sandy Mucky Mineral (S1) ☑ Vernal Pools (F9)	³ Indicators of hydric vegetation and
Sandy Gleyed Matrix (S4)	wetland hydrology must be present.
Restrictive Layer (if present):	Wold no hydrology maat bo procent.
Type: N/A	
Dopth (inchor):	
	Hydric Soil Present ? 🛛 Yes 🗌 No ression.
emarks: Hydric soil present: (F9) dark chroma present within the top 6" within a closed dep YDROLOGY Vetland Hydrology Indicators:	
Remarks: Hydric soil present: (F9) dark chroma present within the top 6" within a closed dep	Secondary Indicators (2 or more required)
IVPROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1)	ression.
emarks: Hydric soil present: (F9) dark chroma present within the top 6" within a closed dep YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) High Water Table (A2) M Biotic Crust (B12)	Secondary Indicators (2 or more required)
Image: Primary Indicators (any one indicator is sufficient) Image: Surface Water (A1) Image: Surface Water Table (A2) Image: Surface Water (A3)	Secondary Indicators (2 or more required)
Image: Primarks: Hydric soil present: (F9) dark chroma present within the top 6" within a closed dep IMPROLOGY 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)	Secondary Indicators (2 or more required) Vater Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
Image: Semarks: Hydric soil present: (F9) dark chroma present within the top 6" within a closed dep IYDROLOGY 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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots	s (C3)
Image: Primarks: Hydric soil present: (F9) dark chroma present within the top 6" within a closed dep Image: Primary Indicators: Primary Indicators (any one indicator is sufficient) Image: Primary Indicators (A2) Image: Primary Indicators (A3) Image: Primary Indicator (B2)(Nonriverine) Image: Primary Indicatory (B2)(Nonriverine) </td <td>s (C3)</td>	s (C3)
emarks: Hydric soil present: (F9) dark chroma present within the top 6" within a closed dep YDROLOGY 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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	s (C3) Saturation Visible on Aerial Imagery (C9)
emarks: Hydric soil present: (F9) dark chroma present within the top 6" within a closed dep YDROLOGY 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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	s (C3) C33 St (C3) C33 St (C3) C33 St (C3) C33 St (C3) C33 St (C3) C33 C33 C43 St (C3) C43 St (C3) C
emarks: Hydric soil present: (F9) dark chroma present within the top 6" within a closed dep YDROLOGY 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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Mater-Stained Leaves (B9) Other (Explain in Remarks)	s (C3) Saturation Visible on Aerial Imagery (C9)
emarks: Hydric soil present: (F9) dark chroma present within the top 6" within a closed dep YDROLOGY 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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Tield Observations:	s (C3) Saturation Visible on Aerial Imagery (C9)
emarks: Hydric soil present: (F9) dark chroma present within the top 6" within a closed dep YDROLOGY 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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Yes No Depth (inches):	s (C3) Saturation Visible on Aerial Imagery (C9)
Image: Second state sta	s (C3) Saturation Visible on Aerial Imagery (C9) Stallow Aquitard (D3) Stallow Aquitard (D3) FAC-Neutral Test (D5)
remarks: Hydric soil present: (F9) dark chroma present within the top 6" within a closed dep IVDROLOGY 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) Dxidized Rhizospheres along Living Roots Drift Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots Dirift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Water table present? Yes X No Depth (inches): Mater table present? Yes X No Part table present? Yes X No Depth (inches): Saturation Present? Yes X No Depth (inches): Includes capillary fringe) Hyes	s (C3) Saturation Visible on Aerial Imagery (C9)
emarks: Hydric soil present: (F9) dark chroma present within the top 6" within a closed dep YDROLOGY 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) X Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C X Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Water table present? Yes Xuface 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):	s (C3) Saturation Visible on Aerial Imagery (C9) Stallow Aquitard (D3) Stallow Aquitard (D3) FAC-Neutral Test (D5)
emarks: Hydric soil present: (F9) dark chroma present within the top 6" within a closed dep Image: Primary 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) Oxidized Rhizospheres along Living Roots Drift Deposits (B2)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Mater-Stained Leaves (B9) Other (Explain in Remarks) Water table present? Yes X No Depth (inches): Saturation Present? Yes X No Depth (inches): Saturation Present? Yes X No Depth (inches): Saturation Present? Yes X No Depth (inches): Saturation Present? Yes X No Depth (inches): Saturation Present? Yes X No Depth (inches): Saturation Present? Yes X No Depth (inches): Depth (inches): Saturation Present? Yes X No Depth (inches): Depth (inches): Saturation Present?	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) st (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) 26) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Agemarks: Hydric soil present: (F9) dark chroma present within the top 6" within a closed dep Image: Primary Indicators: Primary Indicators (any one indicator is sufficient) Image: Primary Indicators (any one indicator is sufficient) Image: Sait Crust (B11) Image: Primary Indicators (any one indicator is sufficient) Image: Sait Crust (B11) Image: Primary Indicators (any one indicator is sufficient) Image: Sait Crust (B12) Image: Primary Indicators (B2) Image: Sait Crust (B12) Image: Primary Indicators (B2)(Nonriverine) Image: Presence of Reduced Iron (C4) Image: Primary Indicators (B3)(Nonriverine) Image: Presence of Reduced Iron (C4) Image: Primary Indicators (B6) Image: Presence of Reduced Iron (C4) Image: Primary Indicators (B6) Image: Presence of Reduced Iron (C4) Image: Primary Indicators (B6) Image: Presence of Reduced Iron (C4) Image: Primary Indicators: Image: Presence of Reduced Iron (C4) Image: Primary Indicator Visible on Aerial Image: Presence of Reduced Iron (C4) Image: Presence of Reduced Iron (C4) Image: Primery Indicators: Image: Presence of Reduced Iron (C4) Image: Presence of Reduced Iron (C4) Image: Primery Indicators: Image: Presence of Reduced Iron (C4) Image: Presence of Reduced Iron (C4) Image: Presence of Reduced Iron (C4) <td>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) st (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) 26) Shallow Aquitard (D3) FAC-Neutral Test (D5)</td>	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) st (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) 26) Shallow Aquitard (D3) FAC-Neutral Test (D5)
emarks: Hydric soil present: (F9) dark chroma present within the top 6" within a closed dep YDROLOGY 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) Oxidized Rhizospheres along Living Roots Drift Deposits (B2)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Mater Table (A2) Other (Explain in Remarks) Water-Stained Leaves (B9) Other (Explain in Remarks) Water-Stained Leaves (B9) Yes Water table present? Yes Yes No Depth (inches): Water table present? Yes No Depth (inches): Saturation Present? Yes Water corded data (stream guage, monitoring well, aerial photos, etc.) if available.	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) st (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) 26) Shallow Aquitard (D3) FAC-Neutral Test (D5)
emarks: Hydric soil present: (F9) dark chroma present within the top 6" within a closed dep YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Sait Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1)(Nonriverine) Dift Deposits (B2)(Nonriverine) Drift Deposits (B2)(Nonriverine) Dift Crust (B10) Starface Soil Cracks (B6) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Mater-Stained Leaves (B9) Other (Explain in Remarks) Water table present? Yes No Depth (inches): Saturation Present? Yes Water table present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.	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) st (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) 26) Shallow Aquitard (D3) FAC-Neutral Test (D5)

Wetlan Petermination Data Form - Arid Wert Region

Project/Site Lakeport Cinema and Drive-	-In City Lakeport	County Lake	Sampling Date 4/24/2008				
Applicant/Owner John Tegtmeier		State CA	Sampling Point P6				
Investigator(s) Geoff Smick, Aaron Arth	ur	Section, Township, Range T14N, R9W, sec31					
Landform (hillslope, terrace, etc.)floodpl	lain Local Re	elief (concave, convex, none) <u>none</u>	Slope(%) <u>0-3</u>				
Subregion(LRR) LRR C (Medit. CA)	Lat: <u>39</u> ,016	Long: 122.905	Datum: NAD 27 (feet)				
Soil Map Unit Name Cole Variant clay loam NWI classification							
Are climatic/hydrologic conditions on-site typical for this time of year? 🛛 Yes 🔲 No 🛛 (If no, explain in remarks)							
Are any of the following significantly disturbed? 🛛 Vegetation 🗖 Soil 🗖 Hydrology 🛛 Are "Normal Circumstances" present? 🛛 Yes 🗖 No							
Are any of the following naturally problem	matic?	□ Vegetation □ Soil □ Hydrology (If needed, explain any answers in remarks)					
SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.							
Hydric Soil Present?	⊠ Yes □ No ⊠ Yes □ No ⊠ Yes □ No	Is the Sampled Area 🛛 🖂 within a Wetland?	Yes 🗌 No				
Remarks: All three wetland parameters present; therefore the sample point is within a wetland. Wetland boundary based on hydrophytic vegetation and depressional topography.							

VEGETATION

<u>Tree stratum</u> (use scientific names)	<u>Absolute</u> % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1		Sec. (Decentioned) (C		Number of Dominant Species <u>1</u> (A) that are OBL, FACW, or FAC?
2				Total number of dominant(B)(B)
4 Tree Stratum Total Cover:				% of dominant species that(A/B) are OBL, FACW, or FAC?(A/B)
Sapling/Shrub Stratum				Prevalence Index Worksheet
1				Total % cover of:Multiply by:
2				OBL species x1
3				FACW species x2
4				FAC species x3
Sapling/Shrub Stratum Total Cover:				FACU species x4
Herb Stratum				UPL species x5
	25		FAC	Column Totals (A) (B)
2. Rumex crispus			FACW	Prevalence Index = B/A =
3. Asteraceae sp.	5	no	?	
4. Lupinus bicolor	_<1	no	NL	Hydrophytic Vegetation Indicators
5. Vicia benghalensis	<1	no	NL	Dominance Test is >50%
6	·	-	(Prevalence Index is = 3.0<sup 1
7				Morphological adaptations (provide supporting data in remarks)
Herb Stratum Total Cover: Woody Vine Stratum	45			Problematic hydrophytic vegetation ¹ (explain)
1			-	¹ Indicators of hydric soil and wetland hydrology must be present.
		-		
Woody Vine Stratum Total Cover: % Bare ground in herb stratum <u>55</u>				Hydrophytic Vegetation Present ?
Remarks: Hydrophytic vegetation present: passe	s the dominance	e test.		An

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SOIL	8							Sampling Point P6
Profile descr Depth	iption: (Describe Matrix	to the depth	needed L ocum	ent the in K Feature	ndicator o	r confirn	n the absence of	in lors.)
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹	Texture	Remarks
0-1	10YR 3/2	100					clay	fill present
1-4	10YR 3/2	80					clay	fill present
	7.5YR 5/8	20		<u> </u>			clay	
4-12	10YR 3/2	100		<u> </u>			clay	fill present
	-	·		_				
	ncentration, D=De					ore Lining	g, RC=Root Chann	nel, M=Matrix
Histosol Histic Ep Black His Hydrogel Stratified 1cm Muc Depleted Thick Da Sandy M Sandy G Restrictive I	(A1) ipedon (A2)	C)	RRs, unless other Sandy Redox (S5) Stripped Matrix (S6 Loamy Mucky Mind Loamy Gleyed Mai Depleted Matrix (F Redox Dark Surfac Depleted Dark Sur Redox Depression Vernal Pools (F9)	6) eral (F1) trix (F2) 3) ce (F6) face (F7)				A10)(LRR B) ortic (F18) Material (TF2)
Type: <u>N/A</u>								
Depth (inch	ies):						Hydric	Soil Present ? X Yes I No
HYDROLOG								to fill pile, some fill in soil.
	rology Indicators						Saaa	odony Indiantors (2 or more required)
	ators (any one ind		cient)					ndary Indicators (2 or more required)
Saturation Water Ma Sediment Drift Depo Surface S Inundatio Water-Sta	er Table (A2) n (A3) Irks (B1)(Nonriver Deposits (B2)(No psits (B3)(Nonrive Soil Cracks (B6) n Visible on Aerial ained Leaves (B9)	nriverine) rine) Imagery (B7	 ☐ Salt Crust (B1 ☑ Biotic Crust (E ☑ Aquatic Invert ☐ Hydrogen Sult ☐ Oxidized Rhiz ☐ Presence of R ☐ Recent Iron R) ☐ Other (Explain 	812) ebrates (fide Odor ospheres reduced I eduction	(C1) along Livi ron (C4) in PLowed	-	□ S □ D □ D S (C3) □ T □ C S(6) □ S □ S	/ater Marks (B1)(Riverine) ediment Deposits (B2)(Riverine) rift Deposits (B3)(Riverine) rainage Patterns (B10) ry-Season Water Table (C2) hin Muck Surface (C7) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3) AC-Neutral Test (D5)
Field Observ Surface water		Yes 🛛 No	Depth (inches):					
Water table p		Yes X No	Depth (inches):					
Saturation Pr	esent?	Yes 🛛 No	Depth (inches):				Wetland Hydro	logy Present ? 🛛 Yes 🗌 No
(includes cap Describe reco		i guage, moni	toring well, aerial ph	iotos, etc	.) if availat	ble.		
		esent: (B6) su	urface of soil cracked	d; (B13) d	ostrocods p	present; ((B12) algal matting	
US Army Corp	os of Engineers							Arid West - Version 11-1-2006

