

ENVIRONMENTAL ASSESSMENT

CACHIL DEHE BAND OF WINTUN INDIANS OF THE COLUSA INDIAN COMMUNITY

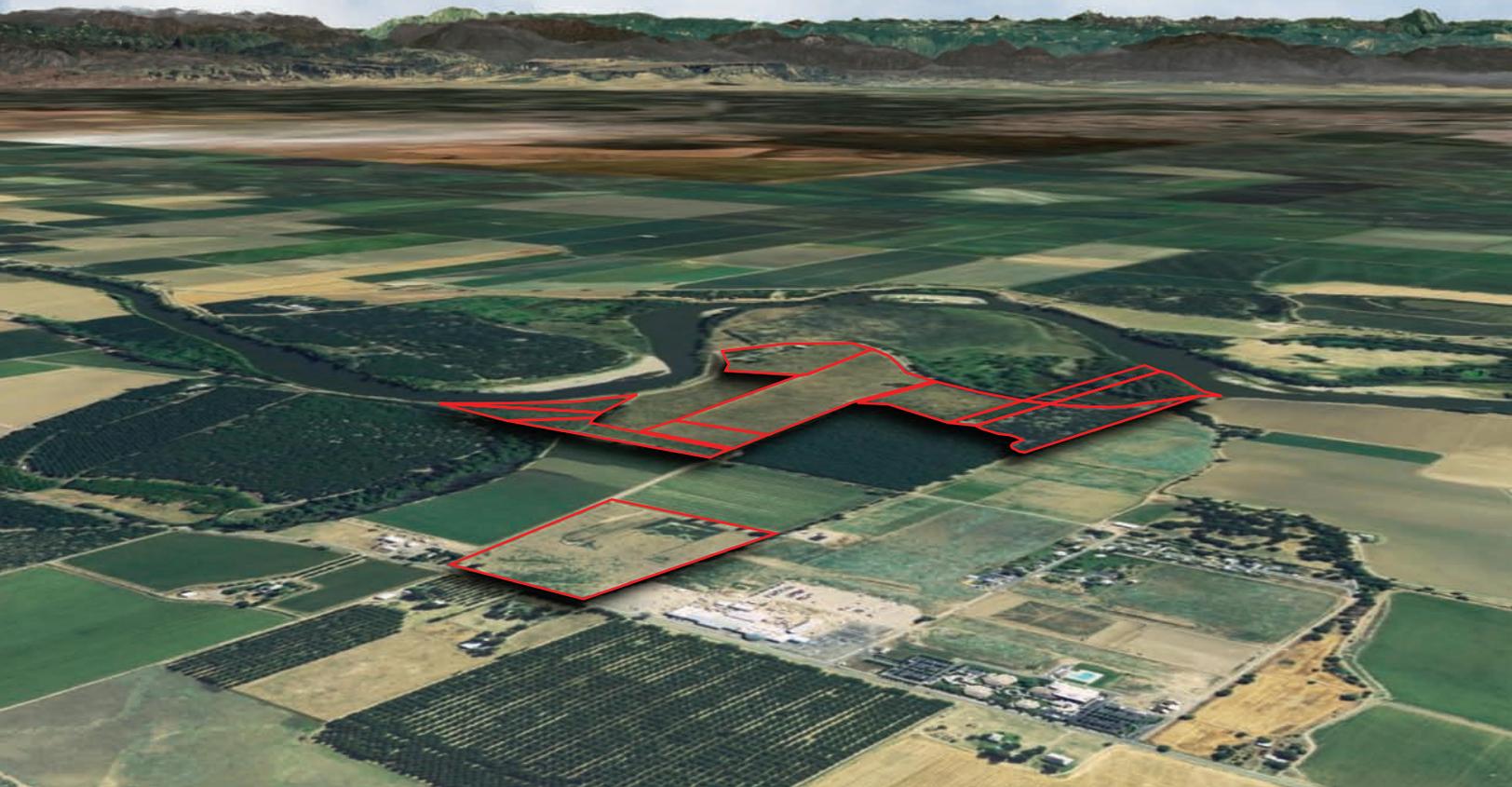
FEE-TO-TRUST

MARCH 2010

PREPARED FOR:



U.S. Department of the Interior
Bureau of Indian Affairs
Pacific Regional Office
2800 Cottage Way, Room W-2820
Sacramento, CA 95825-1846



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LEAD AGENCY:



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SECTION 1.0

INTRODUCTION

SECTION 1.0

INTRODUCTION

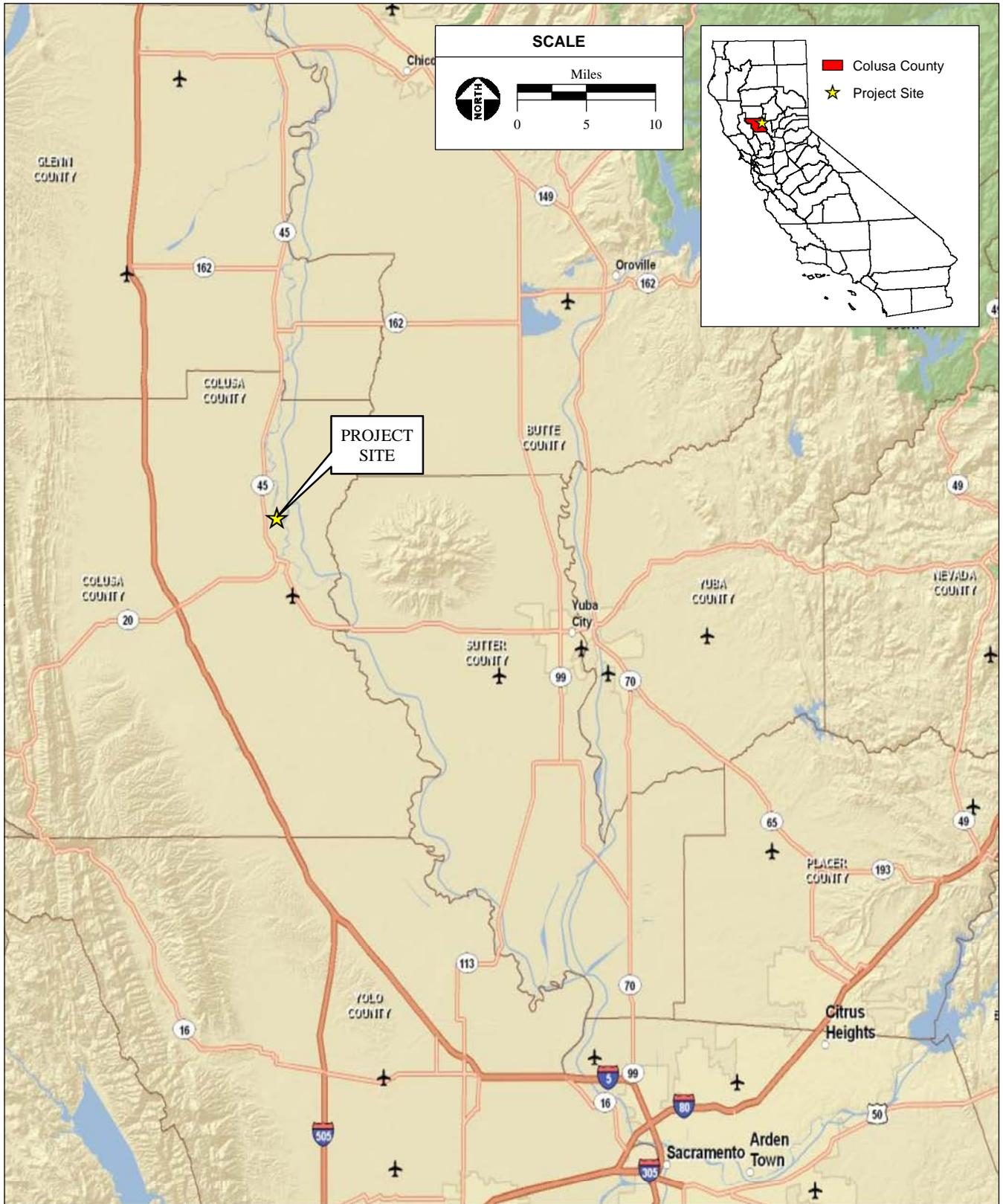
1.1 INTRODUCTION

This Environmental Assessment (EA) has been prepared for the U.S. Bureau of Indian Affairs (BIA) to support an application from the Cachil DeHe Band of Wintun Indians of the Colusa Indian Community (CIC or Tribe) for land to be placed into federal trust (Proposed Action). The BIA is the federal agency that is charged with reviewing and approving tribal applications to take land into federal trust status. This land, known as the “CIC Property,” consists of approximately 225 acres in Colusa County, California, and is intended to be used for continued agricultural production of walnuts and construction of up to 20 houses for Tribal members. The BIA will use this EA to determine if the Proposed Action would result in adverse effects to the environment.

This document has been completed in accordance with the requirements set out in the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. §4321 et seq.); the Council on Environmental Quality (CEQ) Guidelines for Implementing NEPA; and the BIA’s NEPA handbook (59 IAM 3). This document provides a detailed description of the Proposed Action and an analysis of the potential environmental consequences associated with the development of this project. This document also includes a discussion of alternatives, impact avoidance, and mitigation measures. Consistent with the requirements of NEPA, the BIA will review and analyze the environmental consequences associated with the Proposed Action, and either determine that a Finding of No Significant Impact (FONSI) is appropriate, or initiate an Environmental Impact Statement (EIS).

1.2 LOCATION AND SETTING

The proposed trust parcels addressed in this EA are located approximately three miles north of the Town of Colusa, California, between State Route (SR) 45 (Princeton Road) and the Sacramento River. The project site is located in unsectioned areas of Rancho Jimeno, Township 16 North, Ranges 1 and 2 West, on the Moulton Weir, California U.S. Geological Survey (USGS) 7.5-Minute Topographic Quadrangle (quad), Mount Diablo Base & Meridian. **Figure 1-1** shows the regional location and **Figure 1-2** shows the project site and vicinity. **Figure 1-3** presents an aerial photograph of the entire project site, which consists of twelve separate parcels totaling approximately 225 acres, all currently owned in fee by the Tribe.



SOURCE: StreetMap World, 2008; AES 2009

Colusa Fee-to-Trust 225-acre Fee-To-Trust EA / 209520 ■

Figure 1-1
Regional Location



The Colusa County Assessor Parcel Number (APN) and acreage for each parcel within the project site is shown in **Table 1-1**:

TABLE 1-1
Assessor's Parcel Numbers and Acreage for Project Site Parcels

APN	Size (acres)
015-030-005	32.00
015-030-046	20.45
015-030-048	4.30
015-030-049	9.30
015-030-050	22.00
015-030-051	17.00
015-030-079	51.03
015-030-080	10.01
015-030-081	10.00
015-030-082	10.00
015-030-083	11.98
015-030-089	26.76
Total	224.83

Regional access is provided by SR 45, which runs in a general north-south direction and is located immediately adjacent to the west side of APN 015-030-005. Local access to the CIC Property from SR 45 is provided by Reese Road, which is a two-lane County road that extends in a general east-west direction between several of the project parcels. Other roadways in the immediate vicinity include Reese Avenue, which turns north off of Reese Road between APNs 015-030-080 and 015-030-081. Reese Avenue leads into Reese Avenue B, a partially paved road along the top of the Sacramento River levee, which borders APNs 015-030-083, 015-030-089, 015-030-079, 015-030-046, 015-030-048, 015-030-049, 015-030-050, and 015-030-051 (**Figure 1-3**). An unnamed, unpaved private road extends between the Tribe's existing trust land and APNs 015-030-005 and 015-030-050. Additional unnamed, unpaved private roads and driveways also provide access between and within various parcels of the CIC Property.

Three single-family homes are currently located within the project site boundaries. Two homes are located on APN 015-030-089; one of these homes is a rental property leased by the Tribe, and the other is currently vacant. APN 015-030-050 also contains an occupied single-family home. Land uses nearby the project site include rural housing (including Tribal residences), agricultural uses, Tribal offices and health center facilities in the Cachil DeHe Wintun Village, the Tribe's casino, and undeveloped parcels adjacent to the Sacramento River.

The majority of the project site contains walnut orchards. Adjacent parcels support additional walnut orchards of varying ages, as well as pomegranate groves. Uncultivated and undeveloped portions of the

project site support mixed oak woodland, annual grassland, and mixed riparian vegetative communities. The topography of the site is relatively level, ranging in elevation from approximately 55 to 65 feet above mean sea level.

1.3 PURPOSE AND NEED FOR THE PROPOSED ACTION

The Tribe's purpose for taking the 225 acres of land into trust is to ensure the continued social and economic independence and well-being of its members. The proposed trust acquisition would allow the Tribe to meet the following goals:

- Expand the Tribe's land base to promote stewardship of the CIC's historical territory in a manner consistent with Tribal priorities;
- Provide sufficient residential housing and associated infrastructure for Tribal members;
- Engage in diverse and self-sustaining economic development activities compatible with the rural, agricultural setting of Colusa County; and
- Allow the CIC Tribal Government to exercise sovereign authority over a greater percentage of the land that it owns, and protect and enhance the wellbeing of Tribal members and natural resources on those lands.

The CIC consists of 82 Tribal members, governed by a council of 31 members. While most Tribal members currently live on the existing Rancheria, the Tribe is growing, with more than half of the CIC population under the age of 25. Some Tribal families are currently living in overcrowded housing on the Rancheria or on nearby fee lands, because there are no available housing units on the existing Rancheria. As the young people of the Tribe reach adulthood and establish families of their own, the availability of Tribal housing on trust lands will be of paramount importance in maintaining the Tribal heritage and community. Acceptance of the subject parcels into federal trust would assist the Tribe in meeting the long-term goals of adequate housing, self-governance, and economic self-sufficiency.

1.4 OVERVIEW OF THE ENVIRONMENTAL PROCESS

The BIA and the Tribe will use the EA to determine whether the Proposed Action will result in adverse effects on the environment and whether a Finding of No Significant Impact (FONSI) or an Environmental Impact Statement should be prepared, pursuant to NEPA and the BIA's NEPA Handbook (59 IAM 3).

The EA is first released for a 30-day comment period. Comments will be considered by the BIA, and either a FONSI will be prepared, or additional environmental analysis will be conducted. After the NEPA process is complete, the BIA may issue a determination on the Tribe's fee-to-trust application.

1.5 ENVIRONMENTAL ISSUES ADDRESSED

In accordance with NEPA, and based on a review of the 225-acre project site, the following environmental issue areas are evaluated in this EA:

- Land Resources;
- Water Resources;
- Air Quality;
- Biological Resources;
- Cultural Resources;
- Socioeconomic Conditions/Environmental Justice;
- Transportation and Circulation;
- Land Use;
- Public Services;
- Noise;
- Hazardous Materials; and
- Visual Resources.

1.6 REGULATORY REQUIREMENTS AND APPROVALS

The following direct and indirect federal approvals and actions may occur as a result of the Proposed Action:

- Transfer of the 225-acre site into Federal trust status for the Tribe by the Secretary of the Interior.
- Compliance with the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity.
- Consultation with the U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Federal Endangered Species Act (FESA), if endangered species may be impacted by the Proposed Action.
- Consultation with the State Historic Preservation Office (SHPO) under Section 106 of the National Historic Preservation Act (NHPA), if historic properties may be impacted by the project.
- Encroachment permit for construction of water infrastructure and associated pipeline within Colusa County Right-of-Way, if the option to connect to the wells on Tribal trust land is chosen.

SECTION 2.0

PROPOSED PROJECT AND ALTERNATIVES

SECTION 2.0

PROPOSED PROJECT AND ALTERNATIVES

The Proposed Project and project alternatives are described in this section. This section also summarizes the potential environmental consequences associated with each alternative as well as the protective measures and Best Management Practices (BMPs) incorporated into the project to reduce potential adverse impacts to environmental resources. A summary of each development alternative and associated components is provided below. Under each of the alternatives analyzed, the majority of the CIC Property would be maintained in its current state for agricultural production of walnuts. The project alternatives evaluated in the Environmental Assessment (EA) include:

- Alternative A - 20 residences and continued agricultural uses with water provided by wells and wastewater treatment provided by septic systems (Proposed Project);
- Alternative B - 10 residences and continued agricultural uses with water provided by wells and wastewater treatment provided by septic systems (Reduced-Intensity Alternative);
- Alternative C - No-Action Alternative.

2.1 ALTERNATIVE A - PROPOSED PROJECT

Alternative A consists of two main components: (1) placing 12 parcels that total approximately 225 acres (APNs 015-030-005, 015-030-046, 015-030-048, 015-030-049, 015-030-050, 015-030-051, 015-030-079, 015-030-080, 015-030-081, 015-030-082, 015-030-083, and 015-030-089) into Federal trust status, and (2) construction of up to 20 residential units and associated facilities. The existing walnut orchards would be maintained on the majority of the land. Alternative A is described in more detail below.

2.1.1 LAND TRUST ACTION

Alternative A consists of the fee simple conveyance of the approximately 225-acre site into Federal trust status for the benefit of the Tribe. This trust action would shift civil regulatory jurisdiction over the 12 parcels from the State of California and Colusa County to the Tribe and the federal government. The State and County would continue to exercise criminal jurisdiction under 18 U.S.C. §1162 (Public Law 280) and other federal laws pertaining to jurisdiction in Indian country.

2.1.2 RESIDENTIAL COMPONENT

The Tribe would develop the project site to provide up to 20 residential single-family units on quarter-acre plots. No construction would take place on APNs 015-030-049 and 015-030-051. A site plan for

Alternative A is shown in **Figure 2-1**. Houses are sited to utilize existing access roads, to minimize the number of walnut trees that would need to be removed, and to avoid impacts to biological resources. Most of the expected residents of the proposed housing would be Tribal members currently living on the existing Colusa Rancheria.

2.1.3 AGRICULTURAL COMPONENT

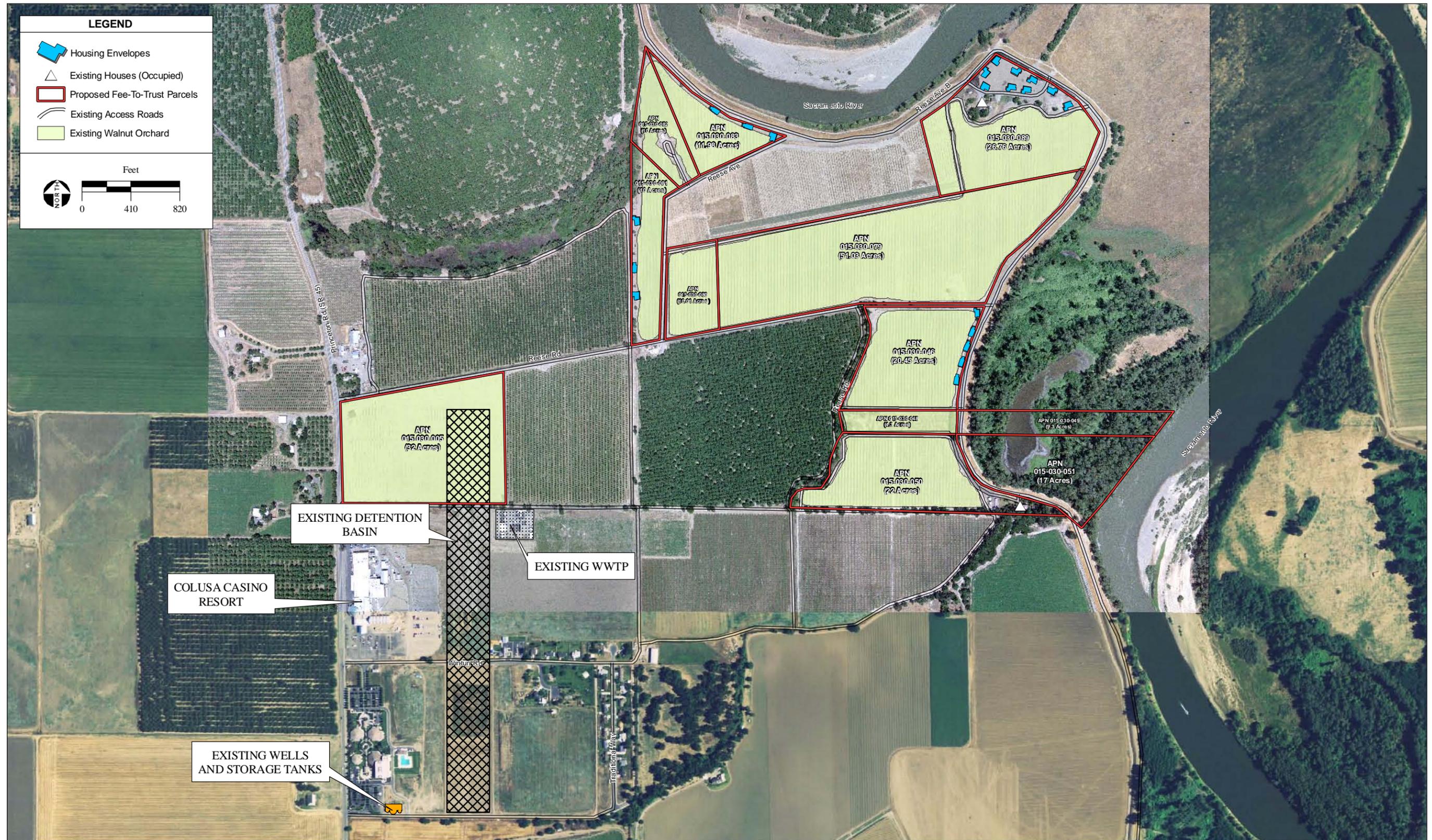
As shown in **Figure 2-1**, existing walnut orchards would stay in production under Tribal management, with a minimum number of trees removed to make room for the housing component. Existing agricultural groundwater wells, pumps, and pipelines would continue to provide irrigation for the trees. Existing agricultural support buildings on APNs 015-030-050, 015-030-082 and 015-030-089 would continue to house equipment, fertilizers, and other supplies for orchard maintenance and support.

2.1.4 WATER SUPPLY

Two options are available for domestic water supply for Alternative A. Under the first option, water would be supplied using the existing groundwater wells, treatment facility, and storage tank on the Colusa Rancheria (**Figure 2-1**), which currently serves the Colusa Casino Resort, 27 Tribal homes, a preschool, and the Cachil DeHe Wintun Village community office and health complex. Distribution pipelines would be installed within existing roads on and between the proposed trust parcels. The existing water supply facilities on the Rancheria are discussed in more detail in **Section 3.9.1**. Under the second supply option, domestic water would be drawn from groundwater production wells that currently supply the existing homes on APNs 015-030-050 and 015-030-089. If required, improvements would be made to these wells including deepening, replacement of existing pumps, or installation of new well screens and casings, as well as expanded treatment facilities to ensure compliance with safe drinking water standards. Distribution pipelines would be installed within existing roads as needed. Agricultural water for onsite walnut orchards would continue to be supplied by the existing agricultural wells on the CIC property.

2.1.5 WASTEWATER TREATMENT AND DISPOSAL

Wastewater from Alternative A would be treated using individual septic systems. Disposal of treated effluent would be through individual drainfields associated with each house or small cluster of houses. Similar septic systems are common in rural areas of Colusa County. The Tribe would comply with County guidelines to ensure proper size, depth, and setbacks from water sources. Existing homes on APNs 015-030-050 and 015-030-089 currently utilize septic tanks for wastewater treatment; these would continue to be used and maintained as needed.



2.1.6 PROJECT CONSTRUCTION

The housing units and associated water supply and wastewater collection system components would be constructed after the 225-acre property has been placed into federal trust. Construction would involve earthwork, placement of concrete foundations, steel and wood structural framing, masonry, electrical and mechanical work, and building finishing, among other construction trades. Development of the housing and infrastructure is anticipated to begin in 2011, with an estimated maximum footprint of approximately 3,000 square feet for each house. Construction would take place on one to five units at a time on an as-needed basis. This would continue until all 20 units are completed, estimated in 2021. A worksite safety plan would be prepared for construction.

2.1.7 PROTECTIVE MEASURES AND BEST MANAGEMENT PRACTICES

Protective measures and BMPs have been incorporated into the project design to eliminate or substantially reduce environmental impacts from the project. These measures and BMPs are discussed below.

Land Resources

- All structures would meet the California Building Code (CBC) requirements for the site, including the seismic design criteria of the most recent edition of the Uniform Building Code (UBC).
- Protective coatings for buried steel pipelines and other facilities would be used in construction occurring on corrosive soils.

Water Resources

- Areas outside of buildings and existing roads would be kept as permeable surfaces to the extent practicable; either as vegetation or high infiltration cover, such as mulch, gravel, or turf. No additional paving of roads is anticipated.
- Existing vegetation (including walnut trees) would be retained where possible.
- High water-demand plants would be minimized in residential landscaping plans. Native and drought-tolerant plant species (trees, shrubs, and ground cover) would be emphasized.
- Water-efficient fixtures and appliances would be installed in residences.
- Septic systems would be installed and maintained according to Indian Health Services (IHS) guidelines.
- Drainage from the proposed trust parcels would continue to be directed across an existing detention basin on the Rancheria, shown in **Figures 2-1** and **2-2**. The detention basin has been designed to slow the velocity of peak stormwater flows and allow increased infiltration of groundwater, reducing stormwater discharge to off-Reservation lands.

Biological Resources

- All native oak trees would be preserved.
- Mixed riparian habitats on APNs 015-030-049 and 015-030-051 would be preserved.

Public Services

- Structural fire protection would be provided through compliance with Uniform Fire Code requirements for residential structures. The Tribe would ensure that appropriate water supply and pressure is available for emergency fire flows.
- All structures would be constructed in accordance with all Uniform Building Codes, as adopted or supplemented by Colusa County.
- Existing roads would be maintained to standards adequate for emergency vehicle access.

Visual Resources

- Homes would be designed and constructed to be visually compatible with the rural agricultural setting of the project area and vicinity.

2.2 ALTERNATIVE B - REDUCED-INTENSITY ALTERNATIVE

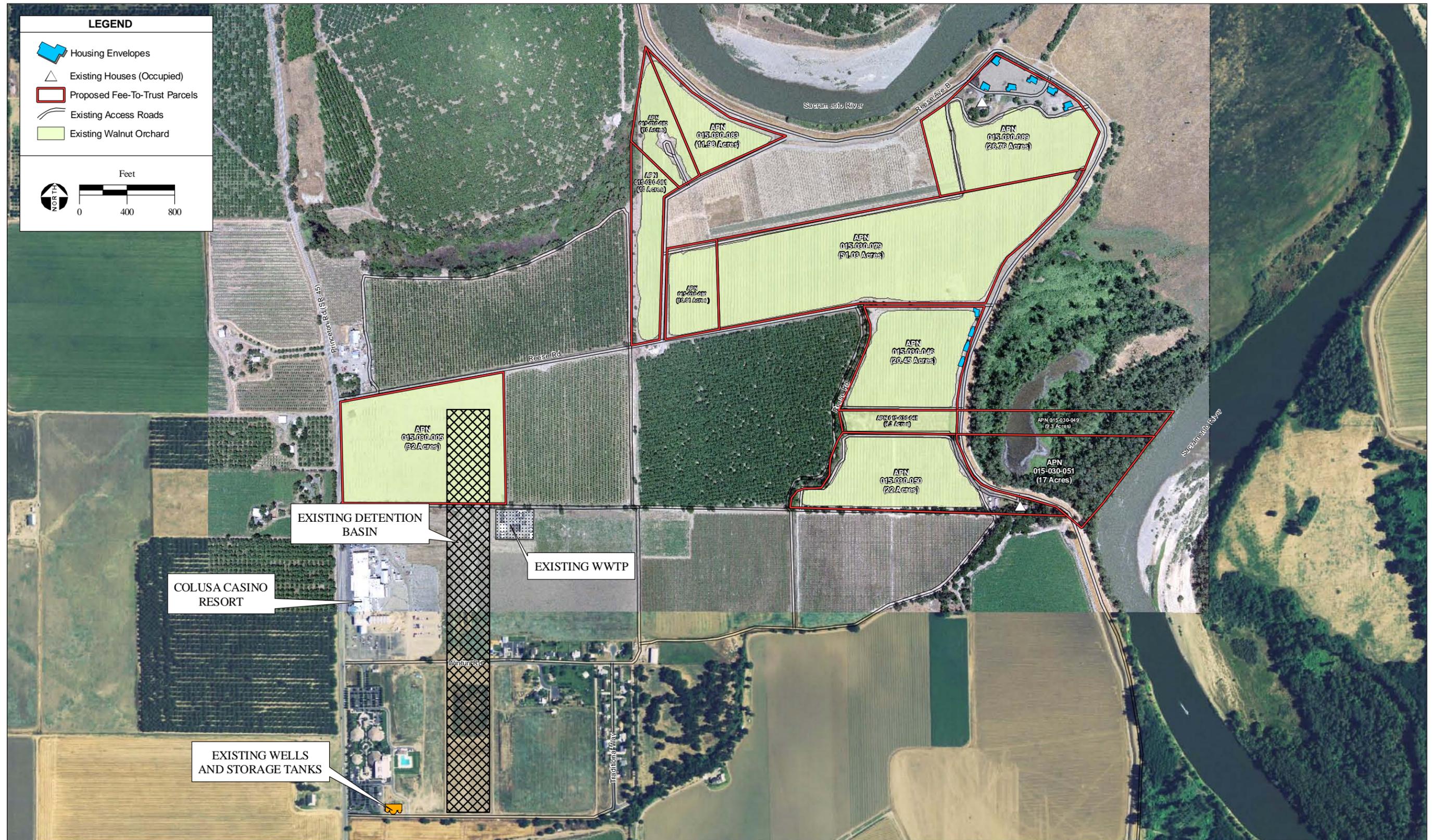
As with Alternative A, Alternative B would include placing the 225-acre site into federal trust status for the benefit of the Tribe; however under Alternative B, only ten residential units would be constructed. No homes would be constructed on APNs 015-030-049 or 015-030-051. Houses would be sited to minimize the number of walnut trees that would need to be removed, and to avoid impacts to biological resources. A site plan for Alternative B is shown in **Figure 2-2**. Existing rural roadways would be maintained to provide access to the residences. As with Alternative A, most of the expected residents of the proposed housing would be Tribal members currently living on the existing Colusa Rancheria.

2.2.1 WATER SUPPLY

The same two options for domestic water supply that are described in **Section 2.1.4** would also be available for implementation with Alternative B. Domestic water would either be supplied from existing wells and a treatment facility on the Colusa Rancheria, or water would be supplied from domestic wells on the CIC property, with capacity, treatment, and distribution improvements implemented as necessary.

2.2.2 WASTEWATER TREATMENT AND DISPOSAL

As with Alternative A, Alternative B includes construction of onsite septic systems for the proposed homes.



2.2.3 PROJECT CONSTRUCTION

Project construction methodology would be similar to that described for Alternative A, with anticipated completion of all residential units by 2016.

2.2.4 PROTECTIVE MEASURES AND BEST MANAGEMENT PRACTICES

Protective measures and BMPs would be similar to those described for Alternative A.

2.3 ALTERNATIVE C - NO-ACTION ALTERNATIVE

Under the No-Action Alternative, the 225-acre site would not be placed into trust for the benefit of the Tribe and would not be developed with up to 20 housing units as identified under the Proposed Project. Jurisdiction of the property would remain with Colusa County. Ultimately, the 225-acre site could be developed by the Tribe with the property owned in fee, or by a private purchaser, consistent with local zoning. However, for the purposes of the environmental analysis in this EA, it is assumed that the property would remain in agricultural production with two occupied residences, and would not be further developed.

2.4 COMPARISON OF THE PROPOSED PROJECT AND ALTERNATIVES

Among the project alternatives evaluated in **Section 4.0**, the Proposed Project and Alternative B both include housing units and the continued use of the majority of the land for growing walnut trees. Options for supplying domestic water and for the treatment and disposal of wastewater would be identical for these two alternatives. However, Alternative B would include only 10 houses, whereas the Proposed Project (Alternative A) would develop up to 20 houses. Under Alternative C, the No-Action Alternative, no development or change in use would occur on the property for the foreseeable future.

Impacts to land resources would be proportionally greatest under Alternative A, due to the larger project footprint needed for construction of up to 20 houses. This would require additional site grading and removal of slightly more existing walnut trees compared to Alternative B. The No-Action Alternative would have no effect on land resources, as no changes in land use are anticipated.

Water resources would likewise be impacted the most by Alternative A. This alternative would result in a greater area of impermeable surfaces than Alternative B, due to the greater amount of residential development. Water demands of the Proposed Project would be slightly higher than Alternative B due to the greater percentage of residential uses compared to agricultural water demands; however, water for both purposes would be drawn from the same aquifer under both water supply options. The No-Action Alternative would continue to use existing wells for agricultural production and existing residential uses.

For both Alternatives A and B, wastewater treatment from the proposed houses would consist of septic systems, which would be installed and maintained according to County guidelines. The greater number of houses associated with Alternative A would generate greater quantities of wastewater, and therefore would result in greater potential impacts to groundwater quality and a need for more infrastructure construction and maintenance compared to Alternative B. No impacts to water resources would result from Alternative C.

Construction and operational emissions of criteria air pollutants and greenhouse gases would be similar under both the Proposed Project and Alternative B; however, these emissions would be proportionally lower under Alternative B due to the reduced amount of construction and the reduction in residential vehicle trips generated. Under Alternative C, no impacts to air quality would occur.

No sensitive biological habitats would be directly impacted by the development of either Alternative A or Alternative B, because housing locations have been specifically chosen to avoid such impacts. BMPs have been incorporated into development plans to minimize direct and indirect adverse impacts to sensitive habitats, special-status species, native vegetation, waters of the U.S., and protected birds; however, the greater amount of development proposed under Alternative A would slightly increase the potential for any impacts to occur compared with Alternative B. No impacts to biological resources would occur under Alternative C, because this alternative involves no new development or changes in land use.

Potential impacts to cultural resources resulting from inadvertent discovery of previously unknown subsurface archaeological or paleontological sites would increase proportionately to the amount of ground disturbance; therefore, Alternative A would have the greatest potential for adverse effects to cultural resources. Alternative B would involve less ground-disturbing construction work, thereby reducing the potential for these impacts. The No-Action Alternative would not result in impacts to cultural resources.

No adverse impacts to socioeconomic conditions or environmental justice would result from the Proposed Project or Alternatives B or C. Alternative A would provide a beneficial socioeconomic impact for the identified minority population of the CIC by easing a housing shortage and ensuring continued economic diversification and self-sufficiency; Alternative B would also extend these benefits to the Tribe, but to a lesser degree. Alternative C would result in no change to existing socioeconomic conditions.

Alternative A would generate the greatest number of daily vehicle trips, due to the higher number of housing units. Impacts to the local transportation network from this alternative would therefore be proportionally greater than Alternative B, although still less than significant. Alternative C would generate no new vehicle trips, and would therefore cause no impacts to local transportation and circulation networks.

Development of Alternatives A and B would result in the construction of low-density residential housing, septic systems, and extension of other utilities, and continued agricultural production on the majority of the CIC Property. Both alternatives are compatible with the surrounding land uses, and similar residential densities currently occur in the project vicinity. Alternative C would have no impact on local land use.

Alternative A would have minimal impacts on solid waste, electricity, natural gas, telecommunications, law enforcement, fire protection and emergency medical services, public schools, and parks and recreation. Alternative B would have proportionately less impact on these services because of the reduced number of residents requiring these utilities and services. Alternative C would have no impact on public services and utilities.

Neither of the project alternatives would have any impact on municipal water supply and wastewater treatment facilities, as both Alternatives A and B would use domestic water supplied from existing Tribally owned and operated wells either on the project site or the Colusa Rancheria, and would accomplish wastewater treatment using individual on-site septic systems. Alternative C would not result in an increase in demand for municipal water supply or wastewater treatment.

Impacts related to construction noise would be greatest under Alternative A, due to the larger number of houses that would be constructed, and the longer period of construction. Alternative B would have a proportionately lessened noise impact, as construction would take place in fewer areas and for a shorter duration of time. Operational noise would be similarly minimal under these two alternatives, although the greater number of new vehicle trips anticipated under Alternative A would slightly increase the potential for operational noise compared to Alternative B. No noise-related impacts would occur under Alternative C.

Impacts related to hazards and hazardous materials would be greatest under Alternative A, due to the larger amount of construction that would utilize fuels and spark-producing equipment. These impacts would be proportionally reduced under Alternative B. Impacts related to agricultural production would be essentially identical under both project alternatives. No new impacts related to hazards or hazardous materials would occur under Alternative C, although if current land uses continue, the use of agricultural fertilizers, pesticides, and mechanical farm equipment would also continue.

Visual resource impacts would be greatest under Alternative A, due to the greater number of housing units, some of which would be wholly or partially visible to local sensitive receptors (other residences). Alternative B would include half the number of housing units compared to the Proposed Project, and would accordingly result in reduced visual impacts. No visual impacts would occur under Alternative C.

While both Alternatives A and B meet the Tribe's objectives of an enlarged land base and diversified economic development opportunities compatible with the rural, agricultural setting of Colusa County, Alternative A would provide more houses for the Tribe's growing population. Alternative B would result

in proportionately fewer overall environmental impacts than the Proposed Project, but would include only half of the housing units, as compared to the Proposed Project. While the No-Action alternative would not result in any of the environmental effects identified for the Proposed Project or Alternative B, this alternative would not meet the Tribe's objectives of providing a sufficient number of housing units for Tribal families. Despite the proportionately greater overall effects on the environment of Alternative A, none of the identified impacts would be significant and unavoidable, following implementation of protective measures and mitigation recommended in this document.

SECTION 3.0

DESCRIPTION OF AFFECTED ENVIRONMENT

SECTION 3.0

DESCRIPTION OF AFFECTED ENVIRONMENT

This section presents relevant information about existing resources and other values that may be affected by the Proposed Project and alternatives. In accordance with the National Environmental Policy Act (NEPA) and the Bureau of Indian Affairs' (BIA) implementing guidelines (59 IAM 3), the existing conditions described herein provide the base line for determining the environmental effects identified in **Section 4.0**. Descriptions include the following resource and issue areas:

- Land Resources
- Water Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Socioeconomic Conditions / Environmental Justice
- Transportation and Circulation
- Land Use
- Public Services
- Noise
- Hazardous Materials
- Visual Resources

3.1 LAND RESOURCES

3.1.1 GEOLOGICAL SETTING

Colusa County is comprised of three major physiographic and geologic provinces: the Sacramento Valley in the east, the Coast Range foothills in central to southwestern areas, and the Coast Range Mountains in the northwest. Rocks underlying the various provinces range from Paleozoic and Mesozoic age crystalline and metamorphic rocks to young alluvial deposits (NRCS, 1997).

The project site is situated in the Central Sacramento Valley physiographic region. The Valley is an elongated structural trough that trends northwest through central California, bounded by the Sierra Nevada on the east and the Coast Ranges on the West. The Sacramento Valley soils are deeply weathered due to heavy moisture and vegetation that characterized the native conditions under which they were formed. The project site is underlain by quaternary age alluvium formed from sedimentary rock (NRCS, 1997).

3.1.2 TOPOGRAPHY

The project site is situated immediately west of the Sacramento River, south of the Hamilton Bend. The topography of the area is relatively flat, and elevations on the project site range between approximately 50 and 80 feet above mean sea level (amsl). A topographic map of the project site is provided in **Figure 1-2**.

3.1.3 SEISMIC CONDITIONS

Four fault zones classified by the California Division of Mines and Geology transect the general region of the Colusa Rancheria. These include the Corning Fault, the Swain Ravine fault zone, the Great Valley fault zone, and the Dunnigan Hills fault zone. The closest of the four faults to the project site is the Great Valley fault zone, which runs in a general north-south direction, approximately 14 miles to the west of the project site. **Figure 3-1** shows regionally active faults and their relative distances to the project site.

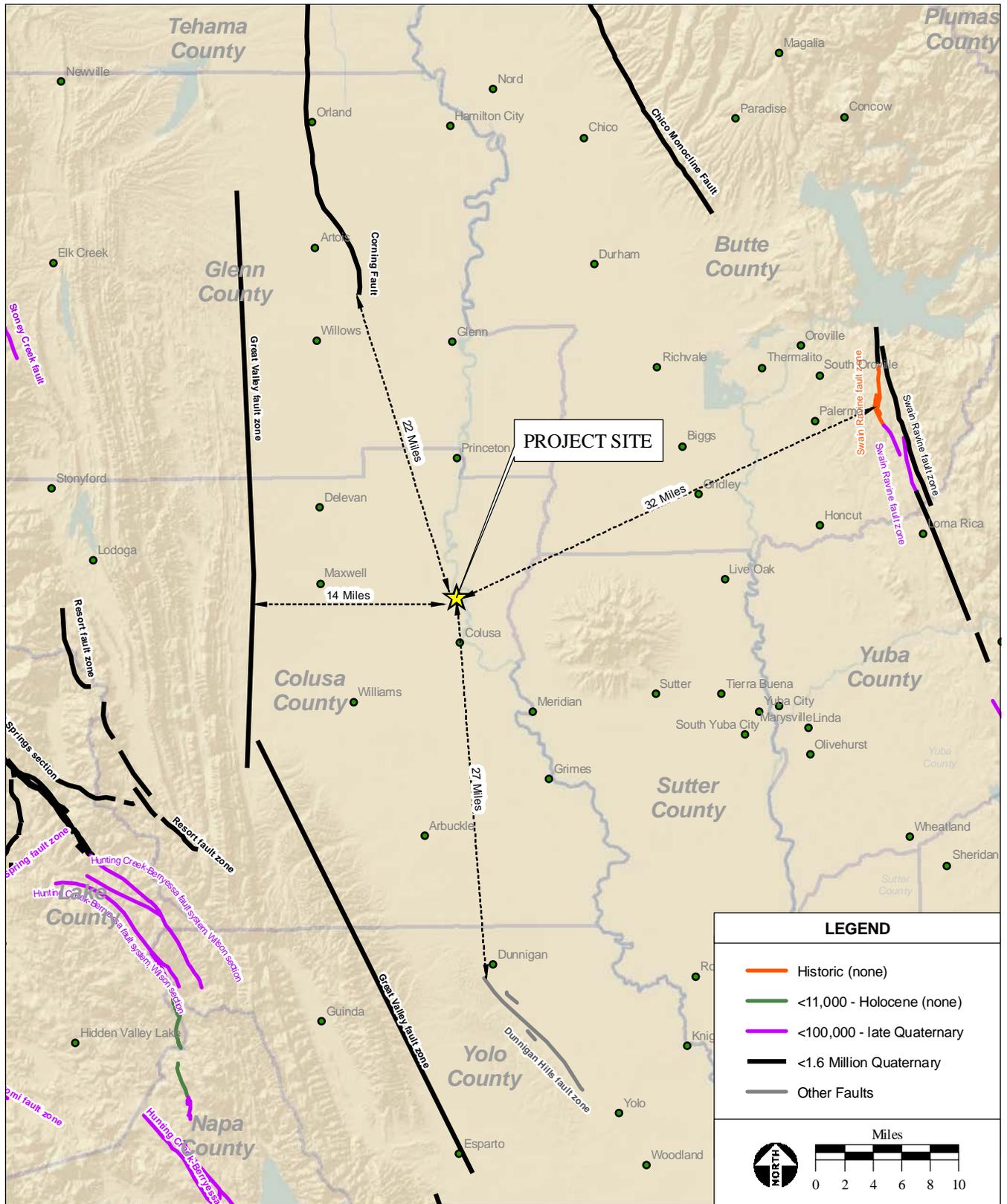
The project area could be subject to moderate ground shaking from the surrounding fault at Sutter Buttes in the event of an earthquake. The Modified Mercalli Intensity (MMI) scale is commonly used to measure earthquake effects due to ground shaking. The MMI values for intensity range from I (earthquake not felt) to XII (damage nearly total). MMI values ranging from IV to X could cause moderate to significant structural damage. The project site is located within an area of minor potential shaking intensity of MMI level VI to VIII. This corresponds to the potential for considerable damage to poorly built or designed structures, but negligible damage in buildings of good design and construction (USGS, 1989).

3.1.4 SOIL TYPES AND CHARACTERISTICS

The project site contains four soils formed in alluvium derived from mixed rock sources (NRCS, 2009a). **Table 3-1** summarizes the characteristics for each soil type, while **Figure 3-2** shows the location of each soil type on the project site.

TABLE 3-1
PROJECT SITE SOILS

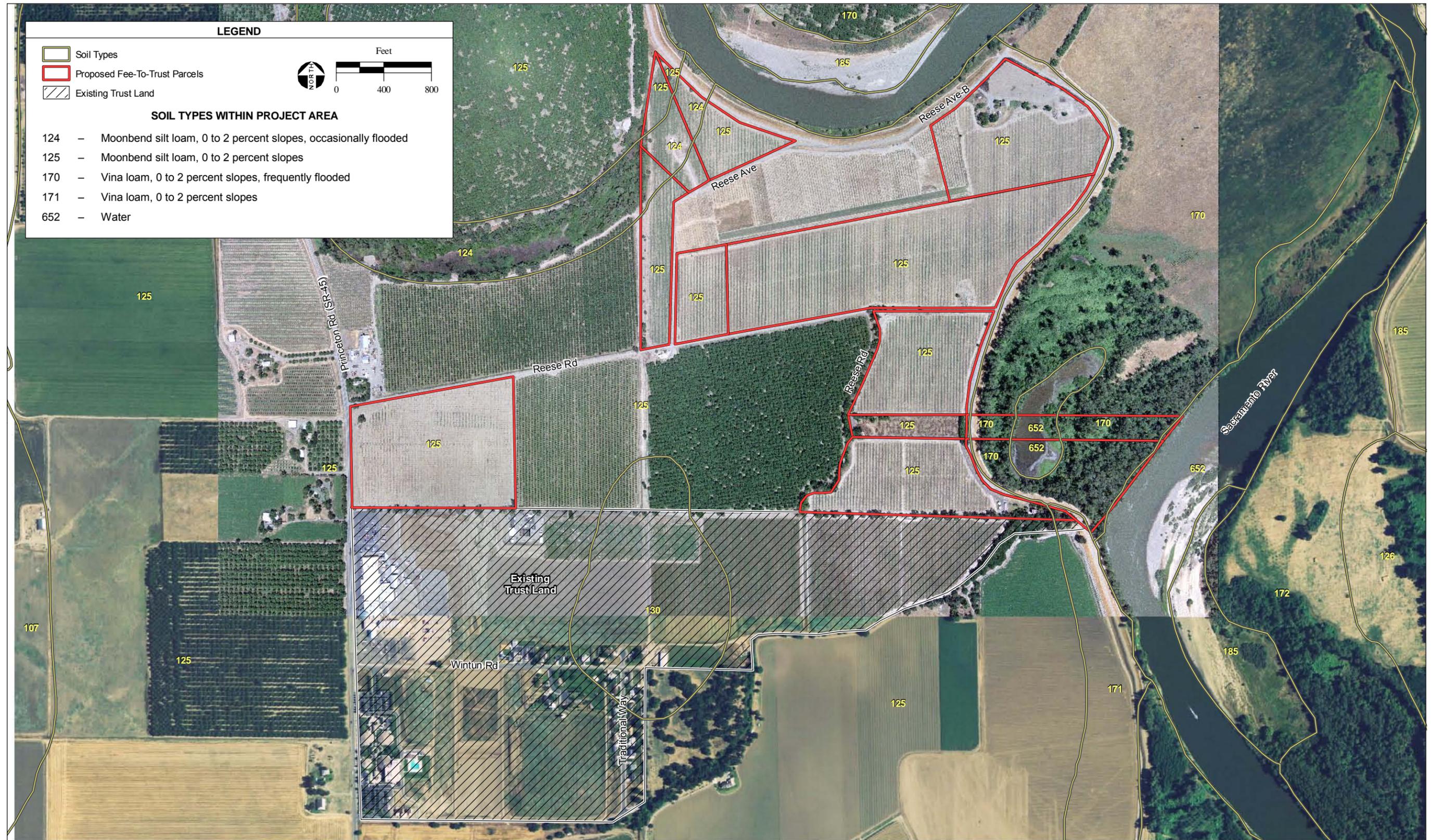
Map Unit Symbol	Map Unit Name	Slope Range	Hydraulic Conductivity Class	Erosion Hazard	Percent of Project Site
124	Moonbend silt loam	0-2%	C	Slight	5.3%
125	Moonbend silt loam	0-2%	C	Slight	82.4%
170	Vina loam	0-2%	B	Slight	8%
171	Vina loam	0-2%	B	Slight	0.7%
Source: NRCS Soil Survey (2009b)					



SOURCE: USGS Earthquake Hazards Program, 2007; AES, 2009

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Figure 3-1
Regional Fault Map



A description of the four soil types are included below:

- Moonbend silt loam (124 and 125) – These soils are generally found in low areas along the Sacramento River, in elevations between 45 to 55 feet. The parent material of Moonbend silt loams is alluvium derived from mixed rock sources. Both soils have a very high available water capacity of about 10.5 inches and moderate shrink-swell potential. Moonbend silt loams are characterized as moderately corrosive to uncoated steel (NCRS, 2009a).
- Vina loam (170 and 171) – These highly productive soils occur at elevations between 25 to 75 feet and are commonly located inside levees along the Sacramento River. Vina loams are well-drained soils, with a high available water capacity of about 9.5 inches and a low shrink-swell potential. Both are characterized as moderately corrosive to uncoated steel (NRCS, 2009a).

The hydraulic conductivity class describes the rate at which water flows through the soil; a high hydraulic conductivity refers to soils that can absorb a lot of water quickly, so that only a moderate percentage of storm water becomes runoff (NRCS, 2009b). The hydrologic conductivity classes are described below:

- Hydrologic Group B: Soils having a moderate infiltration rate and a moderately low runoff rate when thoroughly wet. Group B soils typically have between 10 percent and 20 percent clay and 50 percent to 90 percent sand and have loamy sand or sandy loam textures. Some soils having loam, silt loam, silt, or sandy clay loam textures may be placed in this group if they are well aggregated, of low bulk density, or contain greater than 35 percent rock fragments. Water transmission through the soil is unimpeded.
- Hydrologic Group C: Soils having a moderately high runoff rate and moderately low infiltration rate when thoroughly wet. Group C soils typically have between 20 percent and 40 percent clay and less than 50 percent sand and have loam, silt loam, sandy clay loam, clay loam, and silty clay loam textures. Some soils having clay, silty clay, or sandy clay textures may be placed in this group if they are well aggregated, of low bulk density, or contain greater than 35 percent rock fragments. Water transmission through the soil is somewhat restricted.

SOIL HAZARDS

Soil Erosion

Soil erosion is the wearing and removal of soil materials from the ground surface and the transportation of these soil materials resulting in deposition elsewhere. Mechanisms of soil erosion include storm water runoff and wind, as well as human activities, such as changes in drainage patterns and removal of vegetation. Factors that influence erosion include physical properties of the soil, topography (slope), and annual rainfall and peak intensity. The United States Department of Agriculture (USDA) rates the erosion potential of a map unit by taking all of the above into consideration. The ratings range from

“slight” to “very severe.” The erosion ratings of the four soils within the project site are provided in **Table 3-1**.

Liquefaction

Liquefaction involves soils that become highly saturated and lose their cohesive strength and subsequently act as a liquid, rather than as a solid mass. Soils comprised of sands and inland fill in areas with high groundwater tables or heavy rainfall are subject to liquefaction during intense seismic shaking events. The soils on the project site have a relatively high percentage of silt, making the area susceptible to liquefaction.

Landslides

Areas susceptible to landslides are comprised of weak soils on sloping terrain. Landslides can be induced by weather, such as heavy rains or strong seismic shaking events. The project site is located within an area designated as having a low incidence of landslides, although high incidence areas are located on the western border of Colusa County.

SOIL SUITABILITY FOR SEPTIC SYSTEMS

Septic systems distribute effluent into the soil through subsurface tiles or perforated pipe. The NRCS provides ratings for a soil’s suitability to accept septic system effluent based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and public health. The ratings are both narrative and numerical; rating class terms indicate the extent to which the soils are limited while numerical ratings indicate the severity of individual limitations. All of the soils on the site are classified as “Limitations”, which indicates that the soil has features that are favorable to unfavorable for use by septic systems. The most limiting limitations for the soils on-site are flooding frequency, slow percolation, and saturation at less than four inches below ground surface. These limitations can be overcome or minimized by special planning, design, or installation (NRCS, 2010), and therefore the soils are suitable for septic systems.

3.1.5 MINERAL RESOURCES

Mining in Colusa County is limited to sand and gravel extraction, primarily used locally as surface material for infrastructure (Colusa County, 1989). Past mineral activity has occurred in the western portion of Colusa County, where regional geologic patterns have indicated a high probability for gold and mercury deposits. According to the General Plan (Colusa County, 1989), there are no areas within the County designated as a Mineral Resource Zones and no mineral resources exist within the project site boundaries.

3.2 WATER RESOURCES

3.2.1 SURFACE WATER, DRAINAGE, AND FLOODING

Watersheds and Hydrology

The project site is located within the Sacramento River Basin, Colusa subbasin. The Sacramento River is the largest river in California, with headwaters approximately 6,600 feet above mean seal level (msl) at Mount Eddy in the Trinity Mountains. Major tributaries to the Sacramento River include the Yuba, Feather, Pit, and American Rivers. The Colusa subbasin extends north-south throughout the length of Colusa County west of the Sacramento River floodplain. The subbasin is approximately 6 to 20 feet lower than the banks of the Sacramento River. The ground slopes away from the main channel of the River relatively steeply, gradually flattening towards the center portions of the subbasin west of the River. The construction of levees built along the Sacramento River to control floods has slowed sediment load in the subbasin, which is now mostly leveled for rice production and other crops (PSOMAS, 2003a).

More than 80 percent of the precipitation in the Colusa subbasin occurs during November through March, and annual precipitation averages between 15.5 and 15.9 inches. The Coast Range to the west shields the Sacramento Valley from the abundant precipitation and thunderstorms that affect higher elevations, resulting in a rain-shadow effect. Rainfall from strong Pacific storms generated to the southwest occasionally cause widespread flooding in streams as well as in the Colusa subbasin and Butte Sink (PSOMAS, 2003a).

Drainage

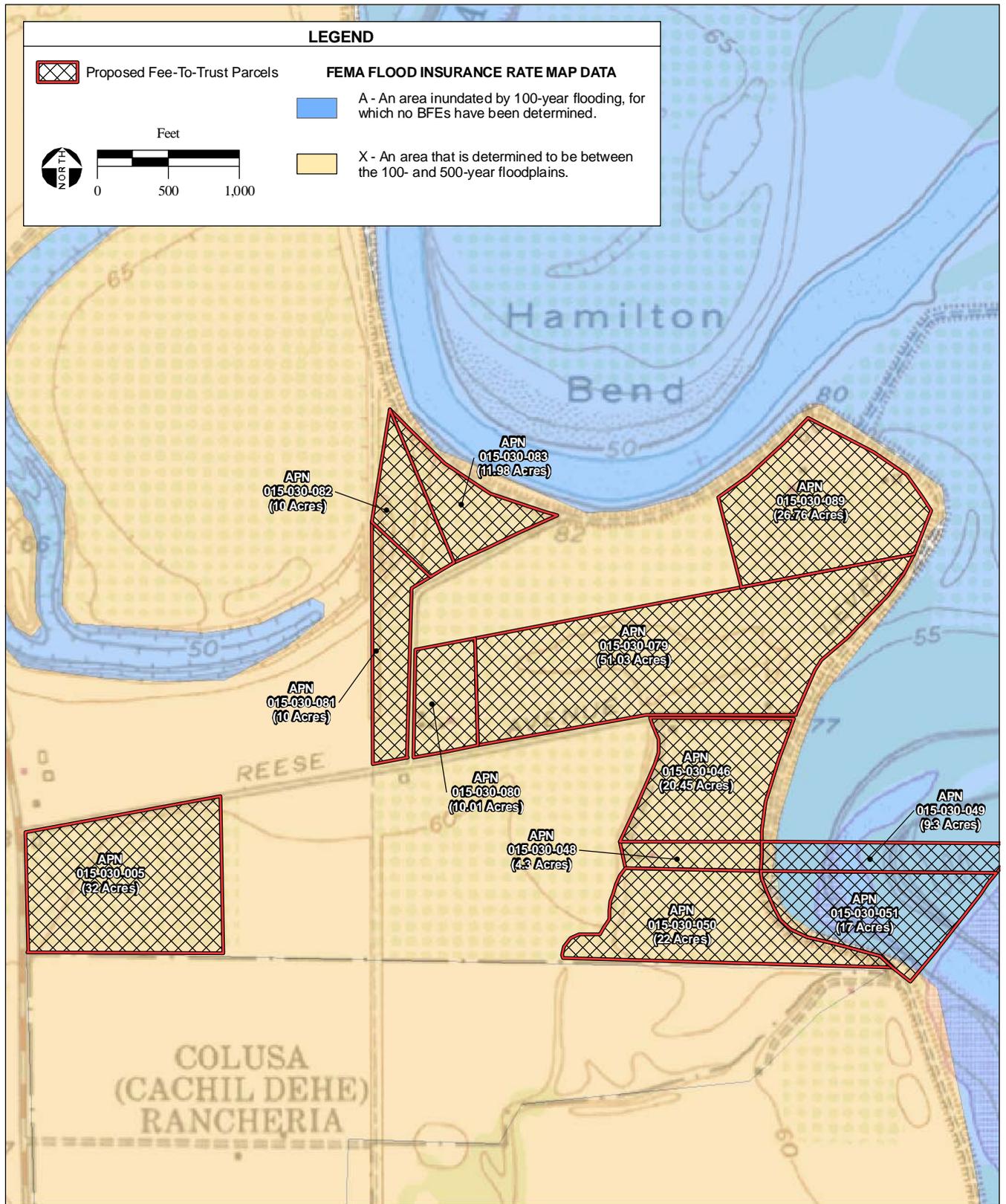
Slopes in the general vicinity of the project site average around 0.2 percent. Drainage in the foothill region west of the project area occurs via streams flowing east to the Sacramento Valley. Stream channels of many foothill streams have lowered due to increased run off, and are channelized and diverted for farmland, towns, and roads in the valley. The foothill streams flow to the Colusa Basin and the south-flowing Colusa Basin Drain. The Colusa Basin Drain is the single largest source of agricultural return flows to the Sacramento River. It discharges runoff and agricultural return flows from about one million acres of watershed to the River at Knight's Landing. During high flow, the Colusa Basin Drain is diverted through the Knights Landing Ridge Cut to the Yolo Bypass (DWR, 2009).

Runoff in the project area and surrounding land typically travels as shallow overland flow into an existing detention basin that extends in a generally north-south direction from APN 015-030-005 to the southern boundary of the Reservation, as shown in **Figure 2-1** and **Figure 2-2**. The detention basin has been designed to slow the velocity of peak stormwater flows and allow increased infiltration of groundwater, reducing stormwater discharge to off-Reservation lands.

Flooding

Executive Order 11988 pertaining to floodplain management states that each federal agency shall “provide leadership and shall take action to reduce the risk of flood loss.” In order for each agency to carry out its responsibility, the order requires that each agency determine whether a project is located within a floodplain and consider alternatives to a project’s location within a floodplain. If the project must reside on a floodplain, the agency must minimize any potential impacts.

The Federal Emergency Management Agency (FEMA) is responsible for predicting the potential for flooding in most areas. FEMA routinely performs this function through the update and issuance of Flood Insurance Rate Maps (FIRMs), which depict various levels of predicted inundation. Map number 06011C0375F shows that the project site contains both Zone X and Zone A classifications. Zone A is designated for those lands that are inundated by 100-year flooding (FEMA, 2009). Zone X is designated for those lands which are located between the 100 and 500 year floodplain or that are protected by levees from a 100 year flood. As shown in **Figure 3-3**, only two of the proposed trust parcels (APNs 015-030-049 and 015-030-051), which are located east of the Sacramento River levee, are within the 100-year floodplain. No construction is planned on either of these parcels.



SOURCE: "Moulton Weir, CA" USGS 7.5 Minute Topographic Quadrangle, Unsectioned Area of Jimeno, T16N, R1W & R2W, Mt. Diablo Baseline & Meridian; FEMA FIRM Data, 2003; AES, 2009

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Figure 3-3
FEMA Flood Zones

Levees maintained in place along the Sacramento River by the U.S. Army Corps of Engineers protect the subbasin from floodwaters from Willow Creek to the north and many others to the west. The floodwaters are diverted through the Colusa, Moulton, and Tisdale weirs into the Sutter Bypass. The bypass drains 40 miles south to Knights Landing where water is diverted into the Yolo Bypass and ultimately to the Sacramento River Delta (PSOMAS, 2003b).

The project site is located within the Sacramento-San Joaquin Drainage District, created by the California Legislature in 1913 to aid flood control efforts along the Sacramento and San Joaquin rivers and their tributaries. The Central Valley Flood Protection Board oversees the management and control of all areas within the drainage district. The project site is not located within the Central Valley Flood Protection Board's Designated Floodway (CVFPB, 2009).