Wetlan Petermination Data Form - Arid Wert Region

Project/Site Lakeport Cinema and Driv	e-In	City Lakeport	County Lake		Sampling Date 4/	24/2008
Applicant/Owner John Tegtmeier				State CA	Sampling Point P7	
Investigator(s) Geoff Smick, Aaron Art	thur		Section, Towns	hip,Range <u>T14N</u>	I,R9W,sec31	
Landform (hillslope, terrace, etc.)flood	plain	Local R	elief (concave, convex	, none) <u>none</u>	Slope(%) <u>0-3</u>
Subregion(LRR) LRR C (Medit. CA)		Lat: <u>39.016</u>	Long	g: <u>122.905</u>	Datum: NAD 27	(feet)
Soil Map Unit Name Cole Variant cla	y loam			NWI class	ification	
Are climatic/hydrologic conditions on-site typical for this time of year? 🛛 Yes 🔲 No 🛛 (If no, explain in remarks)						
Are any of the following significantly disturbed? 🛛 Vegetation 🗋 Soil 🗋 Hydrology 🛛 Are "Normal Circumstances" present? 🛛 Yes 🗋 No					es 🗖 No	
Are any of the following naturally problematic?			Soil 🔲 Hydrology	(If needed, e	xplain any answers in remark	s)
SUMMARY OF FINDINGS - Attac	ch site map	showing sampl	e point locations, t	ransects, imp	ortant features, etc.	
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	X Yes □ X Yes □ X Yes □	No	ls the Sample within a Wetla		🛛 Yes 🗌 No	
Remarks: All three wetland paramete and depressional topograp		herefore the sample	point is within a wetlar	nd. Wetland bou	ndary based on hydrophytic v	regetation

VEGETATION

<u>Tree stratum</u> (use scientific names)	<u>Absolute</u> % cover	Dominant	Indicator Status	Dominance Test Worksheet
1		Species?		Number of Dominant Species <u>1</u> (A) that are OBL, FACW, or FAC?
2				Total number of dominant <u>2</u> (B) species across all strata?
4 Tree Stratum Total Cover:	-			% of dominant species that 50 (A/B) are OBL, FACW, or FAC?
Sapling/Shrub Stratum				Prevalence Index Worksheet
1				Total % cover of: Multiply by:
2		·		OBL species 0 x1 0
3	1			FACW species 15 x2 30
4				FAC species 50 x3 150
Sapling/Shrub Stratum Total Cover:				FACU species 0 x4 0
<u>Herb Stratum</u>				UPL species 20 x5 100
1. Plantago lanceolata	40	yes	FAC	Column Totals 85 (A) 280 (B)
2. Asteraceae sp.	20	yes	?	
3. Juncus phaeocephalus	10	no	FACW	Prevalence Index = B/A = <u>3.3</u>
4. Lolium multiflorum	10	no	FAC	Hydrophytic Vegetation Indicators
5. Rumex crispus	5	no	FACW	Dominance Test is >50%
6. Lupinus bicolor	<1	no	NL	Prevalence index is $$
 Vicia benghalensis 8. 	<1	no	NL	Morphological adaptations (provide supporting data in remarks)
Herb Stratum Total Cover: Woody Vine Stratum				Problematic hydrophytic vegetation ¹ (explain)
1		0		¹ Indicators of hydric soil and wetland hydrology
2.				must be present.
Woody Vine Stratum Total Cover:		ar (l hadron ha dia
% Bare ground in herb stratum 15				Hydrophytic Vegetation Present ?
				inance test and prevalence index; however, because / present, it is assumed that the unknown species is

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hydrophytic.

		Sampling Point P7
Profile description: (Describe to the de Depth Matrix	pth needed . ocument the indicator or co Redox Features	nfirm the absence of in lors.)
(inches) Color (moist) %		DC ¹ Texture Remarks
0-1 10YR 4/2		clay
-12 10YR 3/1		clay
-12 1011(3/1	· · · · · · · · · · · · · · · · · · ·	
	· · · · · · · · · · · · · · · · · · ·	
Type: C=Concentration, D=Depletion, R		ining, RC=Root Channel, M=Matrix
Hydric Soil Indicators: (Applicable to a		Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S5)	1cm Muck (A9) (LRR C)
Histic Epipedon (A2) Black Histic (A3)	Stripped Matrix (S6)	2cm Muck (A10)(LRR B)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	 Reduced Vertic (F18) Red Parent Material (TF2)
Stratified Layers (A5)(LRR C)	Depleted Matrix (F3)	Other (explain in remarks)
1cm Muck (A9)(LRR D)	Redox Dark Surface (F6)	
Depleted Below Dark Surface (A11)		
 Thick Dark Surface (A12) Sandy Mucky Mineral (S1) 	Redox Depressions (F8) Vernal Pools (F9)	31-di-t
Sandy Gleyed Matrix (S4)		³ Indicators of hydric vegetation and wetland hydrology must be present.
Restrictive Layer (if present):		
Type: <u>N/A</u>		
	-	
Depth (inches):		Hydric Soil Present ? 🛛 Yes 🗌 No
YDROLOGY		
Vetland Hydrology Indicators: Primary Indicators (any one indicator is su	ufficient)	Secondary Indicators (2 or more required)
		Water Marks (B1)(Riverine)
Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2)(Riverine)
High Water Table (A2) Saturation (A3)	Biotic Crust (B12) Aquatic Invertebrates (B13)	Drift Deposits (B3)(Riverine)
☐ Water Marks (B1)(Nonriverine)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10) Dry-Season Water Table (C2)
Sediment Deposits (B2)(Nonriverine)	Oxidized Rhizospheres along Living F	
	Presence of Reduced Iron (C4)	
		Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iron Reduction in PLowed Sol	Is (C6) Saturation Visible on Aerial Imagery (C9
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Recent Iron Reduction in PLowed Sol	Is (C6) Saturation Visible on Aerial Imagery (C9
 ☐ Surface Soil Cracks (B6) ☐ Inundation Visible on Aerial Imagery (☐ Water-Stained Leaves (B9) 	Recent Iron Reduction in PLowed Sol	Is (C6) Saturation Visible on Aerial Imagery (C9
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Water-Stained Leaves (B9) Field Observations:	☐ Recent Iron Reduction in PLowed Sol B7) ☐ Other (Explain in Remarks)	Is (C6) Saturation Visible on Aerial Imagery (C9
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Water-Stained Leaves (B9) Field Observations: Surface water present? Yes X N	Recent Iron Reduction in PLowed Sol Other (Explain in Remarks)	Is (C6) Saturation Visible on Aerial Imagery (C9
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Water-Stained Leaves (B9) Second Strengther Statement (B) Vater table present (C) Surface water present (C) Surfac	Recent Iron Reduction in PLowed Sol Other (Explain in Remarks) Depth (inches): Depth (inches):	Is (C6) Saturation Visible on Aerial Imagery (C9
□ Surface Soil Cracks (B6) □ Inundation Visible on Aerial Imagery (□ Water-Stained Leaves (B9) Field Observations: Surface water present? □ Yes ⊠ N Vater table present? □ Yes ⊠ N Saturation Present? □ Yes ⊠ N	Recent Iron Reduction in PLowed Sol Other (Explain in Remarks) Depth (inches): Depth (inches):	Is (C6) Saturation Visible on Aerial Imagery (C9
□ Surface Soil Cracks (B6) □ Inundation Visible on Aerial Imagery (□ Water-Stained Leaves (B9) Field Observations: Surface water present? □ Yes ⊠ N Vater table present? □ Yes ⊠ N Saturation Present? □ Yes ⊠ N includes capillary fringe)	Recent Iron Reduction in PLowed Sol Other (Explain in Remarks) Depth (inches): Depth (inches):	Is (C6) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
□ Surface Soil Cracks (B6) □ Inundation Visible on Aerial Imagery (□ Water-Stained Leaves (B9) Field Observations: Surface water present? □ Yes ⊠ N Vater table present? □ Yes ⊠ N Saturation Present? □ Yes ⊠ N includes capillary fringe)	Recent Iron Reduction in PLowed Sol B7) Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches):	Is (C6) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
Water table present? Yes N Saturation Present? Yes N includes capillary fringe) Yes N	Recent Iron Reduction in PLowed Sol B7) Other (Explain in Remarks) Depth (inches):	Is (C6) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
□ Surface Soil Cracks (B6) □ Inundation Visible on Aerial Imagery (□ Water-Stained Leaves (B9) Field Observations: Surface water present? □ Yes Water table present? □ Yes Water table present? □ Yes Saturation Present? □ Yes Includes capillary fringe) Describe recorded data (stream guage, mage)	Recent Iron Reduction in PLowed Sol B7) Other (Explain in Remarks) Depth (inches):	Is (C6) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
□ Surface Soil Cracks (B6) □ Inundation Visible on Aerial Imagery (□ Water-Stained Leaves (B9) Field Observations: Surface water present? □ Yes Water table present? □ Yes Water table present? □ Yes Saturation Present? □ Yes Includes capillary fringe) Describe recorded data (stream guage, mage)	Recent Iron Reduction in PLowed Sol B7) Other (Explain in Remarks) Depth (inches):	Is (C6) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
□ Surface Soil Cracks (B6) □ Inundation Visible on Aerial Imagery (□ Water-Stained Leaves (B9) Field Observations: Surface water present? □ Yes ○ Vater table present? □ Yes ○ Vater table present? □ Yes ○ Saturation Present? □ Yes ○ Includes capillary fringe) ○ ○ Describe recorded data (stream guage, mage)	Recent Iron Reduction in PLowed Sol B7) Other (Explain in Remarks) Depth (inches):	Is (C6) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
☐ Surface Soil Cracks (B6) ☐ Inundation Visible on Aerial Imagery (☐ Water-Stained Leaves (B9) ield Observations: Gurface water present? ☐ Yes Water table present? ☐ Yes Water table present? ☐ Yes Baturation Present? ☐ Yes Includes capillary fringe) escribe recorded data (stream guage, mage)	Recent Iron Reduction in PLowed Sol B7) Other (Explain in Remarks) Depth (inches):	Is (C6) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)

Wetlan Clearmination Data Form - Arid West Region

Project/Site Lakeport Cinema and Driv	/e-In	City Lakeport	County Lake		Sampling Date 4/24/2008
Applicant/Owner John Tegtmeier				State CA	Sampling Point P8
Investigator(s) Geoff Smick, Aaron Ar	thur		Section, Townsl	hip,Range <u>T14N</u>	I,R9W,sec31
Landform (hillslope, terrace, etc.) flood	Iplain	Local Rel	ief (concave, convex,	none) none	Slope(%) 0-3
Subregion(LRR) LRR C (Medit. CA)		Lat: <u>39.016</u>	Long	: 122.905	Datum: NAD 27 (feet)
Soil Map Unit Name Cole Variant cla	ay loam			NWI classi	ification
Are climatic/hydrologic conditions on-site typical for this time of year? 🛛 Yes 🔲 No 🛛 (If no, explain in remarks)					
Are any of the following significantly d	isturbed?	Vegetation D S	oil 🔲 Hydrology	Are "Normal Cir	cumstances" present? 🛛 Yes 🔲 No
Are any of the following naturally prob	lematic?	Vegetation	oil 🔲 Hydrology	(If needed, ex	xplain any answers in remarks)
SUMMARY OF FINDINGS - Atta	ch site map	showing sample	point locations, t	ransects, impo	ortant features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	X Yes □ X Yes □ X Yes □	No	Is the Sample within a Wetla		⊠Yes □No
Remarks: All three wetland parameter and depressional topographic topographic terms of the second se		erefore the sample p	oint is within a wetlar	nd. Wetland bou	ndary based on hydrophytic vegetation

VEGETATION

<u>Tree stratum</u> (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1				Number of Dominant Species <u>3</u> (A) that are OBL, FACW, or FAC?
2				Total number of dominant generation (B) 3 (B)
4 Tree Stratum Total Cover:				% of dominant species that(A/B) are OBL, FACW, or FAC?(A/B)
Sapling/Shrub Stratum				Prevalence Index Worksheet
1				Total % cover of: Multiply by:
2				OBL species x1
3		-		FACW species x2
4		·		FAC species x3
Sapling/Shrub Stratum Total Cover:				FACU species x4
Herb Stratum				UPL species x5
1. Juncus phaeocephalus	30	yes	FACW	Column Totals (A) (B)
2. Junus patens	20	yes	FAC	
3. Lactuca pulchella	20	yes	FAC	Prevalence Index = B/A =
4, Rumex crispus	10	no	FACW	Hydrophytic Vegetation Indicators
5. Holcus lanatus	10	no	FAC	Dominance Test is >50%
6. Carex sp.	5	no	?	Prevalence Index is = 3.0<sup 1
7. Vicia benghalensis 8.	<5		<u>NL</u>	Morphological adaptations (provide supporting data in remarks)
Herb Stratum Total Cover: Woody Vine Stratum				Problematic hydrophytic vegetation ¹ (explain)
1				¹ Indicators of hydric soil and wetland hydrology
2				must be present.
Woody Vine Stratum Total Cover:				Hydrophytic X Yes No
% Bare ground in herb stratum 5	% cover of	biotic crust		Vegetation Present ?
Remarks: Hydrophytic vegetation present: passe	es dominance tes	st.		

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Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Linin	Texture Remarks clay
-12 10YR 3/2	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Linin	
	ng, RC=Root Channel, M=Matrix
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5)	Indicators for Problematic Hydric Soils ³ :
□ Histosol (A1) □ Sandy Redox (S5) □ Histic Epipedon (A2) □ Stripped Matrix (S6)	☐ 1cm Muck (A9) (LRR C) ☐ 2cm Muck (A10)(LRR B)
Black Histic (A3)	Reduced Vertic (F18)
Hydrogen Sulfide (A4)	Red Parent Material (TF2)
Stratified Layers (A5)(LRR C)	Other (explain in remarks)
□ 1cm 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) Source (F12)	³ Indicators of hydric vegetation and
Sandy Gleyed Matrix (S4)	wetland hydrology must be present.
Restrictive Layer (if present):	
Type: N/A	
Depth (inches):	Hydric Soil Present ? 🛛 Yes 🗌 No
emarks: Hydric soil present: (F9) dark chroma present within the top 6" within a closed dep	
IYDROLOGY	
Netland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Root Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Water-Stained Leaves (B9)	Crayfish Burrows (C8)
Surface water present? Yes No Depth (inches):	
Surface water present? Image: Yes Image: No Depth (inches):	
Water table present? Image: Yes	Wetland Hydrology Present ? 🛛 Yes 🗔 No
Surface water present? Image: Yes Image: No Depth (inches):	Wetland Hydrology Present ? 🛛 Yes 🗌 No
Surface water present? Yes No Depth (inches): Nater table present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): includes capillary fringe) Yes No Depth (inches):	

Wetlan

Project/Site Lakeport Cinema and Driv	ve-In City Lakeport	County Lake	Sampling Date 4/24/2008	
Applicant/Owner John Tegtmeier		State CA	Sampling Point P9	
Investigator(s) Geoff Smick, Aaron Ar	thur	Section, Township, Range T14N,	,R9W,sec31	
Landform (hillslope, terrace, etc.)flood	Iplain Local Re	lief (concave, convex, none) none	Slope(%) 0-3	
Subregion(LRR) LRR C (Medit. CA)	Lat: <u>39.016</u>	Long: <u>122.905</u>	Datum: NAD 27 (feet)	
Soil Map Unit Name Cole Variant cla	ay loam	NWI classif	fication	
Are climatic/hydrologic conditions on-site typical for this time of year? 🛛 Yes 🔲 No 🛛 (If no, explain in remarks)				
Are any of the following significantly d	isturbed?	Soil 🔲 Hydrology 🛛 Are "Normal Circ	cumstances" present? 🛛 Yes 🔲 No	
Are any of the following naturally prob	elematic?	Soil 🔲 Hydrology (If needed, ex	plain any answers in remarks)	
SUMMARY OF FINDINGS - Atta	ch site map showing sample	point locations, transects, impo	ertant features, etc.	
Hydrophytic Vegetation Present?	🗙 Yes 🔲 No	Is the Sampled Area		
Hydric Soil Present?	🛛 Yes 🔲 No	within a Wetland?	🛛 Yes 🗌 No	
Wetland Hydrology Present?	🛛 Yes 🔲 No			
Remarks: All three wetland paramet and toe-of-slope.	ers present; therefore the sample r	point is within a wetland. Wetland bour	idary based on hydrophytic vegetation	

VEGETATION

<u>Tree stratum</u> (use scientific names)	<u>Absolute</u> <u>% cover</u>	Dominant Species?	Indicator Status	Dominance Test Worksheet
1. Quercus lobata	35	yes	FAC	Number of Dominant Species <u>5</u> (A) that are OBL, FACW, or FAC?
2. Fraxinus latifolia	35	yes	FACW	Total number of dominant
3. Salix laevigata	20	no	NL	species across all strata? <u>6</u> (B)
4 Tree Stratum Total Cover:				% of dominant species that <u>83.3</u> (A/B) are OBL, FACW, or FAC?
Sapling/Shrub Stratum				Prevalence Index Worksheet
1. Rosa californica	20	yes	FAC	Total % cover of: Multiply by:
2.				OBL species x1
3				FACW species x2
4.				FAC species x3
Sapling/Shrub Stratum Total Cover:	20			FACU species x4
Herb Stratum				UPL species x5
1. Phalaris aquatica	10	yes	FAC	Column Totals (A) (B)
2. Juncus patens	5	yes	FAC	
3. Atriplex sp.	5	yes	?	Prevalence Index = B/A =
4. Rumex crispus	1	no	FACW	Hydrophytic Vegetation Indicators
5				Dominance Test is >50%
6				Prevalence Index is = 3.0<sup 1
7				Morphological adaptations (provide
8				supporting data in remarks)
Herb Stratum Total Cover: Woody Vine Stratum	21			Problematic hydrophytic vegetation ¹ (explain)
1				¹ Indicators of hydric soil and wetland hydrology
2				must be present.
Woody Vine Stratum Total Cover:				Hydrophytic Name Date
% Bare ground in herb stratum 80	% cover of	biotic crust		Vegetation Present ?
Remarks: Hydrophytic vegetation present: passe	s dominance tes	.t.		

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	n the absence of ir. tors.)
Depth Matrix Redox Features	
(inches) Color (moist) % Color (moist) % Type ¹ Loc ¹	
D-2 <u>10YR 3/1</u> <u>5YR 5/8</u> <u>40</u>	sandy clay
2-12 10YR 4/1 5YR 5/8 40	sandy clay
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. 2Location: PL=Pore Lining	g, RC=Root Channel, M=Matrix
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	1cm Muck (A9) (LRR C)
Histic Epipedon (A2) Stripped Matrix (S6)	2cm Muck (A10)(LRR B)
Black Histic (A3) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	Reduced Vertic (F18) Red Parent Material (TF2)
□ Stratified Layers (A5)(LRR C)	Other (explain in remarks)
□ 1cm 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)	³ Indicators of hydric vegetation and
Sandy Gleyed Matrix (S4)	wetland hydrology must be present.
Restrictive Layer (if present):	
Type: N/A	
Depth (inches):	Hydric Soil Present ? 🛛 Yes 🔲 No
emarks: Hydric soil present: (F3) matrix depleted.	
IYDROLOGY	
Netland Hydrology Indicators:	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators:	
Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required) Uater Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine)
Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12)	Water Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine)
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)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine) Drainage Patterns (B10)
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)	Water Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots	Water Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) s (C3) Thin Muck Surface (C7)
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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C	Water Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) s (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Water Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) s (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Heave Stained Leaves (B9)	Water Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) s (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) C6) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) Migh 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 Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Field Observations:	Water Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) s (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) Migh 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 Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Yes Field Observations: Yes No Depth (inches): Yes No	Water Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) s (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) Migh 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 Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Yes Field Observations: Yes No Surface water present? Yes No Depth (inches): 4	Water Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine) Drift Deposits (B3)(Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) s (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) Migh 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 Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Yes Field Observations: Yes Surface water present? Yes Water table present? Yes No Depth (inches): Mater table present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): 2 Yes	Water Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) s (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) Migh 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 Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Yes Field Observations: Yes Surface water present? Yes Water table present? Yes No Depth (inches): 4 Saturation Present? Yes No Depth (inches): Gincludes capillary fringe) Yes No	Water Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine) Drift Deposits (B3)(Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) s (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
☑ 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 ☐ Drift Deposits (B3)(Nonriverine) ☐ Oxidized Rhizospheres along Living Roots ☐ Drift Deposits (B3)(Nonriverine) ☐ Presence of Reduced Iron (C4) ☐ Surface Soil Cracks (B6) ☐ Recent Iron Reduction in PLowed Soils (C ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) Water-Stained Leaves (B9) Field Observations: Surface water present? Yes No Depth (inches):	Water Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine) Drift Deposits (B3)(Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) s (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Yes Field Observations: Yes Surface water present? Yes Water table present? Yes Saturation Present? Yes No Depth (inches): 4 Saturation Present? Yes No Depth (inches): 2 (includes capillary fringe) Depth (inches): Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.	Water Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) S (C3) Crayfish Burrows (C8) Cay Crayfish Burrows (C8) Cay Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present ? Yes No
Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) Migh 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 Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Yes Field Observations: Yes Surface water present? Yes Mater table present? Yes No Depth (inches): 4 Saturation Present? Yes No Depth (inches): Yes No Depth (inches): Yes No Depth (inches): 2 Yes No Depth (inches):	Water Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) S (C3) Crayfish Burrows (C8) Cay Crayfish Burrows (C8) Cay Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present ? Yes No
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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water Stained Leaves (B9) Yes Field Observations: Yes Surface water present? Yes Mater table present? Yes No Depth (inches): Includes capillary fringe) Yes Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available. Remarks: Wetland hydrology present: (A2) free water in pit at 4"; (A3) saturation at 2" during I	Water Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) S (C3) Crayfish Burrows (C8) Cay Crayfish Burrows (C8) Cay Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present ? Yes No
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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water Stained Leaves (B9) Yes Field Observations: Yes Surface water present? Yes Mater table present? Yes No Depth (inches): Includes capillary fringe) Yes Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available. Remarks: Wetland hydrology present: (A2) free water in pit at 4"; (A3) saturation at 2" during I	Water Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) S (C3) Crayfish Burrows (C8) Cay Crayfish Burrows (C8) Cay Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present ? Yes No

Wetland Determination Data Form - Arid West Region

Project/Site Lakeport Cinema and Drive-In	City Lakeport	County Lake	Sampling Date <u>4/24/2008</u>		
Applicant/Owner John Tegtmeier		State CA	Sampling Point P10		
Investigator(s) Geoff Smick, Aaron Arthur		Section, Township, Range T14N	,R9W,sec31		
Landform (hillslope, terrace, etc.) floodplain	Local Re	lief (concave, convex, none) <u>none</u>	Slope(%) <u>0-3</u>		
Subregion(LRR) LRR C (Medit. CA)	Lat: <u>39.016</u>	Long: <u>122.905</u>	Datum: NAD 27 (feet)		
Soil Map Unit Name Cole Variant clay loa	m	NWI classi	fication		
Are climatic/hydrologic conditions on-site typical for this time of year? 🛛 Yes 🗌 No 🛛 (If no, explain in remarks)					
Are any of the following significantly disturb	Are any of the following significantly disturbed? 🔲 Vegetation 🔲 Soil 🔲 Hydrology 🛛 Are "Normal Circumstances" present? 🖾 Yes 🗋 No				
Are any of the following naturally problemat	tic?	oil 🔲 Hydrology 👘 (If needed, ex	plain any answers in remarks)		
SUMMARY OF FINDINGS - Attach si	te map showing sample	point locations, transects, impo	ortant features, etc.		
Hydric Soil Present?	Yes ☐ No Yes ⊠ No Yes ☐ No	Is the Sampled Area [within a Wetland?	□Yes ⊠No		
Remarks: Two wetland indicators present	(hydrophytic vegetation & we	etland hydrology); however, hydric soil	not present at the sample point.		