3.2.2 GROUNDWATER

The project site lies within the Colusa Groundwater Subbasin (DWR Basin No. 5-021.52), part of the larger Sacramento Valley Groundwater Basin that occupies the northern one-third of California's Central Valley. The Basin is classified as a single heterogeneous aquifer, having no continuous confining layer, faults, or other distinct internal boundaries. The Colusa Groundwater Subbasin is bounded by Cache Creek on the south, Stony Creek on the north, the Sacramento River on the east, and the Coast Range and foothills on the west. The Subbasin has a surface area of 918,380 acres. The depth to groundwater does not exceed 25 feet below the surface within the greater Colusa-Grimes area, and there are six deep wells in the area with artesian surface flows for a portion of the year (PSOMAS, 2003a). The Tehama Formation is the principal water-bearing unit within the Subbasin. It is overlain by alluvial material and reaches a thickness of 2,000 feet.

Groundwater in the project area fluctuates seasonally from approximately 5 to 10 feet annually in normal to dry years. The known well yields for the project area are greater than 1,000 gallons per minute (PSOMAS, 2003a).

3.2.4 WATER QUALITY

Surface Water Quality

The National Water-Quality Assessment (NAWQA) Program was implemented by the USGS in 1991. The Sacramento River Basin was selected for investigation under the program to identify the most pertinent concerns for surface water quality. According to the NAWQA Sacramento River Basin assessment program, pertinent water quality concerns in the project area include elevated concentrations of trace metals, pesticide contamination of surface water, urban runoff and volatile organic compound contamination, and issues with affected aquatic species (PSOMAS, 2003a).

The Sacramento-San Joaquin Delta is a primary source of drinking water for over 23 million people in the Central Coast, Central Bay, and Southern California regions (CVRWQCB, 2007). The California Bay-

Delta Act was signed by the Governor in 2002 to address water quality and restore ecological integrity in the Bay-Delta (PSOMAS, 2003a). The act includes management plans for water supply reliability, water quality, levee system integrity, and ecosystem restoration.

Section 303(d) of the CWA requires that each State identify those waters within its boundaries that do not meet the water quality standards that have been set for them. Impaired water bodies occur where industrial and technological waste limits, or other legal mechanisms for pollution control, are not enough to meet water quality standards. When identified, a priority schedule for the development of total maximum daily loads (TMDLs) for each contaminant or “stressor” impacting the water body. The Colusa Basin Drain is listed as impaired by the United States Environmental Protection Agency (USEPA). The Colusa Basin Drain is impaired due to agriculture and the TMDL was scheduled to be completed in 2008 for various pesticides from agricultural runoff. TMDLs for Group A Pesticides are scheduled for completion in 2011 (USEPA, 2009).

The Water Quality Control Plan for the Central Valley Region (Basin Plan) provides water quality objectives of waters for the Central Valley region, including the entire Sacramento and San Joaquin River Basins. **Table 3-2** lists the general water quality objectives by parameter. The Sacramento River watershed is listed under Section 303(d) as a water quality limited waterbody. In addition, four sections of the Sacramento River and the Sacramento Slough are listed as impaired for mercury and unknown toxic contamination. The River segments are from Keswick dam to Cottonwood Creek, from Cottonwood Creek to Redbluff, from Redbluff to Knight’s Landing, and from Knight’s Landing to the Sacramento-San Joaquin Delta. TMDLs are scheduled to be completed by 2019 in the River segments, and in 2020 for the Sacramento Slough.

TABLE 3-2
WATER QUALITY OBJECTIVES OF INLAND SURFACE WATERS

Parameter	Description
Color	Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses
Tastes and Odors	Waters shall not contain taste or odor producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, or that cause nuisance or adversely affect beneficial uses.
Floating Material	Waters shall not contain floating material in concentrations that could cause nuisance or adversely affect beneficial uses.
Suspended and Settleable Material	Waters shall not contain suspended or settleable material in concentrations that could cause nuisance or adversely affect beneficial uses.
Oil and Grease	Waters shall not contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses.
Biostimulatory Substances	Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

Turbidity	Turbidity shall not be increased more than 20 percent above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver thereof.
pH	Some waters have specific pH limits listed within the Basin Plan. For waters not listed, the pH shall not be reduced below 6.5 nor raised above 8.5.
Dissolved Oxygen	Some waters have specific dissolved oxygen concentrations listed within the Basin Plan. For waters not listed, dissolved oxygen concentration limitations are based on the water's designation.
Bacteria	The Bacteriological quality of waters of the North Coast Region shall not be degraded beyond natural background levels. Specific limits have been set for coliform in waters designated for contact recreation or where shellfish may be harvested for human consumption.
Temperature	The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses.
Toxicity	All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.
Pesticides	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses. There shall be no bioaccumulation of pesticide concentrations found in bottom sediments or aquatic life.
Radio Activity	Radionuclides shall not be present in concentrations which are deleterious to human, plant, animal or aquatic life nor which result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant, animal, or indigenous aquatic life.

Source: SWRCB, 2007a

USGS gauging station #11389500 measures the stream flow of the Sacramento River at Colusa downstream from the project area (**Table 3-3**). Records at the station date from April 1921. The maximum flow recorded at the gage was 51,800 cubic feet per second (cfs) in 1983, and the minimum was 820 cfs in 1931.

TABLE 3-3
1% OF AVERAGE STREAMFLOW (CF/S) AT USGS GAUGING STATION #11389500

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean Monthly 1945-2008	180	197	174	127	109	92	89.1	83	72.6	64.3	83.8	136
Mean Daily 1945-2008	160	194	189	146	117	100	89.5	89.2	76.6	69.1	66.7	10.9

Source : USGS, 2009

The NPDES program established pursuant to the Clean Water Act (33 USC §§ 1251 to 1387) is a national program for regulating and administering permits for discharges to receiving waters. Under the Federal Clean Water Act, Indian Tribes can be treated as states for the purposes of the NPDES program [33 USC

§ 1377(e)]. However, the USEPA maintains regulatory authority over discharges to surface waters on Tribal trust lands. Because the WWTP on the Colusa Rancheria uses leachfields to dispose of treated effluent, no NPDES permit is required, although USEPA standards for Class V shallow injection wells must be met.

Groundwater Quality

In order to protect drinking water supplies under the mandate of the Safe Drinking Water Act, the USEPA defines National Primary Drinking Water Regulations (primary standards). These are legally enforceable standards that apply to public water systems. These standards are established to protect human health by limiting the levels of contaminants in drinking water. The USEPA also defines National Secondary Drinking Water Regulations (secondary standards) for constituents that may affect the taste, odor, or appearance of water, but do not pose a threat to human health.

The USGS designated six distinct areas within the Sacramento Valley based on groundwater chemical composition, or hydrochemical facies. The project area is within the Sutter Basin hydrochemical facies, characterized as having high concentrations of dissolved solids, sodium, chloride, bicarbonate, potassium, and boron. The geochemical makeup of the groundwater is very similar to that of the Sacramento River and is generally of good quality.

Water quality analysis was completed from samples of water taken from 26 local wells in the vicinity of the project site. The results of the analysis show variable concentrations of total dissolved solids at local wells ranging from 190 mg/L to over 2000 mg/L (PSOMAS, 2003a).

3.3 AIR QUALITY

3.3.1 PROJECT AREA AND VICINITY

The project area lies within the Colusa County Air Pollution Control District (CAPCD). The CAPCD regulates air quality through regulation of air pollutant emissions from stationary sources within Colusa County. The project site is located in the Sacramento Valley Air Basin (SVAB).

The area is characterized by a Mediterranean climate, with warm, dry weather from May to September and mild, rainy weather from November through March. Winds are channeled through the Sacramento Valley, while the surrounding mountain ranges inhibit dispersion of pollutant emissions. Wind direction in the valley corresponds with the season and its associated predominant wind flow pattern. The predominant annual and summer wind pattern is a full sea breeze originating from the Pacific Ocean, referred to locally as the Delta breezes. Northerly winds predominate in the winter season, when calm atmospheric conditions in the Sacramento Valley leads to a stagnation of valley air and increased air pollution. The regional temperature averages in the mid-70s (degrees Fahrenheit) for highs and the high-

40s for lows. Precipitation averaged approximately 16 inches per year during the period between 1948 and 2008 (WRCC, 2009).

3.3.2 REGULATORY CONTEXT

The Federal Clean Air Act (CAA) was enacted for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. Basic components of the CAA and its amendments include national ambient air quality standards (NAAQS) for major air pollutants and state implementation plans (SIPs) to ensure these standards are met. Regulation of air pollution is achieved through both the NAAQS and emission limits for individual sources of air pollutants. The USEPA is the federal agency responsible for identifying criteria air pollutants (CAPs), establishing NAAQS, and approving and overseeing SIPs as they relate to the CAA.

3.3.3 FEDERAL CONFORMITY

The General Conformity Rule of the CAA (42 USC 7401) implements Section 176(c) of the Act, and establishes minimum thresholds for CAPs in nonattainment and maintenance areas.

Title 40 Part 93 of the Code of Federal Regulations (CFR) was promulgated in order to determine conformity of federal actions to SIPs. A lead agency must make a determination that a federal action conforms to the applicable SIP before the action is taken. A conformity determination is required for each CAP where a total of direct and indirect emissions in a nonattainment or maintenance area caused by the federal action are greater than *de minimis* thresholds as listed in CFR Section 93.153(b).

These thresholds provide simple and direct guidance for federal agencies to ensure that they comply with an approved SIP. The general conformity rule includes a procedure for determining whether the rule is applicable to the actions of a federal agency. There are two phases to general conformity:

- 1) The Conformity Review process entails a review of each analyzed alternative to assess whether a full conformity determination is necessary, and
- 2) The Conformity Determination process, which demonstrates how an action would conform to the applicable SIP.

The first step has four components; 1) determine if the federal action causes emissions of CAPs; 2) determine whether the emissions of CAPs would occur in a nonattainment or maintenance area; 3) determine whether the federal action is exempt from the CAA; and 4) estimate emissions from the federal action and compare them to the appropriate general conformity *de minimis* threshold based on nonattainment type. If the federal action does not emit CAPs or is not within a nonattainment area or is exempt from the CAA or does not exceed applicable *de minimis* thresholds, then a Conformity Determination is not warranted and no further review is needed.

3.3.4 CLIMATE CHANGE

In 1997 the Council on Environmental Quality (CEQ) circulated an internal draft memorandum (CEQ, 1997a) on how global climate change should be treated for the purposes of NEPA. The CEQ draft memorandum advised federal lead agencies to consider how proposed actions subject to NEPA would affect sources and sinks of green house gases (GHGs). During the same year, CEQ released guidance on the assessment of cumulative effects in NEPA documents (CEQ, 1997b). Consistent with the CEQ draft memorandum, climate change impacts were offered as one example of a cumulative effect. GHG emission estimates for the Proposed Project were modeled using URBEMIS 9.2.4, with results included in **Appendix A**.

3.3.5 POLLUTANTS OF CONCERN

The USEPA has identified six CAPs that are both common and detrimental to human health. These CAPs are used as indicators of regional air quality. The six CAPs include: ozone (O₃), carbon monoxide (CO), particulate matter ≤ 10 microns and ≤ 2.5 microns in diameter (PM₁₀ and PM_{2.5}), nitrogen dioxide (NO₂), and sulfur dioxide (SO₂). Pollutants of concern are CAPs that are present in quantities exceeding the NAAQS in the applicable County, air quality management district, or air basin boundaries. Colusa County is in attainment for all NAAQS pollutants (see **Table 3-4**); therefore, there are no pollutants of concern in Colusa County.

TABLE 3-4
NATIONAL AMBIENT AIR QUALITY STANDARDS AND COLUSA COUNTY ATTAINMENT STATUS

Pollutant	Averaging Time	NAAQS			Colusa County Attainment Status
		Standard in parts per million (ppm)	Standard in micrograms per cubic meter (µg/m ³)	Violation Criteria	
O ₃	8 hours	0.075	157	If exceeded on more than 3 days in 3 years	Unclassified/ Attainment
CO	8 hours	9	10,000	If exceeded on more than 1 day per year	Attainment
PM ₁₀	24-hour	N/A	150	If exceeded on more than 1 day per year	Unclassified/ Attainment
PM _{2.5}	24-hour	N/A	35	If exceeded on more than 1 day per year	Attainment
NO ₂	Annual	N/A	100	If exceeded	Attainment
SO ₂	1-hour	0.03	80	If exceeded on more than 1 day per year	Attainment

Source: CARB, 2009

3.3.6 SENSITIVE RECEPTORS

Sensitive receptors are generally defined as land uses that house or attract people who are susceptible to experience adverse impacts from air pollution emissions and, as such, should be given special consideration when evaluating air quality impacts from projects. Sensitive receptors include facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent homes, parks and recreational facilities, and residential areas are examples of sensitive receptors.

Sensitive receptors in the area of potential construction are as follows: one off-site single-family residence is located approximately 800 feet northwest of a proposed house location on APN 015-030-081. Existing on-site houses are located within approximately 300 feet of proposed residential construction on APN 015-030-089, and approximately 1,000 feet from a proposed homesite on APN 015-030-050. Tribal members' houses on the existing Rancheria, as well as a preschool/child care facility, fitness center and medical offices in the Cachil DeHe Wintun Village complex, are located more than 0.5 miles from any proposed development on the project site.

3.4 BIOLOGICAL RESOURCES

This section describes the existing biological resources that occur within the project site and general vicinity. The assessment of the existing biological resources is based upon the results of biological field surveys, which were conducted to document the existing habitat types onsite and to assess the potential for occurrence and/or presence of federally listed species and/or their habitats. The following discussion of existing biological resources provides the basis from which potential environmental consequences were identified and measured. More detailed information is provided in the Biological Assessment included as **Appendix B**.

3.4.1 ENVIRONMENTAL SETTING

The project site is situated within the Sacramento Valley, on the east side of State Highway 45, northwest of the City of Colusa, in Colusa County, California. It is located within the Sacramento River Basin, Colusa subbasin and within the Yolo – American Basins subregion of the Great Valley ecological section in California. The climate within the region is characterized by hot, dry summers and mild winters. The majority of the project site is currently planted in walnut orchards.

3.4.2 REGULATORY SETTING

Federal Endangered Species Act

The United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) implement the Federal Endangered Species Act (FESA) of 1973 (16 USC Section 1531 *et seq.*). Under FESA, threatened and endangered species on the federal list and their habitats (50 CFR Subsection 17.11, 17.12) are protected from “take” (i.e., activities that harass, harm, pursue, hunt, shoot, wound, kill,

trap, capture, or collect) as well as any attempt to engage in any such conduct, unless a Section 10 Permit is granted to an individual or a Section 7 consultation and a Biological Opinion with incidental take provisions are rendered from the lead federal agency. Pursuant to the requirements of FESA, an agency reviewing a Proposed Project within its jurisdiction must determine whether any federally listed species may be present within the project site and vicinity and determine whether the Proposed Project will have a potentially significant impact upon such species. Under FESA, habitat loss is considered to be an impact to the species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC Section 1536[3], [4]). Therefore, project-related impacts to these species, or their habitats, would be considered significant and require mitigation.

Under FESA, critical habitat may be designated by the Secretary of the Interior for any listed species. The term "critical habitat" for a threatened or endangered species refers to the following: specific areas within the geographical range of the species at the time it is listed that contain suitable habitat for the species, which may require special management considerations or protection; and specific areas outside the geographical range of the species at the time it is listed that contain suitable habitat for the species and is determined to be essential for the conservation of the species. Under Section 7 of FESA, all federal agencies (including USFWS and NMFS) are required to ensure that any action they authorize, fund, or carry out will not likely jeopardize the continued existence of a listed species or modify their critical habitat.

Wetlands and Waters of the U.S.

The USACE has primary federal responsibility for administering regulations that concern Waters of the U.S. (including wetlands), under Section 404 of the Clean Water Act (CWA). Section 404 of the CWA regulates the discharge of dredged or fill material into waters of the U.S. The USACE requires that a permit be obtained if a project proposes the placement of structures within, over, or under navigable waters and/or discharging dredged or fill material into waters below the ordinary high-water mark (OHWM). The USACE has established a series of nationwide permits (NWP) that authorize certain activities in waters of the U.S.

Waters of the U.S. are defined as “*All waters used in interstate or foreign commerce; all interstate waters including interstate wetlands; all other waters such as intrastate lakes, rivers, streams (including intermittent and ephemeral streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, where the use, degradation, or destruction of which could affect interstate commerce; impoundments of these waters; tributaries of these waters; or wetlands adjacent to these waters*” (Section 404 of the CWA; 33 CFR Part 328). The limit of USACE jurisdiction for non-tidal waters (including non-tidal perennial and intermittent watercourses and tributaries to such watercourses) in the absence of adjacent wetlands is defined by the OHWM.

The OHWM is defined as “*The line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas*” (Section 404 of the CWA; 33 CFR Part 328).

Wetlands are defined 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*” (Section 404 of the CWA; 33 CFR Part 328).

Rivers and Harbors Act

The Rivers and Harbors Act (RHA) of 1899 governs specified activities in navigable waters of the U.S. Like the CWA, the mandates of the RHA are also administered by the USACE. Specifically, Section 9 requires authorization from the Secretary of the Army, as delegated by the Chief of Engineers, for the construction of any structure in or over a navigable water of the U.S. This includes bridges, dams, dikes, or causeways over or in any ports, roadsteads, havens, harbors, canals, and navigable rivers. Construction of any structure in or over a navigable water of the U.S. without proper authorization is considered unlawful. Within the context of Section 9, the U.S. Coast Guard is largely concerned with safe navigation in navigable waters. As such, the U.S. Coast Guard also reviews projects subject to Section 9 of the RHA with respect to navigation safety. Section 10 of the RHA applies to any other activities that have the potential to affect the course, location, condition, or physical capacity of navigable waters of the U.S. This includes the building or commencement of any wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, or any other structure in any port, roadstead, haven, harbor, canal, navigable river, or other water of the U.S. outside established harbor lines, or where no harbor lines have been established. Section 10 prohibits the excavation, fill, or any other alteration or modification to the course, location, condition, or capacity of, any port, roadstead, haven, harbor, canal, lake, harbor of refuge, or enclosure within the limits of any breakwater, or the channel of any navigable waters. Activities of this nature, without USACE authorization are unlawful. As with Section 9 of the RHA, Section 10 also requires approval from the Chief of Engineers and authorization by the Secretary of the Army.

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (MSFA) conserves and manages the fishery resources found off the coasts of the United States, the anadromous species, and the Continental Shelf fishery resources of the United States, including the conservation and management of highly migratory species through the implementation and enforcement of international fishery agreements. The NMFS enforces the MSFA and regulates commercial and recreational fishing and the management of fisheries resources. The Sustainable Fisheries Act of 1996 amended the MSFA to include new fisheries conservation provisions by emphasizing the importance of fish habitat in regards to the overall productivity and sustainability of U.S. marine fisheries (Public Law 104-267). The revised MSFA

mandates the identification and protection of Essential Fish Habitat (EFH) for managed species during the review of projects conducted under federal permits that have the potential to affect such habitat. Federal agencies are required to consult with NMFS on all actions or proposed actions authorized, funded, or undertaken by the agency, which may adversely affect EFH (MSFA 305.b.2).

Under the MSFA, NMFS identifies, conserves, and enhances EFH for those species regulated under a federal fisheries management plan (FMP). EFH is defined as “those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity.” The EFH Regulatory Guidelines (50 CFR 600.110) further interpret this definition as:

- Waters include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate.
- Substrate includes sediment, hard bottom, structures underlying the waters, and associated biological communities.
- Necessary means the habitat required to support a sustainable fishery and the managed species’ contribution to a healthy ecosystem.
- “Spawning, breeding, feeding, or growth to maturity” covers a species’ full life cycle.

Projects that have the potential to adversely affect EFH must initiate consultation with the NMFS. Adverse affects are any impacts that reduce the quality and/or quantity of EFH. Adverse affects can include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey or reduction in species fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810). There are four FMPs in California, Oregon, and Washington that identify EFH for groundfish, coastal pelagic species, Pacific salmon, and Pacific highly migratory fisheries. The Pacific Coast groundfish FMP manages over 82 species (e.g., rockfish, sablefish, flatfish, and Pacific whiting). Species considered pursuant under this FMP often, though not exclusively, occur on or near the ocean floor or other structures. The coastal pelagic species FMP manages finfish such as sardine, mackerel, anchovy, and the market squid. Species addressed in this FMP tend to occur nearer to the surface and EFH for these species is based on temperature range, life history cycles, and geographic distributions of these species. The Pacific salmon FMP includes both marine and freshwater EFH because of the unique biology of these species. As such, lakes, rivers, streams, ponds, wetlands, and other bodies of water that were historically accessible to salmon are considered EFH, including certain areas above artificial barriers. The FMP for highly migratory species manages mobile fish including tuna, swordfish, and shark. EFH identified in this FMP is highly variable. It typically is defined in terms of area, depth, temperature, salinity, oxygen levels, currents, and topography.

Migratory Bird Treaty Act

Most bird species (especially those that are breeding, migrating, or of limited distribution) are protected under federal and/or state regulations. Under the Migratory Bird Treaty Act of 1918 (16 USC Subsection 703-712), migratory bird species, their nests, and their eggs are protected from injury or death, and any

project-related disturbances during the nesting cycle. As such, project-related disturbances must be reduced or eliminated during the nesting cycle.

3.4.3 METHODOLOGY

Preliminary Research and Data Gathering

Standard references used for the biology and taxonomy of plants include: Abrams (1951, 1960), Barbour and Major (1988), California Native Plant Society (CNPS; 2001, 2009), CDFG (2003, 2007), Hickman, ed. (1993), Mason (1957), Munz (1959), and Sawyer and Keeler-Wolf (1995). Standard references used for the biology and taxonomy of wildlife include: CDFG (2003, 2007), Ehrlich et al. (1988), Jennings and Hayes (1994), Peterson (1990), Sibley (2003), Stebbins (2003), and Cornell Lab of Ornithology (2005).

AES obtained information for the action area from the following sources: color aerial photograph of the action area (USGS, 2005); National Wetlands Inventory (NWI) Online Mapper (USFWS, 2009) for the Moulton Weir quad; soil type descriptions and soil survey map (USDA, 2007); hydric soil information for Colusa County (NRCS, 2009); a USFWS list, dated January 29, 2009, of federally listed special-status species with the potential to occur on or be affected by projects on the Moulton Weir and adjacent Meridian, Colusa, and Sanborn Slough quads (USFWS, 2009); a California Natural Diversity Database (CNDDDB) query, dated May 30, 2009, of state and federally listed special-status species known to occur on the Moulton Weir and adjacent Meridian, Colusa, and Sanborn Slough quads (CDFG, 2003); and a CNDDDB map (CDFG, 2003) of state and federally listed special-status species known to occur within five miles of the action area. The CNDDDB map for species within five miles of the action area was obtained from known occurrences documented on the Lakeport 100k quad (CNDDDB, 2009; CDFG, 2003). The USFWS and CNDDDB, and CNPS database research lists of regionally occurring special-status species are included in **Appendix B**.

A complete list of all of the regionally occurring special-status species reported in the scientific database queries was compiled for the project site (**Appendix B**). An analysis to determine which of these special-status species have the potential to occur within the project site was conducted. The habitat requirements for each regionally occurring special-status species were assessed and compared to the type and quality of habitats observed onsite during the field surveys. Several regionally occurring special-status species were eliminated due to lack of suitable habitat within the project site, elevation range, lack of suitable soil/substrate, and/or distribution. The analysis was also based on reviews of resource agency materials, pertinent scientific literature, aerial photography of the project site, topographic maps of the project site, and other local information. Special-status species determined to have the potential to occur within the project site are discussed in **Section 3.4.4**.

Biological Field Surveys

AES biologist Kelly Buja, M.S., conducted a biological survey of the action area on July 22, 2009. The biological survey consisted of evaluating biological communities and documenting potential habitat for federally listed special-status species with the potential to occur within the action area. The habitat types were identified using the California Wildlife Habitat Relationships (CWHR) (CDFG, 2005). A list of plants and wildlife observed within the action area is included in **Appendix B**.

3.4.4 RESULTS

This section summarizes the results of the field surveys that were conducted within the project site and provides further analysis of the data collected in the field.

Habitat Types

Dominant habitat types in the project site include: agricultural, riparian, ruderal/developed, pond, and irrigation ditch. Dominant vegetation in each habitat type is discussed below. **Table 3-5** provides a summary of habitat types by acreages. A habitat map of the action area is illustrated in Figure 6 of **Appendix B**. Photographs of the action area are illustrated in Figures 7a and 7b of **Appendix B**.

Agricultural

Agricultural habitat occurs throughout the majority of the project site. Dominant overstory vegetation observed in the agricultural habitat includes walnut (*Juglans hindsii*). Dominant understory vegetation observed in the agricultural habitat includes: hairy geranium (*Geranium molle*), plantain (*Plantago lancolata*), Spanish clover (*Lotus purshianus*), willow herb (*Epilobium* sp.), filaree (*Geranium botrys*), yellow star-thistle (*Centaurea solstitialis*), common groundsel (*Senecio vulgaris*) and morning glory (*Convolvulus arvensis*). The CWHR classifies this habitat type as deciduous orchard (CDFG, 2005).

TABLE 3-5
SUMMARY OF HABITAT TYPES WITHIN THE PROJECT SITE

Habitat Type	Acreage¹	Linear Feet¹
Agricultural	175.55	-
Riparian	18.66	-
Ruderal/Disturbed	27.12	-
Pond	3.67	-
Irrigation Ditch	0.005	212.90
TOTAL	225.00	212.90
¹ Data rounded to three decimal places		

Riparian

Riparian habitat occurs primarily within the southeast portion of the project site. A small portion of riparian habitat occurs within the central portion of the project site and surrounds an irrigation ditch.

Dominant overstory vegetation observed in the riparian habitat includes: Fremont's cottonwood (*Populus fremontii*), willow (*Salix* sp.), Valley oak (*Quercus lobata*), and California black walnut (*Juglans californica*). Dominant understory vegetation observed in the riparian habitat includes: common buttonbush (*Cephalanthus occidentalis*), California black walnut (*Juglans californica*), Oregon ash (*Fraxinus latifolia*), California wild grape (*Vitis californica*), stinging nettle (*Urtica dioica*), California blackberry (*Rubus ursinus*), blue elderberry (*Sambucus mexicana*), fig (*Ficus carica*), and poison oak (*Toxicodendron diversilobum*). The CWHR classifies this habitat type as Valley foothill riparian (CDFG, 2005). A CNDDDB occurrence numbers 72 and 73 identify the riparian habitat on the southeast portion of the project site as Great Valley Mixed Riparian Forest (CDFG, 2003).

Ruderal/Developed

Ruderal/disturbed habitat occurs in isolated locations within the project site. This habitat type includes dirt roads, grubbed and graded areas, houses and associated infrastructure, and ornamental landscaping. A few isolated native trees including Valley oak occur within the ruderal/disturbed areas. The CWHR does not have a classification for this habitat type (CDFG, 2005).

Pond

A portion of a pond is located on the southeast portion of the project site. Dominant overstory vegetation observed along the banks of the pond includes: broad-leaf cattail (*Typha latifolia*) and common buttonbush. Dominant understory vegetation observed along the banks of the pond includes: water primrose (*Ludwigia peploides* ssp. *peploides*), annual bluegrass (*Poa annua*), and inland saltgrass (*Distichlis spicata*). The CWHR classifies this habitat type as lacustrine (CDFG, 2005).

Irrigation Ditch

A portion of an irrigation ditch is located along the central portion of the project site. Dominant overstory vegetation observed in the irrigation ditch is identified above in the riparian habitat type. Dominant understory vegetation observed in the irrigation ditch includes: prickly lettuce (*Lactuca serriola*), Johnson grass (*Sorghum halepense*), common sheep sorrel (*Rumex acetocella*), morning glory, poison oak, California blackberry, Himalayan blackberry (*Rubus discolor*), and barley (*Hordeum murinum*). The CWHR does not have a classification for this habitat type.

Wildlife

A variety of wildlife species were observed within the project site during the field surveys. Wildlife species observed onsite include: Brewer's blackbird (*Euphagus cyanocephalus*), American crow (*Corvus brachyrhynchos*), house sparrow (*Passer domesticus*), Acorn woodpecker (*Melanerpes formicivorus*), tree swallow (*Tachycineta bicolor*), Anna's hummingbird (*Calypte anna*), great blue heron (*Ardea Herodias*), great egret (*Ardea alba*), northern mockingbird (*Mimus polyglottos*), turkey vulture (*Cathartes aura*), osprey (*Pandion haliaetus*), and wild turkey (*Meleagris gallopavo*). A complete list of wildlife species observed within the project site is included in **Appendix B**.

Waters of the U.S.

Two wetland features (pond and irrigation ditch) were observed during the biological survey. Wetland features along with the habitat types mapped within the project site are illustrated in Figure 6 of **Appendix B**. The NWI classifies four wetlands and deepwater habitats within the action area. A NWI map in the vicinity of the action area is illustrated in Figure 8 of **Appendix B**. A formal wetland delineation of the action area has not been conducted because no wetland features are proposed to be filled.

Special-Status Species

For the purposes of this assessment, special-status has been defined to include those species that are listed as endangered or threatened under FESA (or formally proposed and/or candidates for listing). While other state listed species may have potential to occur within the project site and its vicinity (and have been included in the baseline research that was conducted for the Proposed Project, these species generally receive no specific protection on Tribal trust land and are not necessarily afforded protection by FESA.

The USFWS and CNDDDB research queries of regionally occurring species are included in **Appendix B**. CNDDDB map of known occurrences of state and federally listed species documented to occur within five miles of the project site is included as Figure 9 of **Appendix B**. A complete list of plant species observed within the project site is included in **Appendix B**. **Table 3-6** provides a summary of regionally occurring federally listed special-status species based on the USFWS file data and CNDDDB queries and provides a rationale as to whether the species has the potential to occur within the project site based on the presence of each species or its habitat during the biological survey. Federally listed species without the potential to occur within the project site are not discussed further. The seven federally listed species that are addressed in this BA are described in detail below.

SPECIES DESCRIPTIONS

Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*; VELB)

Federal Status: Threatened

VELB are completely dependent on elderberry (*Sambucus* sp.) shrubs as their host plants during their entire life cycle. VELB larvae live within the soft pith of elderberry shrubs where they feed for one to two years. Adults emerge from pupation inside the wood of elderberry shrubs during the spring as the plants begin to flower. The adults feed on the elderberry foliage until they mate. Females lay their eggs in the crevices of elderberry bark. The larvae subsequently tunnel into shrub stems to feed upon hatching. VELB typically utilize stems that are greater than one inch in diameter at ground level. VELB inhabit elderberry shrubs in the vicinity of California's Central Valley. VELB are known from Amador, Butte,

TABLE 3-6
REGIONALLY OCCURRING FEDERALLY LISTED SPECIAL-STATUS SPECIES AND THEIR CRITICAL HABITAT

SCIENTIFIC NAME COMMON NAME	FEDERAL STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON ACTION AREA
Plants					
<i>Cordylanthus palmatus</i> palmate-bracted bird's beak	FE	Known to occur in Alameda, Colusa, Fresno, Glenn, Madera, San Joaquin* and Yolo counties (CNPS, 2009).	Found in chenopod scrub and valley and foothill grasslands that occasionally occur on alkaline soils from 5 to 155 meters (CNPS, 2009).	May to October	No. The action area does not contain habitat for this species.
Animals					
Invertebrates					
<i>Branchinecta conservatio</i> conservancy fairy shrimp	FE	Known from a few isolated populations distributed over a large portion of California's Central Valley and in southern California including Glenn, Merced, Solano, Stanislaus, and Tehama counties (Eriksen and Belk, 1999).	Found in ephemeral wetland habitats and vernal pools that fill by winter and hold water until June on clay, volcanic, and alluvial soils within grassland communities from 5 to 145 meters (Eriksen and Belk, 1999).	Wet season: November to April (adults) Dry season: May- October (cysts) (Eriksen and Belk, 1999)	No. The action area does not contain habitat for this species.
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	FT	Known from Shasta County south through the Central Valley to Riverside County in the South Coast Mountains Region (Eriksen and Belk, 1999).	Found commonly in a small swale earth slump or basalt-flow depression basin with grassy or muddy bottom in unplowed grassland from 10 to 290 meters in the Central Valley and up to 1,159 meters in the South Coast Mountains Region (Eriksen and Belk, 1999).	Wet season: December to May (adults) Dry season: June- November (cysts) (Eriksen and Belk, 1999)	No. The action area does not contain habitat for this species.
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	FT	Known from Amador, Butte, Calaveras, Colusa, El Dorado, Fresno, Glenn, Kern, Madera, Mariposa, Merced, Napa, Placer, Fresno, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba counties (USFWS, 1994a).	Found in riparian forest communities from 0 to 762 meters. Exclusive host plant is elderberry (<i>Sambucus</i> species), which must have stems at least one inch in diameter for the beetle (USFWS, 1994a).	Year round	Yes. See text.
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	FE/CH	Known from Alameda, Butte, Colusa, Contra Costa, Fresno, Glenn, Kings, Merced, Placer, Fresno, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba counties (USFWS, 1994b).	Found in a variety of natural and artificial, seasonally ponded habitat types including: vernal pools, swales, ephemeral drainages, stock ponds, reservoirs, ditches, backhoe pits, and ruts caused by vehicular activities. Wetland habitats vary in size from 2 square meters to 356,253 square meters and vary in depth from 2 to 15 centimeters (Helm, 1998).	Wet season: November to April (adults) Dry season: May to October (cysts)	No. The action area does not contain habitat for this species.

SCIENTIFIC NAME COMMON NAME	FEDERAL STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON ACTION AREA
Fish					
<i>Acipenser medirostris</i> green sturgeon	FT	Adults occur in coastal waters from Mexico to Alaska and have been observed along the west coast of North America. Spawning occurs within the Rogue and Illinois Rivers in Oregon, the Klamath River Basin, the Sacramento River, the Feather River, the Pit River, and the McCloud River. Spawning is suspected within the Trinity River, South Fork Trinity, and the Eel River. Known from Butte, Colusa, Glenn, Humboldt, Mendocino, Nevada, Placer, Sacramento, Shasta, Sierra, Siskiyou, Solano, Sutter, Tehama, Trinity, Yolo, and Yuba counties (Moyle, 2002).	Utilizes both freshwater and saltwater habitats. Spawning occurs in deep pools or holes in large, turbulent, freshwater river mainstems. Eggs are cast over large cobble, clean sand, or bedrock substrates. Cold, clean water is required for development. Adults live in oceanic waters, bays, and estuaries (Moyle, 2002).	Consult Agency	Yes. See text.
<i>Hypomesus transpacificus</i> Delta smelt	FT	Known almost exclusively in the Fresno-San Joaquin estuary, from the Suisun Bay upstream through the Delta in Contra Costa, Fresno, San Joaquin, Solano, and Yolo counties. May also occur in the San Francisco Bay (Moyle, 2002).	Found in estuarine waters. Majority of life span is spent within the freshwater outskirts of the mixing zone (saltwater-freshwater interface) within the Delta (Moyle, 2002).	Consult Agency	No. The action area does not contain habitat for this species.
<i>Oncorhynchus mykiss</i> Central Valley Steelhead	FT/CH	Spawn in the Fresno and San Joaquin rivers and tributaries before migrating to the Delta and Bay Area (Moyle, 2002).	Found in cool, clear, fast-flowing permanent streams and rivers with riffles and ample cover from riparian vegetation or overhanging banks. Spawning occurs in streams with pool and riffle complexes. The species requires cold water and gravelly streambeds to successfully breed (Moyle, 2002).	Consult Agency	Yes. See text.
<i>Oncorhynchus tshawytscha</i> Chinook salmon Central Valley spring-run	FT/CH	Spawn in the Sacramento river and some of its tributaries. Juveniles migrate from spawning grounds to the Pacific Ocean (Moyle, 2002).	Spawning occurs in large deep pools in tributaries with moderate velocities (Moyle, 2002).	Consult Agency	Yes. See text.
<i>Oncorhynchus tshawytscha</i> Chinook salmon	FE/CH	Spawn in the upper Sacramento River. Juveniles migrate from spawning grounds to the Pacific	Returns to the Upper Sacramento River in the winter but delay spawning until spring and summer. Juveniles spend 5-9 months	Consult Agency	Yes. See text.

SCIENTIFIC NAME COMMON NAME	FEDERAL STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON ACTION AREA
winter-run, Sacramento River		Ocean (Moyle, 2002).	in the river and estuary before entering the ocean (Moyle, 2002).		
Amphibians					
<i>Ambystoma californiense</i> California tiger salamander Central population	FT	Known from Alameda, Butte, Contra Costa, Fresno, Glenn, Kern, Madera, Merced, Monterey, Fresno, San Benito, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Solano, Sonoma, Stanislaus, Tulare, and Yolo counties (Californiaherps, 2008). The Central population range excludes CTS populations in Santa Barbara and Sonoma counties (Californiaherps, 2009).	Found in vernal pools, ephemeral wetlands, and seasonal ponds, including constructed stockponds, in grassland and oak savannah plant communities from 3 to 1,054 meters (Stebbins, 2003).	November to February (adults) March 15 to May15 (larvae and metamorphs)	No. The action area does not contain habitat for this species.
<i>Rana aurora draytonii</i> California red-legged frog	FT	Known along the Coast from Mendocino County to Baja California, and inland through the northern Fresno Valley into the foothills of the Sierra Nevada mountains, south to eastern Tulare County, and possibly eastern Kern County. Currently accepted range excludes the Central Valley (USFWS, 1994).	Found in permanent and temporary pools of streams, marshes, and ponds with dense grassy and/or shrubby vegetation from 0 to 1,500 meters (NatureServe, 2009).	November to June	No. The action area does not contain habitat for this species.
Reptiles					
<i>Thamnophis gigas</i> giant garter snake	FT	Known from Butte, Colusa, Contra Costa, Fresno, Glenn, Kern, Madera, Merced, Fresno, San Joaquin, Solano, Sutter, Yolo, and Yuba counties (Stebbins, 2003).	Inhabits agricultural wetlands and other waterways such as irrigation and drainage canals, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands. Requires adequate water during its active season (early spring through mid-fall) to provide food and cover, emergent, herbaceous wetland vegetation for foraging and cover, grassy banks and openings in waterside vegetation for basking, and higher elevation uplands for cover and refuge from flood waters during its dormant season (winter). Inhabits small mammal burrows and other soil crevices with sunny exposure along south and west facing slopes, above prevailing	March to October	Yes. See text.

SCIENTIFIC NAME COMMON NAME	FEDERAL STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON ACTION AREA
			flood elevations when dormant (Stebbins, 2003).		
Birds					
<i>Coccyzus americanus</i> yellow-billed cuckoo	FC	West of the Continental Divide, this species occurs in California, Arizona, and New Mexico. This species occurs in all counties of Arizona. In California it occurs along the Colorado River, in the Sacramento and Owens valleys, along the South Fork of the Kern River, along the Santa Ana River, along the Amargosa River, and along the Luis Rey River (Hughes, 1999). Occurs at isolated sites in Sacramento Valley in northern California, and along Kern and Colorado River systems in southern California (Gaines and Laymon, 1984).	Breeds and forages in valley foothill and desert riparian communities. Requires dense riparian thickets (especially willow and salt-cedar) of slow-moving watercourses. This species will also utilize orchards (Hughes, 1999).	June to September	Yes. See text.
<i>Strix occidentalis caurina</i> Northern spotted owl	FT	Geographic range extends from British Columbia to northwestern California south to San Francisco. The breeding range includes the Cascade Range, North Coast Ranges, and the Sierra Nevada. Some breeding populations also occur in the Transverse Ranges and Peninsular Ranges (Gutierrez et al., 1995).	Resides in mixed conifer, redwood, and Douglas-fir habitats, from sea level up to approximately 2300 meters. Appear to prefer old-growth forests, but use of managed (previously logged) lands is not uncommon. Owls do not appear to use logged habitat until approximately 60 years after logging unless some larger trees or snags remain after logging. Nesting habitat is a tree or snag cavity, or the broken top of a large tree. Requires a nearby, permanent source of water. Foraging habitat consists of any forest habitat with sufficient prey (Gutierrez et al., 1995).	All Year	No. The action area does not contain habitat for this species.

FEDERAL STATUS CODES (USFWS, 2009):

FE Listed as Endangered
 FT Listed as Threatened
 CH Critical Habitat
 FC Listed as Candidate

Calaveras, Colusa, El Dorado, Fresno, Glenn, Kern, Madera, Mariposa, Merced, Napa, Placer, Fresno, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba counties (USFWS, 1994a).

There are four CNDDDB records for VELB within five miles of the project site. The nearest record is from 1986 (CNDDDB occurrence number 147) and is mapped on the southeast side of the action area. Four old exit holes were observed within scattered elderberry shrubs surrounded by dense, wild grape. The project site does not contain critical habitat for VELB. The elderberry shrubs within the project site provide potential habitat VELB. Elderberry clusters were observed within the riparian habitat along the southeast side of the project site. The exact number of elderberry shrubs was not obtained as the majority of the riparian habitat was impenetrable. AES was unable to determine whether exit holes occur as the majority of the elderberry shrubs were covered by wild grape in areas that were inaccessible to survey. AES observed one potential exit hole on an elderberry stem greater than one inch diameter at ground level on the west of the irrigation ditch outside of the project site. One elderberry cluster was observed east of the irrigation ditch within the project site, however, there were no stems that were at least one inch in diameter at ground level. Two elderberry clusters were observed along the levee within the ruderal/developed areas. This species has the potential to occur in the project site.

Green Sturgeon (*Acipenser medirostris*)

Federal Status: Threatened

The Southern Distinct Population Segment (DPS) green sturgeon is an anadromous fish that is mostly marine oriented. Spawning period occurs between March and July, with a peak from mid-April to mid-June during temperatures between 8° and 14° Celsius. Green sturgeon occupy freshwater rivers from the Sacramento River up through British Columbia (Moyle, 2002). The Southern DPS includes all spawning populations south of the Eel River (exclusive), principally including the Sacramento River spawning population (50 CFR Part 17). The only recently documented spawning locations in California are in the Sacramento, Klamath, and Rogue rivers along the west coast (Moyle, 2002).

The NMFS designated proposed critical habitat for the green sturgeon southern DPS on September 2008 (50 CFR Part 226). The proposed critical habitat designation has not been finalized. No recovery plan has been completed.

This species is not listed within the CNDDDB and no documented occurrences have been reported (CDFG, 2003).

The Sacramento River, which abuts the northern and southeastern boundary of the project site, provides potential spawning habitat for this species. The riparian habitat on the southeast side of the project site provides potential refuge for the species during high flow velocities that result in flooding from the Sacramento River. This species has the potential to occur within the project site.

Central Valley Steelhead (*Oncorhynchus mykiss*)**Federal Status:** Threatened

The Central Valley steelhead Evolutionary Significant Unit (ESU) spawns and hatches in the freshwater streams where they were born. The juveniles remain in the freshwater environment for one to two years prior to migrating into the ocean. When sexual maturity is reached, they migrate back to their natal streams to spawn. The Central Valley steelhead ESU begins freshwater migrations between August and October. This ESU has an average lifespan of six to seven years; it does not usually die immediately after spawning, and is capable of spawning several times throughout its lifetime (Moyle, 2002). The range of this ESU includes all naturally spawned populations of steelhead in the Sacramento and San Joaquin Rivers and their tributaries, excluding steelhead from San Francisco and San Pablo Bays and their tributaries, and two artificial propagation programs. The range includes portions of Amador, Alameda, Butte, Calaveras Contra Costa, Colusa, Glenn, Mariposa, Merced, Nevada, Placer, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tuolumne, Yolo, and Yuba, counties (CDFG, 2003).

The NMFS designated critical habitat for the Central Valley steelhead ESU on September 2, 2005 (Federal Register 70:52488). A Recovery Outline was and signed by NMFS Regional Headquarters completed a Recovery Outline in May 2007, although no recovery plan has been completed for this ESU. A portion of the project site abuts designated critical habitat for the Central Valley steelhead ESU and Central Valley spring-run Chinook ESU (USFWS, 2005).

This species is listed within the CNDDDB, although there have been no documented occurrences reported (CDFG, 2003).

The Sacramento River, which abuts the eastern boundary of the action area, provides potential adult and juvenile migration and juvenile rearing habitat for this species. The riparian habitat and pond on the southeast side of the project site provides potential refuge for the species during high flow velocities that result in flooding from the Sacramento River. Suitable spawning habitat for this species does not occur within the project site.

Central Valley Spring-Run Chinook Salmon (*Oncorhynchus tshawytscha*)**Federal Status:** Threatened

Central Valley spring-run Chinook salmon ESU are the largest and most abundant salmonids that occur in California. Central Valley spring-run Chinook salmon are anadromous. Central Valley spring-run Chinook die after a single spawning event. Central Valley spring-run Chinook exhibit a stream-type and the ocean-type life history. The stream-type Central Valley spring-run Chinook typically migrate upstream before reaching sexual maturity during the spring and summer months. They achieve sexual maturity in the freshwater environment. Hatched juveniles reside in spawning streams for at least one year before returning to marine habitats. The ocean-type Central Valley spring-run Chinook are sexually mature before migration to the freshwater environment and they spawn shortly after arrival during the

summer and fall months. Hatched juveniles remain in the freshwater environment for a relatively short time period that ranges from three to twelve months, before entering the marine environment. All of the currently recognized Chinook ESUs within California demonstrate slight variations of these two life history themes. The Central Valley spring-run Chinook ESU exhibits the typical stream-type life history cycle. It enters the freshwater environment as immature fish. Migration begins during the months of March through September, with peak migration occurring from May to June. Spawning typically occurs from August through October and juveniles tend to emerge from November through March. Juveniles reside in the freshwater environment for approximately three to fifteen months and eventually migrate out to the marine environment (Moyle, 2002). The range of this ESU includes all naturally spawned populations of spring-run Chinook salmon in the Sacramento River and its tributaries, including the Feather River, and the Feather River Hatchery spring-run Chinook program. The range includes portions of Butte, Colusa, Contra Costa, Glenn, Napa, Nevada, Placer, Sacramento, Shasta, Solano, Sutter, Tehama, Yolo, and Yuba counties. The range of this ESU is synonymous with the range of the Sacramento River winter-run Chinook ESU.

The NMFS designated critical habitat for the Central Valley spring-run Chinook ESU on September 2, 2005 (Federal Register 70:52488). A Recovery Outline was and signed by NMFS Regional Headquarters completed a Recovery Outline in May 2007, although no recovery plan has been completed for this ESU. A portion of the project site abuts designated critical habitat for the Central Valley steelhead ESU and Central Valley spring-run Chinook ESU (USFWS, 2005).

There are no CNDDDB records for this species within five miles of the project site. The nearest record is from 1995 (CNDDDB Occurrence Number 5) and is approximately 25 miles northeast of the project site. The occurrence was recorded within the Feather River.

The Sacramento River, which abuts the northern and southeastern boundary of the project site, provides potential adult and juvenile migration and juvenile rearing habitat for this species. The riparian habitat and pond on the southeast side of the project site provides potential refuge for the species during high flow velocities that result in flooding from the Sacramento River. Suitable spawning habitat for this species does not occur within the project site.

Sacramento River Winter-Run Chinook Salmon (*Oncorhynchus tshawytscha*)

Federal Status: Endangered

The Sacramento River winter-run Chinook ESU is unique because it is thought to be an intermediate species, displaying characteristics of both stream- and ocean-type Chinook life history cycles. Winter-run Chinook are a unique species to the Sacramento River. They typically migrate into freshwater in December through July and spawn in the early summer. This species is sexually immature during this migratory period and it resides in the freshwater environment for several months. During this freshwater residency, sexual maturity is attained. The life history strategy of this species is dependent upon the cool summer water temperatures of the upper Sacramento watershed. Hydro-modification has resulted in

reductions of the amount of traditional spawning grounds available for this species. Hatched juveniles remain in freshwater streams for approximately five to ten months. After this period, young Chinook remain in estuaries for an indeterminate amount of time and eventually migrate out to the ocean; which is why they are thought to exhibit characteristics of both generalized life history cycles (Moyle, 2002). The Sacramento River winter-run Chinook ESU currently includes all naturally spawned populations of winter-run Chinook in the Sacramento River and its tributaries, as well as two artificial propagation programs. The range includes portions of Butte, Colusa, Contra Costa, Glenn, Napa, Nevada, Placer, Sacramento, Shasta, Solano, Sutter, Tehama, Yolo, and Yuba counties (and is synonymous with the range of the Central Valley spring-run Chinook ESU) (Moyle, 2002).

The NMFS designated critical habitat for the Sacramento River winter-run Chinook salmon ESU on June 16, 1993. (Federal Register Volume 58: Volume 114). A portion of the project site abuts designated critical habitat for the Sacramento River winter-run Chinook salmon ESU (USFWS, 2005).

There are no CNDDDB records for this species within five miles of the project site. The nearest record is from 1995 (CNDDDB occurrence Number 1) and is approximately 45 miles north of the project site (CDFG, 2003). Approximately 1,361 adults and grise and 199 redds were observed in the Sacramento River from the Keswick Dam to the confluence with Deer Creek within Shasta and Tehama counties (CDFG, 2003).

The Sacramento River, which abuts the northern and southeastern boundary of the project site, provides potential adult and juvenile migration and juvenile rearing habitat for this species. The riparian habitat and pond on the southeast side of the project site provides potential refuge for the species during high flow velocities that result in flooding from the Sacramento River. Suitable spawning habitat for this species does not occur within the project site.

Giant Garter Snake (*Thamnophis gigas*; GGS)

Federal Status: Threatened

GGS is one of the largest garter snakes, and can reach lengths of up to five feet. It is also one of the most aquatic garter snakes in California. GGS mate between March and April. GGS inhabit agricultural wetlands and other waterways such as irrigation and drainage canals, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands. GGS require adequate water during its active season (early spring through mid-fall) to provide food and cover; emergent, herbaceous wetland vegetation for foraging and cover; grassy banks and openings in waterside vegetation for basking; and higher elevation uplands for cover and refuge from flood waters during its dormant season (winter). GGS inhabit small mammal burrows and other soil crevices with sunny exposure along south and west facing slopes, above prevailing flood elevations when dormant. GGS rely on small fish, tadpoles and frogs as a primary diet and hunts primarily during morning and evening hours. Nighttime hours are spent in mammal burrows for cover and refuge (Stebbins, 2003). GGS is known from Butte, Colusa, Contra Costa, Fresno, Glenn, Kern, Madera, Merced, Fresno, San Joaquin, Solano, Sutter, Yolo, and Yuba counties (Stebbins, 2003).

There are nine CNDDDB records for this species within five miles of the project site. Two records are mapped in large polygons on the southwest side of the project site (CNDDDB occurrence numbers 58 and 215). The CDFG (2003) considers information on GGS occurrences to be sensitive, and therefore, provides no descriptions. The project site does not contain critical habitat for GGS.

The riparian habitat and pond on the southeast side of the action area and the irrigation ditch and surrounding uplands on the east side of the project site provide potential habitat for the species. The mammal burrows within the agricultural habitat provide potential habitat during the dormant season.

Yellow-Billed Cuckoo (*Coccyzus americanus*)

Federal Status: Candidate

The yellow-billed cuckoo is a medium-sized bird that breeds in large blocks of riparian habitats including woodlands with cottonwoods and willows and dense understory foliage (Ehrlich et al., 1988; Laymon et al., 1993). The dense understory foliage includes blackberry, nettles, and wild grape (CDFG, 2003). The yellow-billed cuckoo that occur in the western U.S. are considered a Distinct Population Segment (DPS). The area for this DPS is west of the crest of the Rocky Mountains (50 CFR Part 17). The species occurs at isolated sites in Sacramento Valley in northern California and along the Kern and Colorado River systems in southern California (Gaines and Laymon, 1984).

There are five CNDDDB records for this species within five miles of the project site. The nearest record (CNDDDB occurrence number 26) is from 1987 and is approximately 0.27 miles north of the project site. Two birds were observed mating between June and August 1987 within Great Valley Mixed Riparian Forest (CDFG, 2003).

The riparian habitat within the action area provides nesting habitat for this species. This species has the potential to occur within the project site.

Other Birds

Fish and Game Code 3503.5 protects all birds in the orders Falconiformes and Strigiformes (collectively known as birds of prey). The Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711) protects migratory birds by making it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR 10 including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21).

Potential to Occur in the Action Area: Migratory birds and birds of prey protected under the MBTA and Code 3503.5 have the potential to nest within the riparian habitat, on the walnut trees and infrastructure within the agricultural land, and on the ornamental trees, isolated native trees, and houses within the ruderal/developed areas. An osprey (*Pandion haliaetus*) nest was observed within the project site. Migratory birds and other birds of prey have the potential to nest within the project site.

3.5 CULTURAL RESOURCES

An archaeological survey of the entire project site was conducted by AES in July 2009. The cultural resources study is bound under separate cover as **Confidential Appendix C** to this EA. The cultural resources study included a literature search, field survey, and Native American consultation to identify and evaluate any prehistoric and historic-period resources within or adjacent to the project site that may be impacted by the proposed undertaking. Following is a summary of applicable sections of the cultural resources study.

3.5.1 REGULATORY SETTING

National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) as amended, and its implementing regulations found in 36 Code of Federal Regulations (CFR) Part 800, require federal agencies to identify cultural resources that may be affected by actions involving federal lands, funds, or permitting. The significance of the resources must be evaluated using established criteria outlined 36 CFR 60.4, as described below.

If a resource is determined to be a *historic property*, Section 106 of the NHPA requires that effects of the undertaking on the resource be determined. A historic property is defined as:

“...any prehistoric or historic district, site, building, structure or object included in, or eligible for inclusion in the National Register of Historic Places, including artifacts, records, and material remains related to such a property.” (NHPA Sec. 301[5]).

The criteria for listing on the National Register of Historic Places (NRHP), defined in 36 CFR 60.4, are as follows: *The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, association, and*

- A. That are associated with events that have made a significant contribution to the broad patterns of our history;
- B. That are associated with the lives of persons significant in our past;
- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. That have yielded, or may be likely to yield, information important to prehistory or history.

Sites younger than 50 years, unless of exceptional importance, are not eligible for listing in the NRHP.

National Environmental Policy Act (NEPA)

NEPA requires that federal agencies take all practical measures to “preserve important historic, cultural, and natural aspects of our national heritage” (NHPA, Section 800.8(a)). NEPA’s mandate for considering the impacts of a federal project on important historic and cultural resources is similar to that of Section 106 of the NHPA, and the two processes are generally coordinated when applicable. Section 800.8(a) of NHPA’s implementing regulations provides guidance on coordination with NEPA.

Antiquities Act

Passed in 1906, the Antiquities Act prohibits the collection, destruction, injury, or excavation of “any historic or prehistoric ruin or monument, or any object of antiquity” that is situated on federal land without permission of the appropriate land management agency. The Antiquities Act also provides for the criminal prosecution, including fines and imprisonment, for individuals who commit one or more of the acts described above.

3.5.2 CULTURAL RESOURCES SETTING

The following discussion of the cultural setting of the project area is condensed from the information presented in the cultural resources study, **Confidential Appendix C** of this document.

Prehistory

The cultural prehistory of central California spans more than 12,000 years. The earliest evidence for occupation of the region comes from archaeological assemblages attributed to the regional expression of the Fluted Point Tradition (FPT) and Western Stemmed Tradition. Commonly referred to as the Clovis culture, the FPT is generally associated with hunting of large, now-extinct megafauna such as mammoth, mastodon, sloth, camel, etc. The Post Pattern is the regional manifestation of the widespread FPT. It is characterized by the use of Clovis-like fluted points and stone crescents. Based on landscape associations, the Post Pattern is presumed to represent a subsistence economy focused on lacustrine environments, such as those found on the margins of Clear Lake.

FPT assemblages in California have not been firmly dated because most finds have been made on the surface, precluding the possibility of correlating the artifacts to datable features. On the Plains and in the Southwest, Clovis assemblages have been dated to between 11,500-10,900 years before present (B.P.), which corresponds to the terminal Pleistocene (Haynes 1991). Central California sites attributed to the middle Holocene (7,500 - 4,500 B.P.) are few in number. Sites dating to this period suggest greater use of nut crops such as acorns and pine nuts, although groundstone assemblages dating to this period are dominated by millstones and handstones. Archaeological sites dated to the latter half of the Holocene have been documented in much greater numbers and detail in the Central Valley and North Coast Ranges compared to the preceding periods. The following discussion focuses on regional prehistory from 4,500 B.P. to Spanish contact.

Early Period (ca. 4,500 – 2,500 B.P.)

Artifact assemblages that typify Early Period components include *Haliotis* beads and ornaments, projectile points and blades, charmstones, *Olivella* beads, bone and antler implements, quartz crystals, and red ochre. These were funerary objects observed in the Early Period components at sites within Sacramento and San Joaquin Counties. Mortuary practices at these sites are characterized by extended interments oriented in a westerly direction. Burials dating from the Early Period exhibit a high incidence of associated artifacts of the types listed above. Other artifact types are found in defined Early Period components, however their occurrence is not a constant. Artifacts found sporadically include baked clay objects, artifacts of human bone, trident harpoon tips, and pipes. The near absence of plant-processing artifacts in the initial inventories of Early Period sites is noteworthy.

Middle Period (ca. 2,500 – 940 B.P.)

Artifact assemblages that characterize the Middle Period component include, most notably, a large and varied assemblage of bone and antler objects such as sweat scrapers or “ceremonial wands,” beaver mandibles, tubes, whistles, incised game pieces, perforated needles, atlatl spurs, barbless harpoon tips, ground sturgeon mouth plates and wedges. Other typical artifacts related to the Middle Period include *Haliotis* beads and ornaments, large obsidian and chert concave and stemmed-based projectile points, charmstones, *Olivella* beads, quartz crystals, millstones and handstones, red ochre, asphaltum, chrysolite asbestos splinters, steatite tubes and earplugs, slate pendants and baked clay spools, net weights and occasional mortars and pestles. While many of these artifacts continued to be found as mortuary items, they were no longer exclusively so and were found in other contexts within Middle Period components at principle sites. Mortuary practices at these sites are characterized by flexed burials with variable orientation. The incidence of high numbers of interments with associated artifacts and the quantity of those offerings declines considerably during this time. The Middle Period components clearly mark a florescence of artifact types and the materials used in their manufacture.

Late Period (ca. 940 – 150 B.P.)

Late Period artifact assemblages and characteristics include *Haliotis* beads, small chert and obsidian arrow points, with an emphasis on “Stockton Serrated” types. Other artifacts characteristic of this period include charmstones, *Olivella* beads, *Saxidomus nuttalli* beads and other species of clam, *Haliotis* ornaments, magnesite and steatite beads, ear spools and tubes, whole *Haliotis* shells, mammal bone tubes, incised bird bone whistles, barbed harpoon tips, antler arrow shaft straighteners, baked clay objects, wooden fishhooks, netting and basketry items, mortars and pestles. As observed in Middle Period components, many of the artifacts that typify this period were not found exclusively in association with burials. The primary sites that first allowed identification of components from this period were found in Sacramento and Contra Costa Counties. Mortuary practices at these sites were variable, with both flexed interments and cremations present. Also characteristic of this component is the number of burials found intermingled in the midden deposits within village sites and often in the floor of house structures. This highly variable practice was first observed in the Middle Period.

Ethnography

Ethnographic literature indicates that at the time of historic contact, the project site was within the territory of the Patwin-speaking people (Johnson 1978:350). Patwin core territory included lands in the southern Sacramento Valley west of the Sacramento River from the town of Princeton, north of Colusa, south to San Pablo and Suisun bays. Distinction is made between the River Patwin, who resided in large villages near the Sacramento River, especially between Colusa and Knights Landing, and the Hill Patwin, whose villages were situated in the Long, Bear, Indian, Capay, Pope, and Cortina valleys. The term “Patwin” refers to the people belonging to the many small contiguous independent political entities in this area who shared linguistic and cultural similarities. The basic social unit of the Patwin was the village community, or “tribelet” (Kroeber 1925). Triblets were autonomous and differed from other such units in minor cultural variations. Villages were often located near major drainages, and inhabited mainly in the winter as it was necessary to go out into the hills and higher elevations to establish temporary camps during food gathering seasons (i.e. spring, summer, and fall).

The Patwin economy was based on fishing, hunting, and gathering, with triblet members moving to various places within their territory to take full advantage of different resources as they became available with the changing seasons. Game was hunted either by the individual or in community drives. Salmon runs and other food resources available along the Sacramento River and its tributaries also contributed significantly to Patwin economy. Acorns represented one of the most important staples of Patwin subsistence and were particularly abundant within oak woodlands along both sides of the Sacramento River. Some Patwin triblets defended their territory against trespassers, but land was not considered privately owned (Johnson 1978). The closest documented ethnographic village to the study area was *liwai*, depicted as being located west of the project site closer to Winters (Barrett 1908). The Patwin culture was significantly disrupted through missionization and EuroAmerican settlement.

As elsewhere in northern California, only fragmentary evidence of Patwin material cultural remains, due in part to a lack of preservation and impacts from historic-period land use. Based on the results of previous work in this portion of Sacramento Valley (Heizer and Fenega 1939), a range of prehistoric site types is known to be present, including middens with associated surface scatters, small surface features such as rock rings and circles, petroglyphs, food processing stations including bedrock mortars, and isolated lithic flakes and tools.