VEGETATION

	<u>Tree stratum</u> (use scientific names)	<u>Absolute</u> % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1.	Quercus lobata	40	yes	FAC	Number of Dominant Species <u>4</u> (A) that are OBL, FACW, or FAC?
2.	Salix laevigata	20	yes	NL	Total number of dominant
3.	Fraxinus latifolia	20	yes	FACW	species across all strata?
4.	Juglans californica	5	no	FAC	% of dominant species that 66.6 (A/B)
	Tree Stratum Total Cover:	85			are OBL, FACW, or FAC?
- °	Sapling/Shrub Stratum				Prevalence Index Worksheet
1.		30	yes	FACW	Total % cover of:Multiply by:
2.	Toxicodendron diversiloba	10	no	NL	OBL species x1
3.	Rosa californica	5	no	FAC	FACW species x2
4.			-		FAC species x3
	Sapling/Shrub Stratum Total Cover:	45			FACU species x4
	Herb Stratum				UPL species x5
1.	Conium maculatum	10	yes	FACW	Column Totals (A) (B)
2.	Carex sp.	10	yes	?	
3.					Prevalence Index = B/A =
4.					Hydrophytic Vegetation Indicators
5.					Dominance Test is >50%
					\square Prevalence Index is = 3.0<sup 1
7.					 Morphological adaptations (provide
8.					supporting data in remarks)
	Herb Stratum Total Cover:	20			Problematic hydrophytic vegetation ¹ (explain)
	Woody Vine Stratum				
1.	· · · · · · · · · · · · · · · · · · ·		28		¹ Indicators of hydric soil and wetland hydrology
2.			·		must be present.
	Woody Vine Stratum Total Cover:		e		Hydrophytic X Yes I No
	% Bare ground in herb stratum 80	% cover of	biotic crust		Vegetation Present ?
Re	marks: Hydrophytic vegetation present: passe	s dominance tes	st,		

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SOIL	Sampling Point P10
Profile description: (Describe to the depth needed ocument the indicator or confirm	m the absence of in tors.)
Depth Matrix Redox Features (inches) Color (moist) % Type ¹ Loc ¹	- Texture Remarks
0-12 7.5YR 4/3	sandy loam
	- DO-Dast Channel M-Matrix
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Linin Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	g, RC=Root Channel, M=Matrix Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	□ 1cm Muck (A9) (LRR C)
Histic Epipedon (A2)	\square 2cm Muck (A10)(LRR B)
Black Histic (A3)	Reduced Vertic (F18)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Stratified Layers (A5)(LRR C) Depleted Matrix (F3) 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)	
Sandy Mucky Mineral (S1)	³ Indicators of hydric vegetation and
Sandy Gleyed Matrix (S4)	wetland hydrology must be present.
Restrictive Layer (if present):	
Type: <u>N/A</u>	
Depth (inches):	Hydric Soil Present ? 🛛 Yes 🛛 No
Remarks: No hydric soil indicators present.	
HYDROLOGY	
Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
	Water Marks (B1)(Riverine)
Surface Water (A1)	Sediment Deposits (B2)(Riverine)
High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13)	Drift Deposits (B3)(Riverine)
Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1)(Nonriverine) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Sediment Deposits (B2)(Nonriverine)	s (C3) Thin Muck Surface (C7)
Drift Deposits (B3)(Nonriverine)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	· · · · · · · · · · · · · · · · · · ·
 Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) 	☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5)
Field Observations:	
Field Observations.	
Surface water present? Yes X No Depth (inches)	
Surface water present? Yes No Depth (inches):	
Water table present?	
	Wetland Hydrology Present ? 🛛 Yes 🗌 No
Water table present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present ? 🛛 Yes 🗌 No
Water table present? Yes X No Depth (inches): Saturation Present? Yes X No Depth (inches): (includes capillary fringe)	Wetland Hydrology Present ? 🛛 Yes 🗌 No
Water table present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.	Wetland Hydrology Present ? 🛛 Yes 🗌 No
Water table present? Yes X No Depth (inches): Saturation Present? Yes X No Depth (inches): (includes capillary fringe)	Wetland Hydrology Present ? 🛛 Yes 🗌 No
Water table present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.	Wetland Hydrology Present ? 🛛 Yes 🗌 No
Water table present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.	Wetland Hydrology Present ? 🛛 Yes 🗌 No
Water table present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.	Wetland Hydrology Present ? X Yes No

Wetland Determination Data Form - Arid West Region

Project/Site Lakeport Cinema and Drive-In	City Lakeport	County Lake	Sampling Date 4/24/2008
Applicant/Owner John Tegtmeier		State CA	Sampling Point P11
Investigator(s) Geoff Smick, Aaron Arthur		Section, Township, Range T14N,	R9W,sec31
Landform (hillslope, terrace, etc.)floodplain	Local Re	lief (concave, convex, none) <u>none</u>	Slope(%) <u>0-3</u>
Subregion(LRR) LRR C (Medit. CA)	Lat: <u>39.016</u>	Long: <u>122.905</u>	Datum: NAD 27 (feet)
Soil Map Unit Name Cole Variant clay loam		NWI classif	ication
Are climatic/hydrologic conditions on-site typic	cal for this time of year?	🛛 Yes 🔲 No 🦳 (If no, explain in r	remarks)
Are any of the following significantly disturbed	? 🗌 Vegetation 🔲 S	Soil 🔲 Hydrology 🛛 Are "Normal Circ	cumstances" present? 🛛 Yes 🔲 No
Are any of the following naturally problematic?	? Vegetation S	Soil 🔲 Hydrology (If needed, ex	plain any answers in remarks)
SUMMARY OF FINDINGS - Attach site	map showing sample	point locations, transects, impo	rtant features, etc.
Hydric Soil Present?	s 🖾 No s 🖾 No s 🖾 No	Is the Sampled Area]Yes ⊠No
Remarks: No wetland parameters met at the	sample point. Sample po	int is a paired upland for sample point 1	12.

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species2	Indicator Status	Dominance Test Worksheet
1				Number of Dominant Species <u>1</u> (A) that are OBL, FACW, or FAC?
2				Total number of dominant(B) species across all strata?
4 Tree Stratum Total Cover:				% of dominant species that(A/B) are OBL, FACW, or FAC?
Sapling/Shrub Stratum				Prevalence Index Worksheet
1				Total % cover of;Multiply by:
2				OBL species x1
3				FACW species x2
4	<u> </u>			FAC species x3
Sapling/Shrub Stratum Total Cover:				FACU species x4
Herb Stratum				UPL species x5
1. Phalaris aquatica	95	yes	FAC	Column Totals (A) (B)
2				Prevalence Index = B/A =
3				
4				Hydrophytic Vegetation Indicators
5				Dominance Test is >50%
6				Prevalence Index is = 3.0<sup 1
7				Morphological adaptations (provide
8		·	-	supporting data in remarks)
Herb Stratum Total Cover: Woody Vine Stratum	95			Problematic hydrophytic vegetation ¹ (explain)
1		0		¹ Indicators of hydric soil and wetland hydrology
2	. <u> </u>		·	must be present.
Woody Vine Stratum Total Cover:				Hydrophytic National Nationa
% Bare ground in herb stratum 5	% cover of b	piotic crust		Vegetation Present ?
Remarks: Hydrophytic vegetation present: passe	s dominance tes	t.		

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SOIL Profile description: (Describe to the depth needed accument the indicator or confirm the ab	sence of ir tors.)
Depth Matrix Redox Features	
	exture Remarks
-12 10YR 3/2 sandy l	loam
Histosol (A1)	ators for Problematic Hydric Soils ³ : m Muck (A9) (LRR C)
Black Histic (A3) Loamy Mucky Mineral (F1) Re Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Re Stratified Layers (A5)(LRR C) Depleted Matrix (F3) Ot 1 cm Muck (A9)(LRR D) Redox Dark Surface (F6) Ot Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) ³ India	m Muck (A10)(LRR B) educed Vertic (F18) ed Parent Material (TF2) her (explain in remarks) cators of hydric vegetation and and hydrology must be present.
Restrictive Layer (if present):	
Type: N/A	
Depth (inches):	
	Hydric Soil Present ? 🗌 Yes 🛛 No
emarks: No hydric soil indicators present.	*
Remarks: No hydric soil indicators present. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
Image: Semarks: No hydric soil indicators present. Image: Semarks: Semar	*
Image: Second Stress Stressent Stre	Secondary Indicators (2 or more required) Uater 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)
IVDROLOGY 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) 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) Other (Explain in Remarks) Water-Stained Leaves (B9) Yes No Depth (inches):	Secondary Indicators (2 or more required) Uater 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)
Remarks: No hydric soil indicators present. HYDROLOGY 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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Diff 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) Other (Explain in Remarks) Water-Stained Leaves (B9) Field Observations: Surface water present? Yes X No Depth (inches): Water table present? Yes X No Depth (inches): Saturation Present? Yes X No Depth (inches): Saturation Present? Yes X No Depth (inches): Water table present? Yes X No Depth (inches):	Secondary Indicators (2 or more required) Uater 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)
IVDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Water Marks (B1)(Nonriverine) Dift Deposits (B2)(Nonriverine) Dift Deposits (B3)(Nonriverine) Biotic Crust (C1) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water Table (Deservations: Surface water present? Yes No Depth (inches): Water table present? Yes No Depth (inches): Water table present? Yes Yes No Depth (inches): Water table present? Yes Yes No Depth (inches): Water table present? Yes No Depth (inches): Wetla	Secondary Indicators (2 or more required) Uster 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)
Remarks: No hydric soil indicators present. HYDROLOGY 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) 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) Other (Explain in Remarks) Water-Stained Leaves (B9) Surface water present? Yes X No Field Observations: Mater table present? Yes X No Mater table present? Yes X No Depth (inches): Mater table present? Yes X No Depth (inches): Saturation Present? Yes X No Depth (inches):	Secondary Indicators (2 or more required) Uater 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)

Wetland Determination Data Form - Arid Wert Region

Project/Site Lakeport Cinema and Drive-	In City Lakeport	County Lake	Sampling Date 4/24/2008
Applicant/Owner John Tegtmeier		State CA	Sampling Point P12
Investigator(s) Geoff Smick, Aaron Arthu	ur	Section,Township,Range T14N,F	R9W,sec31
Landform (hillslope, terrace, etc.) floodpla	ain Local Re	elief (concave, convex, none) <u>none</u>	Slope(%)
Subregion(LRR) LRR C (Medit. CA)	Lat: <u>39.016</u>	Long: 122,905	Datum: NAD 27 (feet)
Soil Map Unit Name Cole Variant clay I	loam	NWI classific	cation
Are climatic/hydrologic conditions on-site	e typical for this time of year?	Yes No (If no, explain in re	emarks)
Are any of the following significantly dist	urbed?	Soil 🔲 Hydrology Are "Normal Circu	umstances" present? 🛛 Yes 🔲 No
Are any of the following naturally probler	matic?	Soil 🔲 Hydrology 🛛 (If needed, exp	olain any answers in remarks)
SUMMARY OF FINDINGS - Attach	site map showing sample	point locations, transects, impor	tant features, etc.
Hydric Soil Present?	⊠ Yes □ No ⊠ Yes □ No ⊠ Yes □ No	Is the Sampled Area 🛛 🖂 within a Wetland?	Yes 🗌 No
Remarks: All three wetland parameters vegetation.	s present; therefore the sample	point is within a wetland. Wetland bound	lary based on extent of hydrophytic

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1				Number of Dominant Species <u>1</u> (A) that are OBL, FACW, or FAC?
2				Total number of dominant(B) species across all strata?
4 Tree Stratum Total Cover:				% of dominant species that(A/B) are OBL, FACW, or FAC?
Sapling/Shrub Stratum 1.				Prevalence Index Worksheet Total % cover of: Multiply by:
2				OBL species x1
3				FACW species x2
4			·	FAC species x3
Sapling/Shrub Stratum Total Cover:				FACU species x4
Herb Stratum				UPL species x5
1. Phalaris aquatica	60	yes	FAC	Column Totals (A) (B)
2. Mentha pulegium	15	no	OBL	Prevalence Index = B/A =
3. Dipsacus fullonum	10	no	<u>NI</u>	
4. Rumex crispus	5	no	FACW	Hydrophytic Vegetation Indicators
5				Dominance Test is >50%
6			0. 1	Prevalence Index is = 3.0<sup 1
7				Morphological adaptations (provide)
8		-		supporting data in remarks)
Herb Stratum Total Cover: Woody Vine Stratum				Problematic hydrophytic vegetation ¹ (explain)
1			-0	¹ Indicators of hydric soil and wetland hydrology
2				must be present.
Woody Vine Stratum Total Cover:				Hydrophytic 🛛 Yes 🗆 No
% Bare ground in herb stratum 10	% cover of l	piotic crust		Vegetation Present ?
Remarks: Hydrophytic vegetation present: passe	s dominance tes	t.		