History

Recorded history in the project area begins with the attempts of Spanish colonists to explore parts of California beyond the coastal zone. Gabriel Moraga’s expedition was undertaken in 1806, with additional expeditions occurring through the 1840s. European Americans began arriving in the mid-1820s, most notably with the trapping party of Jediah Smith. However, the EuroAmerican incursion with the greatest impact on Native American population and culture occurred immediately following the discovery of gold at Coloma in 1848, which initiated the Gold Rush of 1849.

John Bidwell was the first recorded EuroAmerican explorer in the area and in July 1844 he mapped out a land grant that extended along the west bank of the Sacramento River north of what is now the town of Colusa and into present Glenn County. Known as the Larkin Grant, it was the first grant made in Colusa County (Hoover et al., 1990:47). The first settler in the area was John S. Williams who in 1847 was employed as caretaker of the Larkin Grant and built the first house in the county just below the present town of Princeton.

American settlement in Colusa County began very slowly in the 1840s under Mexican rule. The hordes attracted by the discovery of gold bypassed this area for the diggings in the Sierra Nevada foothills. As the work of mining gold increased, disgruntled miners sought other means of support, with some coming to the Colusa area and taking up land along the Sacramento River or in the foothills of the Coast Range mountains. Small farms and ranches became common and settlements graduated into towns. The raising of cattle and sheep gave way to agriculture such as barley and wheat. Steamboats on the Sacramento River brought cargo and passengers to Colusa, and oxen- or mule-drawn wagons carried supplies and food from there to the mines of Shasta and Trinity counties.

Colusa County was one of the original 27 California counties. First called Colusi, from the Native American Ko-ru-si tribelet, the present name was adopted in 1854. A portion of Tehama County and all of Glenn County were formed from Colusa County (Hoover et al., 1990:47). In 1875, the railroad began its slow advance from Woodland up the Central Valley, about halfway between the foothills of the Coast Range mountains and the Sacramento River, taking a half dozen years to reach Red Bluff. As it progressed, the railroad contributed to the development of towns such as Arbuckle, Williams, Maxwell, Willows and Orland (Hoover et al., 1990; Gudde, 1998:423).

Early on, lands in the Sacramento Valley were considered sub-par agricultural soils, fit only for raising and grazing stock. The first crop experimented with was wheat, planted a mile west of Colusa, near Klew's Slaughter House in 1852 (Archaeological Research Program, 2005). By the 1870s wheat was of central importance to the agricultural industry in the northern Sacramento Valley. Agriculture remained the primary land use in the Colusa area throughout the 20th century.

3.5.3 RESULTS OF CULTURAL STUDIES

Documentation of cultural resources within the project site was achieved through review of pertinent anthropological literature, historic documents and maps, a records search at the Northwest Information Center (NWIC), Native American consultation, and a field examination of the project site by professional archaeologists.

Records and Literature Search

A records search for the project site, including a one-half-mile radius around the parcels, was conducted by staff at the Northwest Information Center (NWIC) of the California Historical Resources Information

System on June 25, 2009 (NWIC File 08-1349). The NWIC, housed at California State University, Sonoma, is an affiliate of the State of California Office of Historic Preservation as the official state repository of archaeological and historic records and reports for a 16-county area that includes Colusa County.

The records search and literature review were done to: (1) determine whether known cultural resources had been recorded within or adjacent to the study area and to determine if the parcel was subject to surveys in the past; (2) assess the likelihood of unrecorded cultural resources based on archaeological, ethnographic, and historical documents and literature; and (3) to review the distribution of nearby archaeological sites in relation to their environmental setting.

Included in the review was the California Inventory of Historical Resources (California Office of Historic Preservation, 1976), the California Office of Historic Preservation's Five Views: An Ethnic Historic Site Survey for California (1988), California Historical Landmarks (1990), California Points of Historical Interest (1992), and the Historic Properties Directory Listing for Colusa County (2009). The Historic Properties Directory includes the National Register of Historic Places, the California Register of Historical Resources, and the most recent listings (through February, 2009) of the California Historical Landmarks and California Points of Historical Interest.

The records search found that though no cultural resources have been identified within the project parcels, two prehistoric archaeological resources have been recorded within a one-half-mile radius. The records search also indicated that though the project area has not been subject to any intensive cultural resources surveys in the past, the general area was included in Greg White's dissertation (2003) of prehistoric population ecology in the Colusa County region. In addition, several studies have been conducted within a one-half-mile radius of the project parcels, including a 1978 study of six northern California Rancherias that included the current Colusa Rancheria, located adjacent to the southern boundary of the project area.

Given the environmental setting, it was anticipated that prehistoric archaeological material, ranging from isolated artifacts and lithic scatters to intact midden deposits, might be encountered in areas left undisturbed within the APE. It was also considered possible that outlying historic-period deposits related to homesteads, agricultural, and ranching activity might be present.

Native American Consultation

In June 5, 2009 the State of California Native American Heritage Commission (NAHC) was asked to review the Sacred Lands file for information on Native American cultural resources located within the project area. The NAHC responded on June 10, 2009, indicating they have no knowledge of any sacred sites located within the subject property. At the same time, the NAHC provided a list of 17 interested individuals/ organizations for further consultation. Letters were sent in August of 2009. A response letter

from the Yocha Dehe Wintun Nation endorsing and supporting the Colusa Indian Community's fee to trust application was received on October 19, 2009 and is included in **Confidential Appendix C**.

Field Surveys

On July 21 and 22, 2009, Damon Haydu, RPA, and Jennifer Bowden, B.A., conducted a pedestrian survey of the project site. The fieldwork included an intensive pedestrian inventory that examined each parcel within the project area, employing transects spaced 10-30 meters apart. Surface visibility varied between little visible ground surface due to dense vegetation (such as was present in the riparian corridor east of the levee) to complete surface visibility in areas that had been recently disced. The ground surface was examined for archaeological remains, while rodent burrow backdirt piles and road cuts were examined for indicators of buried archaeological deposits. The survey found that the majority of the CIC Property has been subject to significant historic and modern disturbances such as grading of roadways, the ripping/ leveling of agricultural fields, and the installation of underground irrigation infrastructure. The survey resulted in the identification of one historic-period resource, CR-1, which consists of an earthen levee on the west bank of the Sacramento River. This resource is described below.

CR-1: This linear historic-period resource, identified as CR-1 in the present study, consists of a portion of an earthen levee on the west bank of the Sacramento River. The levee measures approximately 30 feet tall by 20 feet wide at its graded/ paved top surface. The levee has been improved upon over time including vegetation management, development of modern irrigation intakes and gates, and repaving Reese Avenue B, located on top of the levee. The levee is still in use both as flood control and a residential/ agricultural access road, and continues to provide vehicle access to the proposed trust parcels. The Proposed Project would not result in any change in use of the levee/ road.

3.5.4 PALEONTOLOGICAL SETTING

Paleontological resources are defined as the traces or remains of prehistoric plants and animals. Such remains often appear as fossilized or petrified skeletal matter, imprints or endocasts, and reside in sedimentary rock layers. Fossils are important resources, due to their scientific and educational value. Fossil resources are non-renewable.

This section presents documentation on reported paleontological deposits on the CIC Property and surrounding region, as well as an analysis on the potential for unreported paleontological resources to be present on the project site.

Regulatory Background

The Antiquities Act of 1906 (PL 59-209; 16 United States Code 431 et seq.; 34 Stat. 225) calls for the protection of historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest on Federal land. While neither the Antiquities Act nor its implementing regulations (found at 43 CFR 3) explicitly mention fossils or paleontology, the inclusion of "object[s] of antiquity" in

the Act has been interpreted to extend to paleontological resources by many federal agencies. As such, projects involving federal lands require permits for paleontological resource evaluation and mitigation efforts that involve excavation, collection, etc. Additional provisions appear in the Archaeological and Historic Data Preservation Act of 1974, as amended, for the survey, recovery, and preservation of significant scientific, prehistoric, historic, archaeological, or paleontological data, in such cases wherein this type of data might be otherwise destroyed or irrecoverably lost as a result of Federal projects.

Typologies and Formation Processes

The processes involved in the preservation of paleontological resources result in several types of remains. It is noted that only a small percentage of ancient life forms and their traces have been exposed to conditions favorable to preservation. Factors affecting the persistence of paleontological resources vary between species, and broadly include geological formation processes, climate, soil and rock chemistry, and organism morphology. Paleontological resources are discussed here as fossil remains, although other types of remains occur elsewhere.

Fossils are the remains of plants and animals embedded in layers of rock, which have retained some degree of their original characteristics over a long period of time. Remains are buried under layers of sediment, which under building pressure become sedimentary rock. Paleontological remains can be those of organism structure, such as skeletal parts, shells, tree trunks, pollen, endocasts or imprints, or they can be remnants of activity, such as footprints or tunnels of burrowing organisms. Soft tissues are less frequently fossilized, because they usually decay before fossilization processes take place. Since fossil remains occur in sedimentary rock formations, they tend to persist unless the rock has undergone significant changes. Fossils, therefore, do not occur in metamorphic rock formations.

Fossils of considerable age may be subject to varying degrees of mineralization, at times resulting in the total replacement of original, organic matter by minerals. The agents of mineralization are most commonly comprised of calcium carbonates, such as calcite and aragonite, and silicates, such as quartz, opal and chalcedony. Less common materials are iron disulfides such as pyrite and marcasite; limonite; sulphates such as gypsum; phosphates such as calcium phosphate and vivianite; and glauconite. These minerals are typically transported in minute quantities by seeping water, with aggregation over time.

Plant fossils, shell fossils, pollen and microfossils are generally less rare than fossils of vertebrates. Thus, vertebrate fossils are considered significant. Invertebrate fossils are considered significant if they are scarce or diagnostic of date range, or if they constitute a segment of a unique paleoenvironmental framework. Paleontologists may additionally determine significance on a case-by case basis.

All surficial geologic deposits on the CIC Property are Pleistocene to recent in age, classified as Quaternary alluvium. A search of the University of California Museum of Paleontology (UCMP) database indicates that 66 paleontological specimens have been reported in Colusa County (UCMP, 2009). Six of these specimens are vertebrate fossils of the classes Mammalia and Osteichthyes, all dating

to the Pleiocene Epoch of the Tertiary Period. These finds come from localities on Chamisal Creek, Salt Creek, Sand Creek, Cortina Creek, and a locality named “Colusa 2.” These areas are to the west of the project site, within the foothills on the western edge of the Sacramento Valley in older geological formations than those occurring on the CIC Property.

Potential for Fossil Discovery

The depositional environments of the sediments underlying the CIC Property were alluvial fans and marshes associated with the Sacramento River. Fossil occurrences are not usually common in alluvial fan deposits because of the high probability of reworking and damage of any skeletal and plant material as it is transported and deposited.

In addition, indices of significant paleontological resources within the project site and immediate vicinity are absent in the sources consulted, and no such resources were observed in the course of surface reconnaissance surveys by AES in July, 2009. The geologic formation upon which the project site is located has not produced significant paleontological specimens of scientific consequence and is unlikely to do so in the future.

3.6 SOCIOECONOMIC CONDITIONS / ENVIRONMENTAL JUSTICE

3.6.1 COLUSA COUNTY

Demographics

Colusa County is located approximately 60 miles north of the City of Sacramento and lies in the Sacramento Valley of Central California. Additionally, Colusa County is adjacent to Glenn, Butte, Lake, Napa, Yolo, and Sutter Counties. Colusa County is home to two incorporated cities and to six unincorporated areas. The project site lies within an unincorporated portion of Colusa County. As shown in **Table 3-7**, the county had an estimated population of 21,997 people in 2009. The county’s two incorporated cities are Colusa and Williams. Colusa is the larger of the two in area as well as population, encompassing about 850 acres. The Colusa County General Plan assumes that 68 percent of the population growth experienced in the County through the year 2010 will be directed towards the communities of Williams, Maxwell, and Arbuckle, causing a westward shift in housing away from Colusa and toward the Interstate 5 corridor (Colusa County, 1989).

City of Colusa

Demographic data for the City of Colusa (zip code 95932) represents the population closest to the project site. As shown in **Table 3-7**, the estimated 2009 population of Colusa was approximately 5,900 persons.

TABLE 3-7
COLUSA COUNTY POPULATION 2000-2009

Colusa County	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Colusa	5,402	5,451	5,533	5,607	5,686	5,593	5,648	5,692	5,727	5,900
Williams	3,670	3,768	3,878	4,050	4,280	4,803	5,044	5,185	5,310	5,287
Unincorporated County	9,732	9,838	9,994	10,148	10,379	10,525	10,638	10,771	10,873	10,810
Total	18,804	19,057	19,405	19,805	20,345	20,921	21,330	21,648	21,910	21,997
Source: State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, 2001-2009, with 2000 Benchmark, Sacramento, CA, January 2009										

The California Department of Finance reported that there were roughly 2,207 housing units in the city of Colusa with approximately 2,079 units occupied, with a 5.8 percent vacancy rate. Unincorporated Colusa County has an estimated 4,230 housing units in 2009, with a vacancy rate of 13.57.

3.6.2 THE CACHIL DEHE BAND OF WINTUN INDIANS

Statistical information for the Cachil Dehe Band of Wintun Indians was obtained from the Bureau of Indian Affairs' Population and Labor Force Report, 2005 (U.S. Department of the Interior, 2005). More recent Tribal demographic information for some categories was supplied by the CIC. As shown in **Table 3-8**, the total Tribal enrollment for the Colusa Rancheria in 2009 was approximately 82 members. Of this total, approximately 31 enrolled adult members are recognized as having voting privileges on the CIC Tribal Council.

TABLE 3-8
CACHIL DEHE BAND OF WINTUN INDIANS POPULATION ESTIMATES

Tribe Population Factor	Members
Enrollment	82
Under age 25	50
Age 25 and over	32
Sources: US Department of the Interior, 2005; Colusa Indian Community, 2009	

3.6.3 ECONOMY

Colusa County had an estimated median household income of \$44,256 in 2007, which was approximately 36 percent lower than the state average of \$59,948 that same year. The estimated 2007 median household income in the City of Colusa was \$43,838 (Department of Finance, 2009a; City-data.com, 2009).

3.6.4 ENVIRONMENTAL JUSTICE FOR MINORITY AND LOW INCOME POPULATIONS

The project site is located north of the City of Colusa within unincorporated Colusa County. Land uses surrounding the project site consist of agricultural land and undeveloped riparian habitat, and sparse rural residential development. Residential development is primarily located within the City of Colusa approximately three miles south of the project site.

All projects involving a federal action (funding, permit, or land) must comply with Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, as amended, which directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority, low-income, and Native American populations to the greatest extent practicable and permitted by law. “Low income” and “minority” are defined based on U.S. Census Bureau data and established poverty thresholds and are discussed further below.

The following six principles are provided as guidance for the analysis of environmental justice impacts under NEPA (CEQ, 1997:9):

- Agencies should consider the composition of the affected area, to determine whether minority populations, low-income populations, or Indian tribes are present in the area affected by the proposed action.
- Agencies should consider relevant public health data and industry data concerning the potential for multiple or cumulative exposure to human health or environmental hazards in the affected population and historical patterns of exposure to environmental hazards.
- Agencies should recognize the interrelated cultural, social, occupational, historical, or economic factors that may amplify the natural and physical environmental effects of the proposed agency action.
- Agencies should, as appropriate, acknowledge and seek to overcome linguistic, cultural, institutional, geographic, and other barriers to meaningful participation, and should incorporate active outreach to affected groups.
- Agencies should assure meaningful community representation in the process.
- Agencies should seek tribal representation in the process.

According to the CEQ’s *Environmental Justice Guidance Under the National Environmental Policy Act*, communities may be considered “minority” under the executive order if one of the following characteristics apply:

- The cumulative percentage of minorities within the affected environment is greater than 50 percent (primary method of analysis) or
- The cumulative percentage of minorities within the affected environment is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (secondary method of analysis).

In 2009 the estimated population of the City of Colusa was approximately 5,900 persons, with the following racial/ ethnic breakdown of minority populations based on figures from the year 2000 as defined in the Executive Order Section 101 (1-101) (CA Department of Finance, 2009; City of Colusa, 2000):

- One race: 96.2 percent
 - White: 68.7 percent
 - Black or African American: 0.3 percent
 - Native American or Alaska Native: 1.8 percent
 - Asian: 1.5 percent
 - Native Hawaiian and Other Pacific Islander: 0.8 percent
 - Other: 23.3 percent
- Two or more races: 3.8 percent
- Hispanic or Latino (of any race): 41.7 percent

In 2009, the estimated total population for Colusa County was 21,997 people, with the following racial/ ethnic breakdown (CA Department of Finance, 2009; U.S. Census Bureau, 2008):

- One race: 96.4 percent
 - White: 63.5 percent
 - Black or African American: 1.4 percent
 - Native American or Alaska Native: 2.8 percent
 - Asian: 0.5 percent
 - Native Hawaiian and Other Pacific Islander: 0.1 percent
 - Other: 28.1 percent
- Two or more races: 3.6 percent
- Hispanic or Latino (of any race): 51.1 percent

Based on these characteristics, the city of Colusa would not qualify as a minority population; however, Colusa County would be considered a minority population. More locally, the Colusa Rancheria would likely qualify as a minority population under the CEQ's secondary method of analysis; the Proposed Project is designed to provide a benefit to this population.

Communities may be considered “low-income” under the executive order if one of the following characteristics applies:

- The median household income for a census tract is below the poverty line (primary method of analysis) or
- Other indications are present that indicate a low-income community is present within the census tract (secondary method of analysis).

U.S. Census data for the year 2007 estimated the average household size in Colusa County as 3.06 persons, which results in a federal poverty threshold of \$17,165 (U.S. Census Bureau, 2009). As identified above, the 2007 median household income in Colusa County was \$42,398. Since the median household income level is \$25,233 above the poverty threshold, Colusa County is not defined as a low-income population according to the CEQ methods of analysis.

3.7 TRANSPORTATION AND CIRCULATION

3.7.1 TRANSPORTATION NETWORKS

This section describes the existing roadways and intersections in the vicinity of the project site at the Colusa Rancheria near parcel 015-030-005.

INTERSECTIONS

A 2004 Transportation Study of the Colusa Rancheria evaluated the following ten stop-controlled intersections:

- State Route 45/Reese Avenue
- State Route 45/North Casino Driveway
- State Route 45/Primary Casino Driveway
- State Route 45/Wintun Road
- State Route 45/Wellness Building Driveway
- State Route 45/Main Street
- State Route 45/Lurline Avenue
- State Route 45/13th Street
- State Route 20/10th Street/State Route 45
- State Route 20/Bridge Street

All intersections were analyzed for the AM peak hour (7:30 – 8:30 AM), and the PM commute peak hour (5:00-6:00 PM). Updated traffic counts were conducted, and future conditions were extrapolated from Caltrans data in a 2007 study for an expansion of the Colusa Casino Resort (Stantec, 2007).

METHODOLOGY

Level of Service

Level of Service (LOS) is a qualitative measure reflecting the traffic operation of the intersection, with LOS A representing best performance, and LOS F the worst. LOS describes the traffic conditions in terms of such factors as speed, travel time, delays, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. **Table 3-9** shows the corresponding average total delay per vehicle and a description of vehicular conditions at unsignalized intersections for each LOS category from A to F.

TABLE 3-9
LEVEL OF SERVICE FOR UNSIGNALIZED INTERSECTIONS

Level of Service	Average Total Delay (seconds/vehicle)	Traffic Condition
A	<10	No Delay
B	>10 – 15	Short Delay
C	>15 – 25	Moderate Delay
D	>25 – 35	Long Delay
E	>35 – 50	Very Long Delay
F	>50	Volume > Capacity

Source: Highway Capacity Manual (HCM), 2000

Existing Intersection Traffic Volumes and Levels of Service

Table 3-10 summarizes the 2004 a.m. and p.m. peak-hour LOS at each study intersection. All ten study intersections operated at LOS D or better during both the a.m. and p.m. peak hours. Updated traffic counts and extrapolations from Caltrans data along SR 45 do not suggest that there has been a significant decrease in study intersection LOS since the 2004 Transportation Study.

Existing Bicycle and Pedestrian System

The Central Valley bicycle trail runs parallel to Interstate 5 in Colusa County, and is part of a statewide network for inter-regional travel. According to the Colusa County General Plan, there are no other formal bicycle trails in the county. Hiking, horseback, and off-road vehicle trails in the County are generally found on public lands such as the Mendocino National Forest. Pedestrians are accommodated by a paved shoulder on the east side of State Route 45, but are not provided with crosswalks. Pedestrian activities are generally low because of the rural location of the project site (Stantec, 2007).

Transit Service

Colusa County Transit provides bus services to Colusa County, and surrounding communities, including the City of Colusa, Williams, Arbuckle, and Grimes. The transit system operates on a “dial-a-ride” system and averaged about 4,500 passengers per month in 2007 (City of Colusa, 2007). The nearest Greyhound Bus terminal is located in Marysville, 25 miles from Colusa.

TABLE 3-10
EXISTING LEVEL OF SERVICE AND AVERAGE DELAY OF STUDY INTERSECTIONS

Intersection	Traffic Control	AM Peak		PM Peak	
		LOS	Average Delay	LOS	Average Delay
#1. SR 45/Reese Avenue	Two-Way Stop Control	A	9.6	B	10.4
#2. SR 45/North Casino Driveway	Two-Way Stop Control	A	9.8	B	10.1
#3. SR 45/Primary Casino Driveway	Two-Way Stop Control	A	9.8	B	10.8
#4. SR 45/Wintun Road	Two-Way Stop Control	B	10.7	B	11.9
#5. SR 45/Wellness Building Driveway	Two-Way Stop Control	B	10.6	B	11.1
#6. SR 45/Main Street	Two-Way Stop Control	B	10.7	B	13.2
#7. SR 45/Lurline Avenue	Two-Way Stop Control	B	10.7	B	11.5
#8. SR 45/13 th Street	Two-Way Stop Control	B	10.9	B	14.1
#9 SR 20/SR 45	Two-Way Stop Control	C	16.0	D	34.9
#10 SR 20/ Bridge Street	Two-Way Stop Control	B	12.5	C	16.8

Source: Omni-Means, 2004

3.8 LAND USE

NEPA requires an assessment of a project's effect on adopted land use plans as well as plans that have been formally proposed and are being actively pursued by officials of the jurisdiction. Accordingly, adopted and proposed land use regulations are discussed below.

Land uses on the 225-acre project site include three single-family residences and their ancillary structures as well as agricultural land and undeveloped riparian habitat. The site is located in unincorporated Colusa County near the City of Colusa, California, which is located approximately three miles south of the project site. Land between the project site and the City of Colusa is comprised primarily of rural residences and agriculture.

3.8.1 COLUSA COUNTY GENERAL PLAN

According to the Colusa County Code, APNs 015-030-005, 015-030-46, 015-030-48, 015-030-50, 015-030-79 through 015-030-083, and 015-030-089 have a land use designation of "Agriculture General" (A-G) and are zoned as "Exclusive Agriculture" (E-A). Under this designation, all general agricultural uses are permitted, including animal husbandry, all appurtenant structures, and a main single-family dwelling for the landowner or the primary tenant of the property. Private farm airports, nurseries and greenhouses, and non-commercial guest houses are among the principal permitted uses of E-A zones. Additional housing for relatives or farm workers is allowed with a use permit, as are various other agriculture-related or compatible establishments and developments. The minimum parcel size for this zone is 10 acres.

The remaining two parcels within the project site (APNs 015-030-049 and -051), in addition to part of APN 015-030-050, have a land use designation of “Designated Floodway” and are zoned as “Floodway” (F-W) (**Figure 3-4**). The primary permitted uses of F-W are general agriculture and recreational uses on open land. Land uses surrounding the project site include E-A zoning and A-G land use designations to the northwest, west, and southwest. Land to the immediate northeast and east is designated F-P zoning along the Sacramento River.

3.8.3 AGRICULTURE

REGULATORY SETTING

Williamson Act

The California Land Conservation Act of 1965, better known as the Williamson Act, enables local governments to enter contracts with private land owners to maintain agricultural or open space use on their properties in exchange for lower property tax assessments. These contracts have a term of no less than 10 years and are automatically renewed unless a notice of cancellation or nonrenewal is given (CDC, 2008). The project site is not under an active Williamson Act Contract.

Farmland Protection Policy Act

The Agriculture and Food Act of 1981 (Public Law 97-98) contained the Farmland Protection Policy Act (FPPA) (Subtitle I of Title XV, Section 1539-1549). The purpose of the FPPA is to minimize the impact of Federal programs on the unnecessary and irreversible conversion of farmland to nonagricultural uses. The Farmland Mapping and Monitoring Program (FMMP), within the California Department of Conservation (CDC), maps activity from the U.S. Department of Agriculture (USDA) on a continuing basis. The FMMP produces maps and statistical data used for analyzing impacts on California’s agricultural resources (CDC, 2004).

The FPPA created the farmland classification system which consists of five specific farmland categories, all of which are found in the County. These categories include:

Prime Agriculture Land: Soils which have the best combinations of physical and chemical characteristics for the production of crops. The land must have been used for the production of irrigated crops at sometime during the two updated cycles prior to the mapping date (7 U.S.C. 4201(c)(1)(A)).

Unique Farmland: Soils other than prime farmland that are used for the production of specific high value food and fiber crops. These soils have a special combination of physical and chemical characteristics for the production of high quality or high yields of specific crops when treated and managed according to acceptable farming methods (7 U.S.C. 4201(c)(1)(B)).

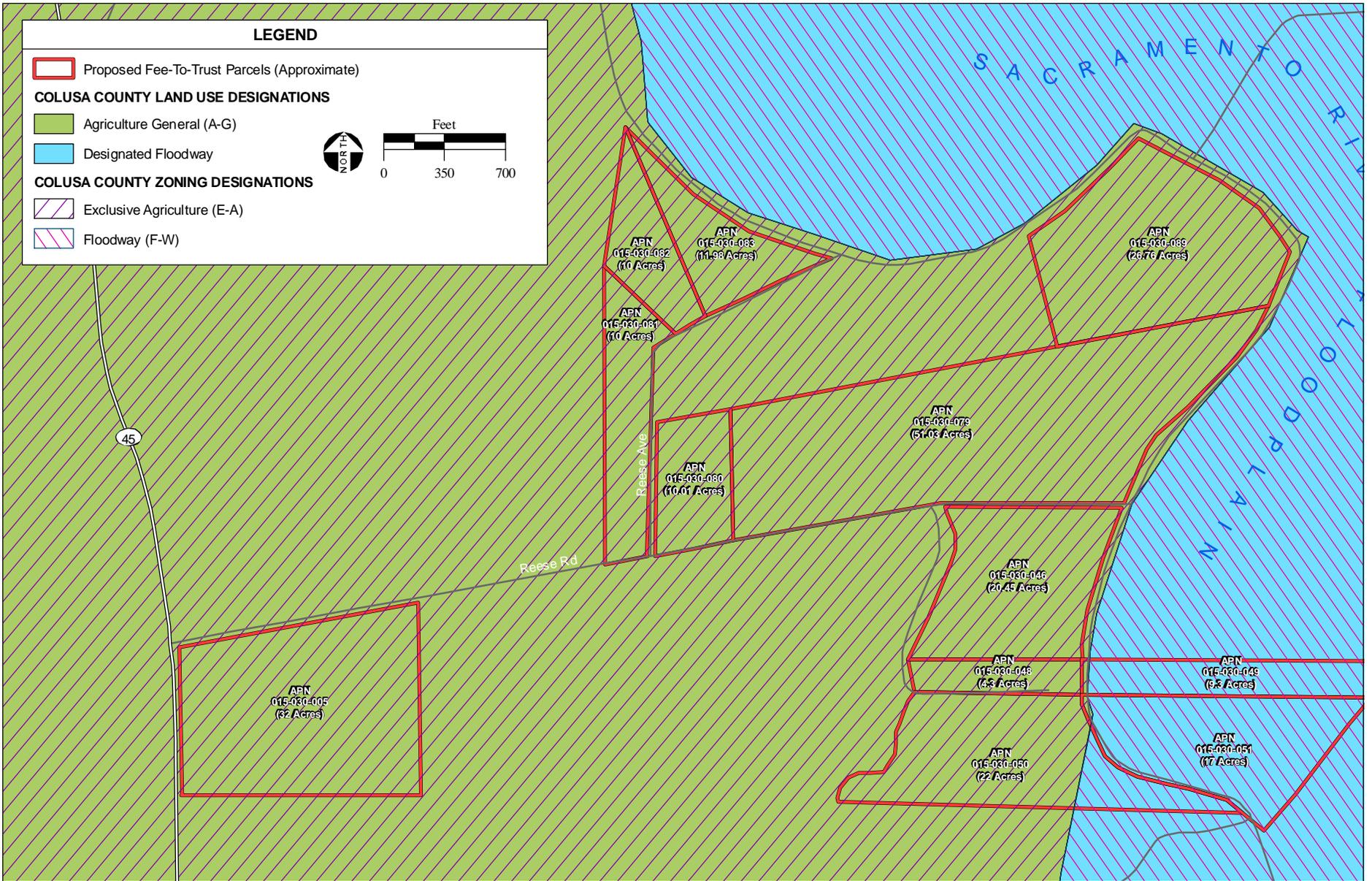


Figure 3-4
Colusa County Land Use and Zoning

Important Farmland: Soils other than prime or unique farmland that is of statewide or local importance for the production of crops. The appropriate State or local government determines the important farmland with concurrence from the State Conservationist. In some localities, farmlands of statewide and local importance may include tracts of land that have been designated for agriculture by state law or local ordinance (7 U.S.C. 4201(c)(1)(C)).

Grazing Land: Defined in Government Code § 65570(b)(3) as: "...land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock."

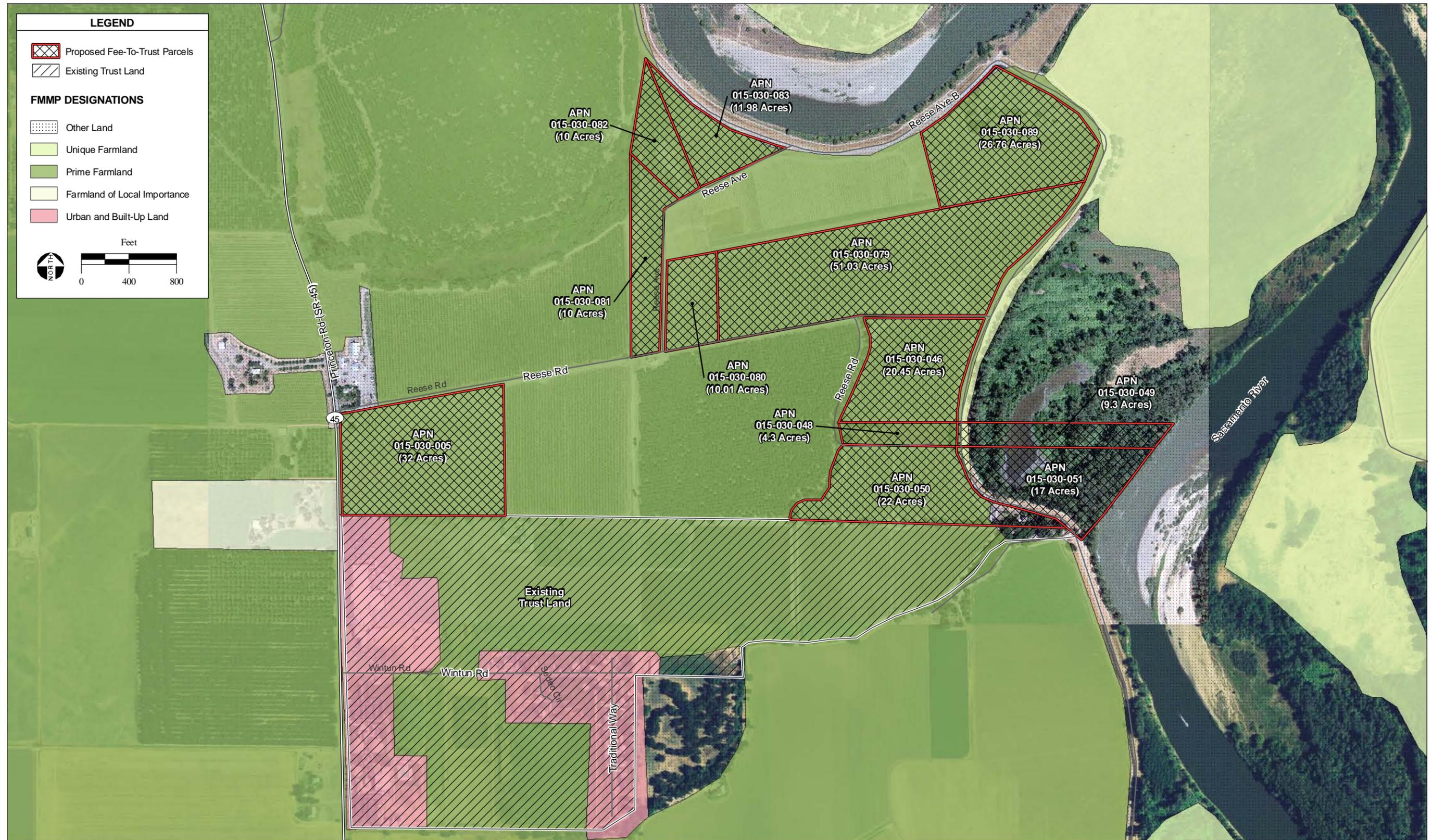
The project site consists of two FMMP land classifications, prime farmland and other land. The classification of other land is given to lands which are not included in any other mapping category. Examples of lands classified as other land include low density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock (CDC, 2006). A map of the project site's classifications is represented in **Figure 3-5**. The land to the east along the Sacramento River is classified as other land, and land west of Reese Avenue-B is classified as prime agricultural land.

The National Resource Conservation Service (NRCS), an agency of the Department of Agriculture (DOA), fulfills the directives of the Soil and Water Conservation Act (16 USC § 2001-2009) by identifying significant areas of concern for the protection of national resources. NRCS uses a land evaluation and site assessment (LESA) system to establish a Farmland Conversion Impact Rating (FCIR) score. The FCIR is completed on form AD-1006 (NRCS, 2008b). The FCIR form has two components: land evaluation, which rates soil quality up to 100 points, and the site assessment, which measures other factors that affect the property's viability up to 160 points.

The total FCIR score is used as an indicator for the project's sponsor to consider alternative sites if the potential adverse impacts on the farmland exceed the allowable level; however, the FPPA does not require federal agencies to alter projects to avoid or minimize farmland conversion. Sites receiving a combined score of less than 160 (out of 260 possible points) do not require further evaluation. For sites with a combined score greater than 160 points, at least two other alternatives are required to be considered and the alternative with the lowest number of points selected unless there are other overriding considerations. The NRCS consultation completed for this project is summarized in **Section 4.1.8**.

Colusa County Right to Farm Ordinance

The Colusa County Right to Farm Ordinance was adopted in 1981 to support County policies regarding the conservation and enhancement of agricultural operations in unincorporated County lands. The stated purpose and intent of the Right to Farm Ordinance is to reduce impacts to County agricultural resources by "limit[ing], by means of communication, nuisance litigation regarding agriculture or affecting agriculture." (Ord. No. 510). The ordinance promotes a good-neighbor policy by requiring that users of property adjacent to or near agricultural operations be notified of the inherent potential problems associated with being located near such operations, including noise, odors, dust,



operation of machinery, application of fertilizers, soil amendments, seeds and pesticides and other potential effects. Through notification included with their annual tax bill, it is intended that property owners will better understand the potential consequences of being located near agricultural operations. The ordinance states that attendant conditions from properly conducted agricultural operations shall not be considered a nuisance to adjacent property owners and shall be accepted as being a normal and necessary aspect of being located in a rural area. The Colusa County Good Neighbor Committee mediates disputes between agricultural and non-agricultural land use interests in an attempt to limit nuisance suits (Colusa County Code).

According to the Colusa County Farm Bureau the value of agricultural production in Colusa County was \$484,525,000. The majority of that value was from rice, the dominant crop in Colusa County with a market value of \$188,027,000 (CCFB, 2007). Other crops include tomatoes, wheat, beans, vine seed crops, and orchard crops grown in flood plains and alluvial fans (Colusa County, 1989).

3.9 PUBLIC SERVICES

3.9.1 WATER SUPPLY

All domestic systems in Colusa County are served with groundwater, while the majority of irrigation systems are supplied with surface water distributed from the Tehama-Colusa and Glenn-Colusa Canals, the Colusa Drain, or the Sacramento River. The Sacramento River groundwater basin underlies the eastern part of the valley floor. Subsurface reservoirs are small and often scarce in upland areas. The City of Colusa provides domestic water from four automatic wells and one diesel well for emergency use. Water is distributed through a grid system that serves the incorporated area and portions of the nearest surrounding rural neighborhoods adjoining the city. Private water systems serve many uses outside city limits. Other unincorporated areas around Colusa are served by individual wells (Colusa County, 1989). The principal aquifer in the region and vicinity of the project site is the Tehama Formation. As discussed in **Section 3.2.2**, the groundwater yields in the Tehama Formation fluctuate seasonally with supply and demand and are influenced by the flow of the Sacramento River.

Domestic wells are located on two of the proposed trust parcels (APNs 015-030-050 and 015-030-089) and currently supply water to the existing homes on those parcels. Several agricultural wells located on the proposed trust parcels supply water for irrigation of the walnut orchards. In addition, the Tribe recently drilled three new 550 gallon per minute (gpm) wells on the south side of the Reservation as shown in **Figure 2-1** and **Figure 2-2**. Construction of a new water treatment plant has also been completed. This plant includes two 220-gpm permeate reverse osmosis units with a downstream injection system for sodium hypochlorite. Reject water from the treatment plant is sent to a new subsurface irrigation and drainage system located underneath the stormwater detention basin. A 260,000-gallon water storage tank has been constructed near the new wells and an 8-10 inch diameter water main has

been installed to service the casino, commercial, community, and residential areas. This connection provides water for both potable demands and fire protection.

3.9.2 WASTEWATER SERVICE

Wastewater in Colusa County is treated by on-site disposal and centralized disposal (Colusa County, 1989). Approximately 65 percent of the population is served by centralized systems. Rural and agricultural areas are typically served by on-site systems. The City of Colusa Water & Sewer performs water pump operation, treatment and distribution, as well as sewage collection, treatment, and disposal for the City of Colusa. The Colusa Wastewater Treatment Plant (WWTP), located at 2820 Will S. Green, includes a tertiary activated-sludge process and ultraviolet light (UV) disinfection (SWRCB, 2008). The CWWTP has a NPDES permit to discharge a minor regulated flow of 0.7 million gallons per day of treated municipal wastewater to the Pough Slough, tributary to the Colusa Basin Drain. A WWTP that serves the Tribe's casino is located on the Reservation south of the existing detention basin. The WWTP treats effluent to a tertiary level, then pumps it to a 9-acre subsurface effluent disposal system.

3.9.3 SOLID WASTE

Management of non-hazardous solid waste in Colusa County is mandated by Assembly Bill (AB) 939, the California Integrated Waste Management Act. The purpose of AB 939 is to reduce, recycle, and reuse solid waste generated in the State to the maximum extent feasible; improve regulation of existing solid waste landfills; ensure that new solid waste landfills are environmentally sound; streamline permitting procedures for solid waste management facilities; and specify the responsibilities of local governments to develop and implement integrated waste management programs.

AB 939 set forth policies and mandated requirements for the State and local governments. Among them is a hierarchy of preferred waste management practices. The highest priority is to reduce the amount of waste generated at its source (source reduction). Second in the hierarchy is to reuse, by extending the life of existing products and recycling those wastes that can be reused as components or feed stock for the manufacture of new products, and by composting organic materials. Source reduction, reuse, recycling and composting are jointly referred to as waste diversion methods because they divert waste from disposal. Third and lowest in the hierarchy is disposal by environmentally safe transformation in a landfill. AB 939 and California Public Resources Code 41780 enforce this prioritization by requiring that all local jurisdictions, cities, and counties divert 50 percent of the total waste stream from landfill disposal by the year 2000 and each year thereafter (using 1990 as the base year). Each local jurisdiction must demonstrate compliance by instituting source reduction programs. Colusa County's waste diversion rate for 2006 was 58 percent.

The Colusa County Regional Agency monitors waste disposal for the cities of Williams, Colusa, and unincorporated areas of the county. Norcal Waste Systems of Butte County, Inc. provides solid waste pick-up and recycling services to the city of Colusa and to the Colusa Reservation adjacent to the project

site. Residents are provided with curbside recyclable and green waste collection. Solid waste is transported to the Ostrom Road Landfill located in Yolo County, California.

3.9.4 ELECTRICITY, NATURAL GAS, AND TELECOMMUNICATIONS

Pacific Gas & Electric (PG&E) provides electrical and natural gas services to the Colusa Reservation. A cogeneration power plant was constructed separately on the Colusa Reservation adjacent to the project site that supplies power to the Tribe's casino. Some rural areas do not have access to natural gas service due to lack of infrastructure. The three existing homes on the project site use individual propane tanks for a gas source. Propane providers in the area include North Valley Propane and Coast Gas. Natural gas for the private residences on APNs 015-030-089 and 015-030-050 is provided by PG&E. Frontier Communications provides telephone services to the project area, while ColusaNet provides internet service.

3.9.5 LAW ENFORCEMENT

California is a Public Law 280 state that allows for state criminal law enforcement jurisdiction on Tribal trust lands; however, this jurisdiction does not include regulatory civil law authority. Depending on the crime (pursuant to Public Law 280 and the Major Crimes Act), the U.S. Marshals may provide support in specified situations. Law enforcement services for the unincorporated portions of Colusa County are provided by the Colusa County Sheriff's Department headquartered in the City of Colusa. The Department serves as the Coroner's Office and the County Emergency Services Center, and provides law enforcement services to the incorporated city of Williams as well. The Sheriff's department also operates the Colusa County Jail, capable of housing up to 92 inmates located in the City of Colusa.

The Sheriff's department works very closely with the municipal police departments in the cities of Colusa and Williams. The Colusa Police Department at Market Street is the closest Sheriff's station and is located approximately three miles south of the project site. The Colusa County District Attorney's office is also located in the City of Colusa, and has received funding for staff salaries through the Indian Gaming Special Distribution Fund.

3.9.6 FIRE PROTECTION AND EMERGENCY MEDICAL

Colusa County's fire protection services are provided by eight rural districts, two city fire departments, the California Department of Forestry, and the U.S. Forest Service. Volunteer fire fighters staff the majority of the districts. Although the incidence of fire on the project site is low, greater fire threats exist in the Coast Range and foothill regions of the County. Response times range from one minute in the cities to upwards of 20 minutes for rural mountain areas. The project area is located within the Sacramento River Fire Protection District (SRFPD), with a fire station located on Market Street in Colusa. This station houses two type-1 pumper engines, one type-3 engine (grass and brush truck), one 3,250-gallon water tender, one medium rescue truck, and one portable air compressor truck. In addition to the equipment located in Colusa, there is another station in Grimes, which can provide additional

equipment as needed. The station has a response time of four to six minutes to the Colusa Casino Resort; response times to the CIC Property would likely be one to two minutes longer. The district is staffed by 30 volunteers and one paid fire chief. The Tribe has made charitable contributions to the SRFPD, both directly and through the Indian Gaming Special Distribution Fund.

Enloe hospital, based out of Chico, provides ambulance service to Colusa County. Two ambulances are stationed in Colusa County, one of which is located in the City of Colusa. Patients requiring ambulance transportation are typically taken to Colusa Regional medical center in the City of Colusa, the nearest hospital emergency room to the project site. The patient will be transported to the next nearest hospital with necessary services in the event that the Colusa Regional medical center is unable to provide them. Air transportation for Enloe Hospital is provided by Emergency Life Flight. The response time for air transportation services averages approximately 20 minutes from when the call is received. Life Flight patients are taken to either Enloe Hospital in Chico or the UC Davis Medical Center in Sacramento.

3.9.7 PUBLIC SCHOOLS

The project site is located within the Colusa Unified School District. Out of the six school districts within Colusa County, Colusa Unified has the largest student enrollment. Schools belonging to the Colusa Unified School District are Burchfield Elementary School, Egling Middle School, and Colusa Senior High School. **Table 3-11** shows the location, grade range, and 2007-2008 enrollment for each of the schools.

TABLE 3-11
COLUSA UNIFIED SCHOOL DISTRICT PUBLIC SCHOOLS

School	Location	Grade Range	2007-2008 Enrollment
Burchfield Elementary	100 Fremont St.	K-3	443
Egling Middle	813 Webster St.	4-8	482
Colusa High	901 Colusa Ave.	9-12	336
Source: Colusa Unified School District, 2008			

3.9.8 PARKS AND RECREATION

The Mendocino National Forest is the largest designated recreation area in Colusa County. The 884,000-acre forest is divided into 37 designated management areas by the U.S. Forest Service. 72,000 acres of the forest and six management areas lie within the limits of Colusa County. The Mendocino National Forest offers campsites specific to bikers and hikers, campers, and families. It also boasts numerous trails for hiking, horseback riding, and off-road vehicle use. The Colusa-Sacramento River State Recreation Area at the north end of the City of Colusa provides an additional 60 acres of recreation in the county and the only public boat launch and landing facility in the County. The area supports a wide variety of water activities due to its location at a wide part of the Sacramento River, including boating, fishing, and water

skiing. Wilbur Hot Springs Health Sanctuary, in the southwest portion of Colusa County, offers four natural mineral baths with temperatures varying from 98° to 120° Fahrenheit. The City of Colusa, approximately three miles south of the project site, also contains many local park facilities for community recreation (Colusa County, 1989).

3.10 NOISE

3.10.1 NOISE EXPOSURE AND COMMUNITY NOISE

Noise is generally defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) which is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain.

Environmental noise is typically measured in A-weighted decibels (dBA). A dBA is a dB corrected for the variation in frequency response of the typical human ear at commonly encountered noise levels. In general, A-weighting of environmental sound consists of evaluating all of the frequencies of a sound, taking into account the fact that human hearing is less sensitive at low frequencies and extremely high frequencies than in the frequency mid-range.

An individual's noise exposure is a measure of noise over a period of time. A noise level is a measure of noise at a given instant in time. However, community noise varies continuously over a period of time with respect to the contributing sound sources in the community noise environment. What makes community noise constantly variable throughout a day is the addition of short duration single event noise sources such as aircraft flyovers, vehicle pass-bys, sirens, etc., which are readily identifiable to the individual. These successive additions of sound to the community noise environment varies the community noise level from instant to instant, requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors such as equivalent noise level (L_{eq}), day/night noise level (L_{dn}), and Community Noise Equivalent Level (CNEL), which averages noise over a specified number of hours, generally 24-hours.

Part of community noise level is construction noise. Construction noise is dominated by heavy equipment. In general, noise emitted from construction projects is intermittent and short-term in nature and will generally occur during the daytime hours.

3.10.2 REGULATORY SETTING

The Department of Housing and Urban Development and the Federal Highway Administration (FHWA), Federal agencies, consider outdoor day-night noise exposure up to 65 dBA, L_{dn} as acceptable under most

circumstances. The FHWA considers 75 dBA as acceptable during construction, if construction is conducted between the hours of 7 am and 6 pm (FHWA, 2006).

Colusa County General Plan

The Colusa County General Plan, 1989 (General Plan) policies are listed for the purpose of analyzing off-reservation impact from traffic noise. Policies contained within the Safety Element of the General Plan and provide standards for ambient noise levels. The following policies are con are applicable:

SAFE-14 New projects should be conditional, improved, or denied according to the standards of Table SAFE-3 (shown below as **Table 3-12**). When necessary, environmental impacts reports should be used to gauge the existing and projected noise environments of the proposed projects. All projects in areas above the “conditionally acceptable” noise level should provide the county with proof from a professional acoustical consultant the occupants of the project will be protected from excessive noise.

TABLE 3-12
RECOMMENDED NOISE LEVELS FOR LAND USES

Land Use Category	Recommended Noise Levels, Ldn (dBA)							Interior Max.
	50	55	60	65	70	75	80	
Residential:								
Low Density								45
Medium to High Density								45
Commercial:								
Hotel								50
Office								55
Restaurant, Retail								60
Other								65
Industrial:								
Light Industrial								55
Manufacturing								50
Other								70
Public/Quasi-Public:								
School, Library, Church, Hospital, Theater								45
Other								55
Open Space:								
All Categories								---

	Normally Acceptable: Specified land use is acceptable, assuming standard building construction.
	Conditionally Acceptable: Standard building construction is not adequate for specified land use; however, mitigation measures may be easily employed to reduce noise to acceptable levels. An analysis of the measures by a qualified acoustical professional (QAP) is required, to be approved by the County.
	Normally Unacceptable: The specified land use should be discouraged unless the County finds the project to be in the public interest and a detailed analysis by QAP shows that specific measures which are to be included in the project would reduce indoor and outdoor noise to acceptable levels. The analysis and attenuation measures must be approved by the County.
Source: Colusa County General Plan, 1989.	

SAFE-18 Housing, hospitals, schools and other noise-sensitive uses should be designed with careful consideration given to projected noise from surrounding roadways, railroads, and development.

SAFE-20 New development should be encouraged to follow site planning practices which create quieter environments.

SAFE-22 Activities which would unnecessarily disturb the peace and quality of the neighborhoods or cause unusual discomfort or annoyance should be prohibited. Regulation of non-vehicular noise (construction, air compressors, manufacturing, loud music) should be encouraged to avoid disturbing adjacent uses. .

3.10.3 SENSITIVE RECEPTORS

Some land uses are considered more sensitive to noise than others due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. Residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, auditoriums, and parks and other outdoor recreation areas generally are more sensitive to noise than are commercial and industrial land uses. A sensitive receptor is defined as any living entity or aggregate of entities whose comfort, health, or well-being could be impaired or endangered by the existence of the criteria pollutant, whether it is emissions or noise, in the atmosphere.

Sensitive noise receptors in the vicinity of the project site include one off-site single-family residence is located approximately 800 feet northwest of a proposed house location on APN 015-030-081. Existing on-site houses are located within approximately 300 feet of proposed residential construction on APN 015-030-089, and approximately 1,000 feet from a proposed homesite on APN 015-030-050. Tribal members' houses on the existing Rancheria, as well as a preschool/child care facility, fitness center and

medical offices in the Cachil DeHe Wintun Village complex, are located more than 0.5 miles from any proposed development on the project site.

3.10.4 EXISTING NOISE SOURCES

The area is characterized as rural and largely undeveloped and is assumed to have an average daily ambient noise level of 50 dBA along country roads and 40 dBA in upland valleys (Colusa County, 1989).

3.11 HAZARDOUS MATERIALS

A Phase I Environmental Site Assessments (ESA) was conducted for the 225-acre project site to determine if any Recognized Environmental Conditions (RECs) exist (**Appendix E**). RECs refer to the presence or likely presence of conditions on a property that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products on the property or into the ground, groundwater, or surface water of the property. This includes hazardous substances and petroleum products. All Phase I ESAs were prepared in accordance with the BIA Guidelines (602 DM Chapter 2) and the American Society for Testing and Materials (ASTM) Standard Practice E 1527-05. The ESAs included site reconnaissance, review of federal and state regulatory agency records and databases, interviews with local officials and property owners and review of historical aerial photographs of the 225-acre project site. Following is a summary of the site reconnaissance conducted on July 22, 2009 for each parcel.

APN 015-030-005 is comprised of walnut orchard.

APN 015-030-046 consists mainly of walnut orchard. It also includes a well and associated pump as well as several pole mounted transformers.

APN 015-030-048 is comprised of graded land.

APN 015-030-049 and 015-030-051 are comprised of mixed riparian vegetative communities.

APN 015-030-050 includes a single-family home with associated sheds, a well and associated pump, and walnut orchard. The single-family home is supplied with water from an on-site well and is equipped with a septic sewer system. In addition, several pole mounted transformers are located on the parcel.

APN 015-030-079 is comprised mainly of walnut orchard and includes a graded dirt area, on which a residential structure was formally located.

APNs 015-030-080 and 015-030-081 are comprised of walnut orchards.

APN 015-030-082 includes a shed, well and associated pump. Approximately fourteen 2.5 gallon containers of herbicide, eight 5-gallon propane tanks, one 30-gallon drum of weed control, thirteen 25-pound containers of rodent bait, and one 30-gallon container of Roundup were observed inside the shed. None of the chemicals were observed in bulk quantity. The chemicals were stored within approved commercial containers and no surface staining or odor was observed in or outside the shed.

APN 015-030-083 is comprised of walnut orchard.

APN 015-030-089 includes two single-family homes with a shed, two 500-gallon propane tanks, a well and associated pump.

Database searches were conducted for records of known storage tank sites and known sites of hazardous materials generation, storage, or contamination. Databases were searched for sites and listings up to 2.0 miles from a point roughly equivalent to the center of the 225-acre property. Environmental Data Resources, Inc (EDR) indicated one site. The Stegall Bros Inc. is located approximately one-mile west of the project site at Highway 45 and Reese Road. The site is listed on the RCRA-SQG and FINDS database due to the generation of small quantities of hazardous waste. Based on the current regulatory status and lack of violations reported, this site is not considered to represent a likely past, present, or material threat of release on the property (AES, 2009).

Based on the site reconnaissance of the parcels, review of federal and state regulatory agency records and databases, interviews with local officials and property owners and review of historical aerial photographs, the Phase I ESA did not identify any Recognized Environmental Conditions on the parcels.

3.12 VISUAL RESOURCES

The visual characteristics of the project site and surrounding areas are typical of rural Colusa County. Scattered farmhouses and agricultural support buildings are located along SR 45 and County-maintained roads. Orchards of varying ages occupy the project area and surrounding parcels. Riparian vegetation is present within the Sacramento River floodplain and along various small drainages and sloughs in the project vicinity. The Colusa Casino Resort and Cachil Dehe Wintun Village community developments are located south of the subject property along SR 45, with Tribal housing on the existing Colusa Rancheria clustered along Wintun Road and Traditional Way.

The Colusa County General Plan designation for the portions of the CIC Property proposed for Tribal agricultural production and housing is Agriculture General (A-G), which allows all agricultural uses as well as low-density residential housing related to owner- or tenant-operated agricultural uses. These parcels, located west of the Sacramento River levee, are zoned Exclusive Agriculture (E-A) (Colusa County, 1989). Specific objectives related to scenic highways in the Circulation Element of the Colusa County General Plan call for the retention of the rural, agricultural character of eligible and recommended

scenic highways by restricting adjacent land uses and roadside advertising, following guidelines for setbacks, landscaping, and building materials, and undergrounding of utilities where possible. SR 45 is recommended for scenic highway status from the Yolo County line to the Glenn County line (Colusa County, 1989). Portions of the project area not within the viewshed of SR 45 would fall under the more general stipulations of the Land Use Element of the General Plan, which specifies that “the development pattern should protect the scenic values of Colusa County,” and “areas designated for future residential development should be selected so that potential conflicts with agricultural operations are minimized.” Following the transfer of the CIC Property into federal trust, local General Plan designations and zoning regulations would no longer apply to the parcels; however, the Tribe’s plans for the land would generally be in keeping with the intent of these policies.

The project site is sparsely developed with three single-family houses (two occupied, one vacant) on APNs 015-030-050 and 015-030-089, and three barns/sheds located on APN 015-030-082 as well as on the two parcels with residences. The site is generally flat, except for the Sacramento River levee that forms the eastern boundary of much of the project area. SR 45 is adjacent to APN 015-030-005, but the remaining parcels are not visible from this main road. Local access roads are both County-maintained and private, and are used primarily by local residents and farm workers. Regular street lamps are not provided along SR 45 or County/private roads, and most local residences use limited outdoor lighting. Photographs of the surrounding visual setting and some of the nearest sensitive visual receptors are provided in **Figure 3-6**.

Visual resources surrounding the project site include distant views of the Sutter Buttes and mountains on the western edge of the Sacramento Valley, as well as closer expanses of agricultural land (primarily orchards) and riparian forest and river in the Sacramento River floodplain. Traffic is low within the project site with the exception of the SR 45 corridor, and visual receptors are limited to the existing occupied houses on APNs 015-030-050 and 015-030-089 and along SR 45. One other nearby residence is located approximately 800 feet northwest of a proposed house location on APN 015-030-081. Tribal members’ houses on the existing Rancheria, as well as a preschool/child care facility, fitness center and medical offices in the Cachil DeHe Wintun Village complex, are located more than 0.5 miles from any proposed development on the project site.



PHOTO 1: View to north along SR 45 just before turnoff to Reese Road. APN 015-030-005 on right.



PHOTO 2: View to west across APN 015-030-046; young walnut trees. Typical of local views.



PHOTO 3: View to southwest across APN 015-030-005; Colusa Casino Resort and support buildings on Colusa Rancheria.



PHOTO 4: View to south across APN 015-030-089 from Sacramento River levee. Occupied single-family residence with barn.



PHOTO 5: View to east-southeast across APN 015-030-050. Occupied single-family residence; riparian forest in background.



PHOTO 6: View to east from Reese Avenue B along Sacramento River levee. Roof of occupied house on APN 015-030-089 visible in right-center of photo.

SECTION 4.0

ENVIRONMENTAL CONSEQUENCES

SECTION 4.0

ENVIRONMENTAL CONSEQUENCES

In this section, environmental consequences are described for Alternative A (Proposed Project), Alternative B (Reduced Intensity), and Alternative C (No-Action). Areas that are analyzed include direct and indirect impacts to land resources, water resources, air quality, biological resources, cultural resources, socioeconomic conditions and environmental justice, transportation and circulation, land use, public services, noise, hazardous materials, and visual resources. The Council on Environmental Quality (CEQ) regulations state that direct impacts are those that are caused by the action and occur at the same time and place, while indirect impacts are caused by the action and occur later in time or further in distance, but are still reasonably foreseeable (CEQ 1508.8). Cumulative and growth-inducing effects of the Proposed Action are also assessed for each of these issue areas.

4.1 ALTERNATIVE A - PROPOSED PROJECT

4.1.1 LAND RESOURCES

Topography

No major changes to topography would result from construction of the proposed homes or related infrastructure. The Proposed Project would result in construction of up to 20 houses, each with an estimated maximum footprint of approximately 3,000 square feet. The sum total of grading that would be required for construction of this Alternative would be approximately 5.0 acres (a quarter-acre per house). Drainage patterns would be maintained as discussed in **Section 4.1.2**, and levee slopes would be avoided with a minimum 20-foot setback for all houses. Best Management Practices (BMPs) related to land resources are included in **Section 2.1.7** and mitigation measures are included in **Section 5.1**. With implementation of these measures, impacts would be less than significant.

Seismic Conditions

The projected earthquake magnitudes for the region indicate that the project site could potentially be exposed to future seismic shaking (USGS, 2009). Construction of Alternative A would adhere to the standards of the California Building Code (CBC), as described in **Section 2.1.7**. Use of the CBC design and construction standards would allow ground shaking-related hazards to be managed from a geologic, geotechnical, and structural standpoint such that risks to the health or safety of workers or members of the public would be reduced to a less than significant level.

Soil Types and Characteristics

The soil types located on the site are characterized by minimal slopes and slight erosion hazards. During construction the exposure of soil increases the risk of erosion. Protective measures for reducing the potential for erosion are listed under **Section 5.1** and **5.2**.

The primary soils on the project site are characterized as moderately corrosive to uncoated steel, with low to moderate shrink-swell potential (NRCS, 2009). The protective measure listed under **Section 2.1.7** would be implemented if any steel is used in the construction of Alternative A. Additional mitigation measures related to potential for expansive soils are listed in **Section 5.1**.

Mineral Resources

As stated in **Section 3.1.5**, there are no known mineral resources within the project area, and the project site is located outside regions where significant mineral resources are likely to occur. Construction of the Proposed Project would not result in the loss of mineral resources. No mitigation is warranted.

With the implementation of the protective measures listed in **Section 2.1.7** and the mitigation measures listed in **Section 5.1**, all potential impacts to land resources would be less than significant.

4.1.2 WATER RESOURCES

Surface Water, Drainage, and Flooding

Alternative A (**Figure 2-1**) has been designed to avoid impacts to water resources located on and adjacent to the CIC Property. No construction would occur within the two parcels located on the east side of the levee (APNs 015-030-049 and 015-030-051) adjacent to the Sacramento River.

Alternative A would increase impervious surfaces on the site through the construction of up to 20 houses. It is estimated that the full buildout of the project would increase impervious surfaces by approximately 1.5 acres. Increased impervious surfaces would result in increased peak flows and increased total discharge from the project site during wet weather events. If not properly managed, this could add increased stormwater flow to the area's drainage systems and result in localized flooding. To reduce this impact, drainage would continue to be directed to the existing detention basin on the Reservation, as discussed in **Section 2.1.7**. The detention basin has been designed to slow the velocity of peak stormwater flows and allow increased infiltration of groundwater, reducing stormwater discharge to off-Reservation lands.

As shown on **Figure 3-3**, all parcels on which buildings and associated infrastructure would be constructed are located outside the FEMA-designated 100-year flood zone. No significant impacts related to flooding would occur.

Water Supply and Groundwater

Two options are available for domestic water supply for Alternative A. Under the first option, water would be supplied through pipelines placed within roadways from the existing water treatment facility on the Colusa Rancheria. This facility, which treats water from three domestic wells on the south side of the Rancheria, supplies the existing homes, the Colusa Casino Resort, and community facilities and Tribal offices on the Rancheria. The existing wells have an output of 550 gallons per minute (gpm) each, while the treatment facility includes two reverse osmosis processing units with an output of 220 gpm each (PSOMAS, 2003a). Under the second supply option, water would be drawn from domestic wells that currently supply the existing homes on APNs 015-030-050 and 015-030-089. Because much of the water demand of the Proposed Project would replace existing demand from houses on the Rancheria, it is anticipated that the existing wells and treatment system would be able to accommodate the water demands of the project, including fire flows. If the second option for water supply is chosen, improvements would be made to the existing wells if necessary. These improvements could include deepening, replacement of existing pumps, installation of new well screens and casings, or expanded treatment facilities to ensure compliance with safe drinking water standards. In addition, the protective measures listed in **Section 2.1.7** would be implemented to reduce water demand. Development of the project under Alternative A would have a less than significant impact on water supply and groundwater.

Wastewater Treatment and Disposal

Wastewater from Alternative A would be treated using individual septic systems, which would be installed and maintained according to County guidelines. Disposal of treated effluent would be through individual drainfields associated with each house or small cluster of houses. The potential impacts to water quality are discussed below.

Water Quality

Protective measures listed in **Section 2.1.7** would be included with Alternative A to reduce the potential for increased sediment erosion or discharge of other pollutants from the project site. The Tribe is required to adhere to the provisions of the Clean Water Act (CWA). To comply with these regulations and further reduce the effects of stormwater-associated pollutants, the Tribe will comply with the terms of the General Construction NPDES permit. This would include preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and proper use of appropriate BMPs, as described in **Section 5.2**. With implementation of the protective measures described in **Section 2.1.7**, along with the recommended mitigation measures described in **Section 5.2**, potential impacts to water quality would be less than significant.

4.1.3 AIR QUALITY

Significance Criteria

A significant impact would occur if the project emits criteria air pollutants (CAPs) in a nonattainment or maintenance area, exceeds general conformity *de minimus* thresholds and is not exempt from the Clean Air Act (CAA).

General Conformity Review

During construction and operation, the Proposed Project would emit CAPs from the use of heavy equipment and vehicles, and fugitive dust (which includes particulate matter 10 and 2.5 microns in size) from grading and homes being accessed via dirt roads in the dry season. The Proposed Project is not exempt from the CAA; however, Colusa County is in attainment for all federal CAPs (refer to **Table 3-4**). Since the Proposed Project is located in area of attainment for all CAPs, then a general conformity determination is not warranted; therefore, the project is considered to conform to all applicable air quality plans and the CAA. The Proposed Project is in conformance with the CAA and therefore, is considered to have a less than significant impact on local and regional air quality.

Climate Change

The Proposed Project would emit greenhouse gases during construction and operation. Carbon dioxide (CO₂) is the most prevalent greenhouse gas and is used as a measurement standard (CO₂ equivalent) for other greenhouses gases such as methane. Project significance will be determined by compliance with applicable mitigation measures set forth by the California Attorney General.

GHG emissions were estimated using URBEMIS 9.2.4 air modeling program and the Climate Action Registry 2009 reporting protocols. URBEMIS 9.2.4 air quality model estimated CO₂ equivalent emissions at 1,020 tons per year (tpy) for construction and mobile and area operational emission at 485 tpy. URBEMIS output files are provided in **Appendix A**. N₂O and CH₄ emissions from mobile sources were estimated at 15 tpy of CO₂ equivalent, using emission factors from the Climate Action Registry (CAR). Indirect source emissions for operation were estimated using CAR emission factors; indirect operational emissions were estimated at 13 tpy of CO₂ equivalent. Total estimated project GHG CO₂ equivalent emission would be 513 tpy of CO₂ equivalent. Project-related emissions would be reduced by implementing the California Attorney General's GHG mitigation measures provided in **Section 5.3**. With implementation of the measures provided in **Section 5.3**, there would be a less than significant impact related to climate change.

4.1.4 BIOLOGICAL RESOURCES

Significance Criteria

Significant impacts to biological resources would occur if implementation of the Proposed Project would result in direct or indirect take of any federally protected species, including the destruction or degradation of any identified sensitive habitat.

Methodology

The analysis of potential impacts is based on the existing biological setting, which is discussed in **Section 3.4**. The evaluation of biological resources impacts is based on a comprehensive examination of the existing project site and the anticipated extent of habitats, wetland features, native trees, and the presence/absence or potential occurrence of special-status species that would be impacted by each of the proposed alternatives.

Anticipated Impacts to Biological Resources

Habitats

The Proposed Project is likely to result in direct and/or indirect impacts (i.e., development) to the existing ruderal/developed areas onsite. The Proposed Project has been designed to avoid impacts to the agricultural, riparian, irrigation ditch, and pond by adjusting the locations of lots and structures to areas that have already been disturbed. The ruderal/developed areas are of little biological value because they provide minimal resources for native plant and wildlife species, given that they are already notably altered and/or developed. Thus impacts to the ruderal/developed areas within the project site are considered insignificant. No mitigation is required.

Wetland Features

The Proposed Project would not result in direct and/or indirect impacts to wetland features. The Proposed Project has been designed to eliminate direct impacts to waters of the U.S. by situating housing lots and structures more than 150 feet away from wetland features, including the irrigation ditch and the riparian habitat surrounding the pond. The Proposed Project has been designed to eliminate indirect impacts including sedimentation and/or modification of existing water quality because the levee provides a buffer between the housing envelopes and the riparian habitat that surrounds the Sacramento River. Thus, no potentially jurisdictional waters of the U.S. would be impacted. No mitigation is required.

Native Trees

The Proposed Project has the potential to result in direct impacts (i.e., removal or damage) to the few scattered isolated native trees within the ruderal/developed areas onsite. These native trees could also be indirectly impacted by construction activities because development practices often result in stress factors that leave native trees susceptible to further damage, limb and/or trunk failure, disease, decay, and increased susceptibility to insect infestations. Examples of indirect impacts to native trees caused by development practices include root death caused by oxygen deficiency in compacted or waterlogged soils,

root death caused by soil changes associated with implementation of new structures or pavement, weakened resistance to disease, insect infestation from associated stress factors, and introduction of pathogens and insects to the habitat. Upon implementation of the protective measures in **Section 2.1.7**, potential impacts to native trees would be reduced to less than significant levels.

Special-Status Species

Special-Status Plants

As previously discussed in **Section 3.4**, the project site does not provide habitat for any federally listed plants. The Proposed Project would have no effect on federally listed plants. No mitigation is required.

Special-Status Wildlife

The project site provides potential habitat for the federally listed Valley elderberry longhorn beetle (*Desmocerus dimorphus californicus*; VELB). The housing envelopes have been designed to avoid direct impacts to VELB. The Proposed Project could result in indirect impacts to VELB should construction activities occur within a 100-foot buffer of the elderberry shrubs. The Proposed Project is not likely to affect VELB with the implementation of the mitigation measures identified in **Section 5.4**.

Development of the Proposed Project would not result in direct or indirect effects to Southern DPS green sturgeon (*Acipenser medirostris*), Central Valley steelhead (*Oncorhynchus mykiss*) ESU, Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*), or Sacramento River winter-run Chinook salmon (*Oncorhynchus tshawytscha*) because construction activities would not occur within 150 feet of the riparian habitat. In addition, the levee provides a buffer between the construction activities associated with the Proposed Project and the Sacramento River. The Proposed Project would not affect the navigable waters outside the southeast and the north boundaries of the project site. As such fisheries resources including effects to their DPS or EFH or their proposed or critical habitat would not occur. The Proposed Project would result in no effect to federally listed fish. No mitigation is required.

The riparian habitat and pond on the southeast side of the project site and the irrigation ditch and surrounding uplands on the east side of the project site provide potential habitat for the giant garter snake (*Thamophis gigas*; GGS). Construction activities have the potential to directly impact GGS should grading occur during the dormant season between November and February. The Proposed Project is not likely to affect GGS with the implementation of the mitigation measures identified in **Section 5.4**.

The Proposed Project has the potential to impact the federal candidate yellow-billed cuckoo (*Coccyzus americanus*) if construction activities occur during the nesting season (June 1 through September 1). Disturbance that occurs within 250 feet of an active nest could cause nest abandonment or premature fledging of the young. This would be a potentially significant impact. The Proposed Project would have no effect to yellow-billed cuckoo with the implementation of the mitigation measures identified in **Section 5.4**.

The Proposed Project has the potential to impact migratory nesting birds and other birds of prey, if construction activities occur during the nesting season (March through September). Activities associated with the Proposed Project, such as ground disturbance and vegetation removal, could impact nesting birds if their nests are located within the proposed development areas. Increased human activity and traffic, elevated noise levels, and operation of machinery could also impact nesting birds during construction activities. Disturbance of this nature that occurs within 250 feet of an active nest could cause nest abandonment or premature fledging of the young. The Proposed Project would not adversely affect migratory nesting birds and other birds of prey with the implementation of the mitigation measures identified in **Section 5.4**.

4.1.5 CULTURAL RESOURCES

This section identifies direct and indirect impacts to cultural and paleontological resources that would result from implementation of the Proposed Project.

Archaeological Resources

For historic properties, a significant adverse impact would result if implementation of the undertaking resulted in one of the following effects to cultural resources that are listed, or eligible for listing, on the National Register of Historic Places (NRHP):

- Physical destruction of or damage to all or part of the resource.
- Alteration of a resource.
- Removal of the resource from its historic location.
- Change of the character of the resource's use or of physical features within the resource's setting that contribute to its historic significance.
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the resource's significant historic features;
- Neglect of a resource that causes its deterioration.
- Transfer, lease, or sale of the property.

As part of the cultural resources study, a literature review, records search, Native American consultation, and pedestrian surveys for the presence of cultural resources were conducted within the project site. No potentially significant cultural resources were identified as a result of that effort. While the Sacramento River levee meets the minimum age requirement for the NRHP, it does not rise to the level of significance necessary for consideration as a historic property. Therefore, no impacts to known historic properties would occur as a result of the undertaking.

There is always a possibility, however remote, that significant subsurface cultural resources may exist in the project site, as archaeological sites may be buried with no surface manifestation. In addition, there is a remote possibility that an unanticipated discovery of human remains could occur. Development proposed as a part of this undertaking may adversely affect previously unknown subsurface prehistoric or

historic archaeological resources, including human remains. This would be a potentially significant impact.

Mitigation measures are presented in **Section 5.5** for the protection and treatment of unanticipated discoveries of archaeological resources and/or human remains. Implementation of these mitigation measures would reduce impacts to cultural resources to a less than significant level.

Paleontological Resources

With respect to paleontological resources, an impact would be considered significant if it would directly or indirectly destroy such resources. As described in **Section 3.5.4**, indicators of paleontological resources within the project site are absent, and no such resources were observed in the course of site reconnaissance visits in 2009 by AES staff. Geologic formations that underlie the project site have a low probability of containing paleontological resources. Therefore, no impacts are anticipated.

There is always the possibility, however slight, that previously unknown paleontological resources could be encountered during construction activities. Mitigation measures are presented in **Section 5.5** for the protection and preservation of unanticipated discoveries of paleontological resources. Implementation of these mitigation measures would reduce impacts to paleontological resources to a less than significant level.

4.1.6 SOCIOECONOMIC CONDITIONS / ENVIRONMENTAL JUSTICE

Alternative A would remove the twelve project parcels totaling 225 acres from the County's property tax rolls, which would result in a loss of tax revenues. For the 2008-2009 tax year, the property taxes for the twelve proposed trust parcels totaled \$54,926.92. Property taxes for individual parcels for the 2008-2009 tax year are listed in **Table 4-1** below:

TABLE 4-1
Property Taxes (2008-2009) for Proposed Trust Parcels

APN	Acreage	Property Tax Collected
015-030-005	32.00	\$2,654.74
015-030-046	20.45	\$4,925.66
015-030-048	4.30	\$908.66
015-030-049	9.30	\$1,412.16
015-030-050	22.00	\$12,825.44
015-030-051	17.00	\$634.48
015-030-079	51.03	\$12,045.86
015-030-080	10.01	\$2,443.78
015-030-081	10.00	\$2,441.44
015-030-082	10.00	\$2,590.78
015-030-083	11.98	\$2,901.16
015-030-089	26.76	\$9,142.76
Totals:	224.83	\$54,926.92

Source: Colusa County Assessor's Office, 2009

The Colusa County Tax Collector collected approximately \$29.3 million in property taxes for the 2008-2009 year. The tax on the project parcels was less than 0.002 percent of the County's total tax revenue. The 0.002 percent loss to the County's tax base is negligible and would not lead to any adverse effects. No mitigation measures are warranted.

Because the Proposed Project would include the development of 20 housing units at most, and because most of the children expected to live in these homes already live within Colusa County, there would be no significant net increase in enrollment in local schools. Therefore, no adverse impacts to local school districts would occur, and no mitigation measures are warranted.

Environmental Justice

This environmental justice analysis was prepared using guidance from the CEQ for compliance with Executive Order 12898. The intent of this evaluation is to determine whether the Proposed Project or alternatives would impose disproportionately high and adverse human health or environmental effects of (BIA's) programs, policies, and activities on minority populations and low-income populations.

The project site is located in a rural area with no low-income populations identified adjacent to or near the project site. As a whole, Colusa County would be considered a minority population. However, the majority of potential impacts associated with the Proposed Project, such as those to land, water resources, air quality, and traffic, among others, can be characterized as local in nature. As such, environmental justice communities with potential to be impacted by the project are considered to be those located within the immediate vicinity of the project site rather than dispersed throughout the County. Due to the rural nature of the project site, no adverse environmental justice impacts are anticipated for the County. More

locally, the Colusa Indian Community likely qualifies as a minority population; however, the Proposed Project would provide beneficial effects to members of the Tribe. Other than the Colusa Indian Community, no minority populations have been identified in the immediate vicinity of the project site. Therefore, no minority populations would be subjected to disproportionately high or adverse human health or environmental impacts. The Proposed Project is not anticipated to create any adverse impacts with regard to environmental justice, and no mitigation measures are warranted.

4.1.7 TRANSPORTATION AND CIRCULATION

Vehicle Transportation Networks

Previous transportation analyses (Omni-Means, 2004; Stantec, 2007) conclude that existing intersection and roadway operations in the project vicinity are well within acceptable levels of service (LOS), as determined according to Colusa County and Caltrans methodologies. Trips generated by the Proposed Project were estimated based on the Institute of Transportation Engineers' 2003 Trip Generation Manual, which assumes 9.57 vehicle trips per day per single-family residence with four occupants. Because many of the occupants of the proposed houses associated with Alternative A are anticipated to move there from the existing Colusa Rancheria, this is a very conservative estimate.

The Proposed Project is estimated to generate a gross total of approximately 192 daily vehicle trips, distributed between AM and PM peak hours and other times of the day and night.

Based on the standards in the Caltrans' Guide to the Preparation of Traffic Impact Studies, additional analysis of roadway segments and freeway facilities is not required. Caltrans requirements state that an environmental review should include any State Highway facility where more than 100 peak hour trips would be added or any State Highway facility operating at LOS C or LOS D where more than 50 peak hour trips would be added. The only State Highway facilities within the project vicinity are SR 45 and SR 20, both of which operate at LOS B in the project vicinity (Omni-Means, 2004). Based on the trip generation for the Proposed Project, Alternative A would add fewer than 100 peak hour trips to SR 45. Previous intersection LOS analyses indicate that sufficient intersection operating capacity remains and that the Proposed Project would not cause a significant decrease in the LOS at any of the local area intersections.

Bicycle, Pedestrian, and Transit Networks

The project would not generate a large number of new pedestrian trips, bicycling activity, or transit riders along SR 45 or the other public roads in the area. Thus, no significant impacts are projected to these networks as a result of the Proposed Project.

4.1.8 LAND USE

The Proposed Project would result in the construction of 20 residential units and associated facilities. The development would be compatible with surrounding agricultural land uses. Once the 225-acre site is brought into federal trust, the Colusa County General Plan (1989) land use policies and standards would no longer apply to the project site. Since approximately 97 percent of the site would continue to be used for agricultural purposes, the impact to land use is less than significant.

Coastal Zone

The project site is located outside of the Coastal Zone. There are no activities that would directly affect coastal resources. Measures proposed in **Section 2.1.7** and **Section 5.2** for management of stormwater runoff would reduce potential water quality impacts to the Sacramento River to a less than significant level.

Agriculture

The area proposed for the development of the residential units is currently used for agricultural operations. Proximity to agricultural operations could result in potential impacts associated with noise from farm equipment, dust, irrigation overspray, and other effects. However, the Colusa County Right-to-Farm Ordinance would continue to protect neighboring farmers from potential nuisance suits.

In accordance with the Farmland Protection Policy Act (FPPA), a Farmland Conversion Impact Rating (FCIR) form was completed during the environmental analysis of the project. The first form was submitted to the National Resource Conservation Service (NRCS) on August 4, 2009 (**Appendix D**) and evaluated two alternatives initially considered for the project site. The first alternative, represented on the August 2009 FCIR form under “Site A”, consisted of the construction of 20 residential units and associated facilities in an arrangement that would have converted approximately 5.0 acres of farmland. The second alternative, represented on the August 2009 FCIR form under “Site B”, consisted of the construction of 10 residential units and associated facilities in an arrangement that would have converted approximately 2.5 acres of farmland. Both of these alternatives received a combined land evaluation and site assessment score of 188, indicating the potential for adverse effects to farmland resources. In accordance with the FPPA and direction provided by the NRCS in its letter of September 22, 2009 (**Appendix D**), the site plan for both alternatives was reconfigured to consolidate the proposed location of residential housing within the ruderal development areas of the project site (see Figure 6 of **Appendix B**); therefore, reducing the amount of agricultural land that would be converted by the project, and minimizing the potential for adverse effects. A subsequent FCIR form was submitted for the revised project alternatives on December 16, 2009. The revised project alternatives (described in detail in **Section 2.0**) received a combined land evaluation and site assessment score of 181 (**Appendix D**).

Due to its reconfiguration, Alternative A would result in the conversion of approximately 2.75 acres (1.5 percent) of farmland on the site. Because the area of conversion is relatively small, approximately 0.001

percent of the farmland in the County, and the combined FCIR score is less than other alternatives considered for this site; the potential for adverse effects is minimal.

4.1.9 PUBLIC SERVICES

Water Supply

Under Alternative A, the project site would obtain water through groundwater wells, either on the existing Colusa Rancheria or existing wells on the CIC Property, which would be improved as needed to meet domestic water demands. Either of these options would have no impact on municipal water supplies. The potential effects to groundwater are discussed in **Section 4.1.2**.

Wastewater Service

Under this alternative, wastewater from the proposed Tribal houses would be treated through installation of individual septic systems for each house. The Proposed Project would not impact existing municipal wastewater treatment and disposal facilities.

Solid Waste

Potential solid waste streams from construction would include paper, wood, glass, aluminum and plastics from packing materials; waste lumber; insulation; empty non-hazardous chemical containers; concrete; metal, including steel from welding/cutting operations; and electrical wiring. Solid waste from the residences would be typical of any residential development and would be collected by NorCal Waste Systems.

Assuming a disposal rate of 2.50 lbs/person/day (USEPA, 2008), and 20 residences with an average household size of 3.06 persons (US Census Bureau, 2005-2007), approximately 153 lbs of solid waste per day would be generated. Because most Tribal members that would be project residents already live within the County, a less than significant impact would occur.

Electricity, Natural Gas, and Telecommunications

Electrical and telephone infrastructure facilities are currently located on and near the project site. The Tribe will coordinate with Pacific Gas & Electric (PG&E), Frontier Communications and ColusaNet regarding the extension of services to the project site. The project would use propane rather than natural gas, which it would contract directly from local supply companies in the area. No adverse utility service impacts would occur.

Law Enforcement

Under Public Law 280, 18 U.S.C. §1162, the State of California and other local law enforcement agencies have criminal enforcement authority on Tribal lands. The Colusa County Sheriff's Department would continue to provide services to the CIC Property.

Fire Protection and Emergency Medical Services

Construction-related impacts include the potential fire threat associated with equipment and vehicles coming into contact with wildland areas. Construction vehicles and equipment such as welders, torches, and grinders may accidentally spark and ignite vegetation or building materials. The increased risks of fire during the construction of the proposed facilities would be similar to that found at other construction sites and construction related impacts are considered potentially significant. With the implementation of the protective measures and mitigation measures described in **Section 2.1.7** and **Section 5.9**, respectively, impacts would be less than significant.

Use of the site for residential purposes would create additional demand for fire protection, and could require more frequent responses from local fire-fighting agencies. The Sacramento River Fire Protection District (SRFPD) would continue to provide services to the CIC Property, and would continue to receive Special Distribution Funds and other periodic donations from the Tribe. Therefore, impacts would be less than significant.

Increased emergency calls to 911 as a result of the Proposed Project may result in slight delays in response times or result in the need for ambulances to be dispatched from more distant locations. Because new demands would be minimal, the increased demand for emergency medical services would not create a significant impact.

Public Schools

Impacts to Colusa Unified School District as a result of the Proposed Project would be negligible because most potential residents of the project site currently live on the Rancheria or in nearby areas of Colusa County.

Parks and Recreation

The inhabitants of the 20 proposed residences, most of who would move from nearby areas, would not impact local parks or recreational facilities.

4.1.10 NOISE

Significance Criteria

The Federal Highway Administration (FHWA) provides a construction noise threshold of 75 dBA and an operational threshold of 65 dBA.

Construction Noise

Grading and construction activities associated with the Proposed Project would be intermittent and temporary in nature. The closest sensitive receptor that would be exposed to noise during project

construction is a residence located approximately 300 feet east and west of where proposed construction activities would occur on APN 015-030-089.

Construction noise levels at and near the project site would fluctuate depending on the particular type, number, and duration of uses of various pieces of construction equipment. Construction-related material haul trips would raise ambient noise levels along haul routes, depending on the number of haul trips made and types of vehicles used. **Table 4-2** shows typical noise levels 50 feet from the sources during different construction stages.

TABLE 4-2
TYPICAL CONSTRUCTION NOISE LEVELS

Construction Phase	Noise Level (dBA, L_{eq})
Ground Clearing	84
Excavation	89
Foundations	78
Erection	85
Finishing	89
Notes: * Average noise levels correspond to a distance of 50 feet from the noisiest piece of equipment associated with a given phase of construction and 200 feet from the rest of the equipment associated with that phase. L_{eq} : the equivalent sound level is used to describe noise over a specified period of time, typically one hour, in terms of a single numerical value. The L_{eq} is the constant sound level which would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period). Source: Federal Transit Administration, <i>Transit Noise and Vibration Assessment</i> , April 1995.	

Stationary point sources of construction noise attenuate (lessen) at a rate of 6 to 7.5 dBA per doubling of distance from the source, depending on environmental conditions (i.e., atmospheric conditions, topography and type of ground surfaces, noise barriers, etc.). The maximum construction noise would be 89 dBA at 50 feet and 71.25 dBA at 300 feet. Construction noise impacts would be temporary, intermittent, and would occur between the hours of 7 a.m. and 6 p.m. According to the Federal Highway Administration (FHWA) guidelines, a 75 dBA noise level is acceptable during construction; therefore, noise from construction activities would be less than significant. It is important to note that the Proposed Project site encompasses a large area and construction activities would not occur throughout the entire project site or all at once.

Operation Noise

The primary source of noise in the area is generated by traffic. As discussed in **Section 3.10**, an increase of 200 vehicle trips per hour on a roadway would be necessary to cause a noticeable increase in the ambient noise level (FHWA, 2006). The Proposed Project would result in an increase of a maximum of 192 vehicles per day on area roadways. Therefore, no audible increase in the ambient noise level would occur. The Proposed Project would not increase the existing ambient noise level (50 dBA) beyond the FHWA guideline of 65 dBA. There would be a less than significant impact resulting from noise during operation of the Proposed Project.

4.1.11 HAZARDOUS MATERIALS

No hazardous materials have been identified on site or within a distance that would affect the Proposed Project. During grading and construction it is possible that hazardous substances such as gasoline, diesel fuel, and hydraulic fluid, would be transported to the site. Temporary bulk aboveground storage tanks as well as storage sheds/trailers would likely be used by various contractors for fueling and maintenance purposes. As with any liquid and solid, the potential for an accidental release exists during handling and transfer from one container to another. Depending on the relative hazard of the material, the accidental release could pose both a hazard to construction employees as well as the environment. Although typical construction management practices limit and often eliminate the impact of such accidental releases, the potential exists with the temporary onsite storage of hazardous materials that a significant release could occur. This impact would be potentially significant. Mitigation measures are listed in **Section 5.11** that would reduce the impact to a less than significant level.

4.1.12 VISUAL RESOURCES

Impacts related to visual resources would be considered significant if the Proposed Project were to substantially alter or interrupt locally important scenic vistas, introduce visual elements that would conflict with the County's General Plan goals regarding scenic resources, or create sources of inappropriate or excessive glare or nighttime illumination.

The Proposed Project would result in the construction of up to 20 single-family homes, as well as continued agricultural uses. Development of the project site would complement existing rural agricultural/residential development in the project vicinity. No houses are planned on APN 015-030-005, the only parcel of the proposed trust property that is visible to travelers on SR 45. The project would also leave APNs 015-030-049 and 015-030-051 undeveloped, and would preserve any existing oak trees within the proposed trust parcels. No additional roadways, street lighting, signage, or other highly visible types of infrastructure would be included with the Proposed Project. None of the proposed homes would be visible to travelers on SR 45.

Single-family homes would be one to two stories, and would be located to take advantage of the natural setting and to minimize impacts to existing walnut groves. The higher-density areas of housing would be clustered to take advantage of existing access roads and infrastructure, and to re-use areas previously graded for use as building pads.

The Proposed Project would not interrupt or substantially alter local views, or create any sources of glare or excessive nighttime illumination. Development would generally conform to the visual resources goals outlined in the Colusa County General Plan, although once the property is taken into federal trust, County

regulations and zoning would no longer apply. Visual impacts would be less than significant and no mitigation measures would be warranted.

4.2 ALTERNATIVE B – REDUCED INTENSITY

4.2.1 LAND RESOURCES

Impacts related to soils under Alternative B would be similar to those described for Alternative A, although proportionately less due to the reduced number of proposed houses. With the implementation of the protective measures listed in **Section 2.1.7** and the mitigation measures listed in **Section 5.1**, impacts to land resources would be less than significant.

4.2.2 WATER RESOURCES

Surface Water, Drainage, and Flooding

Alternative B (**Figure 2-2**) has been designed to avoid water resources located on and adjacent to the site. As in the Proposed Project, no development would occur on APNs 015-030-049 or 015-030-051. Alternative B would create an estimated 0.7 acres of impervious services. As in the Proposed Project, increased impervious surfaces would result in increased peak flows and increased total discharge from the project site during wet weather events has the potential to add increased stormwater flow to the area's drainage systems and result in localized flooding. With implementation of the protective measures described in **Section 2.1.7**, along with the recommended mitigation measures described in **Section 5.2**, potential impacts would be less than significant.

All of the proposed houses and associated facilities would be located outside of the Federal Emergency Management Agency (FEMA) 100-year floodplain; therefore, no significant impacts due to flooding would occur.

Water Supply and Groundwater

Two options are available for domestic water supply for Alternative B. Under the first option, water would be supplied through pipelines placed within existing roadways from the existing water treatment facility on the Colusa Rancheria. Because the number of residences would be 50 percent less than Alternative A, the projected domestic water demands would be reduced by approximately half. Since much of the water demand of Alternative B would replace existing demand from houses on the Rancheria, it is anticipated that the existing wells and treatment system would be able to accommodate the water demands of the Reduced-Intensity Alternative, including fire flows.

Under the second supply option, domestic water would be drawn from domestic wells that currently supply the existing homes on APNs 015-030-050 and 015-030-089. If required, improvements would be made to these wells including deepening, replacement of existing pumps, or installation of new well

screens and casings. No significant impacts to water supply and groundwater would occur from implementation of Alternative B.

Wastewater Treatment and Disposal

As with the Proposed Project, wastewater from Alternative B would be treated using individual septic systems, which would be installed and maintained according to County guidelines. Disposal of treated effluent would be through individual drainfields associated with each house or small cluster of houses.

The amount of wastewater generated by Alternative B would be approximately half of that associated with the Proposed Project. No significant impacts to water resources would occur from implementation of Alternative B.

Water Quality

Protective measures listed in **Section 2.1.7** would be included with Alternative B to reduce the potential for increased sediment erosion or discharge of other pollutants from the project site. Similar to the Proposed Project, Alternative B would require development and implementation of a SWPPP in compliance with the USEPA's Construction General Permit, as described in **Section 5.2**. With implementation of these measures, potential impacts to water quality would be less than significant.

4.2.3 AIR QUALITY

Under Alternative B, the significance criteria used to analyze impacts to air quality are the same as those used for Alternative A. Project components of Alternative B would result in emissions of CAPs within Colusa County. Since the County is in attainment for all CAPs, the project is considered to be in conformance with the CAA. Greenhouse gases emissions from Alternative B would be proportionately less than Alternative A. With the implementation of mitigation measures provided in **Section 5.3**, a less than significant impact would occur with regard to climate change.

4.2.4 BIOLOGICAL RESOURCES

Under Alternative B, the significance criteria and methodology used to analyze impacts to biological resources are the same as those utilized for Alternative A.

Anticipated Impacts to Biological Resources

Habitats

Alternative B would result in a reduced amount of direct and/or indirect impacts (i.e., development) to the existing ruderal/developed areas onsite, as compared to the Proposed Project. Alternative B has been designed to avoid impacts to the agricultural, riparian, irrigation ditch, and pond by adjusting the locations of homes to areas that have already been disturbed. The ruderal/developed areas are of little biological

value because they provide minimal resources for native plant and wildlife species, given that they are already notably altered and/or developed. Thus impacts to the ruderal/developed areas within the project site are considered insignificant. No mitigation is required.

Wetland Features

Like the Proposed Project, Alternative B would not result in direct and/or indirect impacts to wetland features. Housing lots and structures would be sited more than 150 feet from wetland features including the irrigation ditch and the riparian habitat surrounding the pond. Alternative B would also avoid indirect impacts including sedimentation and/or modification of existing water quality because the levee provides a buffer between the housing envelopes and the riparian habitat that surrounds the Sacramento River. Thus, no potentially jurisdictional waters of the U.S. would be impacted. No mitigation is required.

Native Trees

Alternative B has the potential to result in direct impacts (i.e., removal or damage) to the few scattered isolated native trees within the ruderal/developed areas onsite; however, the chances of this impact are lessened proportionally to the reduced amount of housing construction proposed. Native trees could also be indirectly impacted by construction activities because development practices often result in stress factors that leave native trees susceptible to further damage, limb and/or trunk failure, disease, decay, and increased susceptibility to insect infestations. Examples of indirect impacts to native trees caused by development practices include root death caused by oxygen deficiency in compacted or waterlogged soils, root death caused by soil changes associated with implementation of new structures or pavement, weakened resistance to disease, insect infestation from associated stress factors, and introduction of pathogens and insects to the habitat. The protective measures in **Section 2.1.7** and mitigation measures in **Section 5.4** would also apply to Alternative B, to reduce potential impacts to native trees to less than significant levels.

Special-Status Species

Special-Status Plants

As previously discussed in **Section 3.4**, the project site does not provide habitat for any federally listed plants. Alternative B would not result in direct or indirect impacts to federally listed plants. No mitigation is required.

Special-Status Wildlife

The project site provides potential habitat for the federally listed Valley elderberry longhorn beetle (*Desmocerus dimorphus californicus*; VELB). The housing envelopes have been designed to avoid direct impacts to VELB. Alternative B could result in indirect impacts to VELB should construction activities occur within a 100-foot buffer of the elderberry shrubs. Upon implementation of the mitigation measures in **Section 5.4**, potential impacts to VELB would be reduced to less than significant levels.

Development of Alternative B would not result in direct or indirect impacts to Southern DPS green sturgeon (*Acipenser medirostris*), Central Valley steelhead (*Oncorhynchus mykiss*) ESU, Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*), or Sacramento River winter-run Chinook salmon (*Oncorhynchus tshawytscha*) because construction activities would not occur within 150 feet of the riparian habitat. In addition, the levee provides a buffer between the construction activities associated with Alternative B and the Sacramento River. Alternative B would have no impacts to the navigable waters outside the southeast and the northern boundaries of the project site. As such fisheries resources including impacts to their DPS or EFH or their proposed or critical habitat would not occur. Alternative B would not result in direct or indirect impacts to federally listed fish. No mitigation would be required.

The riparian habitat and pond on the southeast side of the project site and the irrigation ditch and surrounding uplands on the east side of the project site provide potential habitat for the giant garter snake (*Thamophis gigas*; GGS). The mammal burrows within the agricultural habitat provide potential habitat during the dormant season. Construction activities have the potential to directly impact GGS should grading occur during the dormant season between November and February. The Proposed Project would not result in indirect impacts to GGS because the ruderal/developed areas anticipated for development do not provide important foraging habitat for GGS. Mitigation measures in **Section 5.4** would also apply to Alternative B, to reduce potential impacts to GGS to less than significant levels.

Alternative B has the potential to impact the federal candidate yellow-billed cuckoo (*Coccyzus americanus*) if construction activities occur during the nesting season (June 1 through September 1). Disturbance that occurs within 250 feet of an active nest could cause nest abandonment or premature fledging of the young. This would be a potentially significant impact. Upon implementation of the mitigation measures in **Section 5.4**, potential impacts from Alternative B would be reduced to a less than significant level.

Alternative B has the potential to impact migratory nesting birds and other birds of prey, if construction activities occur during the nesting season (March through September). Activities associated with the construction of Alternative B, such as ground disturbance and vegetation removal, could impact nesting birds if their nests are located within the proposed development areas. Increased human activity and traffic, elevated noise levels, and operation of machinery could also impact nesting birds during construction activities. Disturbance of this nature that occurs within 250 feet of an active nest could cause nest abandonment or premature fledging of the young. This would be a potentially significant impact. The Tribe has committed to avoiding any such impact through implementation of the mitigation described in **Section 5.4**.

4.2.5 CULTURAL RESOURCES

Alternative B would be similar to the Proposed Project, but with only half the maximum number of Tribal houses. Because there are no known historic properties on the project site, the only potential impacts

would be to unknown archaeological and paleontological resources which may be unearthed during the construction process. Mitigation recommended in **Section 5.5** would also apply to Alternative B, to reduce these potential impacts to a less than significant level.

4.2.6 SOCIOECONOMIC CONDITIONS/ ENVIRONMENTAL JUSTICE

Alternative B is similar to the Proposed Project, but includes fewer houses. Under this alternative the socio-economic benefits to the Tribe would be somewhat lessened when compared with the Proposed Project. Overall the Tribe would benefit from the construction of up to 10 residences and continued agricultural uses. Colusa County would lose minor revenue from property taxes after the site is taken into trust. This loss of revenue would be a small fraction of total County tax revenues, would not lead to any adverse effects, and therefore would not be significant.

Environmental Justice

The impacts to low-income and minority populations for Alternative B would be essentially the same as for the Proposed Project. No adverse health or environmental impacts to low-income and minority populations would occur as a result of Alternative B; however, the beneficial effect to the CIC population would be somewhat lessened by the reduction in available Tribal housing. Alternative B would not create any adverse impacts with regard to environmental justice.

4.2.7 TRANSPORTATION AND CIRCULATION

Vehicle Transportation Networks

As described in **Section 4.1.7**, existing intersection and roadway operations in the project vicinity are well within acceptable levels of service (LOS), as determined according to Colusa County and Caltrans methodologies. Trips generated by Alternative B were estimated using the same ITE trip generation rates as were used for Alternative A, resulting in a conservative estimate of 96 daily trips. Under the significance criteria established by Caltrans, no significant impacts would occur at local roadway segments or intersections.

Bicycle, Pedestrian, and Transit Networks

Alternative B would not generate substantial increases in bicycling activity, pedestrian activity, or transit riders. Impacts in these areas would be less than significant. Alternative B would not affect any planned pedestrian or bicycling networks.

4.2.8 LAND USE

Development of Alternative B would construct 10 residences while keeping the remaining land for agricultural use. The development would be compatible with surrounding land uses in that there are

residential and agricultural near the project site. As similar uses occur in the vicinity, effects to land use would be less than significant.

Coastal Zone

The project site is located outside of the Coastal Zone. Similar to the Proposed Project, there are no activities that would affect coastal resources.

Agriculture

As with Alternative A the Colusa County Right-to-Farm Ordinance would continue to protect neighboring farmers from potential nuisance suits.

As described in **Section 4.1.8**, initial consultation with NRCS resulted in a reconfiguration of the alternatives considered for this site. Implementation of Alternative B, as described in **Section 2.0**, would result in the conversion of approximately one acre (0.6 percent) of farmland on the site. Because the area of conversion is relatively small, approximately 0.0004 percent of the farmland in the County, and the combined FCIR score is less than other alternatives considered for this site; the potential for adverse effects is minimal.

4.2.9 PUBLIC SERVICES

Water Supply

Under Alternative B, the project site would obtain domestic water through existing groundwater sources on the Rancheria or the proposed trust property, with improvements to pumping, treatment, storage, and distribution facilities as needed. Alternative B would have no impact on municipal water supplies. The water demands and potential impacts to groundwater resources are discussed in **Section 4.2.2**.

Wastewater Service

Under Alternative B, wastewater from the proposed Tribal houses would be treated through installation of individual septic systems for each house. The Proposed Project would not impact existing municipal wastewater treatment and disposal facilities.

Solid Waste

Construction waste would be generated and would consist of the same materials described previously under the Proposed Project. This impact would be temporary and less than significant. Solid waste from the residences on the project site would be collected by Norcal Waste Systems.

Assuming a disposal rate of 2.50 lbs/person/day (USEPA, 2008), and 10 residences with an average household size of 3.06 persons (US Census Bureau, 2005-2007), approximately 76.5 lbs of solid waste

per day would be generated. Because most Tribal members that would be project residents already live within the County, a less than significant impact would occur in regard to solid waste.

Electricity, Natural Gas, and Telecommunications

Electrical, natural gas, and telephone services are the same as those described for the Proposed Project. The Tribe will coordinate with PG&E, Frontier Communications, and ColusaNet regarding the extension of services to the project site. As with the Proposed Project, Alternative B would use propane rather than natural gas, which would be contracted directly from local supply companies in the area. No adverse utility service impacts would occur under Alternative B.

Law Enforcement

Under Public Law 280, the State of California and other local law enforcement agencies have criminal enforcement authority on Tribal lands. The Colusa County Sheriff's Department would provide law enforcement services to the project site. Calls for service would not be disproportionate to other residential or commercial development in the County. No significant impacts to law enforcement services would occur from implementation of Alternative B.

Fire Protection and Emergency Medical Services

The increased risk of fire during the construction of the proposed facilities would be similar to that found at other construction sites. With the implementation of the protective measures listed in **Section 2.1.7** and the mitigation measures listed in **Section 5.9**, impacts to fire protection and emergency medical services would be less than significant.

Current building and fire codes will be adhered to in relation to fire safety. The additional demand for fire protection and emergency medical services under Alternative B would be similar to that of the Proposed Project. As with Alternative A, the SRFPD would continue to receive donations from the Tribe and from the Indian Gaming Special Distribution Fund. Due to the existing availability of emergency medical services, the impact to emergency services would be less than significant.

Public Schools

As described in **Section 4.1.9**, the majority of potential residents for the ten houses proposed under Alternative B already reside on the Rancheria or in nearby rural Colusa County. No significant impacts to public schools would occur.

Parks and Recreation

As discussed above for Alternative A, no adverse impacts would occur to local parks or recreational facilities due to the fact that the majority of potential residents for the ten houses already reside on the Rancheria or in nearby rural Colusa County.

4.2.10 NOISE

With the implementation of Alternative B, construction activity noise (which is considered intermittent and temporary in nature) would be less than Alternative A. Because construction noise impacts from Alternative A would be less than significant, then it is assumed that noise impacts from Alternative B would also be less than significant.

Operational traffic for Alternative B would be less than that of Alternative A; therefore, producing less traffic noise, which is the main noise source during operation. Therefore, a less than significant impact would occur during operation of Alternative B.

4.2.11 HAZARDOUS MATERIALS

As discussed in **Section 4.1.11**, no hazardous materials have been identified on site or within the surrounding area that would affect Alternative B. During construction of any development it is possible that hazardous materials such as gasoline, diesel fuel, and hydraulic fluid would be brought on site in temporary aboveground storage tanks. The use and storage of hazardous materials is considered potentially significant. Mitigation measures are listed in **Section 5.11**; implementation of these measures would ensure a less than significant impact under Alternative B.

4.2.12 VISUAL RESOURCES

Alternative B would result in the construction of low-density residential development and continued agricultural uses on the majority of the CIC Property. The number of houses under this alternative would not exceed ten, half the maximum number proposed under Alternative A. Development of Tribal housing would be consistent with existing rural residential development in the project area. As described in **Section 4.1.12**, the project would exclude housing on APN 015-030-005, the only parcel of the CIC Property that is visible to travelers on SR 45. The project also excludes development on APNs 015-030-049 and 015-030-051, which adjoin the Sacramento River. Native oak trees would be preserved on the property, and all proposed infrastructure and service facilities would be consistent with that of surrounding areas. As with Alternative A, visual impacts would be less than significant.

4.3 ALTERNATIVE C - NO-ACTION

4.3.1 LAND RESOURCES

Under the No-Action Alternative, the land would not be taken into trust and the proposed Tribal housing would not be built. The site would remain primarily as walnut orchards with two occupied rural residences and scattered agricultural outbuildings. No development would occur on APNs 015-0330-049 and 015-030-051. Land resources would not be adversely impacted.

4.3.2 WATER RESOURCES

Under the No-Action Alternative, the proposed residential uses would not be developed; therefore, no improvements to domestic water supply facilities on the CIC Property or on the existing Colusa Rancheria would be necessary. No additional impervious surfaces would be created on the project site. No adverse impacts to water resources would occur under the No-Action Alternative.

4.3.3 AIR QUALITY

Under the No-Action Alternative the site would continue to be used for agriculture and none of the construction or operational air quality impacts identified for Alternatives A or B would occur. The property could ultimately be developed, which would introduce a source of both direct (stationary source) and indirect (mobile source) emissions of CAPs; however, because any development would be required to comply with the Colusa County General Plan and would incorporate protective measures and BMPs for air quality, these impacts would likely be less than significant.

4.3.4 BIOLOGICAL RESOURCES

Under the No-Action Alternative C, no development would occur within the project site. As such, there would be no significant direct or indirect impacts to the biological resources within or in the vicinity of the project site.

4.3.5 CULTURAL RESOURCES

Under the No-Action Alternative the CIC Property would not be placed in trust for the benefit of the Tribe and housing would not be constructed. Therefore, there would be no adverse impacts to any unknown archaeological or paleontological resources on the site.

4.3.6 SOCIOECONOMIC CONDITIONS/ ENVIRONMENTAL JUSTICE

Under the No-Action Alternative, the Tribe would not receive any of the benefits associated with the Proposed Project. The twelve parcels comprising the project site would not be brought into trust and would remain on Colusa County's property tax rolls.

4.3.7 TRANSPORTATION AND CIRCULATION

Under the No-Action Alternative, there would be no Tribal housing constructed on the CIC Property, and consequently no increase in vehicular traffic on project area roadways. There would be no change in pedestrian, bicycle, or transit circumstances.

4.3.8 LAND USE

Under the No-Action Alternative, the project site would remain under the jurisdiction of Colusa County. No land use consistency or compatibility impacts would occur under this alternative.

The project site would remain in agricultural production under this alternative and no land use conflicts would occur.

4.3.9 PUBLIC SERVICES

The No-Action Alternative would not increase demands on public services. The two occupied residences on the project site would continue to utilize the existing groundwater wells and septic systems. No new utility extensions would be required.

4.3.10 NOISE

Under the No-Action Alternative, the project site would remain in agricultural production with the exception of the existing houses. Any future development of the project site would be required to meet County zoning and General Plan guidelines. With regard to noise, the project site would not be a source of construction or operational noise. No noise impacts would occur under the No-Action Alternative.

4.3.11 HAZARDOUS MATERIALS

No new hazardous material impacts would occur under the No-Action Alternative; however, maintenance of existing walnut orchards would result in continued use of various hazardous materials, including fertilizers, pesticides, and fuels and lubricants for farming equipment and vehicles.

4.3.12 VISUAL RESOURCES

Under the No-Action Alternative, the project site would remain in agricultural production with the exception of the existing residences. Any future development of the project site would be required to meet County design standards.

4.4 CUMULATIVE EFFECTS

Potential cumulative impacts for each environmental issue area are discussed below. Cumulative impacts are defined in 40 CFR §1508.7 as the impacts:

... on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless what agency (federal or

non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Apart from the Proposed Project, there are no current or reasonably foreseeable future development projects in the vicinity of the CIC Property which could be considered for the cumulative impact analysis. Past projects include Tribal development and expansion of the Colusa Casino Resort, and construction of the Cachil DeHe Wintun Village medical and office complex.

4.4.1 LAND RESOURCES

The Proposed Project would incorporate measures to ensure proper design for site conditions to eliminate impacts to land resources (topography, soils, seismicity, and mineral resources). No potential cumulative impacts would be relevant to this issue area.

4.4.2 WATER RESOURCES

The Proposed Project would be required to comply with the CWA as it relates to stormwater runoff. Compliance with USEPA stormwater pollution prevention requirements will prevent the Proposed Project, in combination with other Tribal developments, from causing cumulatively significant surface water quality related impacts.

Impacts to the groundwater basin would not be cumulatively significant, as the Proposed Project, in combination with other Tribal developments in the area, would use a relatively small increment of the available groundwater. Therefore, no cumulatively significant impact would occur.

As a part of the project design, any improvements to Tribal domestic wells would include 50-foot sanitary seals for protection of water quality. By complying with County standards regarding installation and use of septic systems, impacts to groundwater from the Proposed Project or Alternative B would be less than significant. Considered cumulatively, the Tribe's development activities would have a less than significant impact on groundwater quality.

4.4.3 AIR QUALITY

Cumulative impacts to the air basin are addressed within the requirements of the CAA and the General Conformity Rule. Because Colusa County is in attainment for all CAPs, the Proposed Project is considered to comply with the CAA and the General Conformity Rule. Therefore, a less than significant impact would occur.

4.4.4 BIOLOGICAL RESOURCES

Potential impacts to biological resources on the project site, including potentially jurisdictional waters of the U.S., native trees, special-status species, and migratory birds, will be reduced to a less than significant level through measures incorporated into project construction and design (**Section 2.1.7**) and mitigation (**Section 5.4**). Other Tribal developments in the vicinity have included similar measures to reduce potential impacts to biological resources. Cumulative impacts to biological resources would be less than significant.

4.4.5 CULTURAL RESOURCES

Cumulative effects to cultural resources typically occur when sites that contain cultural features or artifacts are disturbed by development. As these resources are destroyed or displaced, important information is lost and connections to past events, people and culture is diminished. No significant cultural resources were identified within or adjacent to the project site. However, the records search and archival research indicate that the study area is in a region sensitive for both prehistoric/pre-contact resources and historic-period resources. Based on this sensitivity, the Proposed Project may impact previously unknown archaeological resources, as these sites may be buried with no surface manifestation. Significant cumulative impacts to unknown cultural resources could occur if sites continued to be lost, damaged, or destroyed without appropriate recordation or data recovery. Mitigation for potential cumulative impacts to unknown cultural resources has been specified in **Section 5.5** and similar measures have been implemented for all local Tribal development. Continued implementation of these measures would ensure that cumulative impacts remain less than significant.

4.4.6 SOCIOECONOMIC CONDITIONS / ENVIRONMENTAL JUSTICE

The Proposed Project or Alternative B, when considered in combination with other past projects, would not lead to a significant adverse cumulative impact to socioeconomic conditions or environmental justice. Each of the Tribe's development projects has resulted in a beneficial effect for the recognized minority population of the Colusa Indian Community.

4.4.7 TRANSPORTATION AND CIRCULATION

Vehicle Transportation Networks

Because no other current or reasonably foreseeable future projects are known, cumulative traffic volumes would be those estimated for the Proposed Project in conjunction with existing local traffic, including traffic oriented toward the Colusa Casino Resort and the Cachil DeHe Wintun Village. Recent traffic studies have shown that local intersections and segments of SR 45 operate at acceptable levels of service, with sufficient remaining roadway capacity to ensure a less than significant impact from the addition of Proposed Project traffic. Cumulative impacts to vehicle transportation networks would be less than significant.

Bicycle, Pedestrian, and Transit Networks

The Proposed Project would not result in an increase in bicycling or transit rider activity. Additionally, the project would not adversely affect pedestrian or bicycle networks in conjunction with other Tribal developments in the project vicinity. No significant cumulative impacts would occur.

4.4.8 LAND USE

If taken into Federal trust, the project site would not be subject to City or County jurisdiction regarding land uses. Any surrounding cumulative projects on fee land, however, would be subject to local land use regulations. Since the project alternatives are generally consistent with the existing and proposed land uses in the vicinity, no cumulative land use impacts would occur.

Agriculture

The retention or development of agricultural land is largely a policy consideration for governmental entities. Prime and unique agricultural lands are considered a limited and valuable resource. Impacts to these lands must therefore be analyzed according to NEPA and the FPPA. All land uses in the region are subject to approval by local government entities. The developers of any nearby projects on fee land would be required to comply with local jurisdictional approval. Considering that the Proposed Project site would continue to be used for agriculture, cumulatively significant impacts to agricultural land would not occur.

4.4.9 PUBLIC SERVICES

Public services for the Proposed Project would be accommodated by existing and planned public services, or would be provided by the Tribe's own facilities. As development of other areas continues, the combined need for public services may create a cumulative impact. However, all future projects on fee land in the region would be subject to approval by local governments, and would include provisions for public services. As a result, the Proposed Project would not result in significant cumulative impacts to public services.

4.4.10 NOISE

Traffic noise would dominate the noise environment in the area surrounding the project site during cumulative conditions. The Proposed Project, in combination with the proposed cumulative projects in the area, would cause a less than significant impact with regard to noise.

4.4.11 HAZARDOUS MATERIALS

There is the potential for impacts related to hazardous materials during construction of the Proposed Project as well as the other cumulative projects. All Tribal developments have implemented mitigation measures similar to those listed in **Section 5.11** regarding hazardous materials storage and use. Any new developments would be required to adhere to State and municipal regulations regarding the delivery, handling, and storage of hazardous materials, thereby reducing the risk to the public's health and welfare due to accidental exposure. Therefore, there are no significant cumulative hazardous materials impacts associated with the Proposed Project.

4.4.12 VISUAL RESOURCES

Development of the project site under the Proposed Project or Alternative B would be generally consistent with nearby rural agricultural development, with no significant impacts to scenic views or features. All Tribal development has been designed to complement the rural agricultural scenic resources of Colusa County. Any future development in the vicinity would be subject to County review and approval, and potentially significant impacts to visual resources would require mitigation. Therefore, the Proposed Project or Alternative B, when considered in combination with other past and unknown future actions, would not lead to a significant cumulative impact to visual resources.

4.5 INDIRECT AND GROWTH-INDUCING EFFECTS

Under NEPA, indirect and growth-inducing effects of a Proposed Project must be analyzed (40 CFR §1508.8[b]). The CEQ Regulations define indirect effects as effects that are caused by the action and are later in time or further removed in distance, but are still reasonably foreseeable.

Growth-inducing effects are defined as effects that foster economic or population growth, either directly or indirectly. Direct growth inducement could result, for example, if a project included the construction of a new residential development. Indirect growth inducement could result if a project established substantial new permanent employment opportunities (e.g., new commercial, industrial, or governmental enterprises) or if it removed obstacles to population growth (e.g., expansion of a wastewater treatment plant to increase the service availability). **Section 4.5.1** assesses the potential for direct and indirect growth-inducing effects caused by the alternatives. Other indirect effects are analyzed in previous sections by issue area.

4.5.1 GROWTH-INDUCING EFFECTS

Growth inducement may constitute an adverse impact if the increased growth is not consistent with or accommodated by the land use and growth management plans and policies for the area affected. Local land use plans provide for development patterns and growth policies that allow for orderly development supported by adequate public services and utilities such as water supply, roadway infrastructure, sewer

services, and solid waste disposal services. A project that would induce “disorderly” growth (i.e., would conflict with local land use plans) could indirectly cause adverse environmental or public service impacts.

The Proposed Project would include new housing for CIC Tribal members. Many Tribal members are currently residents of Colusa County, notably the existing Colusa Rancheria and surrounding rural areas, and these families and individuals would constitute the majority of the expected residents of the new housing. Few, if any, long-term or permanent employment opportunities would be created beyond those that already exist for the ongoing cultivation and maintenance of walnut orchards. Therefore, it is anticipated that the net direct local population growth resulting from the project would be minimal.

Analyses of the adequacy of local infrastructure and services are included in the discussion of environmental consequences for each proposed Alternative. No significant, unmitigable impacts have been identified that would result from the Proposed Project. Utility infrastructure would not be significantly improved or expanded to increase service availability to any areas surrounding the project site. Domestic water supply and wastewater service would only serve Tribal development on the existing Rancheria and/or on the proposed trust property. Growth-inducing impacts would be less than significant for both of the proposed development alternatives.

SECTION 5.0

MITIGATION MEASURES

SECTION 5.0

MITIGATION MEASURES

5.1 LAND RESOURCES

Implementation of the protective measures described in **Section 2.1.7**, along with the mitigation measures below shall minimize potential impacts related to land resources. These measures are recommended for Alternatives A and B.

- All site preparation and earthwork construction in the field shall be performed by licensed contractors.
- Suitability of earth and construction materials shall be determined by a licensed professional employing geotechnical/soils laboratory testing standards according to standard engineering practice.
- All grading plans, subsurface investigations, and slope stability and seismic design calculations as well as all foundation and building design parameters shall be produced under the supervision of appropriate licensed professionals.
- Construction on expansive soils shall be mitigated by using specialized grading techniques or designing structural foundations to withstand expansion pressures.
- The effects of soil movement shall be mitigated by strengthening the soils during grading and/or designing and constructing satisfactory foundation support.
- Prior to finalization of the grading and development plans for the property, design-level geotechnical specifications addressing the specific grading and development plans shall be developed. The specifications should include, but not be limited to, the following:
 - Site, building, and facility-specific grading recommendations regarding site preparation, clearing and grubbing.
 - Select grading procedures, remedial grading procedures, material suitability and compaction criteria.
 - Evaluation of soil expansion and corrosion potential.
 - Building-specific foundation design parameters.
 - Site-specific seismic design parameters.

5.2 WATER RESOURCES

Implementation of the protective measures described in **Section 2.1.7**, along with the recommended mitigation measures below, would minimize potential impacts to water resources related to the construction of Alternatives A and B.

- The Tribe shall obtain a National Pollutant Discharge Elimination System permit (NPDES General Permit) from the USEPA for construction site runoff during the construction phase in compliance with the Clean Water Act (CWA). A Storm Water Pollution and Prevention Plan (SWPPP) shall be prepared, implemented, and maintained throughout the construction phase of the development, consistent with General Permit requirements. The SWPPP would detail the BMPs to be implemented during construction and post-construction operation of the Proposed Project. The BMPs may include, but are not limited to, the following:
 - Straw wattle placement on cut and fill slopes.
 - Straw wattle check dam installation within drainage swales.
 - Covering disturbed areas with plastic, hydro-seed applications, or straw.
 - Construction entrance installation to reduce off-site sediment transport.
 - Revegetation following construction activities.

5.3 AIR QUALITY

The Tribe shall implement the following mitigation measure for Alternatives A and B.

- Set a five-minute idling time for construction and commercial delivery vehicles.
- Require energy efficient designed building.
- Consider LEED certification.
- Incorporate “Green Building” methodologies.
- Require the use of energy-efficient appliances in new residences.
- To the extent possible, require energy efficient lighting.
- Construct residences in a manner that would take advantage of shade, prevailing winds, and landscaping to reduce energy use.
- Preserve open spaces were possible.
- Require construction to reuse and recycle construction waste.

5.4 BIOLOGICAL RESOURCES

Implementation of the protective measures and BMPs described in **Section 2.1.7**, along with the mitigation measures below, would ensure that impacts to biological resources associated with Alternatives A and B are less than significant.

The following mitigation measures shall be implemented for VELB:

- The applicant shall comply with all avoidance measures including protective measures identified in the *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (USFWS, 1999), to the extent feasible. Complete avoidance measures include:

- No construction activities shall occur within 100 feet of elderberry shrubs containing stems measuring 1.0 inches or greater in diameter.
 - Firebreaks may not be included in the buffer zone.
 - The USFWS must be consulted before any disturbances within the buffer area are considered.
 - In buffer areas construction-related disturbance should be minimized, and any damaged area should be promptly restored following construction.
- All areas to be avoided shall be fenced and flagged during construction activities. In areas where encroachment on the 100-foot buffer has been approved by the USFWS, a minimum setback of at least 20 feet from the dripline of each elderberry shall be implemented.
 - Signs shall be erected every 50 feet along the edge of avoidance areas with the following information: “This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the FESA, as amended. Violators are subject to prosecution, fines, and imprisonment.” The signs should be clearly readable from a distance of 20 feet, and must be maintained for the duration of construction.
 - Sensitivity training shall be provided to instruct all construction personnel crews about the status of the VELB and the need to protect its elderberry host plant. The training shall include identification of special-status species, required practices before the start of construction, general measures that are being implemented to conserve these species as they relate to the Proposed Action, penalties for noncompliance, and boundaries of the action area and of the permitted disturbance zones. Supporting materials containing training information will be prepared and distributed. Upon completion of training, all construction personnel will sign a form stating that they have attended the training and understand all the conservation measures. Training shall be conducted in languages other than English, as appropriate. Proof of this instruction will be kept on file with the applicant. The applicant will provide the USFWS with a copy of the training materials and copies of the signed forms by project staff indicating that training has been completed within 30 days of the completion of the first training session. Copies of signed forms will be submitted monthly as additional training occurs for new employees.
 - Staging areas shall be located at least 100 feet from elderberry (*Sambucus* sp.) shrubs with stems at least one inch in diameter at ground level. Temporary stockpiling of excavated or imported material shall occur only in approved construction staging areas. Excess excavated soil shall be used onsite or disposed of at a regional landfill or other appropriate facility.
 - Equipment operators shall access the action area via existing roads. The operators shall minimize access on existing roads in the vicinity of the elderberry shrubs to the maximum extent feasible.
 - Standard precautions shall be employed by the construction contractor to prevent the accidental release of fuel, oil, lubricant, or other hazardous materials.

The following measures shall be implemented to minimize adverse affects to the federally listed GGS:

- No construction activities will occur within 100 feet from the toe of slope of the levee that occurs east of riparian habitat and pond. No construction activities will occur within 100 feet from the riparian habitat that surrounds the irrigation ditch on the west side of the action area.
- A qualified biologist shall conduct habitat sensitivity training related to GGS for all project contractors and personnel, as identified under the VELB mitigation measures.
- Construction activities shall occur during the active season for GGS (May 1 through October 1), because snakes are expected to actively move and avoid danger.
- A biologist shall be present during land clearing activities to ensure that no take of this species occurs.

The following mitigation measures shall be implemented to avoid adverse affects to the federally listed candidate yellow-billed cuckoo:

- Trees anticipated for removal should be removed at least one month prior to and one month following the yellow-billed cuckoo nesting season (May 1 through October 1). If trees are anticipated to be removed during the nesting season, a preconstruction survey shall be conducted by a qualified biologist conducted within 14 days prior to commencement of construction activities. If the survey shows that there is no evidence of active nests, then the tree shall be removed within ten days following the survey.
- If any active yellow-billed cuckoo nests are located within the action area, a buffer zone will be established around the nests. A qualified biologist will monitor nests weekly during construction to evaluate potential nesting disturbance by construction activities. The biologist will delineate the buffer zone with construction tape or pin flags within 250 feet of the active nest and maintain the buffer zone until the end of breeding season or the young have fledged. Guidance from the USFWS will be requested if establishing a 250-foot buffer zone is impractical.

The following mitigation measures shall be implemented to avoid and/or reduce impacts to any potentially occurring migratory bird species within the project site:

- Construction will not occur within 250 feet of identified migratory bird/raptor nests during the breeding/nesting season.

5.5 CULTURAL RESOURCES

The following mitigation measures are recommended for Alternatives A and B to reduce the potential for significant construction-related impacts to previously unknown cultural resources, including archaeological sites, human remains, and/or paleontological resources:

- In the event that any prehistoric or historic cultural resources are discovered during ground-disturbing activities, all work within 50 feet of the resources shall be halted and a Colusa Indian Community tribal representative and BIA archaeologist shall be consulted to assess the significance of the find. If any find is determined to be significant by the qualified professionals, then appropriate agency and tribal representatives shall meet to determine the appropriate course of action.
- If human remains are encountered, work shall halt in the vicinity of the find and the Colusa County Coroner shall be notified immediately. Pursuant to 36 CFR Part 800.13 of NHPA: *Post-Review Discoveries*, and 43 C.F.R. § 10.4 (2006) of the Native American Graves Protection and Repatriation Act (NAGPRA): *Inadvertent Discoveries*, the Colusa Indian Community Tribal representative and BIA archaeologist will also be contacted immediately. No further ground disturbance shall occur in the vicinity of the find until the County Coroner, Tribal Official, and BIA archaeologist have examined the find and agreed on an appropriate course of action. If the remains are determined to be of Native American origin, the BIA representative shall notify a Most Likely Descendant (MLD). The MLD is responsible for recommending the appropriate disposition of the remains and any grave goods.