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SOIL									g Point P12	
Profile desc Depth	ription: (Describe Matrix	e to the depth	needed ocur Red	ment the in ox Feature		or confir	m the absen	ce of in tors.)		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹	Textu	re F	Remarks	
-12	10YR 3/1		7.5YR 5/8	2			clay			
					9					
							• •			
	-	io 		•	-		•			
					8		• •			
Type: C=Cc	oncentration, D=D	epletion RM=F	Reduced Matrix	² Locat	tion: PL =P	ore Linin	a RC=Root	Channel, M=Matrix		
and the second se	Indicators: (Appl	Contraction of the local division of the loc				87.8.811.023		s for Problematic H	vdric Soils ³ :	
Histosol			Sandy Redox (St					luck (A9) (LRR C)		
Histic E	pipedon (A2)		Stripped Matrix (luck (A10)(LRR B)		
🔲 Black Hi			Loamy Mucky Mi					ed Vertic (F18)		
	en Sulfide (A4)		Loamy Gleyed M				Red P	arent Material (TF2))	
	d Layers (A5)(LRR		Depleted Matrix (Other	(explain in remarks))	
	ck (A9)(LRR D)		Redox Dark Surf							
	d Below Dark Surf ark Surface (A12)		Depleted Dark Sa Redox Depression)					
	/ucky Mineral (S1)		Vernal Pools (F9				³ Indicate	ors of hydric vegetat	ion and	
	Gleyed Matrix (S4)		veniai roois (ra)				hydrology must be p		
	Layer (if present)						Wetland	nydrology must be	breacht.	
Type: N/A										
Depth (inc	hes):						- I - F	ydric Soil Present	? Xes] No
YDROLO										
	drology Indicator		iont)					Secondary Indicate	ors (2 or more re	equired)
rimary indic	cators (any one inc	licator is suffic	ient)					U Water Marks (E	31)(Riverine)	
Surface	Water (A1)		Salt Crust (E	811)				Sediment Depo		ne)
	ter Table (A2)		Biotic Crust					Drift Deposits (B3)(Riverine)	
Saturatio	on (A3)		Aquatic Inve					Drainage Patte		
Water M	arks (B1)(Nonrive	rine)	Hydrogen S				(22)	Dry-Season Wa		
	t Deposits (B2)(No					ing Root	is (C3)	Thin Muck Surf		
	oosits (B3)(Nonrive Soil Cracks (B6)	enne)	Presence of Recent Iron			d Soile ((26)	Crayfish Burrov	WS (C8) blo op Apriol Im	
	on Visible on Aeria	l Imagery (B7)	Other (Expla				50)	Shallow Aquita	rd (D3)	agery (C9)
	tained Leaves (B9				arksy			FAC-Neutral Te		
ield Obser		, 				-				
Surface wate		Yes 🛛 No	Depth (inches):							
Vater table		Yes 🛛 No	Depth (inches):							
aturation P		Yes 🛛 No	Depth (inches):	-			Wetland	Hydrology Present	? 🛛 Yes	□ No
	oillary fringe) orded data (strear	n quado mont	oring well porial	abotos ete) if ovaile	hla				· vices
escribe rec	ordeu data (stream	n guage, moni	toning well, aerial		., ii availa	DIE.				
emarks: We	etland hydrology p	resent: (B2) se	diment deposits o	n leaves; ((B12) alga	I matting	present; (C3) oxidized rhizosphe	eres present.	
										44.4.655
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Wetland Determination Data Form - Arid Wert Region

Project/Site Lakeport Cinema and Drive-In	n City Lakeport	County Lake	Sampling Date 4/24/2008
Applicant/Owner John Tegtmeier		State CA	Sampling Point P13
Investigator(s) Geoff Smick, Aaron Arthur	r	Section, Township, Range _T14N, R9	W,sec31
Landform (hillslope, terrace, etc.)upland fi	ill Local Re	elief (concave, convex, none) <u>none</u>	Slope(%) <u>0-3</u>
Subregion(LRR) LRR C (Medit. CA)	Lat: <u>39.016</u>	Long: <u>122.905</u>	Datum: NAD 27 (feet)
Soil Map Unit Name Cole Variant clay lo	am	NWI classifica	ition
Are climatic/hydrologic conditions on-site	typical for this time of year?	🛛 Yes 🔲 No 🛛 (If no, explain in rem	narks)
Are any of the following significantly distu	irbed?	Soil 🔲 Hydrology 🛛 Are "Normal Circum	nstances" present? 🛛 Yes 🔲 No
Are any of the following naturally problem	natic?	Soil 🔲 Hydrology (If needed, expla	ain any answers in remarks)
SUMMARY OF FINDINGS - Attach	site map showing sample	point locations, transects, importa	ant features, etc.
Hydric Soil Present?]Yes ⊠ No]Yes ⊠ No]Yes ⊠ No	Is the Sampled Area uithin a Wetland?	Yes 🛛 No
Remarks: No wetland parameters met a	it the sample point. Sample po	oint is a paired upland for sample point 12.	

VEGETATION

Tree stratum (use scientific names)	<u>Absolute</u> % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1	· · · · · · · · · · · · · · · · · · ·	and the second second second		Number of Dominant Species <u>1</u> (A) that are OBL, FACW, or FAC?
2				Total number of dominant <u>3</u> (B) species across all strata?
4 Tree Stratum Total Cover:			·	% of dominant species that <u>33.3</u> (A/B) are OBL, FACW, or FAC?
Sapling/Shrub Stratum				Prevalence Index Worksheet
1		·		Total % cover of: Multiply by:
2				OBL species x1
3				FACW species x2
4				FAC species x3
Sapling/Shrub Stratum Total Cover:		•:		FACU species x4
Herb Stratum				UPL species x5
1. Lolium multiflorum	20	yes	FAC	Column Totals (A) (B)
2. Avena barbata	10	yes	NL	
3. Eschscholzia californica	10	yes	NL	Prevalence Index = B/A =
4. Erodium cicutarium	5	no	NL	Hydrophytic Vegetation Indicators
5. Geranium dissectum	5	no	NL	Dominance Test is >50%
6. Centaurea solstitialis	5	no	NL	Prevalence Index is = 3.0<sup 1
7				Morphological adaptations (provide
Herb Stratum Total Cover:				supporting data in remarks)
Woody Vine Stratum	45	•		Problematic hydrophytic vegetation ¹ (explain)
1				¹ Indicators of hydric soil and wetland hydrology
2.			•3•	must be present.
Woody Vine Stratum Total Cover:				
% Bare ground in herb stratum 50		biotic crust		Hydrophytic IVes INO
Remarks: Hydrophytic vegetation not present.				

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Depth <u>Matrix</u> (inches) Color (moist)	%	Color (moist)	x Feature %	Type ¹	Loc1	Texture	Ren	narks
-12 10YR 3/2	· ·					sandy loam	fill soil (aspha	alt); no mottles
		•				ў. М.		
ype: C=Concentration, D=De					ore Lining		annel, M=Matrix	
ydric Soil Indicators: (Appli Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5)(LRR 1 cm Muck (A9)(LRR D) Depleted Below Dark Surfa	C)	Sandy Redox (S5) Stripped Matrix (S6 Loamy Mucky Mind Loamy Gleyed Mai Depleted Matrix (F Redox Dark Surfac Depleted Dark Surfac	6) eral (F1) trix (F2) '3) ce (F6) face (F7)			□ 1cm Muc □ 2cm Muc □ Reduced □ Red Pare	or Problematic Hyd k (A9) (LRR C) k (A10)(LRR B) Vertic (F18) ont Material (TF2) splain in remarks)	fric Soils [°] :
 Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) 		Redox Depression Vernal Pools (F9)	s (F8)				of hydric vegetation drology must be pres	
Depth (inches):						Hyd	Iric Soil Present ?	Yes 🛛 No
emarks: No hydric soil indicat	ors present.							
Procession of the second state of the second s	ne) nriverine) Imagery (B7)	Salt Crust (B1 Biotic Crust (E Aquatic Invert Hydrogen Sult Oxidized Rhiz Presence of R Recent Iron R	312) ebrates (fide Odor ospheres Reduced I eduction	(C1) along Livi ron (C4) in PLowed		(C3)	econdary Indicators Water Marks (B1)(Sediment Deposits Drift Deposits (B3) Drainage Patterns Dry-Season Water Thin Muck Surface Crayfish Burrows ((2 or more required) (Riverine) s (B2)(Riverine))(Riverine) s (B10) r Table (C2) e (C7) (C8) on Aerial Imagery (C9) (D3)
emarks: No hydric soil indicat YDROLOGY Vetland Hydrology Indicators rrimary Indicators (any one ind Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)(Nonriveri Sediment Deposits (B2)(No Drift Deposits (B3)(Nonriveri Surface Soil Cracks (B6) Inundation Visible on Aerial Water-Stained Leaves (B9) ield Observations:	ors present. :: icator is suffici nriverine) rine) Imagery (B7)	Salt Crust (B1 Biotic Crust (E Aquatic Invert Hydrogen Sult Oxidized Rhiz Presence of R Recent Iron R Other (Explain	312) ebrates (fide Odor ospheres Reduced I eduction n in Rema	(C1) along Livi ron (C4) in PLowed arks)		(C3)	econdary Indicators Water Marks (B1)(Sediment Deposits Drift Deposits (B3) Drainage Patterns Dry-Season Water Thin Muck Surface Crayfish Burrows (Saturation Visible Shallow Aquitard ((2 or more required) (Riverine) s (B2)(Riverine))(Riverine) s (B10) r Table (C2) e (C7) (C8) on Aerial Imagery (C9) (D3)
emarks: No hydric soil indicat YDROLOGY Vetland Hydrology Indicators trimary Indicators (any one ind Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)(Nonriver Water Marks (B1)(Nonriver Surface Soil Cracks (B6) Inundation Visible on Aerial Water-Stained Leaves (B9) ield Observations: Surface water present?	ors present. icator is suffici icator is suffici ine) nriverine) ine) Imagery (B7) Yes 🛛 No	Salt Crust (B1 Biotic Crust (E Aquatic Invert Hydrogen Sult Oxidized Rhiz Presence of R Recent Iron R Other (Explain Depth (inches):	312) ebrates (fide Odor ospheres Reduced I eduction n in Rema	(C1) along Livi ron (C4) in PLowed arks)		(C3)	econdary Indicators Water Marks (B1)(Sediment Deposits Drift Deposits (B3) Drainage Patterns Dry-Season Water Thin Muck Surface Crayfish Burrows (Saturation Visible Shallow Aquitard ((2 or more required) (Riverine) s (B2)(Riverine))(Riverine) s (B10) r Table (C2) e (C7) (C8) on Aerial Imagery (C9) (D3)
emarks: No hydric soil indicat YDROLOGY Vetland Hydrology Indicators Primary Indicators (any one ind Strinary Indicators (any one ind Strinary Indicators (any one ind High Water Table (A2) Saturation (A3) Water Marks (B1)(Nonriveri Sediment Deposits (B2)(Non Drift Deposits (B3)(Nonriveri Surface Soil Cracks (B6) Inundation Visible on Aerial Water-Stained Leaves (B9) ield Observations: Surface water present? Yater table present? Saturation Present?	ors present. :: icator is suffici nriverine) rine) Imagery (B7)	Salt Crust (B1 Biotic Crust (E Aquatic Invert Hydrogen Sult Oxidized Rhiz Presence of R Recent Iron R Other (Explain	312) ebrates (fide Odor ospheres Reduced I eduction n in Rema	(C1) s along Livi ron (C4) in PLowec arks)		(C3)	econdary Indicators Water Marks (B1)(Sediment Deposits Drift Deposits (B3) Drainage Patterns Dry-Season Water Thin Muck Surface Crayfish Burrows (Saturation Visible Shallow Aquitard ((2 or more required) (Riverine) s (B2)(Riverine))(Riverine) e (B10) r Table (C2) e (C7) (C8) on Aerial Imagery (C9) (D3) (D5)
emarks: No hydric soil indicat YDROLOGY Vetland Hydrology Indicators Primary Indicators (any one ind Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)(Nonriverid) Sediment Deposits (B2)(Nonriverid) Drift Deposits (B3)(Nonriverid) Surface Soil Cracks (B6) Inundation Visible on Aerial Water-Stained Leaves (B9) ield Observations: Surface water present? Vater table present?	ne) nriverine) inagery (B7) Yes 🛛 No Yes 🖾 No Yes 🖾 No	Salt Crust (B1 Biotic Crust (E Aquatic Invert Hydrogen Sult Oxidized Rhiz Presence of R Recent Iron R Other (Explain Depth (inches): Depth (inches): Depth (inches):	312) ebrates (fide Odor ospheres Reduced I eduction n in Rema	(C1) s along Livi ron (C4) in PLowec arks)	t Soils (Cé	(C3)	econdary Indicators Water Marks (B1)(Sediment Deposits Drift Deposits (B3) Drainage Patterns Dry-Season Water Thin Muck Surface Crayfish Burrows (Saturation Visible Shallow Aquitard (FAC-Neutral Test	(2 or more required) (Riverine) s (B2)(Riverine))(Riverine) e (B10) r Table (C2) e (C7) (C8) on Aerial Imagery (C9) (D3) (D5)
emarks: No hydric soil indicat YDROLOGY Vetland Hydrology Indicators Primary Indicators (any one ind Striface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)(Nonriveri Sediment Deposits (B2)(Noc Drift Deposits (B3)(Nonriveri Surface Soil Cracks (B6) Inundation Visible on Aerial Water-Stained Leaves (B9) Surface water present? Yater table present? Saturation Present? Saturation Present?	ors present.	Salt Crust (B1 Biotic Crust (E Aquatic Invert Hydrogen Sult Oxidized Rhiz Presence of R Recent Iron R Other (Explain Depth (inches): Depth (inches): Depth (inches):	312) ebrates (fide Odor ospheres Reduced I eduction n in Rema	(C1) s along Livi ron (C4) in PLowec arks)	t Soils (Cé	(C3)	econdary Indicators Water Marks (B1)(Sediment Deposits Drift Deposits (B3) Drainage Patterns Dry-Season Water Thin Muck Surface Crayfish Burrows (Saturation Visible Shallow Aquitard (FAC-Neutral Test	(2 or more required) (Riverine) s (B2)(Riverine))(Riverine) e (B10) r Table (C2) e (C7) (C8) on Aerial Imagery (C9) (D3) (D5)

Wetland Determination Data Form - Arid West Region

Project/Site Lakeport Cinema and Drive-In	City Lakeport	County Lake	Sampling Date 4/24/2008
Applicant/Owner John Tegtmeier		State CA	Sampling Point P14
Investigator(s) Geoff Smick, Aaron Arthur		Section, Township, Range T14N, R9	W,sec31
Landform (hillslope, terrace, etc.)upland fill	Local Re	elief (concave, convex, none) none	Slope(%) <u>0-3</u>
Subregion(LRR) LRR C (Medit. CA)	Lat: <u>39.016</u>	Long; 122.905	Datum: NAD 27 (feet)
Soil Map Unit Name Cole Variant clay loan	1	NWI classifica	tion
Are climatic/hydrologic conditions on-site typ	pical for this time of year?	🛛 Yes 🔲 No 🤅 (If no, explain in rem	arks)
Are any of the following significantly disturbe	ed? 🔲 Vegetation 🔲 🤅	Soil 🔲 Hydrology 🛛 Are "Normal Circum	nstances" present? 🛛 Yes 📋 No
Are any of the following naturally problemati	c? 🔲 Vegetation 🔲 S	Soil 🔲 Hydrology 👘 (If needed, expla	in any answers in remarks)
SUMMARY OF FINDINGS - Attach sit	e map showing sample	point locations, transects, importa	nt features, etc.
Hydric Soil Present?	es ☐ No es ⊠ No es ⊠ No	Is the Sampled Area	Yes 🖾 No
Remarks: Only one wetland hydrology indi sample point. Sample point is a			id hydrology not present at the

VEGETATION

Tree stratum (use scientific names)	<u>Absolute</u> % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1				Number of Dominant Species <u>1</u> (A) that are OBL, FACW, or FAC?
2 3				Total number of dominant(B) species across all strata?
4 Tree Stratum Total Cover:				% of dominant species that(A/B) are OBL, FACW, or FAC?
Sapling/Shrub Stratum				Prevalence Index Worksheet
1				Total % cover of:Multiply by:
2				OBL species x1
3				FACW species x2
4		j.		FAC species x3
Sapling/Shrub Stratum Total Cover:				FACU species x4
Herb Stratum				UPL species x5
1. Hordeum marinum	40	yes	FAC	Column Totals (A) (B)
2. Lolium multiflorum	20	no	FAC	Prevalence Index = B/A =
3. Geranium dissectum	5	no	NL	
4. Erodium cicutarium	5	no	NL	Hydrophytic Vegetation Indicators
5. Trifolium dubium	<5	no	NL	Dominance Test is >50%
6				Prevalence Index is = 3.0<sup 1
7				Morphological adaptations (provide supporting data in remarks)
Herb Stratum Total Cover: Woody Vine Stratum	75			Problematic hydrophytic vegetation ¹ (explain)
1		3 i		¹ Indicators of hydric soil and wetland hydrology
2				must be present.
Woody Vine Stratum Total Cover:				Hydrophytic May Cal
% Bare ground in herb stratum 25		piotic crust		Vegetation Present ?
Remarks: Hydrophytic vegetation present: passe	s dominance tes	t.		

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SOIL								Sampling Po	oint <u>P14</u>	
Profile descr Depth	iption: (Describe Matrix	to the depth	needed ocum	nent the in x Feature	ndicator o	confirm	the absence of ir	tors.)		
_(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc1	Texture	Rema	arks	
0-12	10YR 3/2						sandy loam			
		. <u> </u>		-	10					
		—		<u> </u>				-		
							-			
						10.1-0.1 ⁶ 1	H			
	ncentration, D=De					re Lining	, RC=Root Channe			
Hydric Soil II			RRs, unless other Sandy Redox (S5		ed.)		Indicators for P	-	ic Soils ':	
Histic Epi			Stripped Matrix (S				□ 1cm Muck (A □ 2cm Muck (A			
Black His			Loamy Mucky Mir	ieral (F1)			Reduced Ver			
	Sulfide (A4)		Loamy Gleyed Ma				Red Parent M	laterial (TF2)		
	Layers (A5)(LRR k (A9)(LRR D)		Depleted Matrix (F Redox Dark Surfa				🗋 Other (explai	n in remarks)		
	Below Dark Surfa		Depleted Dark Su							
	rk Surface (A12)		Redox Depression				0			
	ucky Mineral (S1) eyed Matrix (S4)		Vernal Pools (F9)					/dric vegetation a		
	ayer (if present):							gy must be prese	HIL,	
	ayer (ii present).									
Type: <u>N/A</u>										
Depth (inch	es):		94				Hydric \$	Soil Present ?	□ Yes 2	No
HYDROLOG										_
	rology Indicators ators (any one indi		ient)				Secon	dary Indicators (2 or more re	quired)
		outor to outric						ater Marks (B1)(F		
Surface W	· · ·		□ Salt Crust (B □ Biotic Crust (I					diment Deposits ift Deposits (B3)(e)
Saturation			Aquatic Inver		B13)			ainage Patterns (
	rks (B1)(Nonriveri		Hydrogen Su			_	🗖 Dr	y-Season Water	Table (C2)	
	Deposits (B2)(Nor sits (B3)(Nonriver		Oxidized Rhi:			ng Roots		in Muck Surface	(C7)	
	oil Cracks (B6)	ine)	Recent Iron F			Soils (C		ayfish Burrows (C turation Visible o		derv (C9)
Inundation	Visible on Aerial	Imagery (B7				•	🗖 Sh	allow Aquitard (E)3)	3, (,
	ined Leaves (B9)							C-Neutral Test (I	D5)	
Field Observ			D							
Surface water		′es □ No	Depth (inches):							
Water table p		′es □ No	Depth (inches):			1				
Saturation Pre (includes capi		′es 🛛 No	Depth (inches):				Wetland Hydrold	ogy Present ?	🗆 Yes 🛛	No I
		guage, moni	toring well, aerial p	hotos, etc) if availab	le.				
Remarks: Wet	land hydrology nol	present.								
		20 								
US Army Corp	s of Engineers							Arid We	st - Version	11-1-2006

Wetlan Petermination Data Form - Arid Wroth Region

Project/Site Lakeport Cinema and Drive	e-In	City Lakeport	County Lake		Sampling Date 4/24/2008			
Applicant/Owner John Tegtmeier				State CA	Sampling Point P15			
Investigator(s) Geoff Smick, Aaron Art	hur	Section, Township, Range T14N, R9W, sec31						
Landform (hillslope, terrace, etc.)flood	plain	Local Relief (concave, convex, none) none			Slope(%) 0-3			
Subregion(LRR) LRR C (Medit. CA)		Lat: <u>39.016</u> Long: <u>122.905</u>			Datum: NAD 27 (feet)			
Soil Map Unit Name Cole Variant clay	y loam			NWI classi	fication			
Are climatic/hydrologic conditions on-s	ite typical f	for this time of year?	🛛 Yes 📋 No	(If no, explain in	remarks)			
Are any of the following significantly dis	sturbed?	Vegetation	Soil 🔲 Hydrology	Are "Normal Cire	cumstances" present? 🛛 Yes 🔲 No			
Are any of the following naturally proble	ematic?	□ Vegetation □ Soil □ Hydrology (If needed, explain any answers in remarks)						
SUMMARY OF FINDINGS - Attac	h site ma	ap showing sample	point locations, t	ransects, impo	ortant features, etc.			
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	X No	Is the Sample within a Wetl		□Yes ⊠No			
Remarks: Only one wetland hydrolog sample point. Sample poir				nydric soil and we	etland hydrology not present at the			