5.6 SOCIOECONOMIC CONDITIONS/ ENVIRONMENTAL JUSTICE

No mitigation is warranted for Alternatives A, B, or C.

5.7 TRANSPORTATION AND CIRCULATION

No mitigation is warranted for Alternatives A, B, or C.

5.8 LAND USE

No mitigation would be necessary for Alternatives A, B, or C.

5.9 PUBLIC SERVICES

Implementation of the protective measures and BMPs described in **Section 2.1.7**, along with the mitigation measures below, would ensure that the construction and operation of Alternatives A or B would have a less than significant impact on fire and emergency services.

- To minimize the risk of fire and the need for fire protection services during construction, any construction equipment that normally includes a spark arrester shall be equipped with a spark arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.
- During construction, staging areas, welding areas, or areas slated for development using spark-producing equipment would be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor would keep these areas clear of combustible materials in order to maintain a firebreak.
- Fire extinguishers shall be maintained onsite and inspected on a regular basis.
- An evacuation plan shall be developed for the proposed development in the event of a fire emergency.

5.10 NOISE

No mitigation is warranted for Alternatives A, B, or C.

5.11 HAZARDOUS MATERIALS

The mitigation measures listed below are recommended to reduce potential impacts associated with construction and operation of Alternatives A and B.

- Potentially hazardous materials, including fuels, shall be stored away from drainages and secondary containment shall be provided for all hazardous materials during construction.
- Vehicles and equipment used during construction shall be provided proper and timely maintenance to reduce potential for mechanical breakdowns leading to a spill of materials into water bodies. Maintenance and fueling shall be conducted in an area that meets the criteria set forth in the spill prevention plan.

5.12 VISUAL RESOURCES

No mitigation is necessary for Alternatives A, B, or C.

SECTION 6.0

CONSULTATION, COORDINATION, AND LIST OF PREPARERS

SECTION 6.0

CONSULTATION, COORDINATION, AND LIST OF PREPARERS

6.1 FEDERAL AGENCIES CONSULTED

United States Department of Interior – Bureau of Indian Affairs

John Rydzik, Chief, Division of Environmental, Cultural Resource Management and Safety, Pacific Regional Office

Patrick O’Mallan, Environmental Protection Specialist, Pacific Regional Office

United States Fish and Wildlife Service

Informal consultation, Sacramento Fish and Wildlife Office

Natural Resource Conservation Service

Andrea Casey, District Conservationist

6.2 STATE AGENCIES CONSULTED

California Department of Parks and Recreation, Office of Historic Preservation

Wayne Donaldson, State Historic Preservation Officer

Native American Heritage Commission

Katy Sanchez

6.3 TRIBES CONSULTED

Colusa Indian Community

Wayne R. Mitchum Sr., Chairperson

Tammy Fullerton, Tribal Planner

Shannon Morganson, Administrative Operations Director

EDC Board

Colusa Reservation Cachil Dehe Rancheria Housing Corporation

Colusa Indian Community Economic Development Corporation Board of Directors

Grindstone Rancheria

Ronald Kirk, Chairperson

Regina Dock

Paskenta Band of Nomlaki Indians

Everett Freeman, Chairperson

Rumsey Rancheria

Marshall McKay, Chairperson

Leland Kinter, Native Cultural Renewal Committee

Cynthia Clarke, Native Cultural Renewal Committee

Craig Marcus, Tribal Administrator

Cortina Band of Indians

Elaine Patterson, Chairperson

Karen Flores, Vice Chairperson

Thelma Brafford, Tribal Administrator

Kesner Flores

Wintun Environmental Protection Agency

6.4 LOCAL AGENCIES CONSULTED

Colusa County Environmental Health Department

Colusa County Planning Department

6.5 PREPARERS OF ENVIRONMENTAL ASSESSMENT

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Project Director, David Zweig

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SECTION 7.0

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APPENDICES

APPENDIX A

AIR EMISSIONS MODEL OUTPUT

Summary Report for Annual Emissions (Tons/Year)

File Name:

Project Name: Colusa Fee-to-Trust

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

CO2

258.85

2011 TOTALS (tons/year unmitigated)

335.64

2012 TOTALS (tons/year unmitigated)

425.41

2013 TOTALS (tons/year unmitigated)

AREA SOURCE EMISSION ESTIMATES

CO2

74.19

TOTALS (tons/year, unmitigated)

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

CO2

411.18

TOTALS (tons/year, unmitigated)

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>CO2</u>
TOTALS (tons/year, unmitigated)	485.37

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\equinn\Application Data\Urbemis\Version9a\Projects\Colusa Fee-to-Trust.urb924

Project Name: Colusa Fee-to-Trust

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

CO2

4,801.61

2011 TOTALS (lbs/day unmitigated)

3,759.15

2012 TOTALS (lbs/day unmitigated)

3,759.54

2013 TOTALS (lbs/day unmitigated)

AREA SOURCE EMISSION ESTIMATES

CO2

406.66

TOTALS (lbs/day, unmitigated)

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

CO2

2,408.65

TOTALS (lbs/day, unmitigated)

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

CO2

2,815.31

TOTALS (lbs/day, unmitigated)

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

CO2

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Time Slice 6/1/2011-7/14/2011
Active Days: 32 2,400.80

Mass Grading 06/01/2011-
10/01/2011 2,400.80

Mass Grading Dust 0.00

Mass Grading Off Road Diesel 2,247.32

Mass Grading On Road Diesel 0.00

Mass Grading Worker Trips 153.49

Time Slice 7/15/2011-9/30/2011
Active Days: 56 4,801.61

Fine Grading 07/15/2011-
11/01/2011 2,400.80

Fine Grading Dust 0.00

Fine Grading Off Road Diesel 2,247.32

Fine Grading On Road Diesel 0.00

Fine Grading Worker Trips 153.49

Mass Grading 06/01/2011-
10/01/2011 2,400.80

Mass Grading Dust 0.00

Mass Grading Off Road Diesel 2,247.32

Mass Grading On Road Diesel 0.00

Mass Grading Worker Trips 153.49

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Time Slice 10/3/2011-10/14/2011 Active Days: 10	2,400.80
Fine Grading 07/15/2011- 11/01/2011	2,400.80
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	2,247.32
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	153.49
Time Slice 10/17/2011-11/1/2011 Active Days: 12	4,567.42
Building 10/15/2011-10/30/2013	2,166.62
Building Off Road Diesel	1,621.20
Building Vendor Trips	103.38
Building Worker Trips	442.04
Fine Grading 07/15/2011- 11/01/2011	2,400.80
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	2,247.32
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	153.49
Time Slice 11/2/2011-12/30/2011 Active Days: 43	2,166.62
Building 10/15/2011-10/30/2013	2,166.62
Building Off Road Diesel	1,621.20
Building Vendor Trips	103.38
Building Worker Trips	442.04

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Time Slice 1/2/2012-2/29/2012	2,166.89
Active Days: 43	
Building 10/15/2011-10/30/2013	2,166.89
Building Off Road Diesel	1,621.20
Building Vendor Trips	103.39
Building Worker Trips	442.30
Time Slice 3/1/2012-9/28/2012	2,171.07
Active Days: 152	
Building 10/15/2011-10/30/2013	2,166.89
Building Off Road Diesel	1,621.20
Building Vendor Trips	103.39
Building Worker Trips	442.30
Coating 09/01/2012-11/15/2013	4.17
Architectural Coating	0.00
Coating Worker Trips	4.17

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Time Slice 10/1/2012-12/31/2012
Active Days: 66

3,759.15

Asphalt 10/01/2012-11/30/2013

1,588.08

Paving Off-Gas

0.00

Paving Off Road Diesel

1,272.04

Paving On Road Diesel

8.89

Paving Worker Trips

307.15

Building 10/15/2011-10/30/2013

2,166.89

Building Off Road Diesel

1,621.20

Building Vendor Trips

103.39

Building Worker Trips

442.30

Coating 03/01/2012-11/15/2013

4.17

Architectural Coating

0.00

Coating Worker Trips

4.17

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Time Slice 1/1/2013-10/30/2013	3,759.54
Active Days: 217	
Asphalt 10/01/2012-11/30/2013	1,588.24
Paving Off-Gas	0.00
Paving Off Road Diesel	1,272.04
Paving On Road Diesel	8.89
Paving Worker Trips	307.31
Building 10/15/2011-10/30/2013	2,167.13
Building Off Road Diesel	1,621.20
Building Vendor Trips	103.41
Building Worker Trips	442.52
Coating 03/01/2012-11/15/2013	4.18
Architectural Coating	0.00
Coating Worker Trips	4.18
Time Slice 10/31/2013-11/15/2013	1,592.41
Active Days: 12	
Asphalt 10/01/2012-11/30/2013	1,588.24
Paving Off-Gas	0.00
Paving Off Road Diesel	1,272.04
Paving On Road Diesel	8.89
Paving Worker Trips	307.31
Coating 03/01/2012-11/15/2013	4.18
Architectural Coating	0.00
Coating Worker Trips	4.18

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Time Slice 11/18/2013-11/29/2013	1,588.24
Active Days: 10	
Asphalt 10/01/2012-11/30/2013	1,588.24
Paving Off-Gas	0.00
Paving Off Road Diesel	1,272.04
Paving On Road Diesel	8.89
Paving Worker Trips	307.31

Phase Assumptions

Phase: Fine Grading 7/15/2011 - 11/1/2011 - Default Fine Site Grading Description
Total Acres Disturbed: 6.67
Maximum Daily Acreage Disturbed: 1.67
Fugitive Dust Level of Detail: Default
20 lbs per acre-day
On Road Truck Travel (VMT): 0
Off-Road Equipment:
1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 6/1/2011 - 10/1/2011 - Type Your Description Here
Total Acres Disturbed: 6.67
Maximum Daily Acreage Disturbed: 1.67
Fugitive Dust Level of Detail: Default
20 lbs per acre-day
On Road Truck Travel (VMT): 0
Off-Road Equipment:
1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

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- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 10/1/2012 - 11/30/2013 - Default Paving Description

Acres to be Paved: 1.67

Off-Road Equipment:

- 4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 10/15/2011 - 10/30/2013 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day
- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
- 3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 3/1/2012 - 11/15/2013 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>CO2</u>
Natural Gas	406.23
Hearth - No Summer Emissions	
Landscape	1.43
Consumer Products	
Architectural Coatings	
TOTALS (lbs/day, unmitigated)	406.66

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with natural gas fireplaces changed from 65% to 100%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>CO2</u>
Single family housing	2,408.65
TOTALS (lbs/day, unmitigated)	2,408.65

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internet trips

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	6.67	9.57 dwelling units		20.00	191.40	2,228.85
					191.40	2,228.85

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.6	1.1	98.7	0.2
Light Truck < 3750 lbs	10.0	2.0	92.0	6.0
Light Truck 3751-5750 lbs	22.5	0.9	98.7	0.4
Med Truck 5751-8500 lbs	10.2	1.0	99.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	76.2	23.8
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.5	62.9	37.1	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.9	0.0	88.9	11.1

Travel Conditions

	Residential				Commercial	
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

APPENDIX B

BIOLOGICAL ASSESSMENT

BIOLOGICAL ASSESSMENT

CACHIL DEHE BAND OF WINTUN INDIANS OF THE COLUSA INDIAN COMMUNITY

FEE-TO-TRUST

DECEMBER 2009

PREPARED FOR:



Cachil Dehe Band of Wintun Indians
3730 Highway 45
Colusa, CA 95932



BIOLOGICAL ASSESSMENT

CACHIL DEHE BAND OF WINTUN INDIANS OF THE COLUSA INDIAN COMMUNITY

FEE-TO-TRUST

DECEMBER 2009

PREPARED FOR:



Cachil Dehe Band of Wintun Indians
3730 Highway 45
Colusa, CA 95932

PREPARED BY:



Analytical Environmental Services
1801 7th Street, Suite 100
Sacramento, CA 95811

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ATTACHMENTS

Attachment 1	USFWS and CNDDDB Scientific Database Queries
Attachment 2	List of Vascular Plants and Wildlife Observed Within Project Site

1.0 INTRODUCTION

This Biological Assessment (BA) has been prepared for the proposed Colusa Fee-To-Trust project (Proposed Action) in unincorporated Colusa County, California (**Figure 1**). This BA has been prepared in support of an application to the United States Bureau of Indian Affairs (BIA) to place approximately 225 acres of land into federal trust for the Cachil Dehe Band of Wintun Indians of the Colusa Indian Community (CIC or Tribe) and construction of up to 20 houses as well as continued agricultural production of walnuts. This BA has been prepared to facilitate consultation with the U.S. Fish and Wildlife Service (USFWS) and was prepared in accordance with the legal requirements set forth under Section 7 of the Federal Endangered Species Act (FESA) (16 U.S.C. 1536 (c)) concerning the effects of the Proposed Action.

The purpose of this BA is to review the Proposed Action in sufficient detail to determine the extent to which the project may affect any of the threatened, endangered, candidate, or proposed species and designated or proposed critical habitats identified herein. In addition, the following information is provided to comply with statutory requirements to use the best scientific and commercial information available when assessing the risks posed to listed and/or proposed species and designated and/or proposed critical habitat by proposed federal actions.

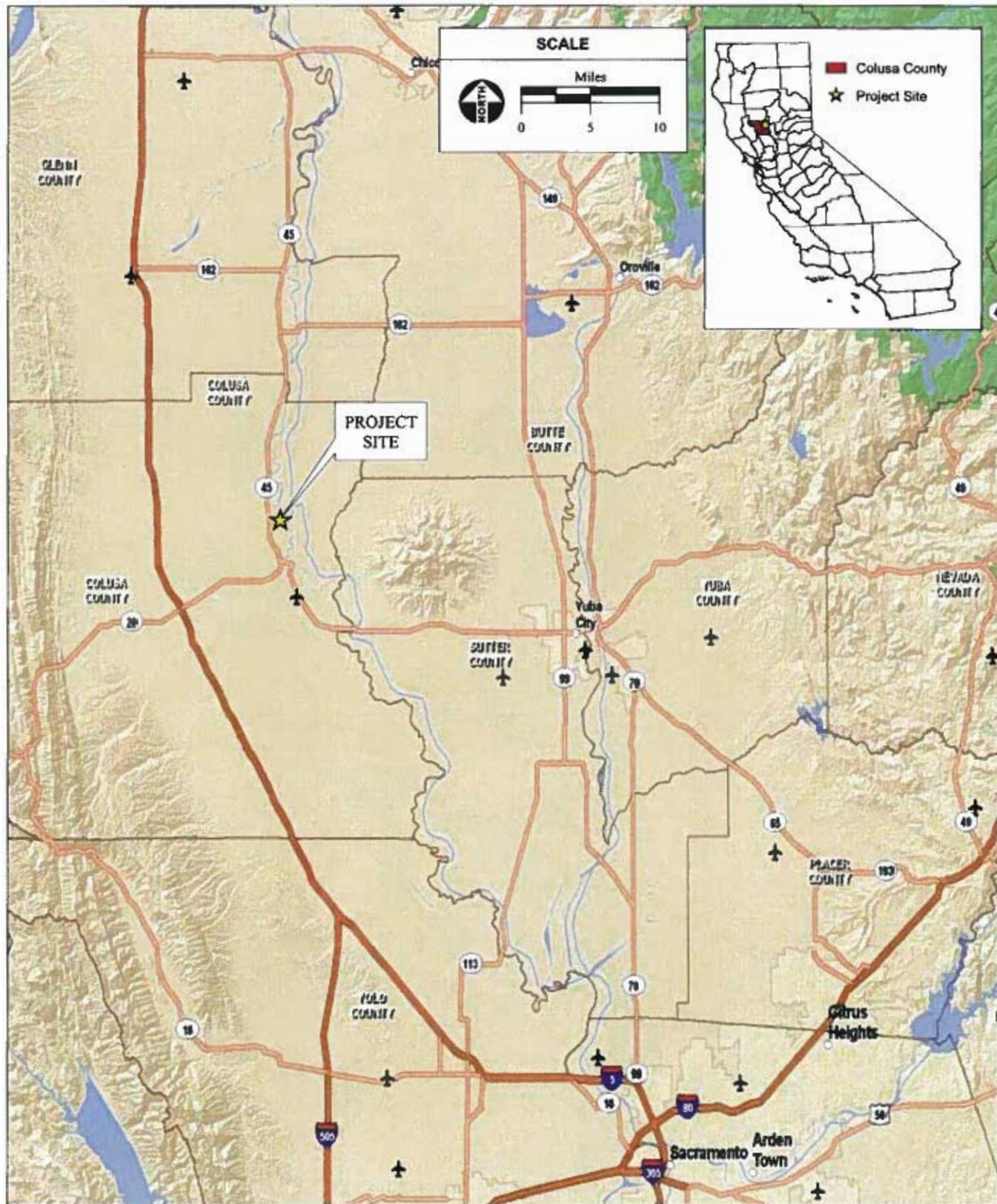
In order to fulfill its purpose, this BA:

- Characterizes the habitat types present within the action area;
- Evaluates the potential for the occurrence of federally endangered, threatened, or proposed species within the action area;
- Assesses the potential for the proposed action to adversely affect federally endangered, threatened, candidate, or proposed species; and
- Recommends mitigation measures designed to avoid or minimize project-related effects.

1.1 THREATENED, ENDANGERED, AND PROPOSED THREATENED AND ENDANGERED SPECIES AND CANDIDATE SPECIES

The Proposed Action has the potential to adversely affect the following federally listed species (USFWS, 2009a):

- Federally threatened Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*; VELB)
- Federally threatened green sturgeon (*Acipenser medirostris*)
- Federally threatened Central Valley steelhead (*Oncorhynchus mykiss*)



SOURCE: StreetMap World, 2008; AES 2009

Colusa Indian Community 225-acre Fee-To-Trust BA / 209520 ■

Figure 1
Regional Location

- Federally threatened Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*)
- Federally endangered winter-run Chinook salmon, Sacramento River (*Oncorhynchus tshawytscha*)
- Federally threatened giant garter snake (*Thamnophis gigas*; GGS)
- Federally candidate Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)

1.2 CRITICAL HABITAT

The Proposed Action addressed within this BA occurs in the vicinity of designated critical habitat for the following (USFWS, 2009a):

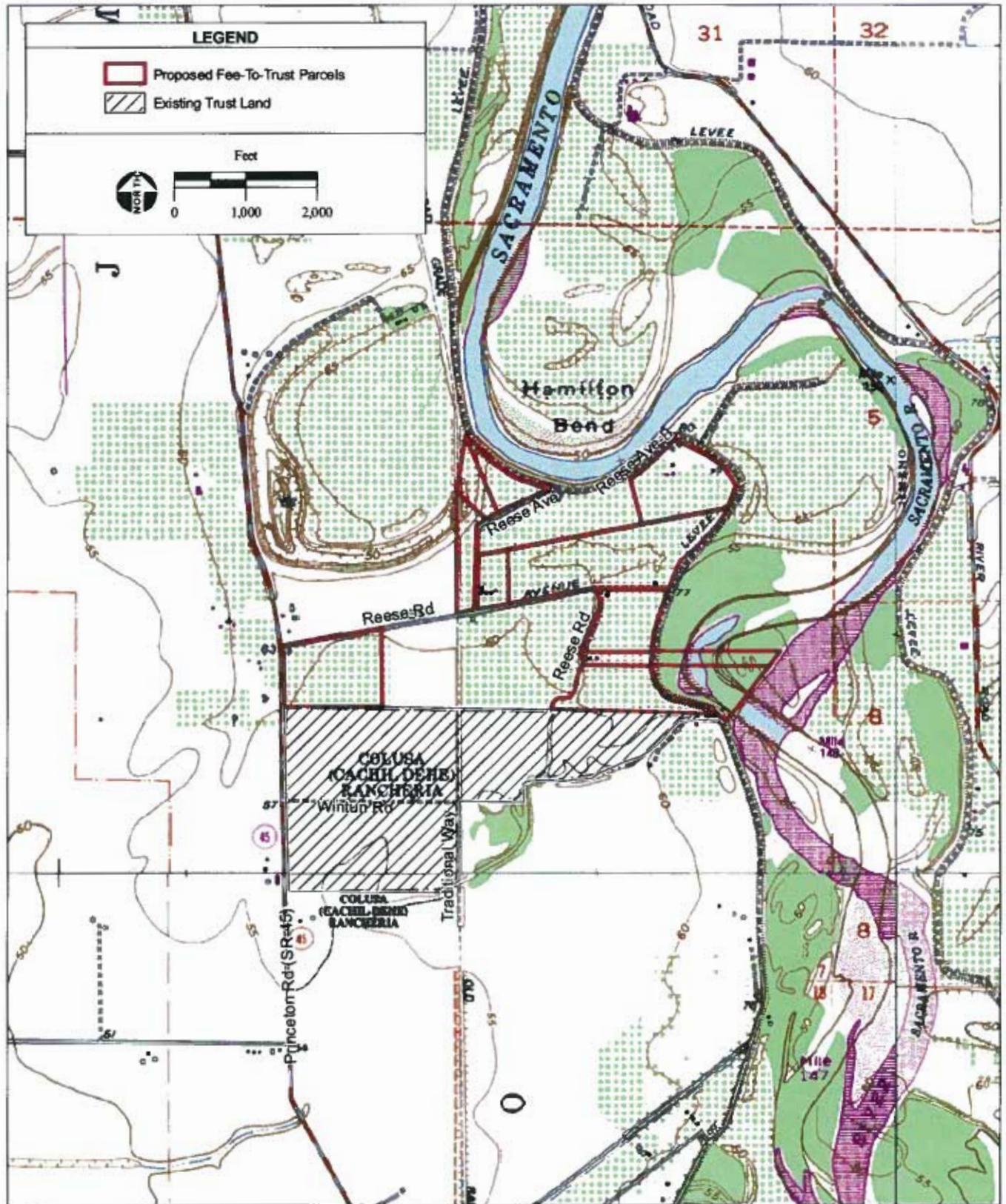
- Federally threatened Central Valley steelhead (*Oncorhynchus mykiss*)
- Federally threatened Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*)
- Federally endangered winter-run Chinook salmon, Sacramento River (*Oncorhynchus tshawytscha*)

1.3 LOCATION

The proposed fee-to-trust parcels are located on an unsectioned portion of Township 16 North, Range 1 West of the Moulton Weir, California, U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (quad), Mount Diablo Baseline and Meridian. The center of the site is approximately 39°15'36.7" North, 122°01'208" West. A topographic map of the site is shown in **Figure 2**.

1.4 PROJECT DESCRIPTION

The proposed project (i.e. action) would include the transfer of twelve parcels that total approximately 225 acres into federal trust for construction of Tribal housing and continuation of agricultural production of walnuts. The action area includes Assessor Parcel Numbers (APNs) 015-030-005, 015-030-046, 015-030-048, 015-030-049, 015-030-050, 015-030-051, 015-030-079, 015-030-080, 015-030-081, 015-030-082, 015-030-083, and 015-030-089. The Tribe's existing reservation abuts two parcels located on the south side of the action area. The proposed fee-to-trust parcels are illustrated in **Figure 3**. More extensive information regarding the proposed project is provided in the Environmental Assessment (EA) for the proposed project (AES, 2009).



SOURCE: "Moulton Weir, CA" USGS 7.5 Minute Topographic Quadrangle, Unsectioned Area of Jimeno, T16N, R1W & R2W, Mt. Diablo Baseline & Meridian; AES, 2009

Colusa Indian Community 225-acre Fee-To-Trust BA / 209520 ■

Figure 2
Site and Vicinity



Figure 3
Aerial Photograph

As discussed in the EA, Alternative A includes construction of up to 20 new homes, while continuing to use the majority of the land for agricultural purposes. No construction would take place on parcels 015-030-051 and 015-030-049. Alternative B is similar to Alternative A, but has only ten new homes. Alternative C is the No-Action alternative. The site plan for Alternative A was used for analysis in this BA because it has the largest on-site footprint.

Under Alternative A, the proposed houses would be constructed on existing ruderal land to the extent possible in order to avoid impacts to biological resources and minimize the number of walnut trees that would need to be removed. Existing access roads would be utilized and no new roads would be constructed. Water would be supplied either by connecting to existing wells, or upgrading existing wells and treatment facilities. Wastewater service would be provided through individual septic tank systems. Development of the housing and infrastructure is anticipated to begin in 2011, with construction on one to five units at a time on an as-needed basis. This would continue until all 20 units are completed, estimated in 2021. The site plan for Alternative A is presented in **Figure 4**.

1.5 PURPOSE AND NEED

The Tribe's purpose for taking the 225 acres of land into trust is to ensure the continued social and economic independence and well-being of its members. The proposed trust acquisition would allow the Tribe to meet the following goals:

- Expand the Tribe's land base to promote stewardship of the CIC's historical territory in a manner consistent with Tribal priorities;
- Provide sufficient residential housing and associated infrastructure for Tribal members;
- Engage in diverse and self-sustaining economic development activities compatible with the rural, agricultural setting of Colusa County; and
- Allow the CIC Tribal Government to exercise sovereign authority over a greater percentage of the land that it owns, and protect and enhance the wellbeing of Tribal members and natural resources on those lands.

The CIC consists of 82 Tribal members, governed by a council of five members. While most Tribal members currently live on the existing Reservation, the Tribe is growing, with more than half of the CIC population under the age of 25. Some Tribal families are currently living in overcrowded housing on the Reservation or on nearby fee lands, because there are no available housing units on the existing Reservation. As the young people of the Tribe reach adulthood and establish families of their own, the availability of Tribal housing on trust lands will be of paramount importance in maintaining the Tribal heritage and community. Acceptance of the subject parcels into federal trust would assist the Tribe in meeting the long-term goals of adequate housing, self-governance, and economic self-sufficiency.



1.6 BEST MANAGEMENT PRACTICES

Construction and operation of the proposed project would incorporate a variety of industry standard Best Management Practices (BMPs) that would be identified in the Stormwater Pollution Prevention Plan (SWPPP) for the project. Erosion control measures would be provided on all embankment area slopes and on cut slopes. Seeding and mulching of all slopes would be completed. Where appropriate, mats, netting, and other appropriate materials would be provided to prevent erosion until plant growth is established.

1.7 CONSULTATION TO DATE

AES initiated informal consultation by obtaining a USFWS list, dated January 29, 2009, of federally listed special-status species with the potential to occur on or be affected by projects on the Moulton Weir and adjacent Meridian, Colusa, and Sanborn Slough quads (USFWS, 2009a).

2.0 REGULATORY SETTING

This section summarizes the applicable federal regulations regarding biological resources within the action area. The regulatory context of the Proposed Action is derived from federal laws that govern the protection of biological resources. The fundamental laws relevant to the scope of this BA are the FESA and the National Environmental Policy Act (NEPA).

2.1 FEDERAL ENDANGERED SPECIES ACT

The USFWS and National Marine Fisheries Service (NMFS) implement FESA (16 USC Section 1531 *et seq.*). Under FESA, federally listed threatened and endangered species (50 CFR Section 17) are protected from take (defined as direct or indirect harm) unless a Section 10 incidental take permit is granted or a Section 7 consultation and a Biological Opinion (BO) with incidental take provisions is provided. Pursuant to the requirements of FESA, federal agencies reviewing proposed projects within their jurisdictions must determine whether any federally listed species have the potential to occur within a proposed project site and if the proposed action would have any potentially significant impacts upon such species. Under FESA, habitat loss is considered an impact to a listed species. In addition, federal agencies are required to determine whether the project is likely to jeopardize the continued existence of any species proposed for listing under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC Section 1536 *et seq.*). Therefore, project-related impacts to these species, or their habitats, would be considered significant and require mitigation. The USFWS also maintains a list of candidate species, which are considered during environmental review, though they are not formally protected under the FESA. Candidate species may become proposed for official listing.

2.2 WETLANDS AND OTHER WATERS OF THE U.S.

Any project that involves the discharge of dredged or fill material in navigable and other waters of the U.S., including wetlands, must first obtain authorization from the U.S. Army Corps of Engineers (USACE), under Section 404 of the Clean Water Act (CWA). The USACE also regulates activities in navigable waters of the U.S. under the Rivers and Harbors Act (Sections 9 and 10). Activities such as construction of any structures in or over navigable waters of the U.S., or other work that may affect the course, location, condition, or physical capacity of navigable waters may require a USACE permit (see below for more detail). The United States Environmental Protection Agency (USEPA), USFWS, NMFS, and several other agencies provide comments on USACE permit applications.

2.3 RIVERS AND HARBORS ACT

The Rivers and Harbors Act (RHA) of 1899 governs specified activities in navigable waters of the U.S. Like the CWA, the mandates of the RHA are also administered by the USACE. Specifically, Section 9 requires authorization from the Secretary of the Army, as delegated by the Chief of Engineers, for the construction of any structure in or over a navigable water of the U.S. This includes bridges, dams, dikes, or causeways over or in any ports, roadsteads, havens, harbors, canals, and navigable rivers. Construction of any structure in or over a navigable water of the U.S. without proper authorization is considered unlawful. Within the context of Section 9, the U.S. Coast Guard is largely concerned with safe navigation in navigable waters. As such, the U.S. Coast Guard also reviews projects subject to Section 9 of the RHA with respect to navigation safety. Section 10 of the RHA applies to any other activities that have the potential to affect the course, location, condition, or physical capacity of navigable waters of the U.S. This includes the building or commencement of any wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, or any other structure in any port, roadstead, haven, harbor, canal, navigable river, or other water of the U.S. outside established harbor lines, or where no harbor lines have been established. Section 10 prohibits the excavation, fill, or any other alteration or modification to the course, location, condition, or capacity of, any port, roadstead, haven, harbor, canal, lake, harbor of refuge, or enclosure within the limits of any breakwater, or the channel of any navigable waters. Activities of this nature, without USACE authorization are unlawful. As with Section 9 of the RHA, Section 10 also requires approval from the Chief of Engineers and authorization by the Secretary of the Army.

2.4 MAGNUSON-STEVENSON FISHERY CONSERVATION AND MANAGEMENT ACT

The Magnuson-Stevens Fishery Conservation and Management Act (MSFA) conserves and manages the fishery resources found off the coasts of the United States, the anadromous species, and the Continental Shelf fishery resources of the United States, including the conservation and management of highly migratory species through the implementation and enforcement of international fishery agreements. The NMFS enforces the MSFA and regulates commercial and recreational fishing and the management of fisheries resources. The Sustainable Fisheries Act of 1996 amended the MSFA to include new fisheries conservation provisions by emphasizing the importance of fish habitat in regards to the overall productivity and sustainability of U.S. marine fisheries (Public Law 104-267). The revised MSFA

mandates the identification and protection of Essential Fish Habitat (EFH) for managed species during the review of projects conducted under federal permits that have the potential to affect such habitat. Federal agencies are required to consult with NMFS on all actions or proposed actions authorized, funded, or undertaken by the agency, which may adversely affect EFH (MSFA 305.b.2).

ESSENTIAL FISH HABITAT

Under the MSFA, NMFS identifies, conserves, and enhances EFH for those species regulated under a federal fisheries management plan (FMP). EFH is defined as “those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity.” The EFH Regulatory Guidelines (50 CFR 600.110) further interpret this definition as:

- Waters include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate.
- Substrate includes sediment, hard bottom, structures underlying the waters, and associated biological communities.
- Necessary means the habitat required to support a sustainable fishery and the managed species’ contribution to a healthy ecosystem.
- “Spawning, breeding, feeding, or growth to maturity” covers a species’ full life cycle.

Projects that have the potential to adversely affect EFH must initiate consultation with the NMFS. Adverse affects are any impacts that reduce the quality and/or quantity of EFH. Adverse affects can include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey or reduction in species fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810). There are four FMPs in California, Oregon, and Washington that identify EFH for groundfish, coastal pelagic species, Pacific salmon, and Pacific highly migratory fisheries. The Pacific Coast groundfish FMP manages over 82 species (e.g., rockfish, sablefish, flatfish, and Pacific whiting). Species considered pursuant under this FMP often, though not exclusively, occur on or near the ocean floor or other structures. The coastal pelagic species FMP manages finfish such as sardine, mackerel, anchovy, and the market squid. Species addressed in this FMP tend to occur nearer to the surface and EFH for these species is based on temperature range, life history cycles, and geographic distributions of these species. The Pacific salmon FMP includes both marine and freshwater EFH because of the unique biology of these species. As such, lakes, rivers, streams, ponds, wetlands, and other bodies of water that were historically accessible to salmon are considered EFH, including certain areas above artificial barriers. The FMP for highly migratory species manages mobile fish including tuna, swordfish, and shark. EFH identified in this FMP is highly variable. It typically is defined in terms of area, depth, temperature, salinity, oxygen levels, currents, and topography.

2.5 MIGRATORY BIRD TREATY ACT

Fish and Game Code 3503.5 protects all birds in the orders Falconiformes and Strigiformes (collectively known as birds of prey). The Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711) protects

migratory birds by making it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR 10 including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21).

3.0 METHODOLOGY AND FIELD SURVEYS

3.1 PRELIMINARY DATA GATHERING AND RESEARCH

Standard references used for the biology and taxonomy of plants include: Abrams (1951, 1960), Barbour and Major (1988), California Native Plant Society (CNPS; 2001, 2009), CDFG (2003, 2007), Hickman, ed. (1993), Mason (1957), Munz (1959), and Sawyer and Keeler-Wolf (1995). Standard references used for the biology and taxonomy of wildlife include: CDFG (2003, 2007), Ehrlich et al. (1988), Jennings and Hayes (1994), Peterson (1990), Sibley (2003), Stebbins (2003), and Cornell Lab of Ornithology (2005).

AES obtained information for the action area from the following sources: color aerial photograph of the action area (USGS, 2005); National Wetlands Inventory Online Mapper (NWI; USFWS, 2009b) for the Moulton Weir quad; soil type descriptions and soil survey map (USDA, 2007); hydric soil information for Colusa County (NRCS, 2009); a USFWS list, dated January 29, 2009, of federally listed special-status species with the potential to occur on or be affected by projects on the Moulton Weir and adjacent Meridian, Colusa, and Sanborn Slough quads (USFWS, 2009a); a California Natural Diversity Database (CNDDDB) query, dated May 30, 2009, of state and federally listed special-status species known to occur on the Moulton Weir and adjacent Meridian, Colusa, and Sanborn Slough quads (CDFG, 2003); and a CNDDDB map (CDFG, 2003) of state and federally listed special-status species known to occur within five miles of the action area. The CNDDDB map for species within five miles of the action area was obtained from known occurrences documented on the Lakeport 100k quad (CNDDDB, 2009; (CDFG, 2003). The USFWS and the CNDDDB queries are included in **Attachment 1**.

3.2 BIOLOGICAL SURVEY

AES biologist Kelly Buja, M.S., conducted a biological survey of the action area on July 22, 2009. The biological survey consisted of evaluating biological communities and documenting potential habitat for federally listed special-status species with the potential to occur within the action area. The habitat types were identified using the California Wildlife Habitat Relationships (CWHR; CDFG, 2005). A list of plants and wildlife observed within the action area is included in **Attachment 2**.

4.0 ENVIRONMENTAL SETTING

The action area is located within the Yolo – American Basins subregion of the Great Valley ecological section in California. The climate within the region is characterized by hot, dry summers and mild winters. The mean annual precipitation within the subregion ranges from 14 to 18 inches. The mean

annual temperature ranges from 60° to 62° Fahrenheit. Land use consists primarily of irrigated agriculture.

The action area is accessed by Reese Road, Reese Avenue, and Reese Avenue B. The action area is bound by Reese Avenue B, which is situated on a levee, to the north and northeast, by the Sacramento River to the southeast, by Princeton Road and agricultural land to the west, and by the Tribe’s reservation boundary to the south (**Figure 3**). The action area is relatively flat with an elevation that ranges from approximately 55 to 65 feet above mean sea level.

4.1 SOILS

Four soil types occur in the action area as shown in **Figure 5**. **Table 1** identifies the soil types by series, map symbols, hydric characteristics, estimated percentages occurring within the action area, and estimated acreages occurring within the action area.

TABLE 1
MAPPED SOIL TYPES

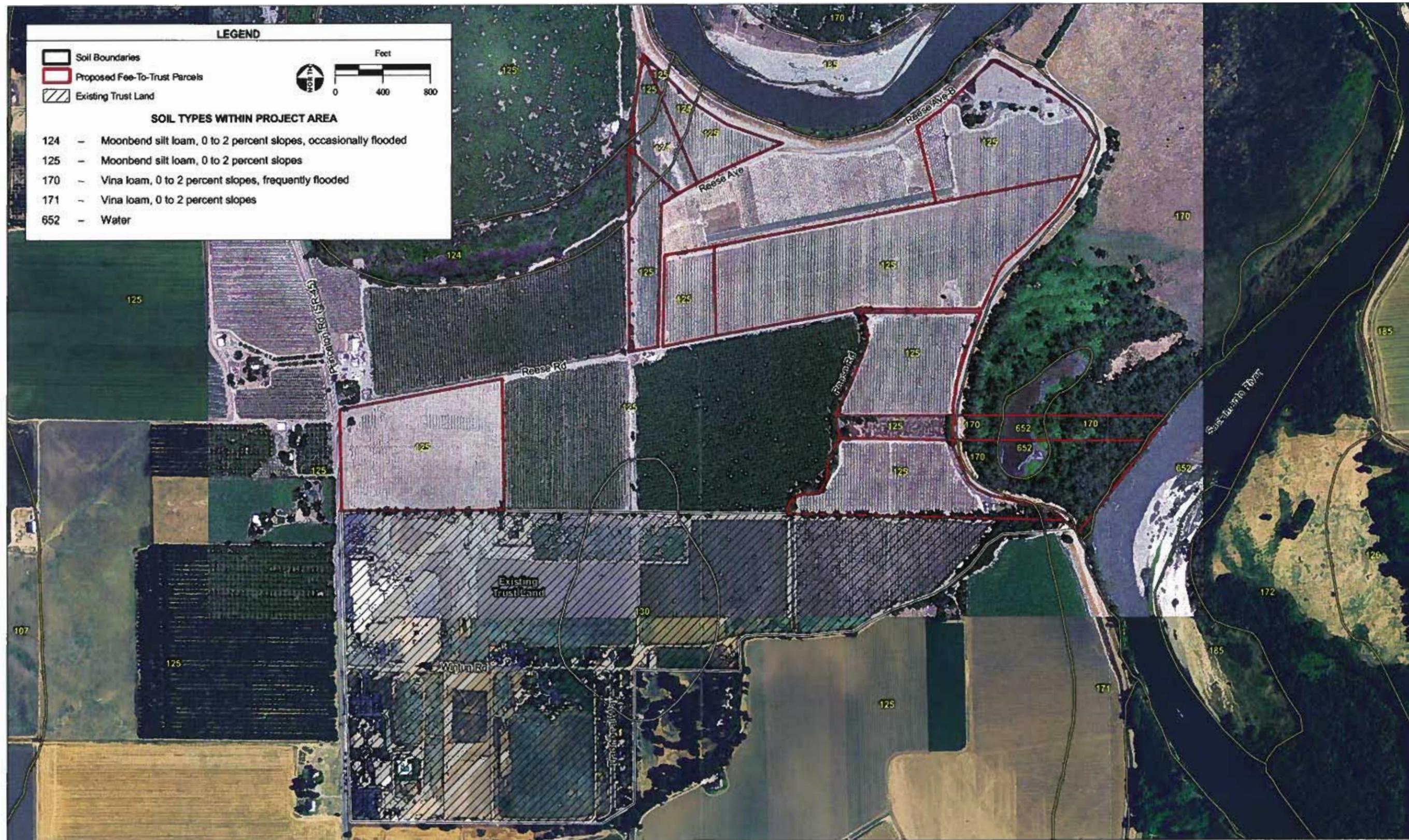
Soil Series	Map Symbol	Hydric	Percentage of Action area ¹	Acreage in Action Area ¹
Moonbend silt loam, 0 to 2 percent slopes, occasionally flooded	124	Yes	4	9.4
Moonbend silt loam, 0 to 2 percent slopes	125	Yes	83	185
Vina loam, 0 to 2 percent slopes, frequently flooded	170	Yes	10	22
Vina loam, 0 to 2 percent slopes	171	Yes	0.2	0.4
Water	652	Yes	3.4	8

Source: USDA NRCS, 2009.

¹GIS calculations may not reflect exact acreage of action area due to rounding.

A description of the four soil types are included below:

- Moonbend silt loam (124 and 125) – These soils are generally found in low areas along the Sacramento River, in elevations between 45 to 55 feet. The parent material of Moonbend silt loams is alluvium derived from mixed rock sources. Both soils have a very high available water capacity of about 10.5 inches and moderate shrink-swell potential. Moonbend silt loams are characterized as moderately corrosive to uncoated steel (USDA, 2009).
- Vina loam (170 and 171) – These highly productive soils occur at elevations between 25 to 75 feet and are commonly located inside levees along the Sacramento River. Vina loams are well-drained soils, with a high available water capacity of about 9.5 inches and a low shrink-swell potential. Both are characterized as moderately corrosive to uncoated steel (USDA, 2009).



4.2 HABITAT TYPES

Dominant habitat types in the action area include: agricultural, riparian, ruderal/developed, pond, and irrigation ditch. Dominant vegetation in each habitat type is discussed below. **Table 2** provides a summary of habitat types by acreages. A habitat map of the action area is illustrated in **Figure 6**. Photographs of the action area are illustrated in **Figures 7a** and **7b**.

TABLE 2
HABITAT TYPES BY ACREAGE

Habitat Type	Acreage ¹	Linear Feet ¹
Agricultural	175.55	--
Riparian	18.66	--
Ruderal/Disturbed	27.12	--
Pond	3.67	--
Irrigation Ditch	0.005	212.90
Total	225.00	212.90

¹Calculations may not reflect exact acreage of action area due to rounding.

AGRICULTURAL

Agricultural habitat occurs throughout the majority of the action area. Dominant overstory vegetation observed in the agricultural habitat includes walnut (*Juglans hindsii*). Dominant understory vegetation observed in the agricultural habitat includes: hairy geranium (*Geranium molle*), plantain (*Plantago lanceolata*), Spanish clover (*Lotus purshianus*), willow herb (*Epilobium* sp.), filaree (*Geranium botrys*), yellow star-thistle (*Centaurea solstitialis*), common groundsel (*Senecio vulgaris*) and morning glory (*Convolvulus arvensis*). The CWHR classifies this habitat type as deciduous orchard (CDFG, 2005).

RIPARIAN

Riparian habitat occurs primarily within the southeast portion of the action area (**Figure 7b: Photographs 5 and 6**). A small portion of riparian habitat occurs within the central portion of the action area and surrounds an irrigation ditch. Dominant overstory vegetation observed in the riparian habitat includes: Fremont's cottonwood (*Populus fremontii*), willow (*Salix* sp.), Valley oak (*Quercus lobata*), and California black walnut (*Juglans californica*). Dominant understory vegetation observed in the riparian habitat includes: common buttonbush (*Cephalanthus occidentalis*), California black walnut (*Juglans californica*), Oregon ash (*Fraxinus latifolia*), California wild grape (*Vitis californica*), stinging nettle (*Urtica dioica*), California blackberry (*Rubus ursinus*), blue elderberry (*Sambucus mexicana*), fig (*Ficus carica*), and poison oak (*Toxicodendron diversilobum*). The CWHR classifies this habitat type as Valley foothill riparian (CDFG, 2005). A CNDDB occurrence numbers 72 and 73 identify the riparian habitat on the southeast portion of the action area as Great Valley Mixed Riparian Forest (CDFG, 2003).





PHOTO 1: View northwest of agricultural habitat type from the southeast side of the project site.



PHOTO 2: View west of agricultural habitat type from the northwest side of the project site.



PHOTO 3: View westward of ruderal/developed areas from the northeast side of the project site.



PHOTO 4: View north of ruderal/developed areas from the south side of the project site.



PHOTO 5: View northward of the riparian habitat within the project site and the Sacramento River outside the eastern boundary of the project site.



PHOTO 6: View southward of riparian habitat surrounding the irrigation ditch from the central side of the project site just east of Reese Road.



PHOTO 7: View north of pond surrounded by riparian habitat from the southeast side of the project site.



PHOTO 8: View of potential VELB exit hole (approximately 1 centimeter diameter) within an elderberry shrub along the banks of the irrigation ditch outside the project site.

RUDERAL/DEVELOPED

Ruderal/disturbed habitat occurs in isolated locations within the action area (**Figure 7a: Photographs 3 and 4**). This habitat type includes dirt roads, grubbed and graded areas, houses and associated infrastructure, and ornamental landscaping. The CWHR does not have a classification for this habitat type (CDFG, 2005).

POND

A portion of a pond is located on the southeast portion of the action area (**Figure 7b: Photograph 7**). Dominant overstory vegetation observed along the banks of the pond includes: broad-leaf cattail (*Typha latifolia*) and common buttonbush. Dominant understory vegetation observed along the banks of the pond includes: water primrose (*Ludwigia peploides* ssp. *peploides*), annual bluegrass (*Poa annua*), and inland saltgrass (*Distichlis spicata*). The CWHR classifies this habitat type as lacustrine (CDFG, 2005).

IRRIGATION DITCH

A portion of an irrigation ditch is located along the central portion of the action area (**Figure 7b: Photograph 6**). Dominant overstory vegetation observed in the irrigation ditch is identified above in the riparian habitat type. Dominant understory vegetation observed in the irrigation ditch includes: prickly lettuce (*Lactuca serriola*), Johnson grass (*Sorghum halepense*), common sheep sorrel (*Rumex acetocella*), morning glory, poison oak, California blackberry, Himalayan blackberry (*Rubus discolor*), and barley (*Hordeum murinum*). The CWHR does not have a classification for this habitat type.

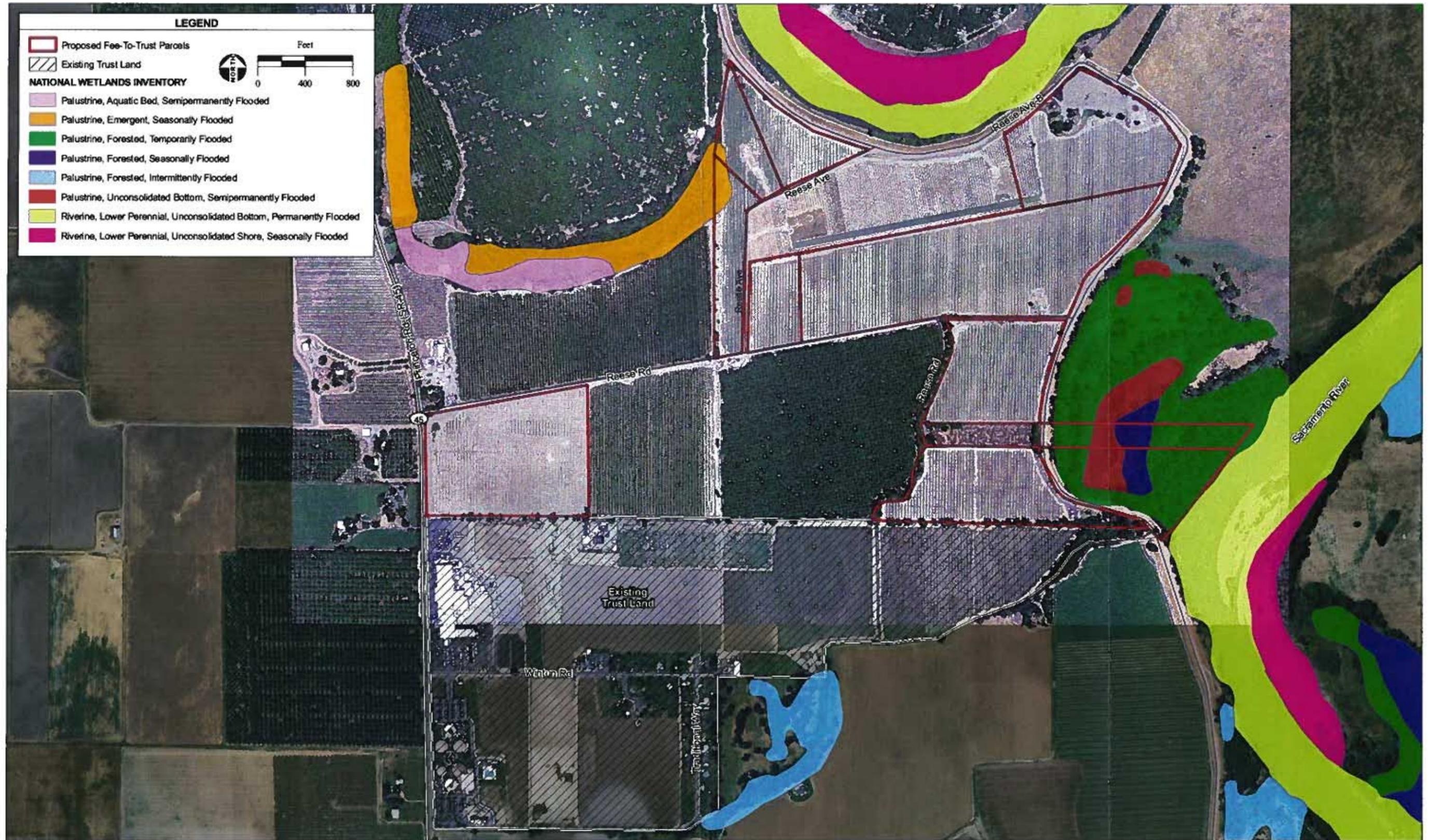
4.3 WATERS OF THE U.S.

Two wetland features (pond and irrigation ditch) were observed during the biological survey. Wetland features along with the habitat types mapped within the action area are illustrated in **Figure 6**. The NWI classifies four wetlands and deepwater habitats within the action area. A NWI map in the vicinity of the action area is illustrated in **Figure 8**. A formal wetland delineation of the action area has not been conducted because no wetland features are proposed to be filled.

5.0 FEDERALLY LISTED SPECIES RESULTS AND ANALYSIS

5.1 FEDERALLY LISTED SPECIES

Table 3 provides a summary of regionally occurring federally listed special-status species based on the USFWS file data and CNDDDB queries and provides a rationale as to whether the species has the potential to occur in the vicinity of the action area based on presence of species or their habitat during the biological survey. Federally listed species without the potential to occur in or be affected by the Proposed Action are not discussed further. **Figure 9** provides a CNDDDB map of known occurrences of state and federally listed species documented to occur within five miles of the action area. No federally listed plants have the potential to occur within the action area. Seven federally listed wildlife species have the potential to occur in the vicinity of the action area. The seven federally listed species that addressed in this BA are described in detail below.



SOURCE: U. S. Fish and Wildlife Service. 8/83. National Wetlands Inventory; Morrow Surveying, Inc., July 2009; "Moulton Weir NE, CA" USGS Aerial Photograph, 6/29/2005; AES, 2009

Colusa Indian Community 225-acre Fee-To-Trust BA / 209520

Figure 8
National Wetlands Inventory

TABLE 3
REGIONALLY OCCURRING FEDERALLY LISTED SPECIAL-STATUS SPECIES AND THEIR CRITICAL HABITAT

SCIENTIFIC NAME COMMON NAME	FEDERAL STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON ACTION AREA
Plants					
<i>Cordylanthus palmatus</i> palmate-bracted bird's beak	FE	Known to occur in Alameda, Colusa, Fresno, Glenn, Madera, San Joaquin* and Yolo counties (CNPS, 2009).	Found in chenopod scrub and valley and foothill grasslands that occasionally occur on alkaline soils from 5 to 155 meters (CNPS, 2009).	May to October	No. The action area does not contain habitat for this species.
Animals					
Invertebrates					
<i>Branchinecta conservatio</i> conservancy fairy shrimp	FE	Known from a few isolated populations distributed over a large portion of California's Central Valley and in southern California including Glenn, Merced, Solano, Stanislaus, and Tehama counties (Eriksen and Belk, 1999).	Found in ephemeral wetland habitats and vernal pools that fill by winter and hold water until June on clay, volcanic, and alluvial soils within grassland communities from 5 to 145 meters (Eriksen and Belk, 1999).	Wet season: November to April (adults) Dry season: May-October (cysts) (Eriksen and Belk, 1999)	No. The action area does not contain habitat for this species.
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	FT	Known from Shasta County south through the Central Valley to Riverside County in the South Coast Mountains Region (Eriksen and Belk, 1999).	Found commonly in a small swale earth slump or basalt-flow depression basin with grassy or muddy bottom in unplowed grassland from 10 to 290 meters in the Central Valley and up to 1,159 meters in the South Coast Mountains Region (Eriksen and Belk, 1999).	Wet season: December to May (adults) Dry season: June-November (cysts) (Eriksen and Belk, 1999)	No. The action area does not contain habitat for this species.
<i>Desmocerous californicus</i> valley elderberry longhorn beetle	FT	Known from Amador, Butte, Calaveras, Colusa, El Dorado, Fresno, Glenn, Kern, Madera, Mariposa, Merced, Napa, Placer, Fresno, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba counties (USFWS, 1994a).	Found in riparian forest communities from 0 to 762 meters. Exclusive host plant is elderberry (<i>Sambucus</i> species), which must have stems at least one inch in diameter for the beetle (USFWS, 1994a).	Year round	Yes. See text.
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	FE/CH	Known from Alameda, Butte, Colusa, Contra Costa, Fresno, Glenn, Kings, Merced, Placer, Fresno, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba counties (USFWS, 1994b).	Found in a variety of natural and artificial, seasonally ponded habitat types including: vernal pools, swales, ephemeral drainages, stock ponds, reservoirs, ditches, backhoe pits, and ruts caused by vehicular activities. Wetland habitats vary in size from 2 square meters to 356,253 square meters and vary in depth from 2 to 15 centimeters (Helm, 1998).	Wet season: November to April (adults) Dry season: May to October (cysts)	No. The action area does not contain habitat for this species.

SCIENTIFIC NAME COMMON NAME	FEDERAL STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON ACTION AREA
<i>Fish</i> <i>Acipenser medirostris</i> green sturgeon	FT	Adults occur in coastal waters from Mexico to Alaska and have been observed along the west coast of North America. Spawning occurs within the Rogue and Illinois Rivers in Oregon, the Klamath River Basin, the Sacramento River, the Feather River, the Pit River, and the McCloud River. Spawning is suspected within the Trinity River, South Fork Trinity, and the Eel River. Known from Butte, Colusa, Glenn, Humboldt, Mendocino, Nevada, Placer, Sacramento, Shasta, Sierra, Siskiyou, Solano, Sutter, Tehama, Trinity, Yolo, and Yuba counties (Moyle, 2002).	Utilizes both freshwater and saltwater habitats. Spawning occurs in deep pools or holes in large, turbulent, freshwater river mainstems. Eggs are cast over large cobble, clean sand, or bedrock substrates. Cold, clean water is required for development. Adults live in oceanic waters, bays, and estuaries (Moyle, 2002).	Consult Agency	Yes. See text.
<i>Hypomesus</i> <i>transpacificus</i> Delta smelt	FT	Known almost exclusively in the Fresno-San Joaquin estuary, from the Suisun Bay upstream through the Delta in Contra Costa, Fresno, San Joaquin, Solano, and Yolo counties. May also occur in the San Francisco Bay (Moyle, 2002).	Found in estuarine waters. Majority of life span is spent within the freshwater outskirts of the mixing zone (saltwater-freshwater interface) within the Delta (Moyle, 2002).	Consult Agency	No. The action area does not contain habitat for this species.
<i>Oncorhynchus mykiss</i> Central Valley Steelhead	FT/CH	Spawn in the Fresno and San Joaquin rivers and tributaries before migrating to the Delta and Bay Area (Moyle, 2002).	Found in cool, clear, fast-flowing permanent streams and rivers with riffles and ample cover from riparian vegetation or overhanging banks. Spawning occurs in streams with pool and riffle complexes. The species requires cold water and gravely streambed to successfully breed (Moyle, 2002).	Consult Agency	Yes. See text.
<i>Oncorhynchus tshawytscha</i> Chinook salmon Central Valley spring-run	FT/CH	Spawn in the Sacramento river and some of its tributaries. Juveniles migrate from spawning grounds to the Pacific Ocean (Moyle, 2002).	Spawning occurs in large deep pools in tributaries with moderate velocities (Moyle, 2002).	Consult Agency	Yes. See text.
<i>Oncorhynchus tshawytscha</i> Chinook salmon	FE/CH	Spawn in the upper Sacramento River. Juveniles migrate from spawning grounds to the Pacific	Returns to the Upper Sacramento River in the winter but delay spawning until spring and summer. Juveniles spend 5-9 months	Consult Agency	Yes. See text.

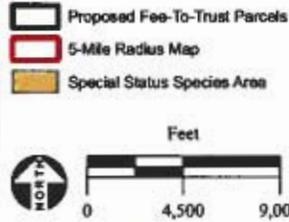
SCIENTIFIC NAME COMMON NAME	FEDERAL STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON ACTION AREA
winter-run, Sacramento River		Ocean (Moyle, 2002).	in the river and estuary before entering the ocean (Moyle, 2002).		
Amphibians					
<i>Ambystoma californiense</i> California tiger salamander Central population	FT	Known from Alameda, Butte, Contra Costa, Fresno, Glenn, Kern, Madera, Merced, Monterey, Fresno, San Benito, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Solano, Sonoma, Stanislaus, Tulare, and Yolo counties (Californiaherps, 2008). The Central population range excludes CTS populations in Santa Barbara and Sonoma counties (Californiaherps, 2009).	Found in vernal pools, ephemeral wetlands, and seasonal ponds, including constructed stockponds, in grassland and oak savannah plant communities from 3 to 1,054 meters (Stebbins, 2003).	November to February (adults) March 15 to May15 (larvae and metamorphs)	No. The action area does not contain habitat for this species.
<i>Rana aurora draytonii</i> California red-legged frog	FT	Known along the Coast from Mendocino County to Baja California, and inland through the northern Fresno Valley into the foothills of the Sierra Nevada mountains, south to eastern Tulare County, and possibly eastern Kern County. Currently accepted range excludes the Central Valley (USFWS, 1994).	Found in permanent and temporary pools of streams, marshes, and ponds with dense grassy and/or shrubby vegetation from 0 to 1,500 meters (NatureServe, 2009).	November to June	No. The action area does not contain habitat for this species.
Reptiles					
<i>Thamnophis gigas</i> giant garter snake	FT	Known from Butte, Colusa, Contra Costa, Fresno, Glenn, Kern, Madera, Merced, Fresno, San Joaquin, Solano, Sutter, Yolo, and Yuba counties (Stebbins, 2003).	Inhabits agricultural wetlands and other waterways such as irrigation and drainage canals, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands. Requires adequate water during its active season (early spring through mid-fall) to provide food and cover, emergent, herbaceous wetland vegetation for foraging and cover, grassy banks and openings in waterside vegetation for basking, and higher elevation uplands for cover and refuge from flood waters during its dormant season (winter). Inhabits small mammal burrows and other soil crevices with sunny exposure along south and west facing slopes, above prevailing	March to October	Yes. See text.

SCIENTIFIC NAME COMMON NAME	FEDERAL STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON ACTION AREA
Birds					
<i>Coccyzus americanus</i> yellow-billed cuckoo	FC	West of the Continental Divide, this species occurs in California, Arizona, and New Mexico. This species occurs in all counties of Arizona. In California it occurs along the Colorado River, in the Sacramento and Owens valleys, along the South Fork of the Kern River, along the Santa Ana River, along the Amargosa River, and along the Luis Rey River (Hughes, 1999). Occurs at isolated sites in Sacramento Valley in northern California, and along Kern and Colorado River systems in southern California (Gaines and Laymon, 1984).	Breeds and forages in valley foothill and desert riparian communities. Requires dense riparian thickets (especially willow and salt-cedar) of slow-moving watercourses. This species will also utilize orchards (Hughes, 1999).	June to September	Yes. See text.
<i>Strix occidentalis caurina</i> Northern spotted owl	FT	Geographic range extends from British Columbia to northwestern California south to San Francisco. The breeding range includes the Cascade Range, North Coast Ranges, and the Sierra Nevada. Some breeding populations also occur in the Transverse Ranges and Peninsular Ranges (Gutierrez et al., 1995).	Resides in mixed conifer, redwood, and Douglas-fir habitats, from sea level up to approximately 2300 meters. Appear to prefer old-growth forests, but use of managed (previously logged) lands is not uncommon. Owls do not appear to use logged habitat until approximately 60 years after logging unless some larger trees or snags remain after logging. Nesting habitat is a tree or snag cavity, or the broken top of a large tree. Requires a nearby, permanent source of water. Foraging habitat consists of any forest habitat with sufficient prey (Gutierrez et al., 1995).	All Year	No. The action area does not contain habitat for this species.