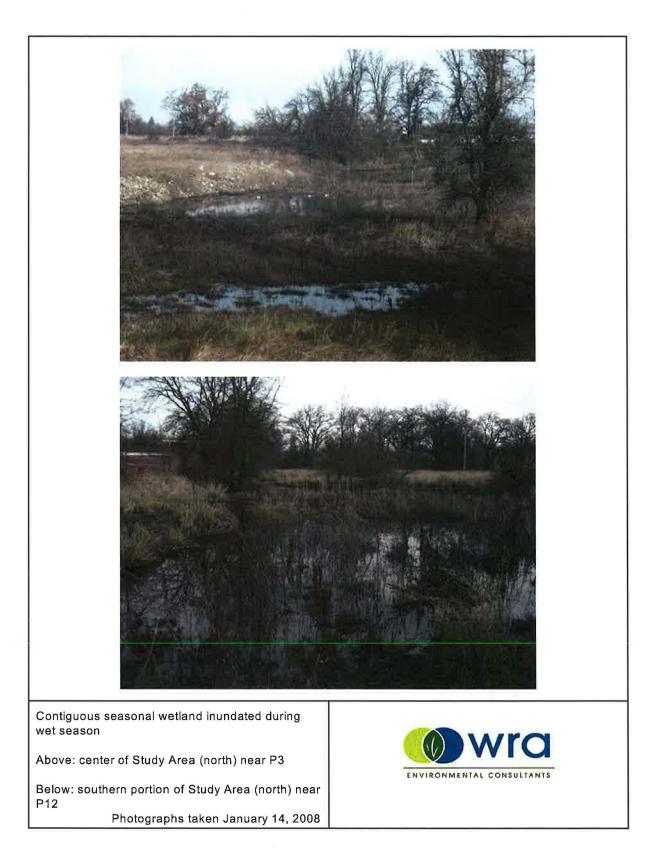
VEGETATION

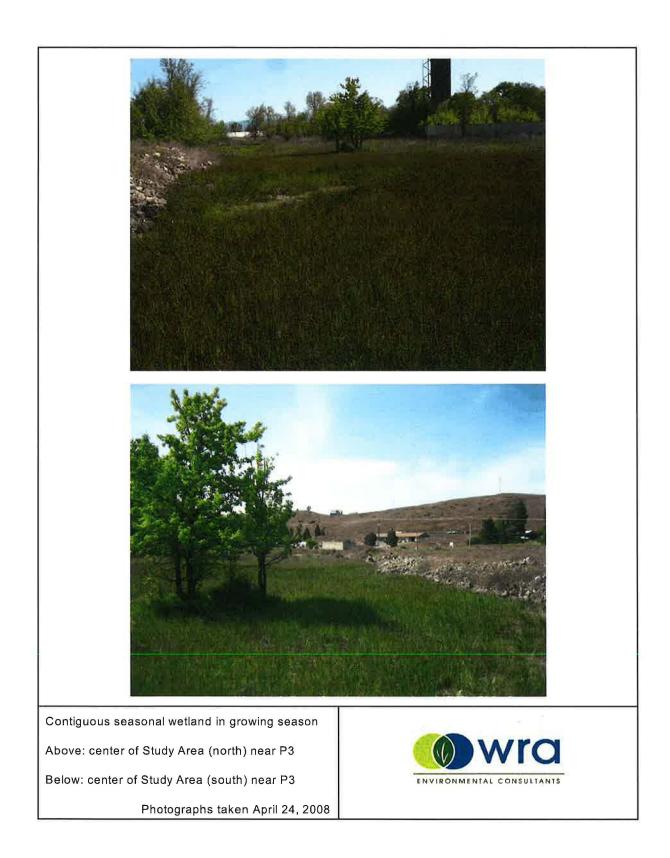
Tree stratum (use scientific names)	<u>Absolute</u> <u>% cover</u>	Dominant Species?	Indicator Status	Dominance Test Worksheet
1. Quercus lobata	25	yes	FAC	Number of Dominant Species <u>3</u> (A) that are OBL, FACW, or FAC?
2. Salix laevigata 3				Total number of dominant <u>3</u> (B) species across all strata?
4 Tree Stratum Total Cover:				% of dominant species that(A/B) are OBL, FACW, or FAC?(A/B)
Sapling/Shrub Stratum				Prevalence Index Worksheet
1. Rosa californica	5	yes	FAC	Total % cover of: Multiply by:
2. 3. 4.		. <u> </u>		OBL species x1 FACW species x2 FAC species x3
Sapling/Shrub Stratum Total Cover: <u>Herb Stratum</u>				FACU species x4 UPL species x5
1. Phalaris aquatica	10	yes	FAC	Column Totals (A) (B)
2				Prevalence Index = B/A =
3				
4				Hydrophytic Vegetation Indicators
5				Dominance Test is >50%
6				Prevalence Index is = 3.0<sup 1
7	••	-		Morphological adaptations (provide supporting data in remarks)
Herb Stratum Total Cover: Woody Vine Stratum	10	1		Problematic hydrophytic vegetation ¹ (explain)
1				¹ Indicators of hydric soil and wetland hydrology
2				must be present.
Woody Vine Stratum Total Cover:				Hydrophytic Marco Disc
% Bare ground in herb stratum 90	% cover of	biotic crust		Vegetation Present ?
Remarks: Hydrophytic vegetation present: passe	s dominance tes	it.		

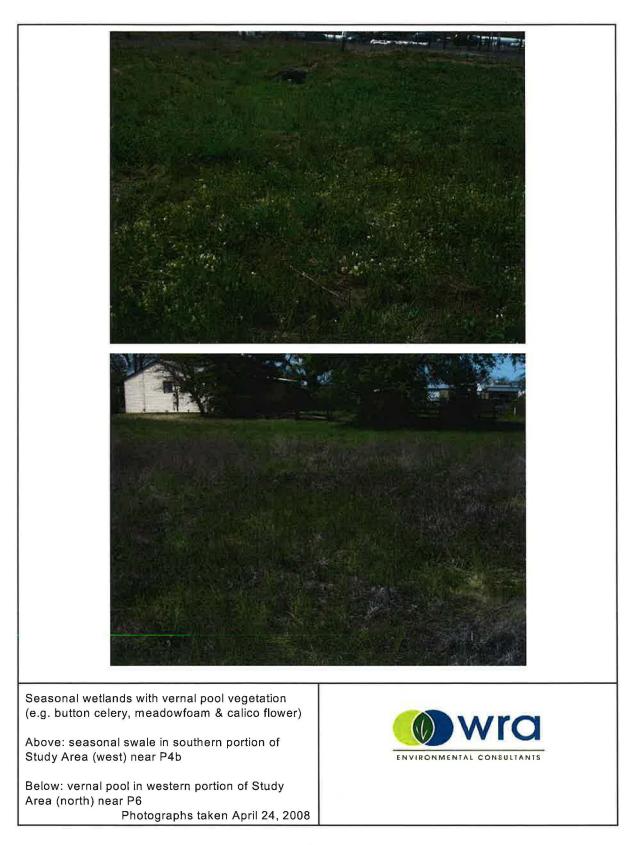
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SOIL Profile description: (Describe to the depth needed ocument the indicator or confirm	the absence of ir. tors.)
Depth Matrix Redox Features	· · · · · · · · · · · · · · · · · · ·
(inches) Color (moist) % Color (moist) % Type ¹ Loc ¹	Texture Remarks
12 10YR 3/2	
	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -
ype: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining,	RC=Root Channel, M=Matrix
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
□ Histic Epipedon (A2) □ Stripped Matrix (S6)	☐ 1cm Muck (A9) (LRR C) ☐ 2cm Muck (A10)(LRR B)
Black Histic (A3)	Reduced Vertic (F18)
Hydrogen Sulfide (A4)	Red Parent Material (TF2)
Stratified Layers (A5)(LRR C)	Other (explain in remarks)
□ 1cm Muck (A9)(LRR D) □ Redox Dark Surface (F6) □ Depleted Below Dark Surface (A11) □ Depleted Dark Surface (F7)	
□ Depleted Dark Surface (A12) □ Depleted Dark Surface (F7)	
Sandy Mucky Mineral (S1)	³ Indicators of hydric vegetation and
Sandy Gleyed Matrix (S4)	wetland hydrology must be present.
Restrictive Layer (if present):	
Type: N/A	
Depth (inches):	Hydric Soil Present ? 🔲 Yes 🛛 No
emarks: No hydric soil indicators present.	
YDROLOGY	
Remarks: No hydric soil indicators present.	Secondary Indicators (2 or more required)
IYDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12)	Secondary Indicators (2 or more required) Uater Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine)
IYDROLOGY 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)	Secondary Indicators (2 or more required) Uater Marks (B1)(Riverine) Sediment Deposits (B2)(Riverine) Drift Deposits (B3)(Riverine) Drainage Patterns (B10)
IYDROLOGY 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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots	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)
YDROLOGY 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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots Drift Deposits (B3)(Nonriverine) 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) (C3) Thin Muck Surface (C7) Crayfish Burrows (C8)
YDROLOGY Vetland Hydrology Indicators: trimary 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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots - Drift Deposits (B3)(Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in PLowed Soils (C6)	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) (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) Solution Visible on Aerial Imagery (C9)
YDROLOGY 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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots 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) 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) (C3) Thin Muck Surface (C7) Crayfish Burrows (C8)
YDROLOGY 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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots 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) Other (Explain in Remarks) Water-Stained Leaves (B9) Tield Observations:	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) (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) Shallow Aquitard (D3)
IYDROLOGY 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) Sediment Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots 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) Other (Explain in Remarks) Water-Stained Leaves (B9) Yes No Everface 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) (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) Shallow Aquitard (D3)
IYDROLOGY 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) Oxidized Rhizospheres along Living Roots - Drift Deposits (B2)(Nonriverine) Oxidized Rhizospheres along Living Roots - 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) Other (Explain in Remarks) Water-Stained Leaves (B9) Surface water present? Yes No Depth (inches): Mater table present? Yes No 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) (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) Shallow Aquitard (D3)
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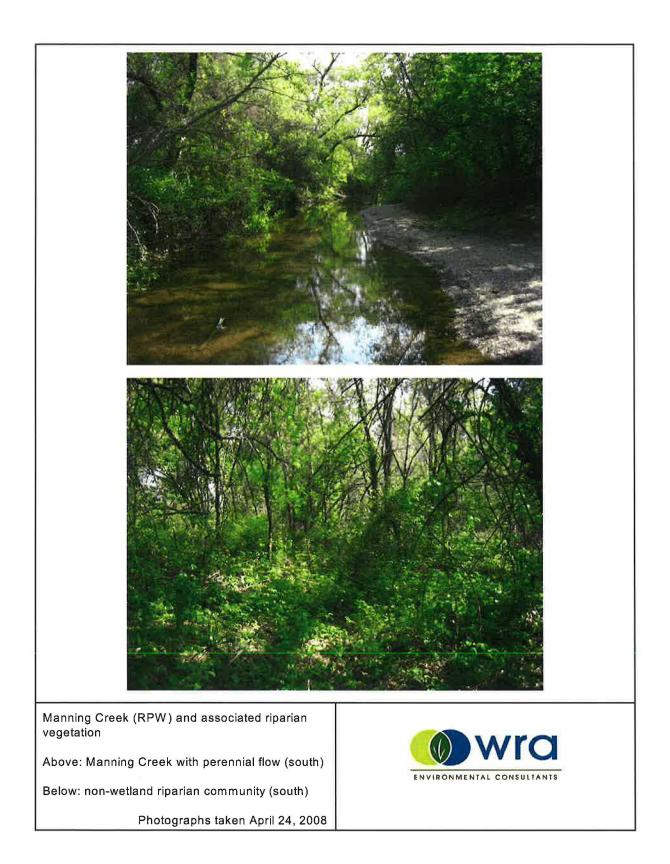
Appendix B - Representative Photographs of the Study Area

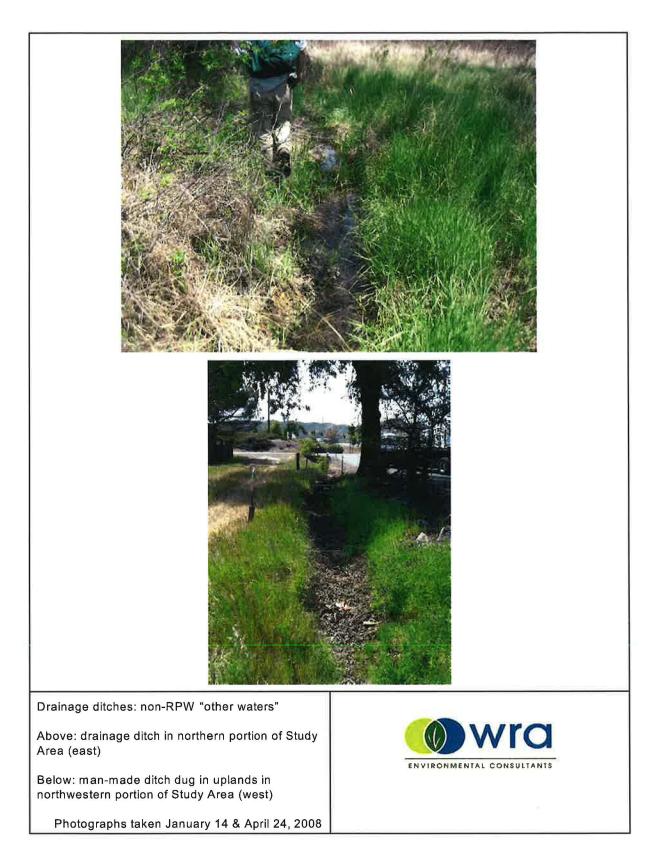


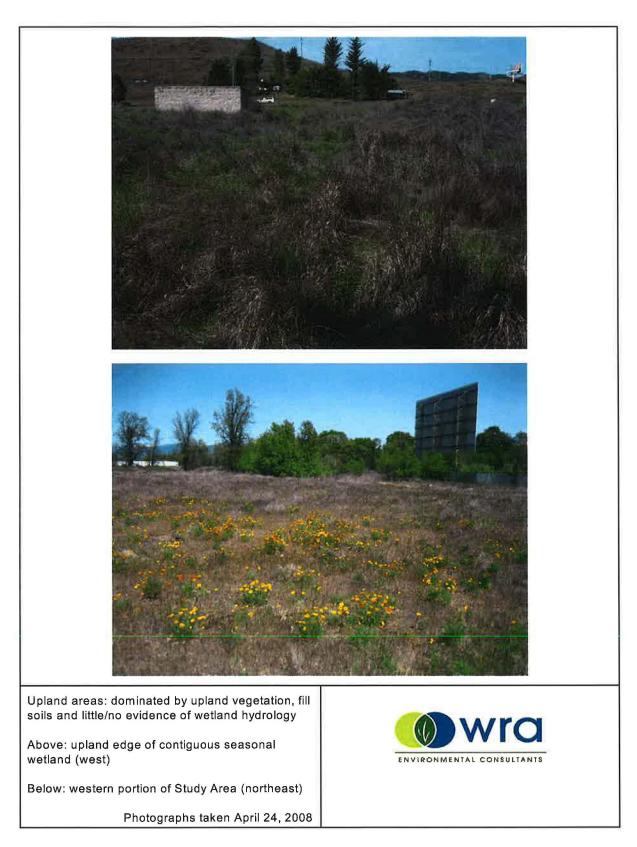












Appendix C - Plant Species Observed in the Study Area

Scientific Name	Common Name	Origin	Status	
Acer macrophyllum	big-leaf maple	native	FAC	
Acer negundo	box elder	native	FACW	
Aesculus californica	buckeye	native	NL	
Arctostaphylos columbiana	hairy manzanita	native	NL	
Arctostaphylos canescens ssp. canescens	hoary manzanita	native	NL	
Arbutus menziesii	madrone	native	NL	
Artemisia douglasiana	mugwort	native	FACW	
Arundo donax	giant reed	exotic	FACW	
Asparagus officinalis ssp. officinalis	asparagus	exotic	FACU	
Atriplex sp.	spearscale	various	NI - FACW	
Avena barbata	barbed oatgrass	exotic	NL	
Baccharis pilularis	coyote brush	native	NL	
Barbarea orthoceras	American wintercress	native	FACW	
Briza minor	little quaking grass	exotic	FACW	
Bromus diandrus	rip-gut brome	exotic	NI	
Bromus hordeaceus	soft chess	exotic	FACU	
Carex sp.	sedge	various	UPL - OBL	
Ceanothus sp.	ceanothus	native	NL - NI	
Centuarea solstitialis	yellow star thistle	exotic	NL	
Cerastium glomeratum	sticky chickweed	exotic	FACU	
Cichorium intybus	chicory	exotic	NL	
Cirsium vulgare	bull thistle	exotic	FACU	
Conium maculatum	poison hemlock	exotic	FACW	
Cornus sericea	red-osier dogwood	native	FACW	
Cyperus eragrostis	tall flat sedge	native	FACW	
Dipsacus fullonum	wild teasel	exotic	NI	
Distichlis spicata	salt grass	native	FACW	
Downingia pulchella	flat-face calico flower	native	OBL	
Epilobium ciliatum	hairy willow herb	native	FACW	

Scientific Name	Common Name	Origin	Status	
Epilobium densiflorum	dense flower willow herb	native	OBL	
Erodium cicutarium	redstem filaree	exotic	NL	
Eryngium sp.	button celery	native	FACW - OBL	
Eschscholzia californica	California poppy	native	NL	
Festuca arundinacea	tall fescue	exotic	FAC	
Fraxinus latifolia	Oregon ash	native	FACW	
Geranium dissectum	cut-leaf geranium	exotic	NL	
Holcus lanatus	velvet grass	exotic	FAC	
Hordeum marinum	Mediterranean barley	exotic	FAC	
Hypochaeris radicata	rough cat's-ear	exotic	NL	
Juglans californica	California walnut	native	FAC	
Juncus patens	spreading rush	native	FAC	
Juncus phaeocephalus	brown-head rush	native	FACW	
Juncus sp.	rush	native	NL - OBL	
Lactuca pulchella	chicory lettuce	exotic	FAC	
Lamium amplexicaule	henbit dead nettle	exotic	NL	
Lamium purpureum	purple dead nettle	exotic	NL	
Lathyrus sp.	pea	variable	NL - OBL	
Limnanthes douglasii ssp. nivea	Douglas' meadowfoam	native	OBL	
Lolium multiflorum	ryegrass	exotic	FAC	
Lolium perenne	perennial ryegrass	exotic	FAC	
Lotus corniculatus	bird's-foot trefoil	exotic	FAC	
Lotus humistratus	short pod lotus	native	NL	
Lupinus bicolor	miniature lupine	native	NL	
Marah fabaceus	wild cucumber	native	NL	
Medicago polymorpha	bur clover	exotic	NL	
Mentha pulegium	pennyroyal	exotic	OBL	
Mimulus guttatus	seep monkeyflower	native	OBL	
Phalaris aquatica	harding grass	exotic	FAC	

Scientific Name	Common Name	Origin	Status
Phoradendron sp.	mistletoe	native	NL
Plantago lanceolata	English plantain	exotic	FAC
Poa bulbosa	bulbous bluegrass	exotic	NL
Polygonum sp.	knotweed	various	NL - OBL
Quercus lobata	valley oak	native	FAC
Rosa californica	California rose	native	FAC
Rubus discolor	Himalayan blackberry	exotic	FACW
Rumex crispus	curly dock	exotic	FACW
Salix laevigata	red willow	native	NL
Symphoricarpos albus	snowberry	native	FACU
Taeniatherum caput-medusae	medusa head grass	exotic	NL
Toxicodendron diversiloba	poison oak	native	NL
Trifolium albopurpureum var. dichotomum	branched Indian clover	native	NL
Trifolium dubium	shamrock clover	exotic	FACU
Umbellularia californica	California bay laurel	native	FAC
Verbascum blattaria	moth mullein	exotic	FACW
Vicia benghalensis	purple vetch	exotic	NL
Vicia sativa	common vetch	exotic	FACU
Vinca major	periwinkle	exotic	NL
Vitis californica	wild grape	native	FACW
Vulpia bromoides	six-weeks brome	exotic	FACW
Vulpia myuros	rattail fescue	exotic	FACU
Xanthium sp.	cocklebur	native	FAC

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Appendix D - Significant Nexus Evaluation

Reach 1: Manning Creek

State: California County: Lake			e	City: La	keport	Lat: 39.016 N	l .	Long: 122.905 W	
Field date: 04.24.08 Nearest wat		orbody: Clear Lake Nearest TNW: Clear I		Lake		Watershed & HUC: 18020116 Upper Cache Creek			
Sec	tion II. Findings	17726					15		
А.	There Are Not "	Are Not "navigable waters of the U.S."							
В.	1.a. Indicate which waters present in the review area:								
	1.b. Size of wat Area)	1.b. Size of waters (linear ft. or acres): 821 (in Study 1.b. Size of wetlands (acres): 6.82 Area) 1.b. Size of wetlands (acres): 6.82							
	2. Describe any	non-regulated	l waters & wetlands: I	N/A					
Sec	tion III. CWA Ana	lysis		2					
Α.	Is tributary TNW	: No							
в.	1. Characteristic	s of non-TNW	/ that flow directly or i	ndirectly	into TNW				
(i)	Watershed (acre	es): 6038	Drainage area (acre 6038	s):	Avg. rainfall	(in.): 33.5		Avg. snow (in.): trace	
(ii)	Flows directly into TNW: Y / N			No. of t	o. of tributaries to TNW (include the tributary itself):			ary itself):	
	River miles to T	Aerial miles to TNW	: 0	River miles to RPW: 0			Aerial miles to RPW: 0		
	Describe flow route: Manning Creek arises as a stream in the mountains to the southwest of the Study Area as a 1 ^e order stream. After meeting several over streams of equivalent or lesser order, Manning Creek flows through the Study Area as a 3 ^{ed} order stream. Flow continues for ~0.65 miles where it empties into Clear Lake.								
	Tributary is:	Artificial (explain): N					n): Yes; appears to be th of Lakeport		
	Avgerage width	(feet): 10	Average depth (feet	Average depth (feet): 3 Average sid				e slope (feet): 2:1	
	Substrate: sand, gravel, cobbles, large stones								
	Tributary stability: stable						straig (near	ary geometry: relatively ht in the lower portion Study Area); somewhat ed in upper portion	
	Run/riffle/pool complexes: large pools in lower port				Tributary gradient (%): 1-3 lower portion; probably r higher in upper portion			portion; probably much	
	Type of flow: seasonal; at least 6 months in year headwaters, and wider								
	Estimated # flow events: 1-3 continuous during wet season								
	Type of surface flow: confined to stream channel with occasional flooding following large storms					ow: unknown;	likely s	some subsurface flow ir	
	Tributary has: Bed and banks: present and distinct								

	ОНѠМ	indicators: present and distinct; water marks, wrack, bent vegetation, sediment sorting							
	Disconti	nuous OHWM: no brea	us OHWM: no breaks in the OHWM observed						
iii	Chemical characteristics:								
	Suspected that point so	Collutants (point & non-point source): No point source pollutants were observed within or near the Study Area. Suspected that point source pollutants along entire reach is unlikely or minimal. Non-point source pollutants Include road, development and agricultural run-off.							
/)	Riparian corridor: Present within the Study Area and elsewhere on aerial topography, particularly in lower portions of the reach. Riparian of dense valley oak, Oregon ash, box-elder and shrubs/woody vines. Canopy dense and tall.								
	Wetland fringe: Present a	s riparian wetlands de	ominated I	oy valley oak	that intergrad	e into seasonal wetlands.			
	and dense vegetation. I banks in upper portions	Habitat: Possibly aquatic habitat for trout and other fishes. Amphibian habitat present in slower moving pools and dense vegetation. Bird and mammal habitat in the riparian corridor. Special status plants (mosses) along banks in upper portions of stream. Yellow-legged frog observed in upper headwaters. Sacramento perch present in downstream outlet (Clear Lake).							
	2. Characteristics of wetl	ands adjacent to non-TN	NW that flo	w directly or in	directly into TI	NW			
(i)	Wetland size (acres): 6.8:	2 Wetland type: sea wetlands and rip wetlands		Wetland quality: low to high quality habitat; the ripariar wetlands are dominated by native species particularly in the tree and shrub strata; small vernal pool-like complex containing native forbs					
	Flow type: overland shee flow and channelized flo		Type of surface flow: overla		d Known subsurface flow: unknown				
	Wetland adjacency:	Directly abutting:	Directly abutting: Yes						
		Adjacent wetlands: 9				ic connection: yes, via overland sheetflow and ized flow			
			riparia	Ecological connection: yes, plant communities intergrade from riparian to riparian wetland to seasonal wetland without pronounced tree stratum					
						hy separates some wetlands, igh flow events			
	River miles b/t wetlands & TNW: 0 (direct connection)	Aerial miles b/t w TNW: 0 (direct connection)	Aerial miles b/t wetlands & Direction of flow: from Location within floodpla TNW: 0 (direct Study Area to TNW within the 100-year floodpla						
)	Chemical characteristics	of wetlands:							
	Pollutants (point & non-po pollutants relatively low					Study Area. Non-point sourc			
i	Riparian buffer: Present, particularly in riparian wetlands								
	Vegetation type & % cover: non-native grasses and forbs in seasonal wetlands; native forbs small seasonal wetland; pronounced tree and shrub strata in riparian wetlands								
	Habitat: native forbs in vernal pool-like seasonal wetlands; macro-invertabrates observed in seasonal wetlands								
	3. Characteristics of all w	etlands adjacent to the t	tributary						
	Total number of wetlands	being considered:		Total wetlands area (acres):					
	Abutting wetland ID:	Size (acres):		Adjacent we	etland ID:	Size (acres):			

					AD #1 RPW AD #2 RPW AD #3 RPW AD #4 RPW AD #5 RPW AD #6 RPW AD #6 RPW AD #7 RPW AD #8 RPW AD #9 RPW	1-1 1-1 1-1 1-1 1-1 1-1 1-1	6.82 (total)		
	Summary of wetlands physical, chemical and biological functions:								
C.	Significant Nexu	ıs Determinat	ion						
	wetlands all sh channels. Flow	are clear hyd w is generally dary. From h	drologic connectivit y from west to east ere flow continues	ty to the F and sout	RPW, Manning to north into	g Creek, throu o a single culv	vetlands and the nine seasonal igh overland sheetflow and /ert residing on the northern e neighboring parcel which		
D.	The waters are	The waters are (select and describe all that apply)							
	2. RPW that flow directly or indirectly into TNW		Flow is: seasonal			rationale: presence of distinct OHWM indicators include watermarks, wrack line sorted sediment, sediment deposition			
			linear feet: 821	linear feet: 821 width (feet): 10			10 Other waters (type & size): 0.04 acres of non-RPW drainage ditches connect to Manning Creek through off-site flow channels		
Sec	tion IV. Data Sou	rces							
А.	Maps, plans, plo	ots: maps inc	luded herein						
	USGS maps:	Name: Lak 1978)	eport 1958 (photo re	Scale: 1:24,	,000				
	USDA NRCS Soil Survey: Name: Soil Survey			y of Lake	County, Cali	fornia. USDA.	NRCS. 1989		
	FEMA/FIRM maps: FEMA analysis conducted								
	Photographs:	Aerial:			Other:				