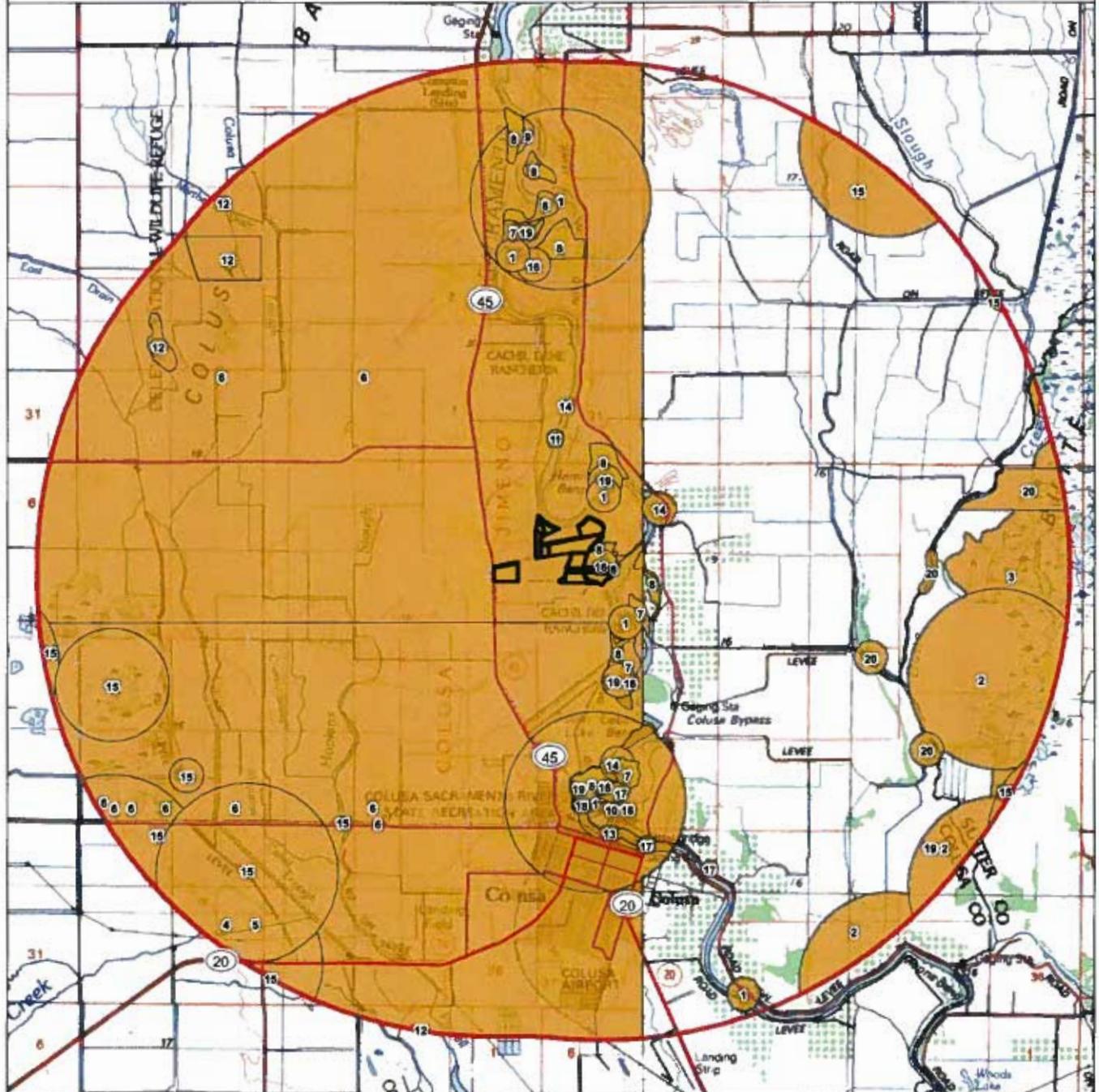
FEDERAL STATUS CODES (USFWS, 2009a):

- FE Listed as Endangered
- FT Listed as Threatened
- CH Critical Habitat
- FC Listed as Candidate

SPECIAL STATUS SPECIES DATA



- | | | |
|---|--|--|
| 1 - bank swallow | 8 - Great Valley Mixed Riparian Forest | 15 - tricolored blackbird |
| 2 - cackling (≠ Aleutian Canada) goose | 9 - Great Valley Willow Scrub | 16 - valley elderberry longhorn beetle |
| 3 - Coastal and Valley Freshwater Marsh | 10 - hoary bat | 17 - western red bat |
| 4 - Coulter's goldfields | 11 - osprey | 18 - western small-footed myotis |
| 5 - Ferris' milk-vetch | 12 - palmate-bracted bird's-beak | 19 - western yellow-billed cuckoo |
| 6 - giant garter snake | 13 - Sacramento Valley tiger beetle | 20 - woolly rose-mallow |
| 7 - Great Valley Cottonwood Riparian Forest | 14 - Swainson's hawk | |



SOURCE: California Natural Diversity Database, 2009; "Lakeport, CA" USGS 100k Topographic Quadrangle, Mt. Diablo Baseline & Meridian; AES, 2009

Colusa Indian Community 225-acre Fee-To-Trust BA / 209520 ■

Figure 9
CNDDDB 5-Mile Radius Map

Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*; VELB)

Federal Status: Threatened

Biology: VELB are completely dependent on elderberry (*Sambucus* sp.) shrubs as their host plants during their entire life cycle. VELB inhabit elderberry shrubs in the vicinity of California's Central Valley (USFWS, 1994a). VELB larvae live within the soft pith of elderberry shrubs where they feed for one to two years. Adults emerge from pupation inside the wood of elderberry shrubs during the spring as the plants begin to flower. The adults feed on the elderberry foliage until they mate. Females lay their eggs in the crevices of elderberry bark. The larvae subsequently tunnel into shrub stems to feed upon hatching. VELB typically utilize stems that are greater than one inch in diameter at ground level (USFWS, 1994a).

Regional Distribution: VELB are known from Amador, Butte, Calaveras, Colusa, El Dorado, Fresno, Glenn, Kern, Madera, Mariposa, Merced, Napa, Placer, Fresno, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba counties (USFWS, 1994a).

There are four CNDDDB records for VELB within five miles of the action area. The nearest record is from 1986 (CNDDDB occurrence number: 147) and is mapped on the southeast side of the action area. Four old exit holes were observed within scattered elderberry shrubs surrounded by dense, wild grape.

Potential to Occur in the Action Area: The elderberry shrubs within the action area provide potential habitat VELB. Elderberry clusters were observed within the riparian habitat along the southeast side of the action area. The exact number of elderberry shrubs was not obtained as the majority of the riparian habitat was impenetrable. AES was unable to determine whether exit holes occur as the majority of the elderberry shrubs were covered by wild grape in areas that were inaccessible to survey. AES observed one potential exit hole on an elderberry stem greater than one inch diameter at ground level on the west of the irrigation ditch outside of the action area (**Figure 7a: Photograph 8**).

One elderberry cluster was observed east of the irrigation ditch within the action area, however, there were no stems that were at least one inch in diameter at ground level. Two elderberry clusters were observed along the levee within the ruderal/developed areas. This species has the potential to occur in the action area.

Potential Affects: The proposed project *is not likely to affect* VELB with the implementation of the mitigation measures identified below.

Mitigation Measures: The following mitigation measures shall be implemented for VELB:

- The applicant shall comply with all avoidance measures including protective measures identified in the *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (USFWS, 1999), to the extent feasible. Complete avoidance measures include:

- No construction activities shall occur within 100 feet of elderberry shrubs containing stems measuring 1.0 inches or greater in diameter.
 - Firebreaks may not be included in the buffer zone.
 - The USFWS must be consulted before any disturbances within the buffer area are considered.
 - In buffer areas construction-related disturbance should be minimized, and any damaged area should be promptly restored following construction.
- All areas to be avoided shall be fenced and flagged during construction activities. In areas where encroachment on the 100-foot buffer has been approved by the USFWS, a minimum setback of at least 20 feet from the dripline of each elderberry shall be implemented.
 - Signs shall be erected every 50 feet along the edge of avoidance areas with the following information: “This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the FESA, as amended. Violators are subject to prosecution, fines, and imprisonment.” The signs should be clearly readable from a distance of 20 feet, and must be maintained for the duration of construction.
 - Sensitivity training shall be provided to instruct all construction personnel crews about the status of the VELB and the need to protect its elderberry host plant. The training shall include identification of special-status species, required practices before the start of construction, general measures that are being implemented to conserve these species as they relate to the Proposed Action, penalties for noncompliance, and boundaries of the action area and of the permitted disturbance zones. Supporting materials containing training information will be prepared and distributed. Upon completion of training, all construction personnel will sign a form stating that they have attended the training and understand all the conservation measures. Training shall be conducted in languages other than English, as appropriate. Proof of this instruction will be kept on file with the applicant. The applicant will provide the USFWS with a copy of the training materials and copies of the signed forms by project staff indicating that training has been completed within 30 days of the completion of the first training session. Copies of signed forms will be submitted monthly as additional training occurs for new employees.
 - Staging areas shall be located at least 100 feet from elderberry (*Sambucus* sp.) shrubs with stems at least one inch in diameter at ground level. Temporary stockpiling of excavated or imported material shall occur only in approved construction staging areas. Excess excavated soil shall be used onsite or disposed of at a regional landfill or other appropriate facility.
 - Equipment operators shall access the action area via existing roads. The operators shall minimize access on existing roads in the vicinity of the elderberry shrubs to the maximum extent feasible.
 - Standard precautions shall be employed by the construction contractor to prevent the accidental release of fuel, oil, lubricant, or other hazardous materials.
 - A litter control program shall be instituted within the action area. The contractor shall provide closed garbage containers for the disposal of all food-related trash items (e.g., wrappers, cans, bottles, food scraps). All garbage shall be removed daily from the action area.

Green Sturgeon (*Acipenser medirostris*)

Federal Status: Threatened

Habitat and Biology: The Southern Distinct Population Segment (DPS) green sturgeon is an anadromous fish that is mostly marine oriented. Spawning period occurs between March and July, with a peak from mid-April to mid-June during temperatures between 8 and 14° Celsius (Moyle, 2002).

Regional Distribution: Green sturgeon occupy freshwater rivers from the Sacramento River up through British Columbia (Moyle, 2002). The Southern DPS includes all spawning populations south of the Eel River(exclusive), principally including the Sacramento River spawning population (50 CFR Part 17). The only recently documented spawning locations in California are in the Sacramento, Klamath and Rogue rivers along the west coast (Moyle, 2002).

This species is not listed within the CNDDDB and no documented occurrences have been reported (CDFG, 2003).

Potential to Occur within the Action Area: The Sacramento River, which abuts the northern and southeastern boundary of the action area, provides potential spawning habitat for this species. The riparian habitat on the southeast side of the action area provides potential refuge for the species during high flow velocities that result in flooding from the Sacramento River.

Potential Affects: Development of the proposed project would result in a *no effect* determination for Southern DPS green sturgeon because construction activities would not occur within 150 feet of the riparian habitat. In addition, the levee provides a buffer between the construction activities associated with the proposed project and the Sacramento River. The Proposed Action would have no anticipated affects to the navigable waters outside the southeast and the north boundaries of the action area. As such fisheries resources would not be affected. Thus impacts to this DPS or EFH would not occur.

Mitigation Measures: No mitigation would be required.

Central Valley Steelhead (*Oncorhynchus mykiss*)

Federal Status: Threatened

Habitat and Biology: The Central Valley steelhead Evolutionary Significant Unit (ESU) spawns and hatches in the freshwater streams where they were born. The juveniles remain in the freshwater environment for one to two years prior to migrating into the ocean. When sexual maturity is reached, they migrate back to their natal streams to spawn. The Central Valley steelhead ESU begins freshwater migrations between August and October. This ESU has an average lifespan of six to seven years; it does not usually die immediately after spawning, and is capable of spawning several times throughout its lifetime (Moyle, 2002).

Regional Distribution: The range of this ESU includes all naturally spawned populations of steelhead in the Sacramento and San Joaquin Rivers and their tributaries, excluding steelhead from San Francisco and San Pablo Bays and their tributaries, and two artificial propagation programs. The range includes portions of Amador, Alameda, Butte, Calaveras Contra Costa, Colusa, Glenn, Mariposa, Merced, Nevada, Placer, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tuolumne, Yolo, and Yuba, counties (CDFG, 2003).

This species is listed within the CNDDDB, although there have been no documented occurrences reported (CDFG, 2003).

Potential to Occur within the Action Area: The Sacramento River, which abuts the eastern boundary of the action area, provides potential adult and juvenile migration and juvenile rearing habitat for this species. The riparian habitat and pond on the southeast side of the action area provides potential refuge for the species during high flow velocities that result in flooding from the Sacramento River. Suitable spawning habitat for this species does not occur within the action area.

Potential Affects: Development associated with the proposed project would result in a *no effect* determination for the Central Valley steelhead ESU because construction activities would not occur within at least 150 feet of the riparian habitat. In addition, the levee provides a buffer between the construction activities associated with the proposed project and the Sacramento River. The proposed project would have no anticipated affects to the navigable waters outside the southeastern and the northern boundaries of the action area. As such fisheries resources would not be affected. Thus impacts to this ESU or EFH would not occur.

Mitigation Measures: No mitigation would be required.

Central Valley Spring-Run Chinook Salmon (*Oncorhynchus tshawytscha*)

Federal Status: Threatened

Habitat and Biology: Central Valley spring-run Chinook salmon ESU are the largest and most abundant salmonids that occur in California. Central Valley spring-run Chinook salmon are anadromous. Central Valley spring-run Chinook die after a single spawning event. Central Valley spring-run Chinook exhibit a stream-type and the ocean-type life history. The stream-type Central Valley spring-run Chinook typically migrate upstream before reaching sexual maturity during the spring and summer months. They achieve sexual maturity in the freshwater environment. Hatched juveniles reside in spawning streams for at least one year before returning to marine habitats. The ocean-type Central Valley spring-run Chinook are sexually mature before migration to the freshwater environment and they spawn shortly after arrival during the summer and fall months. Hatched juveniles remain in the freshwater environment for a relatively short time period that ranges from three to twelve months, before entering the marine environment. All of the currently recognized Chinook ESUs within California demonstrate slight variations of these two life history themes. The Central Valley spring-run Chinook ESU exhibits the

typical stream-type life history cycle. It enters the freshwater environment as immature fish. Migration begins during the months of March through September, with peak migration occurring from May to June. Spawning typically occurs from August through October and juveniles tend to emerge from November through March. Juveniles reside in the freshwater environment for approximately three to fifteen months and eventually migrate out to the marine environment (Moyle, 2002).

Regional Distribution: The range of this ESU includes all naturally spawned populations of spring-run Chinook salmon in the Sacramento River and its tributaries, including the Feather River, and the Feather River Hatchery spring-run Chinook program. The range includes portions of Butte, Colusa, Contra Costa, Glenn, Napa, Nevada, Placer, Sacramento, Shasta, Solano, Sutter, Tehama, Yolo, and Yuba counties. The range of this ESU is synonymous with the range of the Sacramento River winter-run Chinook ESU.

There are no CNDDDB records for this species within five miles of the action area. The nearest record is from 1995 (CNDDDB Occurrence Number 5) and is approximately 25 miles northeast of the action area. The occurrence was recorded within the Feather River.

Potential to Occur within the Action Area: The Sacramento River, which abuts the northern and southeastern boundary of the action area, provides potential adult and juvenile migration and juvenile rearing habitat for this species. The riparian habitat and pond on the southeast side of the action area provides potential refuge for the species during high flow velocities that result in flooding from the Sacramento River. Suitable spawning habitat for this species does not occur within the action area.

Potential Affects: Development of the proposed project would result in a *no effect* determination for steelhead, Central Valley ESU because construction activities would not occur within 150 feet of the riparian habitat. In addition, the levee provides a buffer between the construction activities associated with the proposed project and the Sacramento River. The proposed project would have no anticipated affects to the navigable waters outside the southeast and the north boundaries of the action area. As such fisheries resources would not be affected. Thus impacts to this ESU or EFH would not occur.

Mitigation Measures: No mitigation would be required.

Sacramento River Winter-Run Chinook Salmon (*Oncorhynchus tshawytscha*)

Federal Status: Endangered

Habitat and Biology: The Sacramento River winter run Chinook ESU is unique because it is thought to be an intermediate species, displaying characteristics of both stream- and ocean-type Chinook life history cycles. Winter-run Chinook are a unique species to the Sacramento River. They typically migrate into freshwater in December through July and spawn in the early summer. This species is sexually immature during this migratory period and it resides in the freshwater environment for several months. During this freshwater residency, sexual maturity is attained. The life history strategy of this species is dependent

upon the cool summer water temperatures of the upper Sacramento watershed. Hydro-modification has resulted in reductions of the amount of traditional spawning grounds available for this species. Hatched juveniles remain in freshwater streams for approximately five to ten months. After this period, young Chinook remain in estuaries for an indeterminate amount of time and eventually migrate out to the ocean; which is why they are thought to exhibit characteristics of both generalized life history cycles (Moyle, 2002).

Regional Distribution: The Sacramento River winter run Chinook ESU currently includes all naturally spawned populations of winter run Chinook in the Sacramento River and its tributaries, as well as two artificial propagation programs. The range includes portions of Butte, Colusa, Contra Costa, Glenn, Napa, Nevada, Placer, Sacramento, Shasta, Solano, Sutter, Tehama, Yolo, and Yuba counties (and is synonymous with the range of the Central Valley spring-run Chinook ESU) (Moyle, 2002).

There are no CNDDDB records for this species within five miles of the action area. The nearest record is from 1995 (CNDDDB occurrence Number 1) and is approximately 45 miles north of the action area (CDFG, 2003). Approximately 1,361 adults and grise and 199 redds were observed in the Sacramento River from the Keswick Dam to the confluence with Deer Creek within Shasta and Tehama counties (CDFG, 2003).

Potential to Occur Within Action Area: The Sacramento River, which abuts the northern and southeastern boundary of the action area, provides potential adult and juvenile migration and juvenile rearing habitat for this species. The riparian habitat and pond on the southeast side of the action area provides potential refuge for the species during high flow velocities that result in flooding from the Sacramento River. Suitable spawning habitat for this species does not occur within the action area.

Potential Affects: Development of the proposed project would result in a *no effect* determination for Sacramento River winter run Chinook ESU because construction activities associated with the proposed project would not occur within a minimum of 150 feet of the riparian habitat. In addition, the levee provides a buffer between the construction activities associated with the proposed project and the Sacramento River. The proposed project would have no anticipated affects to the navigable waters outside the southeast and the north boundaries of the action area. As such fisheries resources would not be affected. Thus impacts to this ESU or EFH would not occur.

Mitigation Measures: No mitigation would be required.

Giant Garter Snake (*Thamnophis gigas*; GGS)

Federal Status: Threatened

Habitat and Biology: GGS is one of the largest garter snakes, and can reach lengths of up to five feet. It is also one of the most aquatic garter snakes in California. GGS mate between March and April. GGS inhabit agricultural wetlands and other waterways such as irrigation and drainage canals, sloughs, ponds,

small lakes, low gradient streams, and adjacent uplands. GGS require adequate water during its active season (early spring through mid-fall) to provide food and cover; emergent, herbaceous wetland vegetation for foraging and cover; grassy banks and openings in waterside vegetation for basking; and higher elevation uplands for cover and refuge from flood waters during its dormant season (winter). GGS inhabit small mammal burrows and other soil crevices with sunny exposure along south and west facing slopes, above prevailing flood elevations when dormant. GGS rely on small fish, tadpoles and frogs as a primary diet and hunts primarily during morning and evening hours. Nighttime hours are spent in mammal burrows for cover and refuge (Stebbins, 2003).

Regional Distribution: GGS is known from Butte, Colusa, Contra Costa, Fresno, Glenn, Kern, Madera, Merced, Fresno, San Joaquin, Solano, Sutter, Yolo, and Yuba counties (Stebbins, 2003).

There are nine CNDDDB records for this species within five miles of the action area. Two records are mapped in large polygons on the southwest side of the action area (CNDDDB occurrence numbers 58 and 215). The CDFG (2003) considers information on GGS occurrences to be sensitive, and therefore, provides no descriptions.

Potential to Occur Within Action Area: The riparian habitat and pond on the southeast side of the action area and the irrigation ditch and surrounding uplands on the east side of the action area provide potential habitat for the species. The mammal burrows within the agricultural habitat provide potential habitat during the dormant season.

Potential Affects: The proposed project *is not likely to affect* GGS with the implementation of the mitigation measures identified below.

Mitigation Measures: The following measures shall be implemented to minimize adverse affects to the federally listed GGS:

- No construction activities will occur within 100 feet from the toe of slope of the levee that occurs east of riparian habitat and pond. No construction activities will occur within 100 feet from the riparian habitat that surrounds the irrigation ditch on the west side of the action area.
- A qualified biologist shall conduct habitat sensitivity training related to GGS for all project contractors and personnel, as identified under the VELB mitigation measures.
- Construction activities shall occur during the active season for GGS (May 1 through October 1), because snakes are expected to actively move and avoid danger.
- A biologist shall be present during land clearing activities to ensure that no take of this species occurs.

Yellow-Billed Cuckoo (*Coccyzus americanus*)

Federal Status: Candidate

Habitat and Biology: The yellow-billed cuckoo is a medium-sized bird that breeds in large blocks of riparian habitats including woodlands with cottonwoods and willows and dense understory foliage (Ehrlich et al., 1988; Laymon et al., 1993). The dense understory foliage includes blackberry, nettles, and wild grape (CDFG, 2003).

Regional Distribution: The yellow-billed cuckoo that occur in the western U.S. are considered a DPS. The area for this DPS is west of the crest of the Rocky Mountains (50 CFR Part 17). The species occurs at isolated sites in Sacramento Valley in northern California and along the Kern and Colorado river systems in southern California (Gaines and Laymon, 1984).

There are five CNDDDB records for this species within five miles of the action area. The nearest record (CNDDDB occurrence number 26) is from 1987 and is approximately 0.27 miles north of the action area. Two birds were observed mating between June and August 1987 within Great Valley Mixed Riparian Forest (CDFG, 2003).

Potential to Occur Within Action Area: The riparian habitat within the action area provides nesting habitat for this species. This species has the potential to occur within the action area.

Potential Affects: The proposed project would have a *no effect* determination for yellow-billed cuckoo with the implementation of the mitigation measures identified herein.

Mitigation Measures: The following mitigation measures shall be implemented to avoid adverse affects to the federally listed candidate yellow-billed cuckoo:

- Trees anticipated for removal should be removed at least one month prior to and one month following the yellow-billed cuckoo nesting season (May 1 through October 1). If trees are anticipated to be removed during the nesting season, a preconstruction survey shall be conducted by a qualified biologist conducted within 14 days prior to commencement of construction activities. If the survey shows that there is no evidence of active nests, then the tree shall be removed within ten days following the survey.
- If any active yellow-billed cuckoo nests are located within the action area, a buffer zone will be established around the nests. A qualified biologist will monitor nests weekly during construction to evaluate potential nesting disturbance by construction activities. The biologist will delineate the buffer zone with construction tape or pin flags within 250 feet of the active nest and maintain the buffer zone until the end of breeding season or the young have fledged. Guidance from the USFWS will be requested if establishing a 250-foot buffer zone is impractical.

6.0 CRITICAL HABITAT

Critical habitat is defined in Section 3 of the FESA as (i) the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical and biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species (16 USC Section 1531 et seq.). A critical habitat map is illustrated on **Figure 10**.

The NMFS designated proposed critical habitat for the green sturgeon southern DPS on September 2008 (50 CFR Part 226). The proposed critical habitat designation has not been finalized. No recovery plan has been completed.

The NMFS designated critical habitat for the Central Valley steelhead ESU and Central Valley spring-run Chinook ESU on September 2, 2005 (Federal Register 70:52488). A Recovery Outline was and signed by NMFS Regional Headquarters completed a Recovery Outline in May 2007, although no recovery plan has been completed for this ESU. A portion of the action area abuts designated critical habitat for the Figure 10. Critical Habitat Map

Central Valley steelhead ESU and Central Valley spring-run Chinook ESU (USFWS, 2005). The Proposed Action would not result in the removal of designated critical habitat for the federally listed Central Valley steelhead ESU and Central Valley spring-run Chinook ESU because the proposed project is not within the Sacramento River and will not have any effect on the Sacramento River.

The NMFS designated critical habitat for the Sacramento River winter run Chinook salmon ESU on June 16, 1993. (Federal Register Volume 58: Volume 114). A portion of the action area abuts designated critical habitat for the Sacramento River winter run Chinook salmon ESU (USFWS, 2005). The Proposed Action would not result in the removal of designated critical habitat for the federally listed Sacramento River winter run Chinook salmon ESU because the proposed project is not within the Sacramento River and will not have any effect on the Sacramento River.

7.0 CUMULATIVE EFFECTS

Cumulative effects are the effects of future state, local, or private activities that are reasonably foreseeable to occur in the action area, combined with the effects of the proposed action.

At this time, no other state, local, or private projects are anticipated to occur in the action area or result in cumulative effects within the action area in the foreseeable future. Generally speaking, future development projects could result in cumulative impacts to habitats, waters of the U.S., and special-status species or their habitats via disturbance and increased human population and activity. Cumulative

impacts of this nature might include new development projects, habitat fragmentation, net loss of open space, edge effects, and disruption of wildlife corridors. However, no specific projects are proposed for the action area at this time or in the reasonably foreseeable future. Any proposed future development in the action area would be required to mitigate for impacts to biological resources based on California Environmental Quality Act, NEPA, CWA, and FESA requirements. Likewise, the proposed project would not significantly contribute to any cumulative impacts within the action area due to implementation of mitigation measures. Therefore, no significant cumulative impacts would occur.

8.0 INTERRELATED AND INTERDEPENDENT EFFECTS

Interrelated and interdependent activities are actions that occur as a result of the proposed project. These activities would not occur and would not be required without the proposed project and they do not have any independent utility on their own. However, interrelated and interdependent activities; if they occur, may result in impacts to biological resources and the effects of these activities can be direct or indirect. As discussed in **Section 2.1.4** of the Environmental Assessment (EA) the interrelated and interdependent activities associated with the proposed project include the options of constructing water and wastewater infrastructure and associated pipeline from existing groundwater wells on the Rancheria or from existing wells from homes on APNs 015-030-050 and 015-030-089. Without the proposed project, these improvements may not potentially be necessary.

Should the options to construct the water and wastewater improvements occur, these improvements would not result in any impacts to the special-status species discussed in this BA since all construction activities would occur within previously developed ruderal/disturbed habitat. Because no impacts to special-status species would occur as a result of the optional improvements, no interrelated and interdependent impacts to potential special-status species or their habitats would occur.

9.0 CONCLUSION AND DETERMINATION OF EFFECTS

9.1 FEDERALLY LISTED SPECIES

The Proposed Action *is not likely to affect* the federally listed VELB with implementation of recommended mitigation measures, which will ensure that any potential impacts will be *less-than-significant* or completely avoided.

The Proposed Action would have a *no effect* determination for the federally listed green sturgeon, Central Valley steelhead, Central Valley spring-run Chinook salmon, and Sacramento River winter run Chinook salmon because no habitat would be destroyed and because a 150-foot buffer would be established between the riparian habitat and the construction activities. In addition, the Proposed Action would not result in adverse effects to the navigable waters within the action area because the wetland features would be avoided and a variety of industry standard BMPs would be incorporated during construction and operation activities. As such fisheries resources, their designated critical habitat, or EFH would not be impacted by the proposed project.

The Proposed Action would have a *no effect* determination for yellow-billed cuckoo with the implementation of the mitigation measures identified herein including a preconstruction survey conducted by a qualified biologist within 14 days of commencement of construction activities.

The Proposed Action *is not likely affect* the federally listed GGS in the uplands adjacent to the riparian habitats because implementation of the recommended mitigation measures will ensure that any potential impacts will be *less-than-significant* or completely avoided.

9.2 CRITICAL HABITAT

The Proposed Action would not result in the removal of designated critical habitat for the federally listed Central Valley steelhead ESU, Sacramento River winter run Chinook salmon ESU, and Central Valley spring-run Chinook ESU because the proposed project is not within the Sacramento River and will not have any effect on the Sacramento River.

10.0 LITERATURE CITED

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ATTACHMENTS

ATTACHMENT 1

USFWS AND CNDDDB SCIENTIFIC DATABASE QUERIES

U.S. Fish & Wildlife Service

Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in
or may be Affected by Projects in the Counties and/or
U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 090506111609

Database Last Updated: January 29, 2009

Quad Lists

Listed Species

Invertebrates

- Branchinecta conservatio
 - Conservancy fairy shrimp (E)
- Branchinecta lynchi
 - vernal pool fairy shrimp (T)
- Desmocerus californicus dimorphus
 - valley elderberry longhorn beetle (T)
- Lepidurus packardi
 - Critical habitat, vernal pool tadpole shrimp (X)
 - vernal pool tadpole shrimp (E)

Fish

- Acipenser medirostris
 - green sturgeon (T) (NMFS)
- Hypomesus transpacificus
 - delta smelt (T)
- Oncorhynchus mykiss
 - Central Valley steelhead (T) (NMFS)
 - Critical habitat, Central Valley steelhead (X) (NMFS)
- Oncorhynchus tshawytscha
 - Central Valley spring-run chinook salmon (T) (NMFS)

- Critical Habitat, Central Valley spring-run chinook (X) (NMFS)
- Critical habitat, winter-run chinook salmon (X) (NMFS)
- winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

- *Ambystoma californiense*
 - California tiger salamander, central population (T)
- *Rana aurora draytonii*
 - California red-legged frog (T)

Reptiles

- *Thamnophis gigas*
 - giant garter snake (T)

Birds

- *Strix occidentalis caurina*
 - northern spotted owl (T)

Plants

- *Cordylanthus palmatus*
 - palmate-bracted bird's-beak (E)

Candidate Species

Birds

- *Coccyzus americanus occidentalis*
 - Western yellow-billed cuckoo (C)

Quads Containing Listed, Proposed or Candidate Species:

MERIDIAN (545B)

COLUSA (546A)

SANBORN SLOUGH (561C)

MOULTON WEIR (562D)

California Department of Fish and Game
 Natural Diversity Database
 Selected Elements by Scientific Name - Landscape

Scientific Name	Common Name	Element Code	Federal Status	State Status	Global Rank	State Rank	CNPS	CDFG
1 <i>Actinemys marmorata marmorata</i>	northwestern pond turtle	ARAAD02031			G3G4T3	S3		SC
2 <i>Agelatus tricolor</i>	tricolored blackbird	ABPBXB0020			G2G3	S2		SC
3 <i>Astragalus tener var. ferrisiae</i>	Ferris' milk-veitch	PDFAB0F8R3			G1T1	S1.1	1B.1	
4 <i>Atriplex cordulata</i>	heartscale	PDCHE040B0			G2?	S2.2?	1B.2	
5 <i>Atriplex depressa</i>	brittlescale	PDCHE042L0			G2Q	S2.2	1B.2	
6 <i>Atriplex joaquiniana</i>	San Joaquin spearscale	PDCHE041F3			G2	S2	1B.2	
7 <i>Branchinecta lynchi</i>	vernal pool fairy shrimp	ICBRA03030	Threatened		G3	S2S3		
8 <i>Branta hutchinsii leucopareia</i>	cackling (=Aleutian Canada) goose	ABNJB05035	Delisted		G5T4	S2		
9 <i>Buteo swainsoni</i>	Swainson's hawk	ABNKC19070		Threatened	G5	S2		
10 <i>Cicindela hirticollis abrupta</i>	Sacramento Valley tiger beetle	IICOL02106			G5TH	SH		
11 <i>Circus cyaneus</i>	northern harrier	ABNKC11010			G5	S3		SC
12 <i>Coastal and Valley Freshwater Marsh</i>	Coastal and Valley Freshwater Marsh	CTT52410CA			G3	S2.1		
13 <i>Coccyzus americanus occidentalis</i>	western yellow-billed cuckoo	ABNRB02022	Candidate	Endangered	G5T3Q	S1		
14 <i>Cordyanthus palmatus</i>	palmate-bracted bird's-beak	PDSCROJ0J0	Endangered	Endangered	G1	S1.1	1B.1	
15 <i>Desmocerus californicus dimorphus</i>	valley elderberry longhorn beetle	IICOL48011	Threatened		G3T2	S2		
16 <i>Great Valley Cottonwood Riparian Forest</i>	Great Valley Cottonwood Riparian Forest	CTT61410CA			G2	S2.1		
17 <i>Great Valley Mixed Riparian Forest</i>	Great Valley Mixed Riparian Forest	CTT61420CA			G2	S2.2		
18 <i>Great Valley Willow Scrub</i>	Great Valley Willow Scrub	CTT63410CA			G3	S3.2		
19 <i>Grus canadensis tabida</i>	greater sandhill crane	ABNMK01014		Threatened	G5T4	S2		
20 <i>Hibiscus lasiocarpus</i>	woolly rose-mallow	PDMAL0H0Q0			G4	S2.2	2.2	
21 <i>Lasius blossevillei</i>	western red bat	AMACC05060			G5	S3?		SC
22 <i>Lasius cinereus</i>	hoary bat	AMACC05030			G5	S4?		
23 <i>Lasthenia glabrata ssp. coulteri</i>	Coulter's goldfields	PDAST5L0A1			G4T3	S2.1	1B.1	
24 <i>Laterallus jamaicensis coturniculus</i>	California black rail	ABNME03041		Threatened	G4T1	S1		
25 <i>Lepidurus packardii</i>	vernal pool tadpole shrimp	ICBRA10010	Endangered		G3	S2S3		
26 <i>Myotis ciliolabrum</i>	western small-footed myotis	AMACC01140			G5	S2S3		
27 <i>Myotis yumanensis</i>	Yuma myotis	AMACC01020			G5	S4?		
28 <i>Pandion haliaetus</i>	osprey	ABNKC01010			G5	S3		
29 <i>Perognathus inornatus inornatus</i>	San Joaquin pocket mouse	AMAFD01061			G4T2T3	S2S3		
30 <i>Plegadis chihi</i>	white-faced ibis	ABNGE02020			G5	S1		
31 <i>Riparia riparia</i>	bank swallow	ABPAU08010		Threatened	G5	S2S3		
32 <i>Thamnophis gigas</i>	giant garter snake	ARADB36150	Threatened	Threatened	G2G3	S2S3		

ATTACHMENT 2

LIST OF VASCULAR PLANTS AND WILDLIFE OBSERVED WITHIN PROJECT SITE

**PLANTS AND WILDLIFE OBSERVED WITHIN 225-ACRE PARCELS
Colusa Fee-To-Trust**

July 22, 2009

PLANT LIST

Family Name		Scientific Name	Common Name
ACERACEAE	MAPLE FAMILY	<i>Acer negundo</i>	Box-elder
		<i>Toxicodendron</i>	
ANACARDIACEAE	SUMAC FAMILY	<i>diversilobum</i>	Poison oak
ASTERACEAE	SUNFLOWER FAMILY	<i>Centaurea solstitialis*</i>	Yellow star-thistle
ASTERACEAE	SUNFLOWER FAMILY	<i>Senecio vulgaris*</i>	Common groundsel
ASTERACEAE	SUNFLOWER FAMILY	<i>Lactuca serriola*</i>	Prickly lettuce
ASTERACEAE	SUNFLOWER FAMILY	<i>Artemisia douglasiana</i>	Mugwort
BRASSICACEAE	MUSTARD FAMILY	<i>Brassica rapa*</i>	Field mustard
	HONEYSUCKEL		
CAPRIFOLIACEAE	FAMILY	<i>Sambucus mexicana</i>	Blue elderberry
	MORNING-GLORY		
CONVOLVULACEAE	FAMILY	<i>Convolvulus arvensis*</i>	Morning glory
FABACEAE	LEGUME FAMILY	<i>Lotus purshianus</i>	Spanish clover
FABACEAE	LEGUME FAMILY	<i>Trifolium dubium*</i>	Shamrock clover
FABACEAE	LEGUME FAMILY	<i>Medicago polymorpha*</i>	Bur clover
FAGACEAE	OAK FAMILY	<i>Quercus lobata</i>	Valley oak
GERANIACEAE	GERANIUM FAMILY	<i>Erodium botrys*</i>	Filaree
GERANIACEAE	GERANIUM FAMILY	<i>Geranium dissectum*</i>	Cut-leaved geranium
GERANIACEAE	GERANIUM FAMILY	<i>Geranium molle*</i>	Hairy geranium
JUGLANDACEAE	WALNUT FAMILY	<i>Juglans californica</i>	California black walnut
JUGLANDACEAE	WALNUT FAMILY	<i>Juglans hindsii</i>	English walnut
LAMIACEAE	MINT FAMILY	<i>Mentha pulegium*</i>	Pennyroyal
MALVACEAE	MALLOW FAMILY	<i>Malva parviflora*</i>	Cheeseweed
MORACEAE	MULBERRY FAMILY	<i>Ficus carica*</i>	Fig
OLEACEAE	OLIVE FAMILY	<i>Fraxinus latifolia</i>	Oregon ash
	EVENING PRIMROSE		
ONAGRACEAE	FAMILY	<i>Epilobium</i> sp.	Willow-herb
	EVENING PRIMROSE		
ONAGRACEAE	FAMILY	<i>Ludwigia peploides</i> ssp. <i>peploides</i>	Water primrose
PAPAVERACEAE	POPPY FAMILY	<i>Eschscholzia lobbii</i>	Frying pan poppy
PLANTAGINACEAE	PLANTAIN FAMILY	<i>Plantago lanceolata*</i>	English plantain
POACEAE	GRASS FAMILY	<i>Bromus diandrus*</i>	Ripgut brome
POACEAE	GRASS FAMILY	<i>Bromus hordeaceus*</i>	Soft brome
POACEAE	GRASS FAMILY	<i>Bromus rubens</i>	Red brome
POACEAE	GRASS FAMILY	<i>Distichlis spicata</i>	Inland saltgrass
POACEAE	GRASS FAMILY	<i>Hordeum murinum*</i>	Barley
POACEAE	GRASS FAMILY	<i>Triticum aestivum*</i>	Cultivated wheat
POACEAE	GRASS FAMILY	<i>Poa annua*</i>	Annual bluegrass

Family Name		Scientific Name	Common Name
POACEAE	GRASS FAMILY	<i>Lolium multiflorum</i> *	Ryegrass
POACEAE	GRASS FAMILY	<i>Avena fatua</i> *	Wild oat
POACEAE	GRASS FAMILY	<i>Aira caryophylla</i> *	Hairgrass
POACEAE	GRASS FAMILY	<i>Sorghum halepense</i> *	Johnson grass
POLYGONACEAE	BUCKWHEAT FAMILY	<i>Rumex acetosella</i> *	Sheep sorrel
POLYGONACEAE	BUCKWHEAT FAMILY	<i>Rumex crispus</i> *	Curly dock
ROSACEAE	ROSE FAMILY	<i>Rosa californica</i>	California rose
ROSACEAE	ROSE FAMILY	<i>Rubus discolor</i>	Himalayan blackberry
ROSACEAE	ROSE FAMILY	<i>Rubus ursinus</i>	California blackberry
RUBIACEAE	MADDER FAMILY	<i>Cephalanthus occidentalis</i>	Common buttonbush
SALICACEAE	WILLOW FAMILY	<i>Salix exigua</i>	Sandbar willow
SALICACEAE	WILLOW FAMILY	<i>Salix laevigata</i>	Red willow
SALICACEAE	WILLOW FAMILY	<i>Populus fremontii</i>	Fremont's cottonwood
SALICACEAE	WILLOW FAMILY	<i>Salix</i> sp.	Willow
SOLANACEAE	NIGHTSHADE FAMILY	<i>Datura stramonium</i> *	Jimson weed
TYPHACEAE	CATTAIL FAMILY	<i>Typha latifolia</i>	Broad-leaf cattail
URTICACEAE	NETTLE FAMILY	<i>Urtica dioica</i>	Stinging nettle
VISCACEAE	MISTLETOE FAMILY	<i>Phoradendron villosum</i>	Oak mistletoe
VITACEAE	GRAPE FAMILY	<i>Vitis californica</i>	California wild grape

*Refers to Nonnative

WILDLIFE LIST

BIRDS	
<i>Euphagus cyanocephalus</i>	Brewer's blackbird
<i>Corvus brachyrhynchos</i>	American crow
<i>Passer domesticus</i>	house sparrow
<i>Melanerpes formicivorus</i>	Acorn woodpecker
<i>Tachycineta bicolor</i>	tree swallow
<i>Calypte anna</i>	Anna's hummingbird
<i>Ardea herodias</i>	great blue heron
<i>Ardea alba</i>	great egret
<i>Mimus polyglottos</i>	northern mockingbird
<i>Cathartes aura</i>	turkey vulture
<i>Pandion haliaetus</i>	osprey
<i>Meleagris gallopavo</i>	wild turkey

ANIMALS	
<i>Odocoileus</i> sp.	Deer
<i>Spermophilus beecheyi</i>	California ground squirrel

APPENDIX C

***CULTURAL RESOURCES STUDY
(CONFIDENTIAL DOCUMENT BOUND UNDER SEPARATE
COVER)***

CULTURAL RESOURCES STUDY
(CONFIDENTIAL DOCUMENT BOUND UNDER SEPARATE COVER)

APPENDIX D

***NATIONAL RESOURCES CONSERVATION SERVICE
CONSULTATION DOCUMENTS***

AUGUST 2009 FARMLAND CONVERSION IMPACT RATING FORM

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)	Date Of Land Evaluation Request 8/4/09
Name of Project Colusa Fee-to-Trust	Federal Agency Involved U.S. Bureau of Indian Affairs
Proposed Land Use Residential	County and State Colusa, California
PART II (To be completed by NRCS)	Date Request Received By NRCS 8/5/09

Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply - do not complete additional parts of this form)	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Acres Irrigated 276,562	Average Farm Size 532
Major Crop(s) Rice, Tomatoes, Almonds	Farmable Land In Govt. Jurisdiction Acres: 316,756 % 43	Amount of Farmland As Defined in FPPA Acres: 329,049 % 44.7	
Name of Land Evaluation System Used CA Revised State Index	Name of State or Local Site Assessment System N/A	Date Land Evaluation Returned by NRCS	

PART III (To be completed by Federal Agency)	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	5.0	2.5		
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site	5.0	2.5		

PART IV (To be completed by NRCS) Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	5.0	2.5		
B. Total Acres Statewide Important or Local Important Farmland	0	0		
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.002%	0.001%		
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	22%	22%		

PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	79	79		
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PART VI (To be completed by Federal Agency) Site Assessment Criteria (Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)	Maximum Points	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	15	15		
2. Perimeter In Non-urban Use	(10)	10	10		
3. Percent Of Site Being Farmed	(20)	17	17		
4. Protection Provided By State and Local Government	(20)	20	20		
5. Distance From Urban Built-up Area	(15)	15	15		
6. Distance To Urban Support Services	(15)	0	0		
7. Size Of Present Farm Unit Compared To Average	(10)	7	7		
8. Creation Of Non-farmable Farmland	(10)	0	0		
9. Availability Of Farm Support Services	(5)	5	5		
10. On-Farm Investments	(20)	20	20		
11. Effects Of Conversion On Farm Support Services	(10)	0	0		
12. Compatibility With Existing Agricultural Use	(10)	0	0		
TOTAL SITE ASSESSMENT POINTS	160	109	109		

PART VII (To be completed by Federal Agency)				
Relative Value Of Farmland (From Part V)	100	79	79	
Total Site Assessment (From Part VI above or local site assessment)	160	109	109	
TOTAL POINTS (Total of above 2 lines)	260	188	188	

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>
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Reason For Selection:

Name of Federal agency representative completing this form: <i>Andrea Casey</i> (See instructions on reverse side)	Date: <i>8/27/09</i>
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Form AD-1006 (03-02)

**SEPTEMBER 2009 LETTER FROM THE NATIONAL RESOURCE
CONSERVATION SERVICE**



Natural Resources Conservation Service
100 Sunrise Blvd. Suite B
Colusa, CA 95932

www.ca.nrcs.usda.gov
PH: (530) 458-2931 ext. 3
Fax (530) 458-3683

September 22, 2009

Ms. Bibiana Alvarez
Analytical Environmental Services
1801 7th St. #100
Sacramento, CA 95814

RE: Farmland Conversion Impact Rating higher than 160

Dear Ms. Alavarez,

In response to your question about the Farmland Conversion Impact Rating being higher than 160 and what it indicates. According to the Farmland Protection Policy Act (FPPA), the impact rating provides an assessment of the potential impacts a given project has on Prime Farmland and Lands of Statewide importance. A combined score higher than the 160 threshold, indicates the potential for adverse impacts. However, the FPPA only *suggests* that alternatives be considered to lessen the adverse impact. Some suggestions may include:

- Scale down the size of the project
- Density of project could be increased to get the acres converted reduced
- Pick an alternative site where Prime and Statewide soils are not impacted. This, however, presents problems with potential 'leapfrog' development if the site with poorer soils is outside the current spheres of influence.
- Consider contacting the American Farmland Trust office in Sutter (Western Region office) for technical assistance on how to perhaps mitigate for the loss of the farmland (mitigation is not required by the Farmland Protection Policy Act)
- Is there interest in purchasing a conservation easement on another parcel of land of greater or equal value (total 1006 score)

It has been brought to my attention however, that the following has been included in the FPPA provisions regarding the selection of sites and alternatives:

523.33 Site Selection and Alternatives

(A) For site-specific projects, when the total points according to the land evaluation and site assessment criteria are less than 160, no other alternatives need be considered. When the total points are between 160 and 220, at least two other alternatives are to be evaluated and the one with the lowest number of points selected unless there are other overriding considerations. In these cases, the file should be documented clearly showing why the alternative with the greater point total was selected, explaining any other overriding considerations. If no additional alternative(s) are feasible, please document in the space located at the bottom of the 1006 form.

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(B) When the point total is greater than 220 for site-specific projects, three other alternatives should be evaluated and the lowest point total selected unless there are other overriding considerations. If additional reasonable alternatives are not readily available, this should be documented.

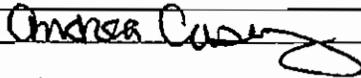
I hope this helps in clarifying the FPPA provisions. If you would like more technical assistance in minimizing the adverse impacts on Important Farmlands, please feel free to contact me at (530) 458-2931 ext. 112

Sincerely

Andrea Casey
District Conservationist
Colusa Field Office

DECEMBER 2009 FARMLAND CONVERSION IMPACT RATING FORM

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request 12/16/2009				
Name of Project Colusa Fee-to-Trust		Federal Agency Involved U.S. Bureau of Indian Affairs				
Proposed Land Use Residential		County and State Colusa, California				
PART II (To be completed by NRCS)		Date Request Received By NRCS 12/17/2009				
Does the site contain prime, unique, statewide or local important farmland? <i>(If no, the FPPA does not apply - do not complete additional parts of this form)</i>		YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Acres Irrigated 276,562	Average Farm Size 532	
Major Crop(s) Rice, Tomatoes, Almonds	Farmable Land in Govt. Jurisdiction Acres: 316,756 % 43	Amount of Farmland As Defined in FPPA Acres: 329,049 % 44.7				
Name of Land Evaluation System Used CA Revised Stone Index	Name of State or Local Site Assessment System N/A	Date Land Evaluation Returned by NRCS 01/08/2010				
PART III (To be completed by Federal Agency)		Alternative Site Rating				
		Site A	Site B	Site C	Site D	
A. Total Acres To Be Converted Directly		2.75	1			
B. Total Acres To Be Converted Indirectly						
C. Total Acres In Site		2.75	1			
PART IV (To be completed by NRCS) Land Evaluation Information						
A. Total Acres Prime And Unique Farmland		2.75	1			
B. Total Acres Statewide Important or Local Important Farmland		0	0			
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted		0.001%	0.0004%			
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value		22%	22%			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)		79	79			
PART VI (To be completed by Federal Agency) Site Assessment Criteria <i>(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)</i>		Maximum Points	Site A	Site B	Site C	Site D
1. Area In Non-urban Use		(15)	15	15		
2. Perimeter In Non-urban Use		(10)	10	10		
3. Percent Of Site Being Farmed		(20)	17	17		
4. Protection Provided By State and Local Government		(20)	20	20		
5. Distance From Urban Built-up Area		(15)	15	15		
6. Distance To Urban Support Services		(15)	0	0		
7. Size Of Present Farm Unit Compared To Average		(10)	0	0		
8. Creation Of Non-farmable Farmland		(10)	0	0		
9. Availability Of Farm Support Services		(5)	5	5		
10. On-Farm Investments		(20)	20	20		
11. Effects Of Conversion On Farm Support Services		(10)	0	0		
12. Compatibility With Existing Agricultural Use		(10)	0	0		
TOTAL SITE ASSESSMENT POINTS		160	102	102		
PART VII (To be completed by Federal Agency)						
Relative Value Of Farmland (From Part V)		100	79	79		
Total Site Assessment (From Part VI above or local site assessment)		160	102	102		
TOTAL POINTS (Total of above 2 lines)		260	181	181		
Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>				
Reason For Selection:						
Name of Federal agency representative completing this form: Andrea Casey 					Date: Jan. 8, 2010	

APPENDIX E

PHASE I ENVIRONMENTAL SITE ASSESSMENT



PHASE I ENVIRONMENTAL SITE ASSESSMENT

COLUSA INDIAN COMMUNITY

225-ACRES

DECEMBER 2009

PREPARED FOR:



Cachil Dehe Band of Wintun Indians
3730 Highway 45
Colusa, CA 95932

PHASE I ENVIRONMENTAL SITE ASSESSMENT

COLUSA INDIAN COMMUNITY

225-ACRES

DECEMBER 2009

PREPARED FOR:



Cachil Dehe Band of Wintun Indians
3730 Highway 45
Colusa, CA 95932

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APPENDIX B	Historical Topographic Maps
APPENDIX C	Sanborn No Coverage Document
APPENDIX D	Environmental Data Resources (EDR) Database Report
APPENDIX E	FEMA Map
APPENDIX F	Property Owner and User Questionnaires
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SECTION 1.0

INTRODUCTION

SECTION 1.0

INTRODUCTION

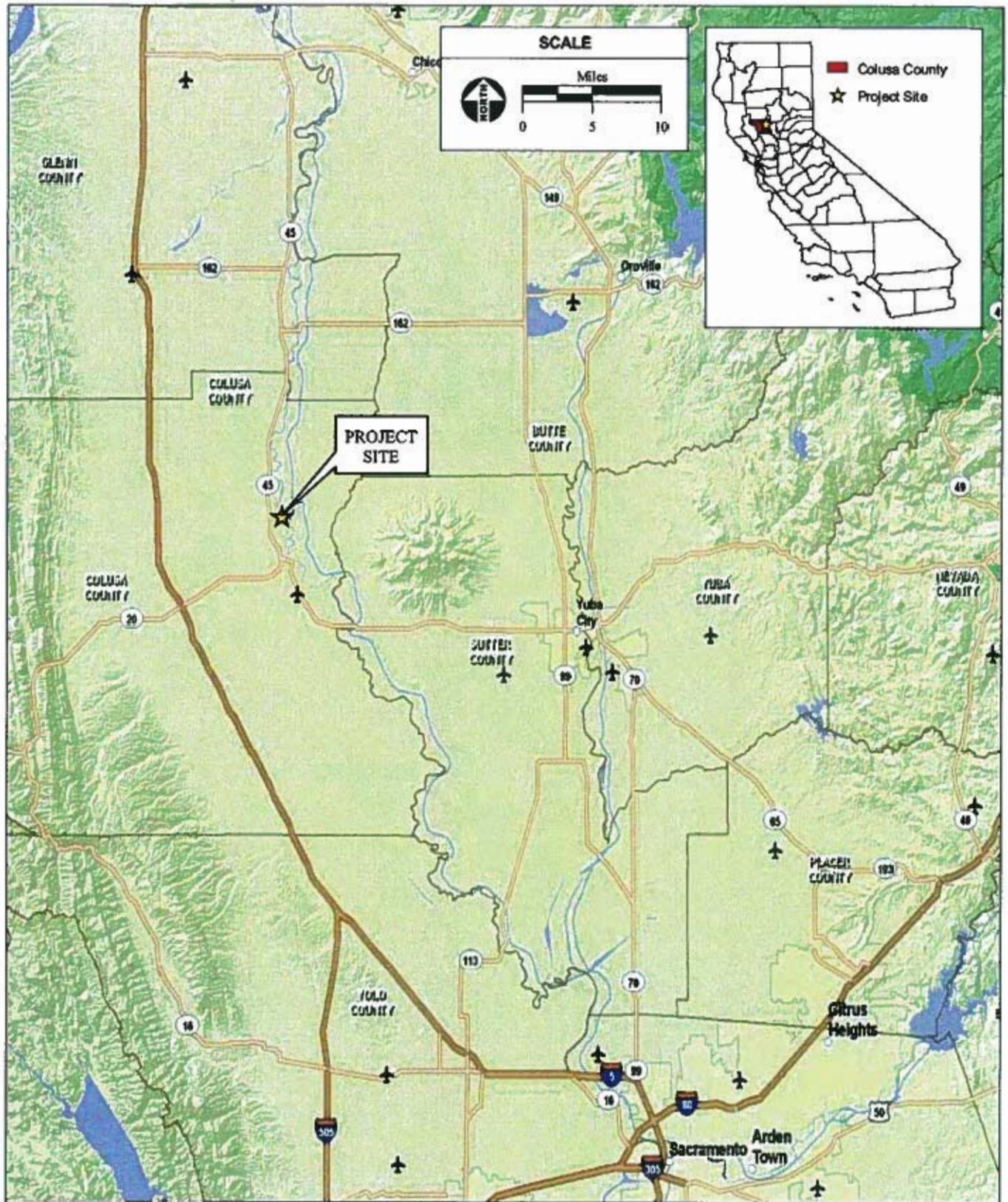
1.1 PURPOSE

Analytical Environmental Services (AES) has prepared this Environmental Site Assessment (ESA) in conformance with the Bureau of Indian Affairs (BIA) guidelines (602 DM Chapter 2) and the American Society for Testing and Materials (ASTM) Standard Practice E 1527-05, which specifies the appropriate inquiry requirement for the innocent landowner defense under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This ESA encompasses 12 legal parcels with a total of approximately 225 acres, located in the County of Colusa, California (**Figure 1**). As such, the use of the term “Subject Property” refers to the entire 225-acre property unless otherwise stated. The purpose of this assessment is to identify Recognized Environmental Conditions (RECs) that may affect future uses of the Subject Property.

This ESA covers the Subject Property, adjacent areas, and surrounding known sources of contamination, up to 2.0 miles from a point roughly equivalent to the middle of the Subject Property. Site reconnaissance inspections of the Subject Property and adjacent properties were performed and relevant database listings of hazardous materials sites, waste generators, and underground storage tanks were reviewed (EDR, 2009). AES also reviewed historical aerial photographs for the Subject Property. Years available for review were 1964, 1975, 1987, 1998, and 2005.

1.2 RECOGNIZED ENVIRONMENTAL CONDITIONS

The term Recognized Environmental Condition (REC) refers to the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Additionally, the term historical REC refers to an



SOURCE: StreetMap World, 2008; AES 2009

Colusa Indian Community 225-Acre Phase I ESA / 209520 ■

Figure 1
Regional Location

environmental condition associated with the Subject Property, including a past release of any hazardous substance or petroleum product, which in the past would have been considered a REC, however such condition has since been remediated. Historical RECs will therefore be included in this Phase I ESA (ASTM, 2006).

1.3 LIMITATIONS AND EXCEPTIONS

No ESA can completely eliminate uncertainty regarding the potential for RECs in connection with a property. Conformance of this assessment with ASTM Standard Practice E 1527-05 will reduce, but not eliminate, uncertainty regarding the potential for RECs in connection with the Subject Property. While AES has made every effort to discover and interpret available historical and current information on the property within the time available, the possibility for undiscovered contamination to be present remains. AES's report is a best-effort collection and interpretation of available information consistent with industry standards for the completion of Phase I ESAs.

This ESA is based on a site reconnaissance of the Subject Property, searches of government hazardous materials databases, and interviews with individuals familiar with the historical uses of the Subject Property. Physical testing of soil or groundwater was not within the scope of this assessment. Asbestos containing building materials (ACM) and lead-based paint surveys were not included. Information was obtained for this ESA to comply with ASTM guidelines.

1.4 METHODOLOGY

A variety of data sources were consulted in completing this Phase I ESA. The following subsections describe the methods used and the data sources consulted to accomplish each task.

1.4.1 HISTORICAL REVIEW

Previous land uses and history of the Subject Property were researched in an effort to identify RECs at or near the Subject Property. Historical aerial photographs (**Appendix A**) and topographic maps (**Appendix B**) from different decades were examined for the presence of aboveground storage tanks, industrial buildings, gas station canopies and/or pump islands, as well as other indications of bulk hazardous material storage within the study area. Sanborn Fire Insurance Maps document historical property use through abbreviations and map symbols that identify commercial, industrial, residential and other land uses.

1.4.2 DATABASE SEARCHES

Database searches were conducted for records of known storage tank sites and known sites of hazardous materials generation, storage, or contamination. Available information from federal, state, and local agency lists of: (a) known or potential hazardous waste sites and landfills; (b) sites

currently under investigation for environmental violations; (c) sites which manufacture, generate, use, store, and/or dispose of hazardous materials or hazardous wastes; (d) sites which have underground storage tanks (USTs); and (e) sites with recorded violations of regulations concerning USTs and hazardous materials/hazardous wastes. The database search is intended to identify facilities that may have the potential to impact surface and subsurface conditions on the Subject Property. A full listing of sites within the vicinity of the Subject Property is provided in **Appendix D**.

1.4.3 SITE RECONNIASSANCE

Melissa Oberti from AES conducted a reconnaissance inspection of the Subject Property and adjacent properties on July 22, 2009. The purpose of the site reconnaissance is to examine for obvious physical indications of improper hazardous substance or petrochemical disposal such as stained soil or asphalt, stressed vegetation, sumps, partially buried drums, bulk underground fuel storage tanks, and other obvious signs of hazardous materials involvement. In addition, adjacent properties were visually inspected to the extent possible without trespassing on private property to determine if current land uses would affect the planned uses of Subject Property.

1.5 DEVIATIONS AND DATA GAPS

ASTM Standard 1527-05 requires any significant data gaps, deviations and deletions from the ASTM Standard to be identified and commented on in the Phase I. A significant data gap would be one that affected the ability to identify a REC on the Subject Property or adjacent properties.

Due to the rural location of the Subject Property, Sanborn Fire Insurance maps and City Directories were not available for the Subject Property. Because there is no historical data or physical indications that the property has ever been developed or occupied by a business that would have produced hazardous materials, the lack of Sanborn Fire Insurance maps and City Directories is not considered a significant data gap for this Phase I ESA.

1.6 CREDENTIALS

Melissa Oberti prepared this report under the professional supervision of David Zweig, P.E., who qualifies as an environmental professional (EP) as defined in the ASTM Standard 1527-05. The signatures of Melissa Oberti and David Zweig appear in **Section 6.0** of this Phase I and their resumes are included as **Appendix G**.

SECTION 2.0

SITE DESCRIPTION

SECTION 2.0

SITE DESCRIPTION

2.1 LOCATION AND LEGAL DESCRIPTION

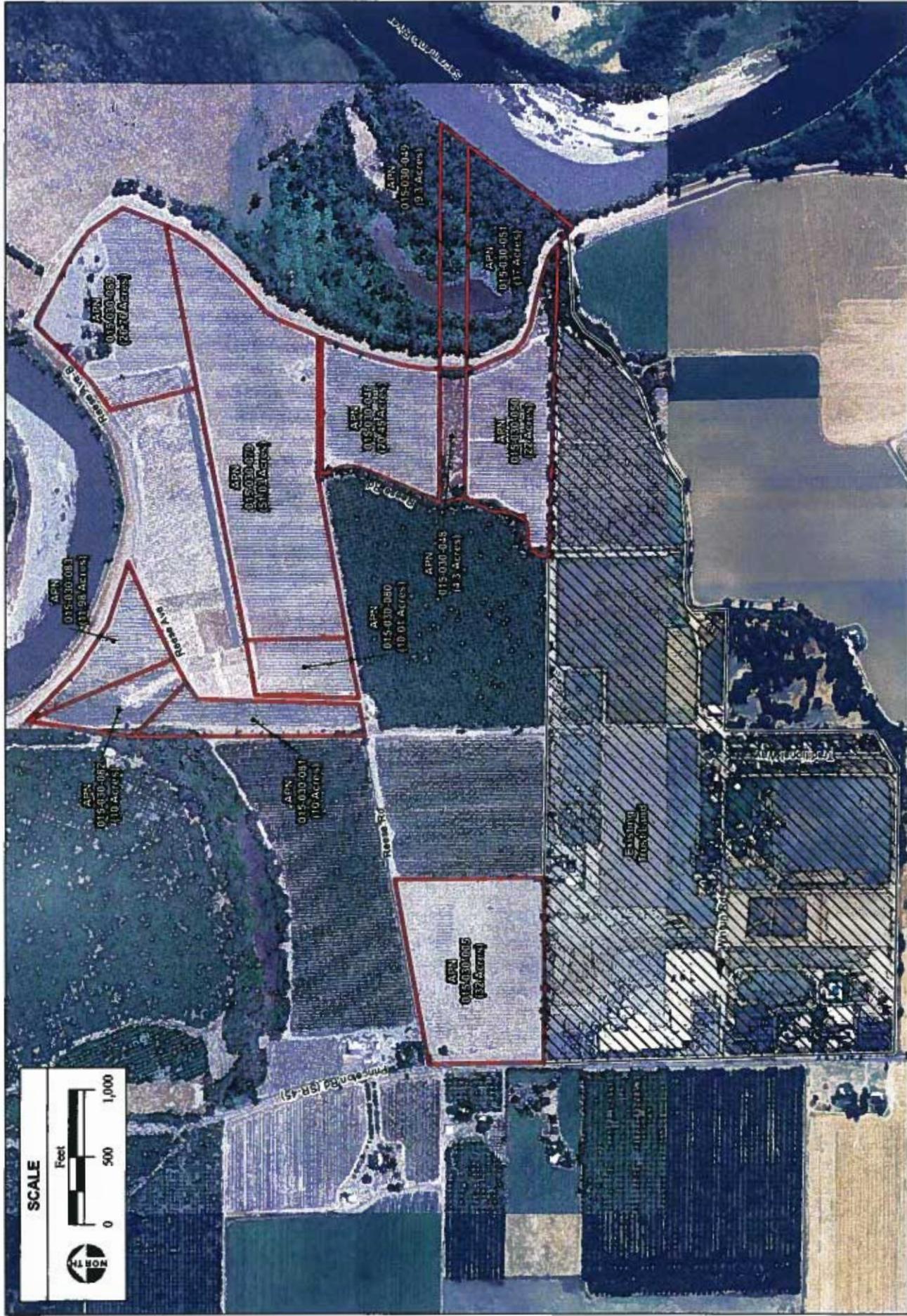
The 225-acre Subject Property is located approximately three miles north of the Town of Colusa, California, between State Route (SR) 45 (Princeton Road) and the Sacramento River (Figures 2 and 3). The location of the Subject Property corresponds to the unsectioned areas of Jimeno, Township 16 North, Ranges 1 and 2 West, on the Moulton Weir, California U.S. Geological Survey (USGS) 7.5-Minute Topographic Quadrangle (quad), Mount Diablo Base & Meridian. The Colusa County Assessor's Parcel Numbers (APNs) and acreages for individual parcels are shown in Table 2-1.

TABLE 2-1
Assessor's Parcel Numbers and Acreage for Subject Property

APN	Size (acres)
015-030-005	32.00
015-030-046	20.45
015-030-048	4.30
015-030-049	9.30
015-030-050	22.00
015-030-051	17.00
015-030-079	51.03
015-030-080	10.01
015-030-081	10.00
015-030-082	10.00
015-030-083	11.98
015-030-089	26.76
Total	224.83

2.2 SITE AND VICINITY CHARACTERISTICS

The Subject Property is comprised of 225± acres, the majority of which consists of walnut orchards. Mixed oak woodland and mixed riparian vegetative communities are also present on some of parcels. The topography of the Subject Property ranges in elevation from approximately 55 to 65 feet above mean sea level (amsl). Three single-family homes are located within the



Colusa Indian Community 225-Acre Phase I ESA / 209520

Figure 3

Aerial Parcel Map

SOURCE: Morrow Surveying, Inc., July 2009; "Moulton Weir NE, CA" USGS Aerial Photograph, 6/29/2005; AES, 2009

Subject Property's boundaries. Two homes and a shed are located on APN 015-030-089; one of these homes is a rental property leased by the Tribe, and the other is currently vacant. APN 015-030-050 also contains an occupied single-family home with two sheds. All homes are supplied with water by on-site wells and septic systems for wastewater treatment. A single story shed is located on APN 015-030-082.

Regional access is provided by SR 45, which run in a general north-south direction and is located immediately adjacent to the west side of APN 015-030-005. Local access to the Subject Property from SR 45 is provided by Reese Road, which is a two-lane County road that extends approximately east-west between several Subject Property parcels. Other roadways in the immediate vicinity include Reese Avenue, which turns north off Reese Road between APNs 015-030-080 and 015-030-081. Reese Avenue leads into Reese Avenue B, a partially paved road along the top of the Sacramento River levee, which borders APNs 015-030-046, 015-030-048, 015-030-049, 015-030-050, 015-030-051, 015-030-079, 015-030-083, and 015-030-089 (Figure 3). Additional unnamed, unpaved private roads and driveways provide additional access between and within various parcels of the Subject Property.

2.3 LOCAL ENVIRONMENTAL RECORDS SOURCES

Local Environmental Agency

AES submitted a request for available files for review at the Colusa County Environmental Health Department on July 22, 2009, regarding potential environmental issues at the Subject Property. The Colusa County Environmental Health Department had no records pertaining to the Subject Property.

Department of Planning and Zoning

AES spoke with a representative of the Colusa County Planning Department on August 6, 2009. The representative stated that the Subject Property is zoned Agriculture General (A-G).

Electrical Utility Company

AES spoke with a representative of Pacific Gas and Electric (PG&E) on June 24, 2009, who confirmed that PG&E provides electrical utilities to the Subject Property.

Building Department

No building permit information was available for review at the Colusa County Building Department.

Other Local Environmental Records Sources

AES reviewed the California Regional Water Quality Control Board's (CRWQCB) Geotracker website (www.geotracker.swrcb.ca.gov) for listings of underground storage tanks (USTs), leaking underground storage tanks (LUSTs), or spill cases in association with petroleum chemicals at the Subject Property. The Geotracker website had no listing of USTs, LUSTs, and spill cases at the Subject Property.

2.4 HYDROLOGY

Approximately six domestic wells are located on the Subject Property. Based on the Department of Water Resources groundwater data, the depth to groundwater is approximately five to ten feet below ground surface (bgs) with a groundwater gradient generally towards the west. Estimated groundwater levels and/or flow direction(s) may vary due to seasonal fluctuations in precipitation, local usage demands, geology, underground structures, or dewatering operations. Surface water from the Subject Property drains primarily toward the south, through two road-side culverts located near the northwest corner of APN 015-030-046 and southern portion of APN 015-030-005 of the Subject Property.

2.5 GEOLOGY AND SOIL

AES reviewed *The EDR-Radius Map with Geocheck*[®] regulatory database report (EDR database report). According to information provided in the EDR database report, soils in the vicinity of the Subject Property include silt loam at depths ranging between zero and 8 inches below ground surface (bgs). Soils at depths ranging between 8 and 33 inches bgs are classified as silty clay loam. Soils at depths ranging between 33 and 40 inches bgs are classified as loam. Soils at depths ranging between 40 and 64 inches bgs are classified as silt loam. The hydrologic group for soils in this area is generally Class C soils; which has slow infiltration rates with soil layers impeding downward with movement of water, and soils with moderately fine or fine textures. Additionally, the rock stratigraphic unit at the Subject Property is Cenozoic, which is in the Quaternary system and series.

2.6 CURRENT USES OF THE SUBJECT PROPERTY

Melissa Oberti from AES performed a site reconnaissance survey of the Subject Property on July 22, 2009. The Subject Property is comprised primarily of walnut trees, mixed oak woodland, and mixed riparian vegetative communities. The site is developed with three single-family homes and associated structures. Site photos showing conditions of the Subject Property during the site visit are shown in **Figures 4 through 6**.

2.7 HISTORIC USES OF THE SUBJECT PROPERTY

2.7.1 AERIAL PHOTOGRAPHS

AES reviewed available historic aerial photographs (**Appendix A**) for information regarding past uses of the Subject Property and surrounding areas. The following aerial photographs were available for review: 1964 (1"=800'), 1975 (1"=800'), 1987 (1"=800'), 1998 (1"= 800'), and 2005 (1"= 484'). Aerial photographs were of varying scale and clarity. Historical aerial images offer detailed review of previous land uses on the Subject Property and adjacent properties.

1964

The Subject Property is developed with orchards and several structures. Highway 45 is visible to the west of the Subject Property beyond which is agricultural land. Reese Road is visible to the north, east, and south of the property. The Sacramento River is visible to the north and east of the property beyond which is orchard. A dirt road is visible to the south of the property beyond which is undeveloped land and agricultural land.

1975 and 1987

The 1975 and 1987 aerial photos show very similar attributes to the Subject Property's current configuration. Highway 45 is visible to the west of the property, beyond which is agricultural and rural residential land. Reese Road is visible to the north, east, and south of the property. The Sacramento River is visible to the north and east beyond which is agricultural land. A dirt road is visible to the south of the property beyond which is agricultural land.

1998 and 2005

The 1998 and 2005 aerial photos also show very similar attributes compared to the Subject Property's current configuration. Highway 45 is visible to the west of the property, beyond which is agricultural and rural residential land. Reese Road is visible to the north and east of the property. The Sacramento River is visible to the north and east, beyond which is agricultural land. A dirt road is visible to the south of the property beyond which is agricultural land.

2.7.2 HISTORIC TOPOGRAPHIC MAPS

AES reviewed available historic USGS Topographic Quadrangles (**Appendix B**) for information regarding past uses of the Subject Property. The following maps were available for review: *Maxwell, California* Topographic Quadrangle, dated 1906 and 1952; *Compton Landing, California* Topographic Quadrangle, dated 1917; *Moulton Weir, California* Topographic Quadrangle, dated 1952, 1973 and 1991. The 1906 and 1917 topographic maps depict the Subject Property as undeveloped land. The 1952, 1973 and 1991 topographic maps depict the Subject Property as mostly orchards with several structures located on the property.

2.8 SANBORN FIRE INSURANCE MAPS

Sanborn Fire Insurance Maps do not provide coverage of the Subject Property. Documentation of the lack of coverage is included in **Appendix C**.

2.9 OTHER PHYSICAL SETTING SOURCES

Wetlands Map

According to the Overview Map located with the regulatory database report, which references information provided by the National Wetlands Inventory (NWI) Map for Colusa, California, wetlands are located on the property. The wetlands are located at the southeast corner of the property. These wetlands are not considered to represent an environmental concern to the property. A copy of the Overview Map is included in the regulatory database report in **Appendix D**.

Floodplain Map

According to the Federal Emergency Management Agency (FEMA) website (<http://msc.fema.gov>), the Subject Property is located in Flood Zone X and Zone A. Zone X is identified by FEMA as areas located between 100 and 500 year floodplain or that is protected by levees from a 100 year flood. Zone A is identified by FEMA as areas within 100-year flood zone (Community Number 06011C, Panel Number 0375 F, dated May, 15 2003). A copy of the floodplain map is included in **Appendix E**.

SECTION 3.0

SITE RECONNAISSANCE AND INTERVIEWS

SECTION 3.0

SITE RECONNAISSANCE AND INTERVIEWS

3.1 OBJECTIVE

The objective of the site reconnaissance is to identify current or historic hazardous materials involvement on the Subject Property or in the vicinity of the Subject Property. Hazardous materials involvement, or signature environmental conditions include the presence or likely presence of any hazardous materials or petroleum products that indicate an existing release, past release, or a threat of release into any structure on the property, soil, or groundwater. Signs of possible hazardous materials involvement would include any indications of underground storage tanks existing on the Subject Property, stained soils and/or unusual odors originating from the Subject Property, indications of an excavation or removal of soils, including patched asphalt and large debris piles, and other obvious signs of hazardous materials involvement.

Interviews included contacting individuals familiar with the Subject Property and adjacent properties that are knowledgeable of historic and existing conditions relative to hazardous materials.

3.2 SITE RECONNAISSANCE FINDINGS

Melissa Oberti from AES conducted a site reconnaissance of the Subject Property on July 22, 2009. Adjacent properties were observed to the extent possible without trespassing. **Figures 4 through 6** provide photographs that show the site conditions at the time of the site visit. Notable features and environmental conditions are summarized below:

- The Subject Property comprises approximately 225± acres of partially developed land. The majority of the Subject Property is planted with walnut orchards (**Photo 1**). Oak woodland and riparian vegetative communities are also located within the Subject Property's boundaries.
- A well and associated pump were observed on APN 015-030-046 (**Photo2**).
- Several power lines with pole mounted transformers were observed on APN 015-030-046 (**Photo 3**). No leaks associated with the transformers were observed.



PHOTO 1: View of APN 015-030-046. Photo taken facing west.



PHOTO 2: View of well and associated pump on APN 015-030-046. Photo taken facing east.



PHOTO 3: View of pole mounted transformer on APN 015-030-046. Photo taken facing west.



PHOTO 4: Overview of APN 015-030-048. Photo taken facing east.



PHOTO 5: Overview of APN 015-030-049. Photo taken facing northeast.



PHOTO 6: Overview of APN 015-030-050. Photo taken facing east.



PHOTO 7: View of residence on APN 015-030-050. Photo taken facing east.



PHOTO 8: View of well and associated pump on APN 015-030-050. Photo taken facing west.



PHOTO 9: Overview of APN 015-030-079. Photo taken facing north.



PHOTO 10: Exterior view of shed on APN 015-030-082. Photo taken facing north.



PHOTO 11: Interior view of the shed on APN 015-030-082. Photo taken facing east.



PHOTO 12: View of herbicide inside shed on APN 015-030-082. Photo taken facing east.



PHOTO 14: View of second residence on APN 015-030-089. Photo taken facing south.



PHOTO 13: View of vacant residence on APN 015-030-089. Photo taken facing west.



PHOTO 15: View of propane tank on APN 015-030-089. Photo taken facing north.

- A single-family home with two sheds, a well and associated pump are located on APN 015-030-050 (**Photos 7 and 8**).
- A shed, well, and associated pump are located on APN 015-030-082. Approximately fourteen 2.5 gallon containers of herbicide, eight 5-gallon propane tanks, one 30-gallon drum of weed control, thirteen 25-pound containers of rodent bait, and one 30-gallon container of Roundup were observed inside the shed (**Photos 10 through 12**). None of the chemicals were observed in bulk quantity. The chemicals were stored within approved commercial containers and no surface staining or odor was observed inside or outside the shed.
- Chemical usage on the walnut orchards included Oxyfluorfen, Glufosinate-Ammonium, Sethoxydim, and Norflurazon for the last crop year. The chemicals are used twice a year in the spring and the fall and are not stored on the Subject Property.
- Two single-family homes with a shed, two 500-gallon propane tanks, a well, and associated pump are located on APN 015-030-089 (**Photos 13 through 15**).

3.3 ADJACENT PROPERTIES

AES performed a survey of adjacent properties to the extent possible without trespassing. The purpose was to identify adjacent businesses and determine if current land uses would affect the planned use of the Subject Property. Adjacent land uses are described below.

- North: Reese Road is located to the north, beyond which is the Sacramento River.
- South: An unnamed dirt road is located to the south, beyond which is agricultural land and the Rancheria.
- East: The Sacramento River is located to the east, beyond which is agricultural land.
- West: Highway 45 is located to the west, beyond which is agricultural land and rural residential.

3.4 INTERVIEWS AND QUESTIONNAIRES

A standard property owner and user questionnaire were completed by Chairman Wayne Mitchum, Sr. on July 29, 2009. The questionnaires are included as **Appendix F**. AES also interviewed several other individuals to obtain information regarding the Subject Property. An interview summary is provided in **Table 3-1**.

**TABLE 3-1
Interview Summary**

Role	Name	Title/Company	Years Assoc. With Property	Interview Type
Site Contact	Mr. Wayne R. Mitchum Sr.	Chairman/Colusa Indian Community	20 +years	Written
Site Contact	Mr. Walt Seaver	Farm Operations Manager/Colusa Indian Community	3 years	Personal interview during site reconnaissance
Local govt. official	Mr. Leon Perreault	Environmental Health Specialist II/Colusa County Department of Health & Human Services	N/A	Written
Local govt. Official	Representative	Planner/Colusa County Planning Department	N/A	Telephone
Local govt. Official	Ms. Andrea Correa	Office Manager/Colusa County Assessor	N/A	Telephone

SECTION 4.0

RECORDS REVIEW

SECTION 4.0

RECORDS REVIEW

4.1 DATABASE SEARCH

Database searches were conducted for records of known storage tank sites and known sites of hazardous materials generation, storage, and/or contamination. Databases were searched for sites and listings up to two miles from a point roughly equivalent to the center of the Subject Property. The environmental database review was accomplished by using the services of a computerized search firm *Environmental Data Resources, Inc.* (EDR). EDR uses a geographical information system to plot locations of past or previous hazardous materials involvement. AES reviewed the EDR report to determine if the Subject Property and adjacent sites are listed on regulatory agency databases. The purpose is to determine if adjacent sites will impact surface and/or subsurface conditions on the Subject Property. Included in the EDR database report was a list of “unmapped sites”. AES reviewed the list of unmapped sites for the properties that may be located within the search radius specified for each governmental database. These sites do not appear to be located within the applicable search radius of the Subject Property. The complete list of reviewed databases is provided in the EDR report, included in **Appendix D** and is summarized in **Table 4-1**. Information on past and/or current hazardous materials involvement involving adjacent properties is summarized in **Section 4.2.2**.

4.2 HAZARDOUS MATERIALS INVOLVEMENT

A regulatory agency database report was performed to identify locations of past and/or current hazardous materials involvement. Regulatory agency databases were searched for records of known storage tank sites and known sites of hazardous materials generation, storage, or contamination, or where violations pertaining to storage and/or use of hazardous materials have occurred. Databases were searched for sites and listings up to one mile from a point roughly equivalent to the center of Subject Property. Although a site may be listed within the database report, this does not mean the site is currently contaminated or will impact the environmental quality of the Subject Property. It should be noted that the database search is only as accurate as the data entered into the government agency maintained databases and the date on which those databases were last updated. Installation of underground storage tanks or hazardous material releases, if not reported to the appropriate agency, would not be listed on any of the databases searched.

TABLE 4-1
Environmental Data Resources (EDR)
Summary of Agency Databases

Agency Database	Minimum Search Distance	Property Listed	Sites Listed
The United States Environmental Protection Agency (EPA), National Priorities List (NPL) and Proposed NPL	2.0 miles	No	0
EPA, Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)	1.50 miles	No	0
EPA, CERCLIS – No Further Remedial Action Planned (NFRAP)	1.50 miles	No	0
EPA, Resource Conservation and Recovery Information System (RCRIS) Corrective Action Reports (CORRACTS)	2.0 miles	No	0
EPA, RCRIS - for Treatment, Storage, and Disposal facilities (TSDs)	1.50 miles	No	0
EPA, RCRIS - for Hazardous Waste Generators (large quantity generators [LQG])	1.25 miles	No	0
EPA, RCRIS - for Hazardous Waste Generators (small quantity generators [SQG])	1.25 miles	No	1
EPA, Engineering Controls Sites List (US ENG CONTROLS) List	1.50 miles	No	0
EPA, Sites with Institutional Controls (US INST CONTROLS) List	1.50 miles	No	0
EPA, Brownfields List (US BROWNFIELDS)	1.50 miles	No	0
United States Coast Guard, National Response Center, Emergency Response Notification System (ERNS)	Property Only	No	0
EPA, Facility Index System (FINDS)	Property Only	No	0
California Environmental Protection Agency (Cal EPA), Historic Potential Hazardous Waste (Hist Cal-Sites) Database	2.0 mile	No	0
Office of Emergency Services (OES) California Hazardous Materials Incident Report System (CHMIRS)	Property Only	No	0
CalEPA "Cortese" Hazardous Waste and Substances Sites List	1.50 mile	No	0
State Water Resources Control Board (SWRCB) Proposition 65 Records (Notify 65)	2.0 miles	No	0
SWRCB, Toxic Pits Cleanup Act Sites (Toxic Pits)	2.0 miles	No	0
Integrated Waste Management Board (IWMB) Solid Waste Information System (SWIS) Active, Close and Inactive State Landfills List (State Landfill)	2.0 miles	No	0

Agency Database	Minimum Search Distance	Property Listed	Sites Listed
SWRCB, Waste Management Unit Database (WMUD/SWAT) State Landfill List	1.50 miles	No	0
SWRCB, Leaking Underground Storage Tank (LUST) List	1.50 miles	No	0
SWRCB, The Spills, Leaks, Investigations, and Cleanups (SLIC) List	1.50 miles	No	0
California Department of Health Services, (DHS) Bond Expenditure Plan (BEP)	2.0 miles	No	0
California Department of Toxic Substance and Control (DTSC), Site Mitigation and Brownfields Reuse Program's (SMBRP's) ENVIROSTOR List	2.0 miles	No	0
DTSC, State Response Sites (RESPONSE) List	2. miles	No	0
DTSC, Deed Restriction Listing (DEED) List	1.50 miles	No	0
DTSC, Volunteer Cleanup Program (VCP) List	1.50 miles	No	0
SWRCB, Underground Storage Tank Division, Registered UST List (SWEEPS UST)	1.25 mile	No	0
Cal EPA Facility Inventory Database (CA FID UST)	1.25 mile	No	0
SWRCB, Historical UST (HIST UST)	1.25 mile	No	0
SWRCB, Statewide Environmental Evaluation and Planning System (SWEEPS UST)	1.25 mile	No	0
SWRCB, Aboveground Storage Tank (AST) List	1.25 mile	No	0
Indian LUST	1.50 miles	No	0
Indian UST	1.25 miles	No	0
Facility and Manifest Data (HAZNET)	Property Only	No	0

¹TP=Target Property

Source: Environmental Data Resources, 2009

4.2.1 SUBJECT PROPERTY

The Subject Property was not listed on any of the agency databases that were searched by EDR.

4.2.2 ADJACENT PROPERTIES

One site was identified within two miles of the Subject Property. The Stegall Bros. Inc. is located approximately one mile to the west of the Subject Property at Highway 45 at Reese Road in Colusa, California. The site is listed on the RCRA-SQG and FINDS database due to generating small quantities of hazardous waste. Based on the current regulatory status and lack of violations reported, this site is not likely to pose a risk to the environmental quality of the Subject Property.

SECTION 5.0

FINDINGS AND CONCLUSIONS

SECTION 5.0

FINDINGS AND CONCLUSIONS

This Phase I ESA was performed in conformance with the scope and limitations of ASTM Standard Practice E1527-05 and BIA guidelines (602 DM Chapter 2). Based on information gathered while conducting this Phase I ESA, AES observed the following environmental conditions:

- The approximately 225-acre Subject Property is currently cultivated with walnut orchards. An agricultural storage shed, one vacant and two occupied homes, and associated outbuildings are also present. The earliest available historic aerial photographs from EDR show that the Subject Property was developed with orchards and structures in 1964. Historic topographic maps indicate that the Subject Property contained orchards and structures in 1952.
- The use of pesticides and herbicides are used on the walnut orchards for each crop year. According to the California Department of Pesticide Regulation the chemicals used on the orchards are approved for edible use (CDPR, 2010). No fungicides are used on the walnut orchards. The chemicals are not stored on-site therefore, no further consideration is necessary.
- Several electric transformers attached to power poles are located throughout the Subject Property. No leaks were observed.

The Phase I ESA has revealed no evidence of RECs in connection with the Subject Property. Based on the findings and conclusions of this Phase I ESA, the listed environmental conditions above do not warrant any further consideration.

SECTION 6.0

REPORT AUTHORS/REFERENCES

SECTION 6.0

REPORT AUTHORS AND REFERENCES

The undersigned declare to the best of their professional opinion that they meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312. Melissa Oberti, Site Assessor, prepared this report under the professional supervision of David Zweig, Professional Engineer, who qualifies as an environmental professional (EP) as defined in the ASTM Standard E1527-05, and has the specific qualifications based on education, training, and experience to assess a property of the nature, and setting of the Subject Property. The signatures of Melissa Oberti and David Zweig appear below, and their resumes are included as Appendix G.

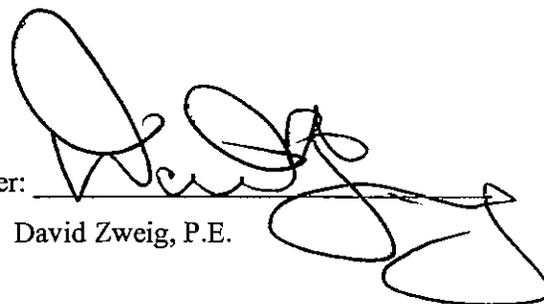
REPORT PREPARATION

Analytical Environmental Services

1801 7th Street, Suite 100

Sacramento, CA 95811

Site Assessor: 
Melissa Oberti, Associate

Senior Reviewer: 
David Zweig, P.E.



REFERENCES

- American Society for Testing and Materials (ASTM) 2006. Practice E1527-05: "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process."
- California Department of Pesticide Regulation, telephone communication, (916) 324-3522. March 30, 2010.
- Colusa County, Department Environmental Health, personal communication. July 22, 2009.
- Colusa County, Department Planning, telephone communication, (530) 458-0480. August 6, 2009.
- Environmental Data Resources, Inc. (EDR), Aerial Photographs Report, Inquiry No. 2495194.2, dated May 15, 2009.
- EDR, 2009. Historical Topographic Map Report, Inquiry No.2487235.4, dated May 06, 2009.
- EDR, 2009. Radius Map with GeoCheck, Inquiry No. 2495194.1r, dated May 15, 2009.
- EDR, 2009. Sanborn Maps, No Coverage Letter, Inquiry No.2487235.3, dated May 5, 2009.
- Federal Emergency Management Agency, Flood Insurance Rate Map, Community/Panel Number 06011C-0375 F, dated May 15, 2003.
- Regional Water Quality Control Board Geotracker database (www.geotracker.swrcb.ca.gov).
- State of California, Department of Water Resources, Groundwater Data, dated 2009.
- United States Geological Survey (USGS) Topographic Map, *Moulton Weir*, California Quadrangle Map, 7.5 Minute Series, dated 1991.
- United States Department of the Interior, National Wetlands Inventory Map, Moulton Weir, California, Quadrangle, dated 1991.
- United States Environmental Protection Agency, Pesticides. Available online at: <http://www.epa.gov/pesticides/>. Accessed March 2010.

APPENDICES

APPENDIX A

HISTORICAL AERIAL PHOTOGRAPHS



INQUIRY #: 2495194.2

YEAR: 1964

— = 800'



AES
ANALYTICAL ENVIRONMENTAL SERVICES

PROJECT NO. 209520

DESIGNED BY: MO

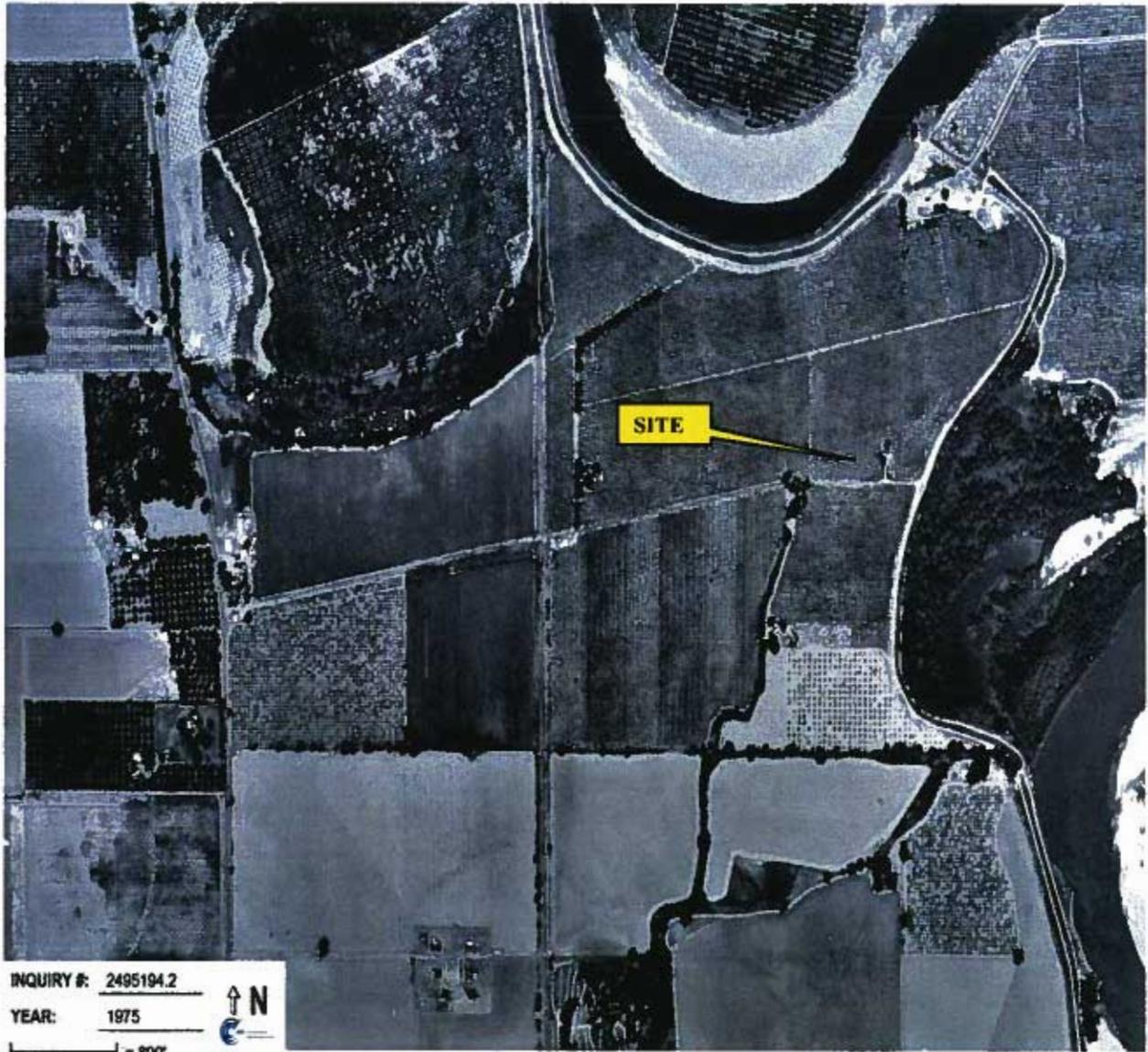
SCALE: NTS

DRAWN BY: MO

DATE: 08/09

AERIAL PHOTOGRAPH 1964

Phase I Environmental Site Assessment
 Colusa Indian Community 225-Acre
 Colusa, California 95932



INQUIRY #: 2495194.2

YEAR: 1975

— = 800'



AES
ANALYTICAL ENVIRONMENTAL SERVICES

PROJECT NO. 209520

DESIGNED BY: MO

SCALE: NTS

DRAWN BY: MO

DATE: 08/09

AERIAL PHOTOGRAPH 1975

Phase I Environmental Site Assessment
Colusa Indian Community 225-Acre
Colusa, California 95932



INQUIRY #: 2495194.2

YEAR: 1987

| = 800'



AES
ANALYTICAL ENVIRONMENTAL SERVICES

PROJECT NO. 209520

DESIGNED BY: MO

SCALE: NTS

DRAWN BY: MO

DATE: 08/09

AERIAL PHOTOGRAPH 1987

Phase I Environmental Site Assessment
 Colusa Indian Community 225-Acre
 Colusa, California 95932



INQUIRY #: 2495194.2

YEAR: 1998

— = 800'



AES
AGRICULTURAL ENVIRONMENTAL SERVICES

PROJECT NO. 209520

DESIGNED BY: MO

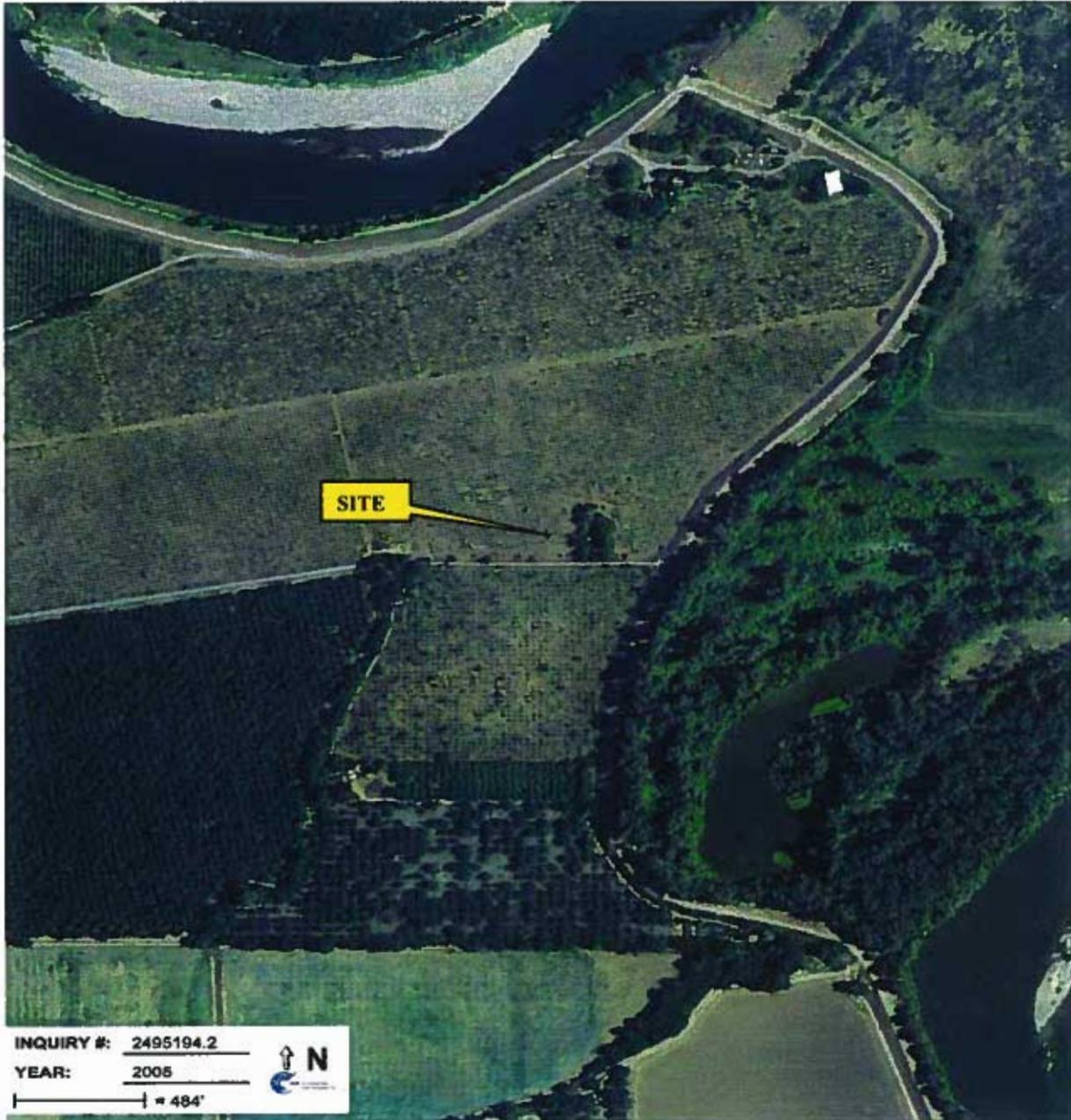
SCALE: NTS

DRAWN BY: MO

DATE: 08/09

AERIAL PHOTOGRAPH 1998

Phase I Environmental Site Assessment
Colusa Indian Community 225-Acre
Colusa, California 95932



INQUIRY #: 2495194.2

YEAR: 2005

1" = 484'



AES
ANALYTICAL ENVIRONMENTAL SERVICES

PROJECT NO. 209520

DESIGNED BY: MO

SCALE: NTS

DRAWN BY: MO

DATE: 08/09

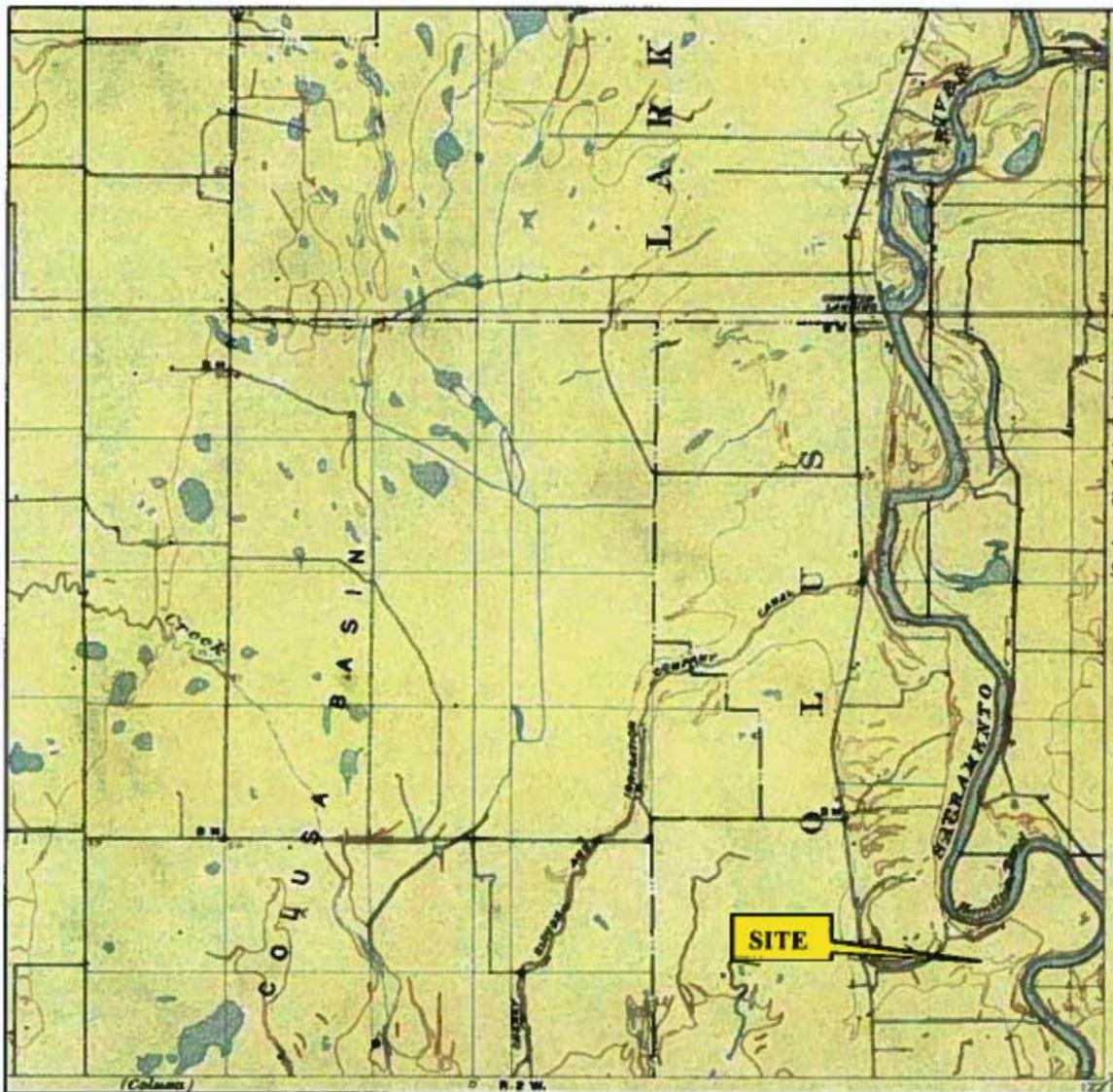
AERIAL PHOTOGRAPH 2005

Phase I Environmental Site Assessment
 Colusa Indian Community 225-Acre
 Colusa, California 95932

APPENDIX B

HISTORICAL TOPOGRAPHIC MAPS

Historical Topographic Map



<p>N ↑</p>	TARGET QUAD	SITE NAME:	Colusa Fee-To-Trust	CLIENT:	Analytical Environmental Serv.	
	NAME: MAXWELL	ADDRESS:	7076 Reese Road	CONTACT:	Melissa Obertl	
	MAP YEAR: 1906	Colusa, CA 95932	INQUIRY#:	2487236.4	RESEARCH DATE:	05/06/2009
	SERIES: 15	LAT/LONG:	39.261 / 122.014			
SCALE:	1:62500					



PROJECT NO. 209520

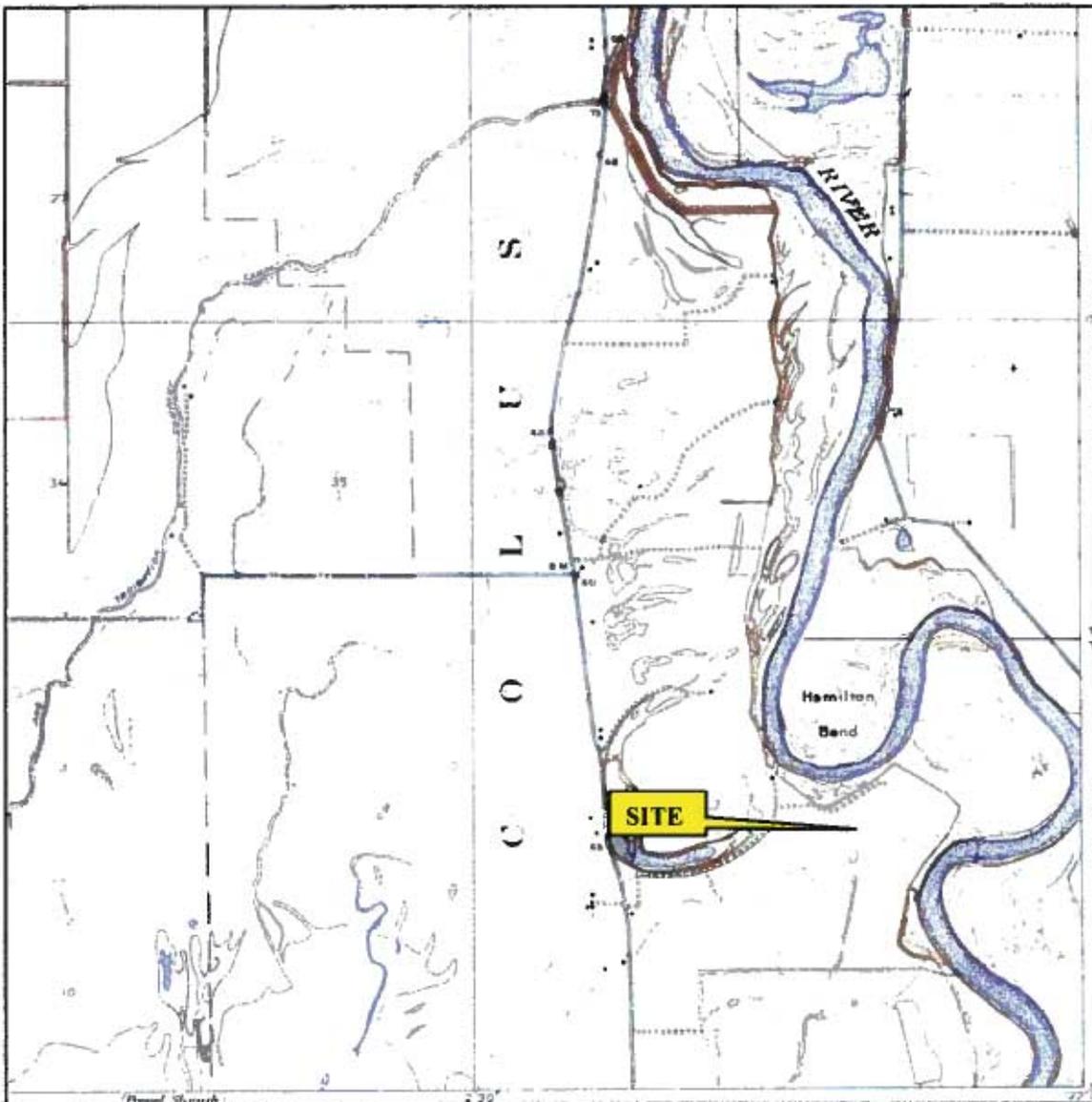
DESIGNED BY: MO SCALE: NTS

DRAWN BY: MO DATE: 08/09

TOPOGRAPHIC MAP 1906

Phase I Environmental Site Assessment
Colusa Indian Community 225-Acre
Colusa, California 95932

Historical Topographic Map



N ↑	TARGET QUAD	SITE NAME: Colusa Fee-To-Trust	CLIENT: Analytical Environmental Serv.
	NAME: COMPTON LANDING	ADDRESS: 7076 Reese Road	CONTACT: Melissa Oberti
	MAP YEAR: 1917	Colusa, CA 95932	INQUIRY#: 2467235.4
	SERIES: 7.5	LAT/LONG: 39.261 / 122.014	RESEARCH DATE: 05/08/2009
	SCALE: 1:24000		



PROJECT NO. 209520

DESIGNED BY: MO

SCALE: NTS

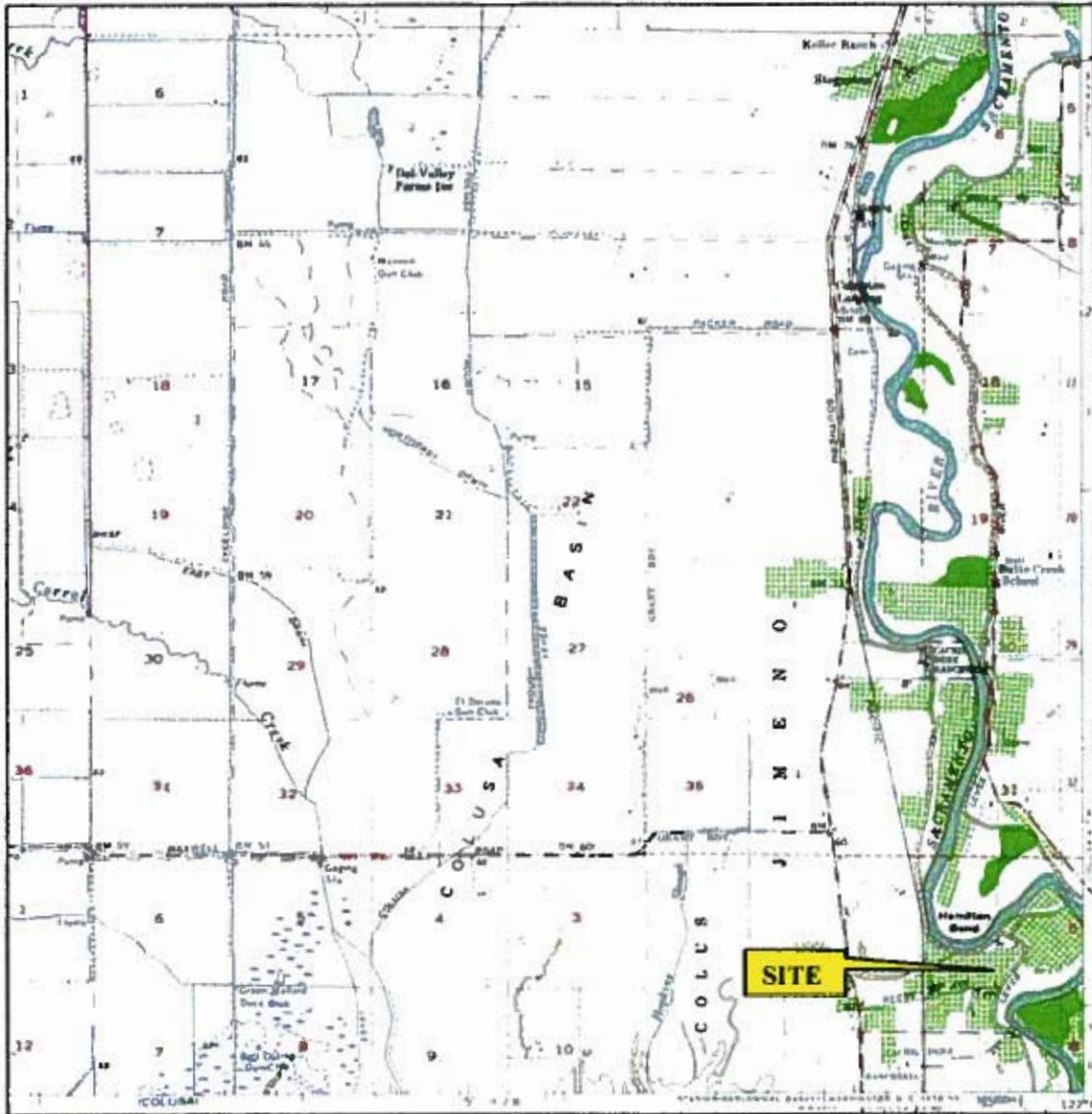
DRAWN BY: MO

DATE: 08/09

TOPOGRAPHIC MAP 1917

Phase I Environmental Site Assessment
 Colusa Indian Community 225-Acre
 Colusa, California 95932

Historical Topographic Map



N ↑	TARGET QUAD	SITE NAME: Colusa Fee-To-Trust	CLIENT: Analytical Environmental Serv.
	NAME: MAXWELL		CONTACT: Melissa Oberti
	MAP YEAR: 1952	ADDRESS: 7076 Reese Road Colusa, CA 95932	INQUIRY#: 2487235.4
	SERIES: 15	LAT/LONG: 39.281 / 122.014	RESEARCH DATE: 05/09/2009
	SCALE: 1:82500		



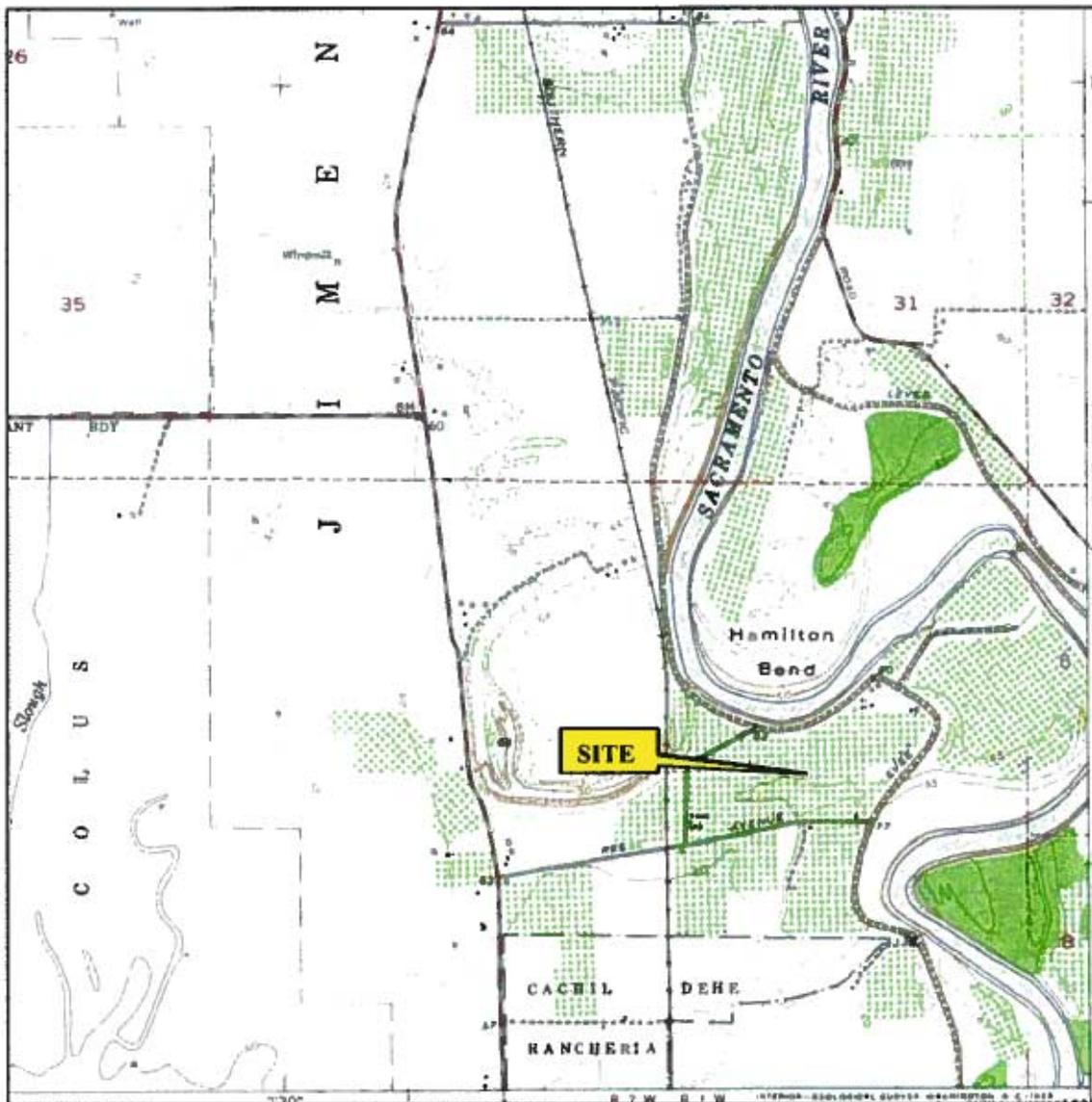
PROJECT NO. 209520

DESIGNED BY: MO	SCALE: NTS	
DRAWN BY: MO	DATE: 08/09	

TOPOGRAPHIC MAP 1952

Phase I Environmental Site Assessment
Colusa Indian Community 225-Acre
Colusa, California 95932

Historical Topographic Map



	TARGET QUAD	SITE NAME: Colusa Fee-To-Trust	CLIENT: Analytical Environmental Serv.
	NAME: MOULTON WEIR	ADDRESS: 7076 Reese Road	CONTACT: Melissa Obertl
	MAP YEAR: 1952	Colusa, CA 95932	INQUIRY#: 2487235.4
	SERIES: 7.5	LAT/LONG: 39.261 / 122.014	RESEARCH DATE: 05/06/2009
	SCALE: 1:24000		



PROJECT NO. 209520

DESIGNED BY: MO

SCALE: NTS

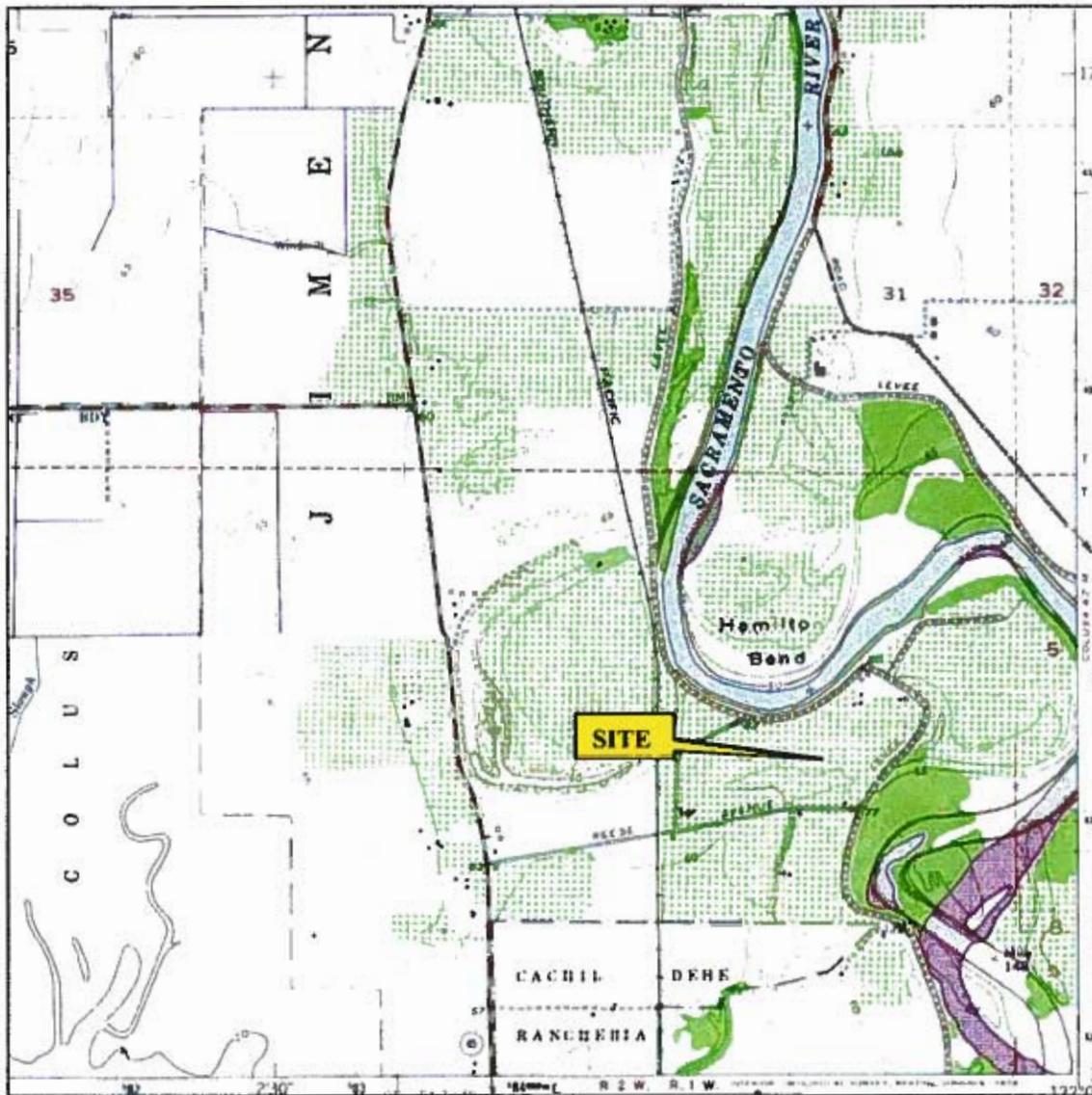
DRAWN BY: MO

DATE: 08/09

TOPOGRAPHIC MAP 1952

Phase I Environmental Site Assessment
Colusa Indian Community 225-Acre
Colusa, California 95932

Historical Topographic Map



	TARGET QUAD	SITE NAME: Colusa Fee-To-Trust	CLIENT: Analytical Environmental Serv.
	NAME: MOULTON WEIR	ADDRESS: 7076 Reese Road	CONTACT: Melissa Obertl
	MAP YEAR: 1873	Colusa, CA 95932	INQUIRY#: 2487235.4
	SERIES: 7.5	LAT/LONG: 39.261 / 122.014	RESEARCH DATE: 05/06/2009
	SCALE: 1:24000		



PROJECT NO. 209520

DESIGNED BY: MO

SCALE: NTS

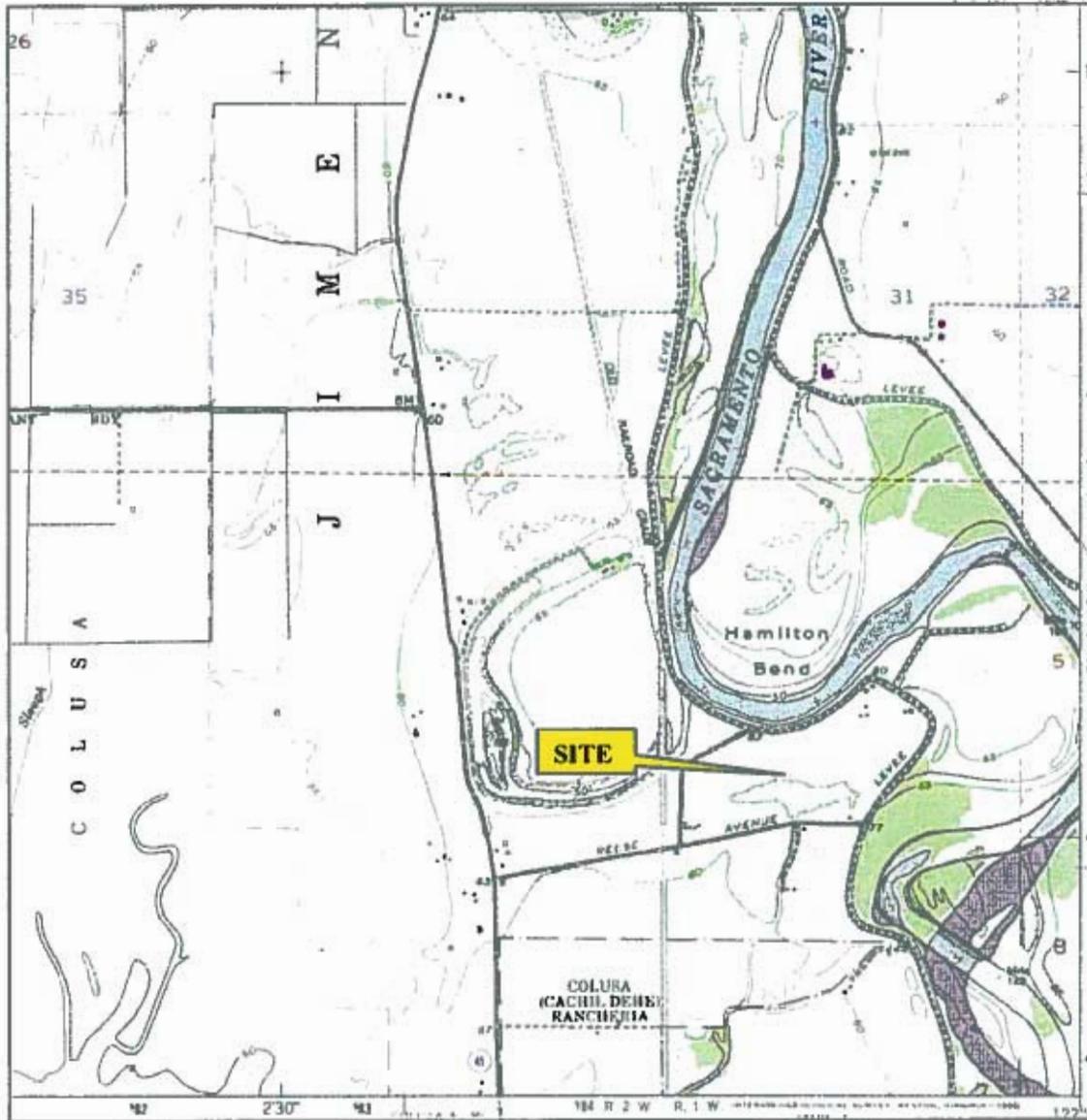
DRAWN BY: MO

DATE: 08/09

TOPOGRAPHIC MAP 1973

Phase I Environmental Site Assessment
 Colusa Indian Community 225-Acre
 Colusa, California 95932

Historical Topographic Map



N ↑	TARGET QUAD NAME: MOULTON WEIR MAP YEAR: 1991	SITE NAME: Colusa Fee-To-Trust ADDRESS: 7076 Reese Road Colusa, CA 95932 LAT/LONG: 39.261 / 122.014	CLIENT: Analytical Environmental Serv. CONTACT: Melissa Oberti INQUIRY#: 248735.4 RESEARCH DATE: 05/08/2009
	SERIES: 7.5 SCALE: 1:24000		



PROJECT NO. 209520

DESIGNED BY: MO	SCALE: NTS	
DRAWN BY: MO	DATE: 08/09	

TOPOGRAPHIC MAP 1991

Phase I Environmental Site Assessment
 Colusa Indian Community 225-Acre
 Colusa, California 95932

APPENDIX C

SANBORN NO COVERAGE DOCUMENT

Certified Sanborn® Map Report

5/05/09

Site Name:
Colusa Fee-To-Trust
7076 Reese Road
Colusa, CA 95932

Client Name:
Analytical Environmental Serv.
1801 7th Street
Sacramento, CA 95811



EDR Inquiry # 2487235.3 Contact: Melissa Oberti

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Analytical Environmental Serv. were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: Colusa Fee-To-Trust
Address: 7076 Reese Road
City, State, Zip: Colusa, CA 95932
Cross Street:
P.O. # 209520
Project: Colusa Fee-To-T
Certification # 70BE-44F8-86ED



Sanborn® Library search results
Certification # 70BE-44F8-86EO

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

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APPENDIX D

ENVIRONMENTAL DATA RESOURCES (EDR) DATABASE REPORT

Colusa Fee-To-Trust

7076 Reese Road

Colusa, CA 95932

Inquiry Number: 02495194.1r

May 15, 2009

The EDR Radius Map™ Report with GeoCheck®



440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrmet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

7076 REESE ROAD
COLUSA, CA 95932

COORDINATES

Latitude (North): 39.261000 - 39° 15' 39.6"
Longitude (West): 122.014000 - 122° 0' 50.4"
Universal Tranverse Mercator: Zone 10
UTM X (Meters): 585067.9
UTM Y (Meters): 4345995.5
Elevation: 58 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 39122-C1 MOULTON WEIR, CA
Most Recent Revision: 1991

East Map: 39121-C8 SANBORN SLOUGH, CA
Most Recent Revision: 1973

South Map: 39122-B1 COLUSA, CA
Most Recent Revision: 1991

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 2006, 2005
Source: USDA

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List

EXECUTIVE SUMMARY

Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System

Federal CERCLIS NFRAP site List

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Transporters, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

State- and tribal - equivalent CERCLIS

ENVIROSTOR..... EnviroStor Database

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

LUST..... Geotracker's Leaking Underground Fuel Tank Report
SLIC..... Statewide SLIC Cases
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

UST..... Active UST Facilities

EXECUTIVE SUMMARY

AST..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Program Properties
INDIAN VCP..... Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
ODI..... Open Dump Inventory
WMUDS/SWAT..... Waste Management Unit Database
SWRCY..... Recycler Database
HAULERS..... Registered Waste Tire Haulers Listing
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL..... Clandestine Drug Labs
HIST Cal-Sites..... Historical Calsites Database
SCH..... School Property Evaluation Program
Toxic Pits..... Toxic Pits Cleanup Act Sites
CDL..... Clandestine Drug Labs

Local Lists of Registered Storage Tanks

CA FID UST..... Facility Inventory Database
HIST UST..... Hazardous Substance Storage Container Database
SWEEPS UST..... SWEEPS UST Listing

Local Land Records

LIENS 2..... CERCLA Lien Information
LUCIS..... Land Use Control Information System
LIENS..... Environmental Liens Listing
DEED..... Deed Restriction Listing

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
CHMIRS..... California Hazardous Material Incident Report System
LDS..... Land Disposal Sites Listing
MCS..... Military Cleanup Sites Listing

Other Ascertainable Records

RCRA-NonGen..... RCRA - Non Generators

EXECUTIVE SUMMARY

DOT OPS.....	Incident and Accident Data
DOD.....	Department of Defense Sites
FUDS.....	Formerly Used Defense Sites
CONSENT.....	Superfund (CERCLA) Consent Decrees
ROD.....	Records Of Decision
UMTRA.....	Uranium Mill Tailings Sites
MINES.....	Mines Master Index File
TRIS.....	Toxic Chemical Release Inventory System
TSCA.....	Toxic Substances Control Act
FTTS.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS.....	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS.....	Section 7 Tracking Systems
ICIS.....	Integrated Compliance Information System
PADS.....	PCB Activity Database System
MLTS.....	Material Licensing Tracking System
RADINFO.....	Radiation Information Database
FINDS.....	Facility Index System/Facility Registry System
RAATS.....	RCRA Administrative Action Tracking System
CA BOND EXP. PLAN.....	Bond Expenditure Plan
CA WDS.....	Waste Discharge System
Cortese.....	"Cortese" Hazardous Waste & Substances Sites List
HIST CORTESE.....	Hazardous Waste & Substance Site List
Notify 65.....	Proposition 65 Records
DRYCLEANERS.....	Cleaner Facilities
WIP.....	Well Investigation Program Case List
HAZNET.....	Facility and Manifest Data
EMI.....	Emissions Inventory Data
INDIAN RESERV.....	Indian Reservations
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants..... EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 11/12/2008 has revealed that there is 1 RCRA-SQG site within approximately 1.25 miles of the target property.

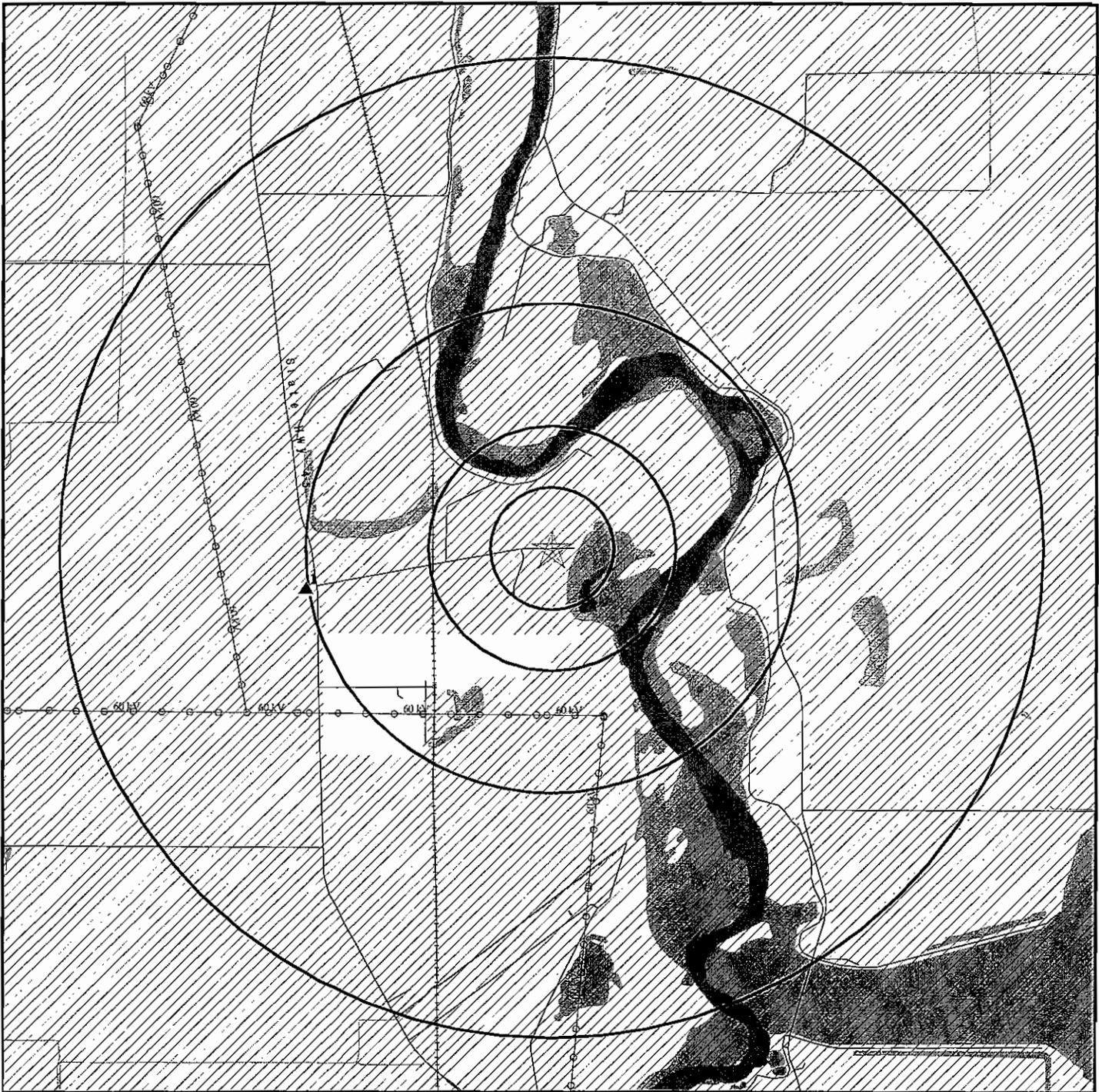
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
STEGALL BROS INC	HWY 45 AT REESE RD	W 1 - 2 (1.010 mi.)	1	7

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

<u>Site Name</u>	<u>Database(s)</u>
COLUSA AIRPORT	LUST, HIST CORTESE
J.R. SIMPLOT	FTTS, HIST FTTS
CLAYTON GODDARD	SWEEPS UST
OTENWALTER FARM SHOP	SWEEPS UST
4 OAKS RANCH	SWEEPS UST
COLUSA NATIONAL WILDLIFE REFUG/US	SWEEPS UST
44TH AGRICULTURAL ASSOCIATION	SWEEPS UST
HALSEY RANCH	SWEEPS UST
AMBAC EQUIP CO.	HAZNET, HIST UST, SWEEPS UST
CODORNIZ & CONWAY	SWEEPS UST
NORTH OF 4542 RIVER RD	CDL
HWY 20 AT MICHELL FLATS 10 MI	CHMIRS, SLIC
COLUSA COUNTY AIRPORT	LUST
COLUSA COUNTY FAIRGROUNDS	HIST UST
COLUSA COUNTY AIRPORT	HIST UST
BUCK BEELER FORD TRACTOR	HIST UST
I.G. ZUMWALT CO. BONEYARD	HIST UST
CODORNIZ & CONWAY	HIST UST
COLUSA COUNTY AIRPORT	AST
WESTERN READY-MIX/COLUSA FAC.	AST
COLUSA COUNTY AIRPORT	WMUDS/SWAT
J.R. SIMPLOT CO. COLUSA	HAZNET
COLUSA COUNTY AIRPORT	HAZNET
COLUSA AIRPORT	HAZNET
SIMPLOT SOILBUILDERS	HAZNET
ARNOLD'S	HAZNET
COLUSA JUNCTION SUB-STATION	HAZNET
COLUSA SIMPLOT SOILBUILDERS	FINDS
COLUSA RANCHERIA	FINDS
MILLER'S FLYING SERVICE	SLIC
BOWLES FLYING SERVICE	SLIC
SIMPLOT SOIL BUILDERS	SLIC
ONSTOTT DUSTERS	SLIC
COLUSA CO AIRPORT	CA WDS
COMMUNITY SCHOOL / SPECIAL EDUCATI	SCH, ENVIROSTOR
J.R. SIMPLOT	SSTS
J R SIMPLOT CO	SSTS
SIMPLOT SOILBUILDERS	SSTS
SPINETTI'S RAMCO OIL CO.	ENVIROSTOR
CODORNIZ & CONWAY	ENVIROSTOR
VALLEY AIR SERVICE LIMITED	ENVIROSTOR

OVERVIEW MAP - 02495194.1r

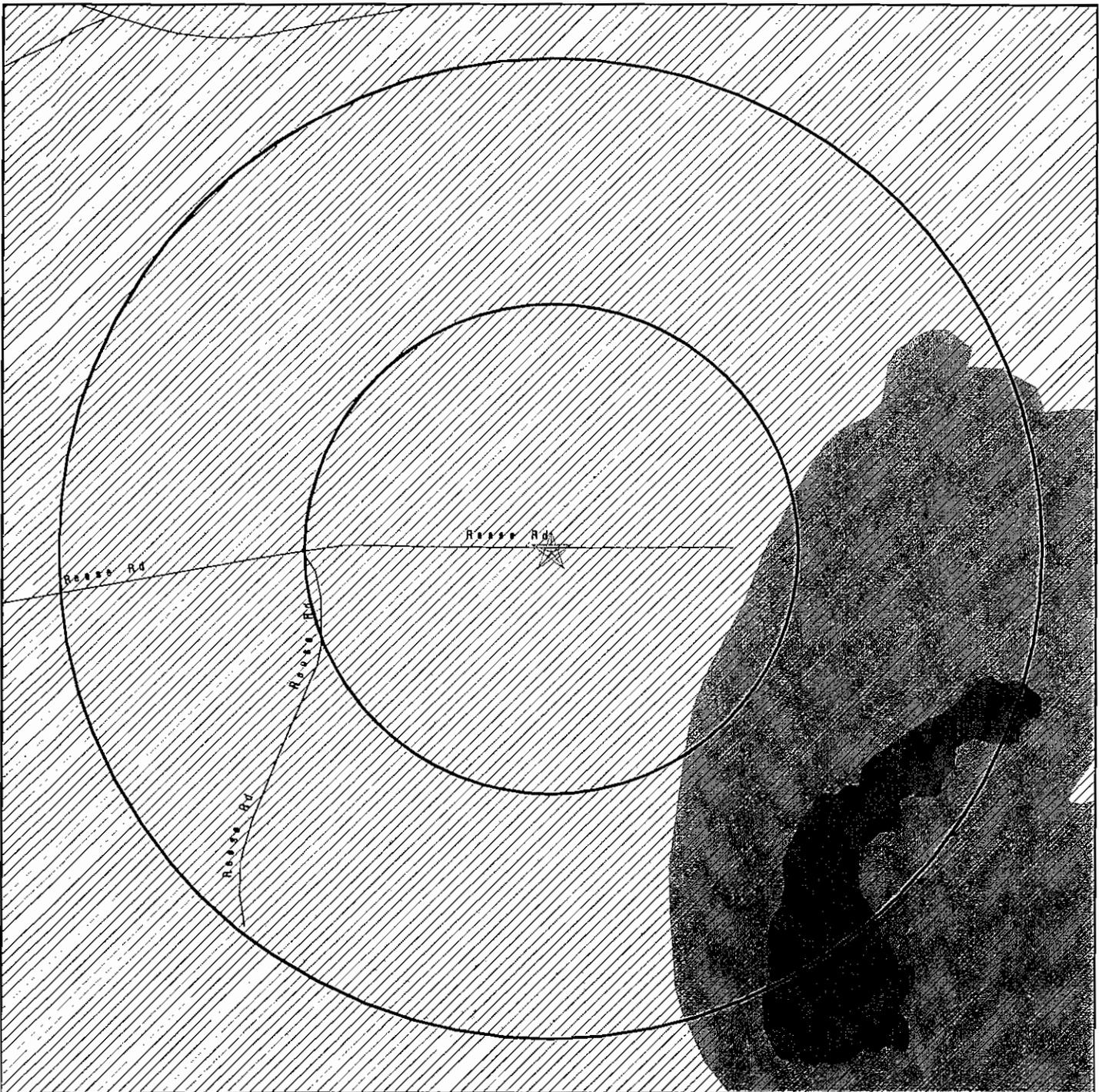


- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- ~ Power transmission lines
- ~ Oil & Gas pipelines
- ▨ 100-year flood zone
- ▨ 500-year flood zone
- National Wetland Inventory
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

<p>SITE NAME: Colusa Fee-To-Trust ADDRESS: 7076 Reese Road Colusa CA 95932 LAT/LONG: 39.2610 / 122.0140</p>	<p>CLIENT: Analytical Environmental Serv. CONTACT: Melissa Oberti INQUIRY #: 02495194.1r DATE: May 15, 2009 7:26 am</p>
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DETAIL MAP - 02495194.1r



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Manufactured Gas Plants
- ⚡ Sensitive Receptors
- 🏠 National Priority List Sites
- 🏠 Dept. Defense Sites

- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory

- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Colusa Fee-To-Trust
 ADDRESS: 7076 Reese Road
 Colusa CA 95932
 LAT/LONG: 39.2610 / 122.0140

CLIENT: Analytical Environmental Serv.
 CONTACT: Melissa Obert
 INQUIRY #: 02495194.1r
 DATE: May 15, 2009 7:26 am

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<u>STANDARD ENVIRONMENTAL RECORDS</u>								
<i>Federal NPL site list</i>								
NPL		2.000	0	0	0	0	0	0
Proposed NPL		2.000	0	0	0	0	0	0
NPL LIENS		1.000	0	0	0	0	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL		2.000	0	0	0	0	0	0
<i>Federal CERCLIS list</i>								
CERCLIS		1.500	0	0	0	0	0	0
<i>Federal CERCLIS NFRAP site List</i>								
CERC-NFRAP		1.500	0	0	0	0	0	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS		2.000	0	0	0	0	0	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF		1.500	0	0	0	0	0	0
<i>Federal RCRA generators list</i>								
RCRA-LQG		1.250	0	0	0	0	0	0
RCRA-SQG		1.250	0	0	0	0	1	1
RCRA-CESQG		1.250	0	0	0	0	0	0
<i>Federal institutional controls / engineering controls registries</i>								
US ENG CONTROLS		1.500	0	0	0	0	0	0
US INST CONTROL		1.500	0	0	0	0	0	0
<i>Federal ERNS list</i>								
ERNS		1.000	0	0	0	0	NR	0
<i>State- and tribal - equivalent NPL</i>								
RESPONSE		2.000	0	0	0	0	0	0
<i>State- and tribal - equivalent CERCLIS</i>								
ENVIROSTOR		2.000	0	0	0	0	0	0
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF		1.500	0	0	0	0	0	0
<i>State and tribal leaking storage tank lists</i>								
LUST		1.500	0	0	0	0	0	0
SLIC		1.500	0	0	0	0	0	0
INDIAN LUST		1.500	0	0	0	0	0	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
State and tribal registered storage tank lists								
UST		1.250	0	0	0	0	0	0
AST		1.250	0	0	0	0	0	0
INDIAN UST		1.250	0	0	0	0	0	0
State and tribal voluntary cleanup sites								
VCP		1.500	0	0	0	0	0	0
INDIAN VCP		1.500	0	0	0	0	0	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS		1.500	0	0	0	0	0	0
Local Lists of Landfill / Solid Waste Disposal Sites								
DEBRIS REGION 9		1.500	0	0	0	0	0	0
ODI		1.500	0	0	0	0	0	0
WMUDS/SWAT		1.500	0	0	0	0	0	0
SWRCY		1.500	0	0	0	0	0	0
HAULERS		1.000	0	0	0	0	NR	0
INDIAN ODI		1.500	0	0	0	0	0	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL		1.000	0	0	0	0	NR	0
HIST Cal-Sites		2.000	0	0	0	0	0	0
SCH		1.250	0	0	0	0	0	0
Toxic Pits		2.000	0	0	0	0	0	0
CDL		1.000	0	0	0	0	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST		1.250	0	0	0	0	0	0
HIST UST		1.250	0	0	0	0	0	0
SWEEPS UST		1.250	0	0	0	0	0	0
Local Land Records								
LIENS 2		1.000	0	0	0	0	NR	0
LUCIS		1.500	0	0	0	0	0	0
LIENS		1.000	0	0	0	0	NR	0
DEED		1.500	0	0	0	0	0	0
Records of Emergency Release Reports								
HMIRS		1.000	0	0	0	0	NR	0
CHMIRS		1.000	0	0	0	0	NR	0
LDS		1.000	0	0	0	0	NR	0
MCS		1.000	0	0	0	0	NR	0
Other Ascertainable Records								
RCRA-NonGen		1.250	0	0	0	0	0	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DOT OPS		1.000	0	0	0	0	NR	0
DOD		2.000	0	0	0	0	0	0
FUDS		2.000	0	0	0	0	0	0
CONSENT		2.000	0	0	0	0	0	0
ROD		2.000	0	0	0	0	0	0
UMTRA		1.500	0	0	0	0	0	0
MINES		1.250	0	0	0	0	0	0
TRIS		1.000	0	0	0	0	NR	0
TSCA		1.000	0	0	0	0	NR	0
FTTS		1.000	0	0	0	0	NR	0
HIST FTTS		1.000	0	0	0	0	NR	0
SSTS		1.000	0	0	0	0	NR	0
ICIS		1.000	0	0	0	0	NR	0
PADS		1.000	0	0	0	0	NR	0
MLTS		1.000	0	0	0	0	NR	0
RADINFO		1.000	0	0	0	0	NR	0
FINDS		1.000	0	0	0	0	NR	0
RAATS		1.000	0	0	0	0	NR	0
CA BOND EXP. PLAN		2.000	0	0	0	0	0	0
CA WDS		1.000	0	0	0	0	NR	0
Cortese		1.500	0	0	0	0	0	0
HIST CORTESE		1.500	0	0	0	0	0	0
Notify 65		2.000	0	0	0	0	0	0
DRYCLEANERS		1.250	0	0	0	0	0	0
WIP		1.250	0	0	0	0	0	0
HAZNET		1.000	0	0	0	0	NR	0
EMI		1.000	0	0	0	0	NR	0
INDIAN RESERV		2.000	0	0	0	0	0	0
SCRD DRYCLEANERS		1.500	0	0	0	0	0	0

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants	2.000	0	0	0	0	0	0	0
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NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

1
West
> 1
1.010 mi.
5333 ft.

STEGALL BROS INC
HWY 45 AT REESE RD
COLUSA, CA 95932

RCRA-SQG 1000232510
FINDS CAD982401721

Relative:
Higher

RCRA-SQG:

Actual:
64 ft.

Date form received by agency: 11/28/1989
 Facility name: STEGALL BROS INC
 Facility address: HWY 45 AT REESE RD
 COLUSA, CA 95932
 EPA ID: CAD982401721
 Mailing address: PO BOX 157
 COLUSA, CA 95932
 Contact: ENVIRONMENTAL MANAGER
 Contact address: HWY 45 AT REESE RD
 COLUSA, CA 95932
 Contact country: US
 Contact telephone: (916) 458-5510
 Contact email: Not reported
 EPA Region: 09
 Classification: Small Small Quantity Generator
 Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: KEN STEGALL
 Owner/operator address: NOT REQUIRED
 NOT REQUIRED, ME 99999
 Owner/operator country: Not reported
 Owner/operator telephone: (415) 555-1212
 Legal status: Private
 Owner/Operator Type: Owner
 Owner/Op start date: Not reported
 Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
 Owner/operator address: NOT REQUIRED
 NOT REQUIRED, ME 99999
 Owner/operator country: Not reported
 Owner/operator telephone: (415) 555-1212
 Legal status: Private
 Owner/Operator Type: Operator
 Owner/Op start date: Not reported
 Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: Unknown
 Mixed waste (haz. and radioactive): Unknown
 Recycler of hazardous waste: No
 Transporter of hazardous waste: No
 Treater, storer or disposer of HW: No
 Underground injection activity: No
 On-site burner exemption: Unknown
 Furnace exemption: Unknown

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

STEGALL BROS INC (Continued)

1000232510

Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site

Registry ID: 110008277060

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
COLUSA	S106924702	CLAYTON GODDARD	RR 1 BOX 285 HWY 45	95932	SWEEPS UST
COLUSA	S106930202	OTENWALTER FARM SHOP	RR 1 BOX 251 6 MI N HWY	95932	SWEEPS UST
COLUSA	U001616737	COLUSA COUNTY FAIRGROUNDS	HIGHWAY 20 - EAST OF COLUSA	95932	HIST UST
COLUSA	U001616736	COLUSA COUNTY AIRPORT	HIGHWAY 20	95932	HIST UST
COLUSA	S108748935	J.R. SIMPLOT CO. COLUSA	2947 HIGHWAY 20	95932	HAZNET
COLUSA	S106104149	COLUSA CO AIRPORT	2915 HIGHWAY 20	95932	CA WDS
COLUSA	S105023366	COLUSA AIRPORT	2817 HWY 20	95932	LUST, HIST CORTESE
COLUSA	S104403141	COLUSA COUNTY AIRPORT	2915 HWY 20	95932	LUST
COLUSA	S103958164	COLUSA COUNTY AIRPORT	2915 HWY 20	95932	HAZNET
COLUSA	S103958163	COLUSA AIRPORT	2915 HWY 20	95932	HAZNET
COLUSA	A100176073	COLUSA COUNTY AIRPORT	2915 HWY 20	95932	AST
COLUSA	A100110410	WESTERN READY-MIX/COLUSA FAC.	HWY. 20 & NIAGRA	95932	AST
COLUSA	1007992123	COLUSA SIMPLOT SOILBUILDERS	2947 HIGHWAY 20	95932	FINDS
COLUSA	1005431552	J.R. SIMPLOT	2947 HWY 20	95932	SSTS
COLUSA	S100350583	SPINETTI'S RAMCO OIL CO.	HWY 20 AT MERIDIAN BRIDGE	95932	ENVIROSTOR
COLUSA	S101479905	CODORNIZ & CONWAY	HIGHWAY 20 AT WESCOTT	95932	ENVIROSTOR
COLUSA	S103650198	SIMPLOT SOILBUILDERS	2947 HIGHWAY 20	95932	HAZNET
COLUSA	S103950954	ARNOLD'S	6956 HWY 20	95932	HAZNET
COLUSA	S106486649	MILLER'S FLYING SERVICE	2915 HIGHWAY 20 (COLUSA CO AIR	95932	SLIC
COLUSA	S106486780	BOWLES FLYING SERVICE	2915 HIGHWAY 20	95932	SLIC
COLUSA	S106922247	4 OAKS RANCH	1835 HIGHWAY 20	95932	SLIC
COLUSA	S108086649	SIMPLOT SOIL BUILDERS	2915 HIGHWAY 20	95932	SLIC
COLUSA	S108086663	ONSTOTT DUSTERS	2915 HIGHWAY 20	95932	SLIC
COLUSA	U001616724	BUCK BEELER FORD TRACTOR	HIGHWAY 20	95932	HIST UST
COLUSA	U010051377	COLUSA RANCHERIA	3730 HIGHWAY 45	95932	FINDS
COLUSA	U001616782	I.G. ZUMWALT CO. BONEYARD	HIGHWAY 45	95932	HIST UST
COLUSA	S106924817	COLUSA NATIONAL WILDLIFE REFUGIUS	BOX 2180 HIGHWAY 20	95932	SWEEPS UST
COLUSA	1009401520	J.R. SIMPLOT	P.O. BOX 850/2947 HWY 20	95932	FTTS, HIST FTTS
COLUSA	S106922249	44TH AGRICULTURAL ASSOCIATION	PO BOX 240 HWY 20 E OF COLUSA	95932	SWEEPS UST
COLUSA	S106927034	HALSEY RANCH	BROWN RD	95932	SWEEPS UST
COLUSA	1005431497	J R SIMPLOT CO	BUSTER RD HWY 45	95932	SSTS
COLUSA	U001616732	CODORNIZ & CONWAY	SO. CITY LIMITS HWY 45	95932	HIST UST
COLUSA	1005436829	SIMPLOT SOILBUILDERS	S COLUSA/GRIMES HWY	95932	SSTS
COLUSA	1000143917	AMBAC EQUIP CO.	1960 COLUSA/WILLIAMS HWY	95932	HAZNET, HIST UST, SWEEPS UST
COLUSA	S102804127	COLUSA JUNCTION SUB-STATION	1/4 MILE EAST OF HWY 20	95932	HAZNET
COLUSA	S101479892	VALLEY AIR SERVICE LIMITED	NUTTER ROAD / HIGHWAY 20	95932	ENVIROSTOR
COLUSA	S106924784	CODORNIZ & CONWAY	P O BOX 330/S CITY LIMITS HWY	95932	SWEEPS UST
COLUSA	S107539577	COMMUNITY SCHOOL / SPECIAL EDUCATI	NORTH OF 4542 RIVER RD	95932	CDL
COLUSA	S107736153	COLUSA COUNTY AIRPORT	WILSON ROAD/HIGHWAY 20	95932	SCH, ENVIROSTOR
COLUSA	S103442007	COLUSA COUNTY AIRPORT	HIGHWAY 45	95932	WMUDS/SWAT
COLUSA COUNTY	S105631701		HWY 20 AT MICHELL FLATS 10 MI	95932	CHMIRS, SLIC

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 02/02/2009	Source: EPA
Date Data Arrived at EDR: 02/12/2009	Telephone: N/A
Date Made Active in Reports: 03/30/2009	Last EDR Contact: 04/20/2009
Number of Days to Update: 46	Next Scheduled EDR Contact: 07/27/2009
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 02/02/2009	Source: EPA
Date Data Arrived at EDR: 02/12/2009	Telephone: N/A
Date Made Active in Reports: 03/30/2009	Last EDR Contact: 04/20/2009
Number of Days to Update: 46	Next Scheduled EDR Contact: 07/27/2009
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 02/16/2009
Number of Days to Update: 56	Next Scheduled EDR Contact: 05/18/2009
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 02/02/2009	Source: EPA
Date Data Arrived at EDR: 02/12/2009	Telephone: N/A
Date Made Active in Reports: 03/30/2009	Last EDR Contact: 04/20/2009
Number of Days to Update: 46	Next Scheduled EDR Contact: 07/27/2009
	Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 01/09/2009	Source: EPA
Date Data Arrived at EDR: 01/30/2009	Telephone: 703-412-9810
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 05/01/2009
Number of Days to Update: 101	Next Scheduled EDR Contact: 07/13/2009
	Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 12/03/2007	Source: EPA
Date Data Arrived at EDR: 12/06/2007	Telephone: 703-412-9810
Date Made Active in Reports: 02/20/2008	Last EDR Contact: 03/16/2009
Number of Days to Update: 76	Next Scheduled EDR Contact: 06/15/2009
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/25/2009	Source: EPA
Date Data Arrived at EDR: 04/02/2009	Telephone: 800-424-9346
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 03/03/2009
Number of Days to Update: 39	Next Scheduled EDR Contact: 06/01/2009
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Transporters, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/12/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 118

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/23/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 11/12/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 118

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/23/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 11/12/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 118

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/23/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 11/12/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 118

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/23/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/31/2009
Date Data Arrived at EDR: 04/22/2009
Date Made Active in Reports: 05/05/2009
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 03/30/2009
Next Scheduled EDR Contact: 06/29/2009
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/31/2009

Date Data Arrived at EDR: 04/22/2009

Date Made Active in Reports: 05/05/2009

Number of Days to Update: 13

Source: Environmental Protection Agency

Telephone: 703-603-0695

Last EDR Contact: 03/30/2009

Next Scheduled EDR Contact: 06/29/2009

Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2007

Date Data Arrived at EDR: 01/23/2008

Date Made Active in Reports: 03/17/2008

Number of Days to Update: 54

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180

Last EDR Contact: 05/12/2009

Next Scheduled EDR Contact: 07/20/2009

Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 02/23/2009

Date Data Arrived at EDR: 02/24/2009

Date Made Active in Reports: 04/08/2009

Number of Days to Update: 43

Source: Department of Toxic Substances Control

Telephone: 916-323-3400

Last EDR Contact: 02/24/2009

Next Scheduled EDR Contact: 05/25/2009

Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 02/23/2009

Date Data Arrived at EDR: 02/24/2009

Date Made Active in Reports: 04/08/2009

Number of Days to Update: 43

Source: Department of Toxic Substances Control

Telephone: 916-323-3400

Last EDR Contact: 02/24/2009

Next Scheduled EDR Contact: 05/25/2009

Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/09/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29

Source: Integrated Waste Management Board
Telephone: 916-341-6320
Last EDR Contact: 03/10/2009
Next Scheduled EDR Contact: 06/08/2009
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 04/13/2009
Next Scheduled EDR Contact: 07/13/2009
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 05/04/2009
Next Scheduled EDR Contact: 08/03/2009
Data Release Frequency: Varies

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 03/03/2009
Next Scheduled EDR Contact: 06/01/2009
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 02/16/2009
Next Scheduled EDR Contact: 05/18/2009
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 03/30/2009
Next Scheduled EDR Contact: 06/29/2009
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/08/2009
Date Data Arrived at EDR: 04/08/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 33

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 04/08/2009
Next Scheduled EDR Contact: 07/06/2009
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 02/16/2009
Next Scheduled EDR Contact: 05/18/2009
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 04/07/2009
Next Scheduled EDR Contact: 07/06/2009
Data Release Frequency: Quarterly

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 05/11/2009
Next Scheduled EDR Contact: 08/10/2009
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calaveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Quarterly

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/08/2009
Date Data Arrived at EDR: 04/08/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 33

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 04/08/2009
Next Scheduled EDR Contact: 07/06/2009
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 02/16/2009
Next Scheduled EDR Contact: 05/18/2008
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 04/07/2009
Next Scheduled EDR Contact: 07/06/2009
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 05/11/2009
Next Scheduled EDR Contact: 08/10/2009
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 03/30/2009
Next Scheduled EDR Contact: 06/29/2009
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 03/30/2009
Next Scheduled EDR Contact: 06/29/2009
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 03/03/2009
Next Scheduled EDR Contact: 06/01/2009
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 03/03/2009
Next Scheduled EDR Contact: 05/18/2009
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 03/30/2009
Next Scheduled EDR Contact: 06/29/2009
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 12/15/2008
Date Data Arrived at EDR: 12/16/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 90

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 04/17/2009
Next Scheduled EDR Contact: 05/18/2009
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 02/15/2009
Date Data Arrived at EDR: 02/27/2009
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 17

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 02/16/2009
Next Scheduled EDR Contact: 05/18/2009
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 03/03/2009	Source: EPA Region 10
Date Data Arrived at EDR: 03/04/2009	Telephone: 206-553-2857
Date Made Active in Reports: 03/30/2009	Last EDR Contact: 02/16/2009
Number of Days to Update: 26	Next Scheduled EDR Contact: 05/18/2009
	Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/01/2008	Source: EPA Region 7
Date Data Arrived at EDR: 12/03/2008	Telephone: 913-551-7003
Date Made Active in Reports: 12/23/2008	Last EDR Contact: 02/20/2009
Number of Days to Update: 20	Next Scheduled EDR Contact: 05/18/2009
	Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 03/13/2009	Source: EPA Region 8
Date Data Arrived at EDR: 03/17/2009	Telephone: 303-312-6271
Date Made Active in Reports: 03/30/2009	Last EDR Contact: 02/16/2009
Number of Days to Update: 13	Next Scheduled EDR Contact: 05/18/2009
	Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/19/2009	Source: EPA Region 1
Date Data Arrived at EDR: 02/19/2009	Telephone: 617-918-1313
Date Made Active in Reports: 03/16/2009	Last EDR Contact: 02/16/2009
Number of Days to Update: 25	Next Scheduled EDR Contact: 05/18/2009
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/24/2009	Source: EPA Region 4
Date Data Arrived at EDR: 03/03/2009	Telephone: 404-562-8677
Date Made Active in Reports: 05/05/2009	Last EDR Contact: 02/16/2009
Number of Days to Update: 63	Next Scheduled EDR Contact: 05/18/2009
	Data Release Frequency: Semi-Annually

State and tribal registered storage tank lists

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 04/08/2009	Source: SWRCB
Date Data Arrived at EDR: 04/08/2009	Telephone: 916-480-1028
Date Made Active in Reports: 05/14/2009	Last EDR Contact: 04/08/2009
Number of Days to Update: 36	Next Scheduled EDR Contact: 07/06/2009
	Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
Registered Aboveground Storage Tanks.

Date of Government Version: 11/01/2007	Source: State Water Resources Control Board
Date Data Arrived at EDR: 02/10/2009	Telephone: 916-341-5712
Date Made Active in Reports: 04/14/2009	Last EDR Contact: 05/11/2009
Number of Days to Update: 63	Next Scheduled EDR Contact: 07/27/2009
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/19/2009	Source: EPA, Region 1
Date Data Arrived at EDR: 02/19/2009	Telephone: 617-918-1313
Date Made Active in Reports: 03/16/2009	Last EDR Contact: 02/16/2009
Number of Days to Update: 25	Next Scheduled EDR Contact: 05/18/2009
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 02/24/2009	Source: EPA Region 4
Date Data Arrived at EDR: 03/03/2009	Telephone: 404-562-9424
Date Made Active in Reports: 05/05/2009	Last EDR Contact: 02/16/2009
Number of Days to Update: 63	Next Scheduled EDR Contact: 05/18/2009
	Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 09/08/2008	Source: EPA Region 5
Date Data Arrived at EDR: 09/19/2008	Telephone: 312-886-6136
Date Made Active in Reports: 10/16/2008	Last EDR Contact: 02/16/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 05/18/2009
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/06/2009	Source: EPA Region 6
Date Data Arrived at EDR: 04/07/2009	Telephone: 214-665-7591
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 02/16/2009
Number of Days to Update: 34	Next Scheduled EDR Contact: 05/18/2009
	Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/01/2008	Source: EPA Region 7
Date Data Arrived at EDR: 12/30/2008	Telephone: 913-551-7003
Date Made Active in Reports: 03/16/2009	Last EDR Contact: 02/20/2009
Number of Days to Update: 76	Next Scheduled EDR Contact: 05/18/2009
	Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 03/13/2009	Source: EPA Region 8
Date Data Arrived at EDR: 03/17/2009	Telephone: 303-312-6137
Date Made Active in Reports: 03/30/2009	Last EDR Contact: 02/16/2009
Number of Days to Update: 13	Next Scheduled EDR Contact: 05/18/2009
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 03/03/2009	Source: EPA Region 10
Date Data Arrived at EDR: 03/04/2009	Telephone: 206-553-2857
Date Made Active in Reports: 03/30/2009	Last EDR Contact: 02/16/2009
Number of Days to Update: 26	Next Scheduled EDR Contact: 05/18/2009
	Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 12/15/2008	Source: EPA Region 9
Date Data Arrived at EDR: 12/16/2008	Telephone: 415-972-3368
Date Made Active in Reports: 03/16/2009	Last EDR Contact: 04/17/2009
Number of Days to Update: 90	Next Scheduled EDR Contact: 05/18/2009
	Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 04/02/2008	Source: EPA, Region 1
Date Data Arrived at EDR: 04/22/2008	Telephone: 617-918-1102
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 02/23/2009	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 02/24/2009	Telephone: 916-323-3400
Date Made Active in Reports: 04/08/2009	Last EDR Contact: 02/24/2009
Number of Days to Update: 43	Next Scheduled EDR Contact: 05/25/2009
	Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 10/01/2008	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/14/2008	Telephone: 202-566-2777
Date Made Active in Reports: 12/23/2008	Last EDR Contact: 04/17/2009
Number of Days to Update: 39	Next Scheduled EDR Contact: 07/13/2009
	Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 03/25/2008	Source: EPA, Region 9
Date Data Arrived at EDR: 04/17/2008	Telephone: 415-972-3336
Date Made Active in Reports: 05/15/2008	Last EDR Contact: 04/07/2009
Number of Days to Update: 28	Next Scheduled EDR Contact: 06/22/2009
	Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000	Source: State Water Resources Control Board
Date Data Arrived at EDR: 04/10/2000	Telephone: 916-227-4448
Date Made Active in Reports: 05/10/2000	Last EDR Contact: 03/04/2009
Number of Days to Update: 30	Next Scheduled EDR Contact: 06/01/2009
	Data Release Frequency: Quarterly

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 04/07/2009	Source: Department of Conservation
Date Data Arrived at EDR: 04/08/2009	Telephone: 916-323-3836
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 04/08/2009
Number of Days to Update: 33	Next Scheduled EDR Contact: 07/06/2009
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 04/07/2009

Date Data Arrived at EDR: 04/07/2009

Date Made Active in Reports: 05/11/2009

Number of Days to Update: 34

Source: Integrated Waste Management Board

Telephone: 916-341-6422

Last EDR Contact: 04/07/2009

Next Scheduled EDR Contact: 06/08/2009

Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998

Date Data Arrived at EDR: 12/03/2007

Date Made Active in Reports: 01/24/2008

Number of Days to Update: 52

Source: Environmental Protection Agency

Telephone: 703-308-8245

Last EDR Contact: 02/23/2009

Next Scheduled EDR Contact: 05/25/2009

Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 07/01/2008

Date Data Arrived at EDR: 10/31/2008

Date Made Active in Reports: 12/23/2008

Number of Days to Update: 53

Source: Drug Enforcement Administration

Telephone: 202-307-1000

Last EDR Contact: 03/26/2009

Next Scheduled EDR Contact: 06/22/2009

Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005

Date Data Arrived at EDR: 08/03/2006

Date Made Active in Reports: 08/24/2006

Number of Days to Update: 21

Source: Department of Toxic Substance Control

Telephone: 916-323-3400

Last EDR Contact: 02/23/2009

Next Scheduled EDR Contact: 05/25/2009

Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 02/23/2009

Date Data Arrived at EDR: 02/24/2009

Date Made Active in Reports: 04/08/2009

Number of Days to Update: 43

Source: Department of Toxic Substances Control

Telephone: 916-323-3400

Last EDR Contact: 02/24/2009

Next Scheduled EDR Contact: 05/25/2009

Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 09/30/2008
Date Data Arrived at EDR: 10/06/2008
Date Made Active in Reports: 10/13/2008
Number of Days to Update: 7

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 04/24/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 04/07/2009
Date Data Arrived at EDR: 04/07/2009
Date Made Active in Reports: 05/14/2009
Number of Days to Update: 37

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 04/07/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: Varies

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/06/2009	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/20/2009	Telephone: 202-564-6023
Date Made Active in Reports: 05/05/2009	Last EDR Contact: 03/03/2009
Number of Days to Update: 46	Next Scheduled EDR Contact: 05/18/2009
	Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005	Source: Department of the Navy
Date Data Arrived at EDR: 12/11/2006	Telephone: 843-820-7326
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 03/09/2009
Number of Days to Update: 31	Next Scheduled EDR Contact: 06/08/2009
	Data Release Frequency: Varies

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 02/13/2009	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 02/17/2009	Telephone: 916-323-3400
Date Made Active in Reports: 04/08/2009	Last EDR Contact: 05/04/2009
Number of Days to Update: 50	Next Scheduled EDR Contact: 08/03/2009
	Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/30/2009	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 03/31/2009	Telephone: 916-323-3400
Date Made Active in Reports: 04/08/2009	Last EDR Contact: 12/30/2009
Number of Days to Update: 8	Next Scheduled EDR Contact: 06/29/2009
	Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2008	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 01/30/2009	Telephone: 202-366-4555
Date Made Active in Reports: 05/05/2009	Last EDR Contact: 04/16/2009
Number of Days to Update: 95	Next Scheduled EDR Contact: 07/13/2009
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 05/09/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 42

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 02/16/2009
Next Scheduled EDR Contact: 05/18/2009
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 04/08/2009
Date Data Arrived at EDR: 04/08/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 33

Source: State Water Quality Control Board
Telephone: 866-480-1028
Last EDR Contact: 04/08/2009
Next Scheduled EDR Contact: 07/06/2009
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 04/08/2009
Date Data Arrived at EDR: 04/08/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 33

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 04/08/2009
Next Scheduled EDR Contact: 07/06/2009
Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 11/12/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 118

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/23/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 05/14/2008
Date Data Arrived at EDR: 05/28/2008
Date Made Active in Reports: 08/08/2008
Number of Days to Update: 72

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 02/24/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 703-692-8801
Last EDR Contact: 05/08/2009
Next Scheduled EDR Contact: 08/03/2009
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 09/05/2008
Date Made Active in Reports: 09/23/2008
Number of Days to Update: 18

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 03/30/2009
Next Scheduled EDR Contact: 06/29/2009
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 01/27/2009
Date Data Arrived at EDR: 04/23/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 18

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/21/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 01/27/2009
Date Data Arrived at EDR: 02/04/2009
Date Made Active in Reports: 05/05/2009
Number of Days to Update: 90

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/30/2009
Next Scheduled EDR Contact: 06/29/2009
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 01/05/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 05/08/2009
Number of Days to Update: 1

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 03/16/2009
Next Scheduled EDR Contact: 06/15/2009
Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/19/2009
Date Data Arrived at EDR: 03/24/2009
Date Made Active in Reports: 05/05/2009
Number of Days to Update: 42

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 03/24/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 04/09/2009
Next Scheduled EDR Contact: 06/15/2009
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002
Date Data Arrived at EDR: 04/14/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 46

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 04/14/2009
Next Scheduled EDR Contact: 07/13/2009
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 03/16/2009
Next Scheduled EDR Contact: 06/15/2009
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 03/16/2009
Next Scheduled EDR Contact: 06/15/2009
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 03/14/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 12/04/2008
Next Scheduled EDR Contact: 07/13/2009
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 03/20/2009
Date Data Arrived at EDR: 03/20/2009
Date Made Active in Reports: 05/05/2009
Number of Days to Update: 46

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 04/13/2009
Next Scheduled EDR Contact: 07/13/2009
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 12/04/2007
Date Data Arrived at EDR: 02/07/2008
Date Made Active in Reports: 03/17/2008
Number of Days to Update: 39

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 05/04/2009
Next Scheduled EDR Contact: 08/03/2009
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/07/2009
Date Data Arrived at EDR: 01/15/2009
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 74

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 03/30/2009
Next Scheduled EDR Contact: 06/29/2009
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/28/2009
Date Data Arrived at EDR: 04/29/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/29/2009
Next Scheduled EDR Contact: 07/27/2009
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 01/20/2009	Source: EPA
Date Data Arrived at EDR: 01/23/2009	Telephone: (415) 947-8000
Date Made Active in Reports: 05/05/2009	Last EDR Contact: 03/30/2009
Number of Days to Update: 102	Next Scheduled EDR Contact: 06/29/2009
	Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2005	Source: EPA/NTIS
Date Data Arrived at EDR: 03/06/2007	Telephone: 800-424-9346
Date Made Active in Reports: 04/13/2007	Last EDR Contact: 02/19/2009
Number of Days to Update: 38	Next Scheduled EDR Contact: 06/08/2009
	Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989	Source: Department of Health Services
Date Data Arrived at EDR: 07/27/1994	Telephone: 916-255-2118
Date Made Active in Reports: 08/02/1994	Last EDR Contact: 05/31/1994
Number of Days to Update: 6	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

CA WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/20/2007	Telephone: 916-341-5227
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 03/16/2009
Number of Days to Update: 9	Next Scheduled EDR Contact: 06/15/2009
	Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/20/2009
Date Data Arrived at EDR: 04/22/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 19

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 04/22/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSTATES].

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records

Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 04/13/2009
Next Scheduled EDR Contact: 07/13/2009
Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial laundries; laundry and garment services.

Date of Government Version: 05/06/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 4

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 04/17/2009
Next Scheduled EDR Contact: 03/30/2009
Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 03/31/2009
Date Data Arrived at EDR: 04/24/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 17

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 04/24/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 02/17/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 50

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 05/08/2009
Next Scheduled EDR Contact: 08/03/2009
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2006	Source: California Air Resources Board
Date Data Arrived at EDR: 10/16/2008	Telephone: 916-322-2990
Date Made Active in Reports: 11/26/2008	Last EDR Contact: 04/17/2009
Number of Days to Update: 41	Next Scheduled EDR Contact: 04/13/2009
	Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 12/08/2006	Telephone: 202-208-3710
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 05/08/2009
Number of Days to Update: 34	Next Scheduled EDR Contact: 08/03/2009
	Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 12/08/2008	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/09/2008	Telephone: 615-532-8599
Date Made Active in Reports: 03/16/2009	Last EDR Contact: 05/11/2009
Number of Days to Update: 97	Next Scheduled EDR Contact: 08/10/2009
	Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administered lands of the United States. Lands included are administered by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005	Source: U.S. Geological Survey
Date Data Arrived at EDR: 02/06/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 05/08/2009
Number of Days to Update: 339	Next Scheduled EDR Contact: 08/03/2009
	Data Release Frequency: N/A

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 04/24/2009	Source: Alameda County Environmental Health Services
Date Data Arrived at EDR: 04/28/2009	Telephone: 510-567-6700
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 04/20/2009
Number of Days to Update: 13	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 04/24/2009	Source: Alameda County Environmental Health Services
Date Data Arrived at EDR: 04/28/2009	Telephone: 510-567-6700
Date Made Active in Reports: 05/14/2009	Last EDR Contact: 04/20/2009
Number of Days to Update: 16	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 02/24/2009	Source: Contra Costa Health Services Department
Date Data Arrived at EDR: 02/25/2009	Telephone: 925-646-2286
Date Made Active in Reports: 04/08/2009	Last EDR Contact: 02/23/2009
Number of Days to Update: 24	Next Scheduled EDR Contact: 05/25/2009
	Data Release Frequency: Semi-Annually

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 04/17/2009	Source: Dept. of Community Health
Date Data Arrived at EDR: 04/17/2009	Telephone: 559-445-3271
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 05/04/2009
Number of Days to Update: 24	Next Scheduled EDR Contact: 08/03/2009
	Data Release Frequency: Semi-Annually

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing Kern County Sites and Tanks Listing.

Date of Government Version: 03/30/2009	Source: Kern County Environment Health Services Department
Date Data Arrived at EDR: 03/31/2009	Telephone: 661-862-8700
Date Made Active in Reports: 04/09/2009	Last EDR Contact: 03/30/2009
Number of Days to Update: 9	Next Scheduled EDR Contact: 06/01/2009
	Data Release Frequency: Quarterly

LOS ANGELES COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 12/31/1998	Source: EPA Region 9
Date Data Arrived at EDR: 07/07/1999	Telephone: 415-972-3178
Date Made Active in Reports: N/A	Last EDR Contact: 04/13/2009
Number of Days to Update: 0	Next Scheduled EDR Contact: 07/13/2009
	Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 11/26/2008	Source: Department of Public Works
Date Data Arrived at EDR: 01/27/2009	Telephone: 626-458-3517
Date Made Active in Reports: 04/08/2009	Last EDR Contact: 05/11/2009
Number of Days to Update: 71	Next Scheduled EDR Contact: 08/10/2009
	Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/21/2009	Source: La County Department of Public Works
Date Data Arrived at EDR: 04/21/2009	Telephone: 818-458-5185
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 05/12/2009
Number of Days to Update: 20	Next Scheduled EDR Contact: 08/10/2009
	Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009	Source: Engineering & Construction Division
Date Data Arrived at EDR: 03/10/2009	Telephone: 213-473-7869
Date Made Active in Reports: 04/08/2009	Last EDR Contact: 03/10/2009
Number of Days to Update: 29	Next Scheduled EDR Contact: 06/08/2009
	Data Release Frequency: Varies

Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 02/11/2009	Source: Community Health Services
Date Data Arrived at EDR: 04/23/2009	Telephone: 323-890-7806
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 05/11/2009
Number of Days to Update: 18	Next Scheduled EDR Contact: 08/10/2009
	Data Release Frequency: Annually

City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 02/09/2009	Source: City of El Segundo Fire Department
Date Data Arrived at EDR: 02/17/2009	Telephone: 310-524-2236
Date Made Active in Reports: 04/09/2009	Last EDR Contact: 05/11/2009
Number of Days to Update: 51	Next Scheduled EDR Contact: 08/10/2009
	Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003	Source: City of Long Beach Fire Department
Date Data Arrived at EDR: 10/23/2003	Telephone: 562-570-2563
Date Made Active in Reports: 11/26/2003	Last EDR Contact: 02/20/2009
Number of Days to Update: 34	Next Scheduled EDR Contact: 05/18/2009
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 02/23/2009
Date Data Arrived at EDR: 02/24/2009
Date Made Active in Reports: 04/09/2009
Number of Days to Update: 44

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 05/11/2009
Next Scheduled EDR Contact: 08/10/2009
Data Release Frequency: Semi-Annually

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 02/05/2009
Date Data Arrived at EDR: 02/17/2009
Date Made Active in Reports: 04/09/2009
Number of Days to Update: 51

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 04/27/2009
Next Scheduled EDR Contact: 07/27/2009
Data Release Frequency: Semi-Annually

NAPA COUNTY:

Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 07/09/2008
Date Data Arrived at EDR: 07/09/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 22

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: Semi-Annually

Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: Annually

ORANGE COUNTY:

List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

Date of Government Version: 03/02/2009
Date Data Arrived at EDR: 03/18/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 21

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 03/05/2009
Next Scheduled EDR Contact: 06/01/2009
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 03/02/2009
Date Data Arrived at EDR: 03/27/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 12

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 03/05/2009
Next Scheduled EDR Contact: 06/01/2009
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 03/02/2009	Source: Health Care Agency
Date Data Arrived at EDR: 03/18/2009	Telephone: 714-834-3446
Date Made Active in Reports: 04/09/2009	Last EDR Contact: 12/02/2009
Number of Days to Update: 22	Next Scheduled EDR Contact: 06/01/2009
	Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 04/27/2009	Source: Placer County Health and Human Services
Date Data Arrived at EDR: 04/28/2009	Telephone: 530-889-7312
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 04/03/2009
Number of Days to Update: 13	Next Scheduled EDR Contact: 06/29/2009
	Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/14/2009	Source: Department of Public Health
Date Data Arrived at EDR: 04/15/2009	Telephone: 951-358-5055
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 04/13/2009
Number of Days to Update: 26	Next Scheduled EDR Contact: 07/13/2009
	Data Release Frequency: Quarterly

Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 05/06/2009	Source: Health Services Agency
Date Data Arrived at EDR: 05/07/2009	Telephone: 951-358-5055
Date Made Active in Reports: 05/14/2009	Last EDR Contact: 04/13/2009
Number of Days to Update: 7	Next Scheduled EDR Contact: 07/13/2009
	Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Contaminated Sites

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/04/2009	Source: Sacramento County Environmental Management
Date Data Arrived at EDR: 04/29/2009	Telephone: 916-875-8406
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 04/29/2009
Number of Days to Update: 12	Next Scheduled EDR Contact: 07/27/2009
	Data Release Frequency: Quarterly

ML - Regulatory Compliance Master List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/04/2009	Source: Sacramento County Environmental Management
Date Data Arrived at EDR: 04/29/2009	Telephone: 916-875-8406
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 04/29/2009
Number of Days to Update: 12	Next Scheduled EDR Contact: 07/27/2009
	Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 04/08/2009	Source: San Bernardino County Fire Department Hazardous Materials Division
Date Data Arrived at EDR: 04/08/2009	Telephone: 909-387-3041
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 03/03/2009
Number of Days to Update: 33	Next Scheduled EDR Contact: 06/01/2009
	Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 07/16/2008	Source: Hazardous Materials Management Division
Date Data Arrived at EDR: 10/29/2008	Telephone: 619-338-2268
Date Made Active in Reports: 11/26/2008	Last EDR Contact: 04/03/2009
Number of Days to Update: 28	Next Scheduled EDR Contact: 06/29/2009
	Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 11/01/2008	Source: Department of Health Services
Date Data Arrived at EDR: 12/23/2008	Telephone: 619-338-2209
Date Made Active in Reports: 01/27/2009	Last EDR Contact: 02/16/2009
Number of Days to Update: 35	Next Scheduled EDR Contact: 11/17/2008
	Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 01/22/2009	Source: San Diego County Department of Environmental Health
Date Data Arrived at EDR: 03/31/2009	Telephone: 619-338-2371
Date Made Active in Reports: 04/08/2009	Last EDR Contact: 03/31/2009
Number of Days to Update: 8	Next Scheduled EDR Contact: 06/29/2009
	Data Release Frequency: Varies

SAN FRANCISCO COUNTY:

Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008	Source: Department Of Public Health San Francisco County
Date Data Arrived at EDR: 09/19/2008	Telephone: 415-252-3920
Date Made Active in Reports: 09/29/2008	Last EDR Contact: 03/30/2009
Number of Days to Update: 10	Next Scheduled EDR Contact: 06/01/2009
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008	Source: Department of Public Health
Date Data Arrived at EDR: 09/19/2008	Telephone: 415-252-3920
Date Made Active in Reports: 10/01/2008	Last EDR Contact: 03/16/2009
Number of Days to Update: 12	Next Scheduled EDR Contact: 06/01/2009
	Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 02/10/2009	Source: Environmental Health Department
Date Data Arrived at EDR: 02/25/2009	Telephone: N/A
Date Made Active in Reports: 04/09/2009	Last EDR Contact: 04/13/2009
Number of Days to Update: 43	Next Scheduled EDR Contact: 07/13/2009
	Data Release Frequency: Semi-Annually

SAN MATEO COUNTY:

Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 04/29/2009	Source: San Mateo County Environmental Health Services Division
Date Data Arrived at EDR: 05/01/2009	Telephone: 650-363-1921
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 04/07/2009
Number of Days to Update: 10	Next Scheduled EDR Contact: 07/06/2009
	Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 04/07/2009	Source: San Mateo County Environmental Health Services Division
Date Data Arrived at EDR: 04/07/2009	Telephone: 650-363-1921
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 04/07/2009
Number of Days to Update: 34	Next Scheduled EDR Contact: 07/06/2009
	Data Release Frequency: Semi-Annually

SANTA CLARA COUNTY:

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005	Source: Santa Clara Valley Water District
Date Data Arrived at EDR: 03/30/2005	Telephone: 408-265-2600
Date Made Active in Reports: 04/21/2005	Last EDR Contact: 03/23/2009
Number of Days to Update: 22	Next Scheduled EDR Contact: 06/22/2009
	Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 12/29/2008	Source: Department of Environmental Health
Date Data Arrived at EDR: 12/29/2008	Telephone: 408-918-3417
Date Made Active in Reports: 01/27/2009	Last EDR Contact: 05/04/2009
Number of Days to Update: 29	Next Scheduled EDR Contact: 06/22/2009
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 03/03/2009	Source: City of San Jose Fire Department
Date Data Arrived at EDR: 03/03/2009	Telephone: 408-277-4659
Date Made Active in Reports: 04/08/2009	Last EDR Contact: 03/03/2009
Number of Days to Update: 36	Next Scheduled EDR Contact: 06/01/2009
	Data Release Frequency: Annually

SOLANO COUNTY:

Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 03/23/2009	Source: Solano County Department of Environmental Management
Date Data Arrived at EDR: 04/07/2009	Telephone: 707-784-6770
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 03/23/2009
Number of Days to Update: 34	Next Scheduled EDR Contact: 06/22/2009
	Data Release Frequency: Quarterly

Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 03/23/2009	Source: Solano County Department of Environmental Management
Date Data Arrived at EDR: 04/10/2009	Telephone: 707-784-6770
Date Made Active in Reports: 05/14/2009	Last EDR Contact: 03/23/2009
Number of Days to Update: 34	Next Scheduled EDR Contact: 06/22/2009
	Data Release Frequency: Quarterly

SONOMA COUNTY:

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/20/2009	Source: Department of Health Services
Date Data Arrived at EDR: 04/21/2009	Telephone: 707-565-6565
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 04/20/2009
Number of Days to Update: 30	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 04/01/2009	Source: Sutter County Department of Agriculture
Date Data Arrived at EDR: 04/02/2009	Telephone: 530-822-7500
Date Made Active in Reports: 04/09/2009	Last EDR Contact: 03/30/2009
Number of Days to Update: 7	Next Scheduled EDR Contact: 06/29/2009
	Data Release Frequency: Semi-Annually

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/26/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 8

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/10/2009
Next Scheduled EDR Contact: 06/08/2009
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 08/01/2008
Date Data Arrived at EDR: 09/04/2008
Date Made Active in Reports: 09/18/2008
Number of Days to Update: 14

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/16/2009
Next Scheduled EDR Contact: 05/18/2009
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/09/2009
Next Scheduled EDR Contact: 06/08/2009
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 03/31/2009
Date Data Arrived at EDR: 04/08/2009
Date Made Active in Reports: 05/14/2009
Number of Days to Update: 36

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/08/2009
Next Scheduled EDR Contact: 07/06/2009
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 04/21/2009
Date Data Arrived at EDR: 05/06/2009
Date Made Active in Reports: 05/14/2009
Number of Days to Update: 8

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 04/13/2009
Next Scheduled EDR Contact: 07/13/2009
Data Release Frequency: Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 12/11/2008
Date Made Active in Reports: 03/19/2009
Number of Days to Update: 98

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 03/13/2009
Next Scheduled EDR Contact: 06/08/2009
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 09/30/2007

Date Data Arrived at EDR: 12/04/2007

Date Made Active in Reports: 12/31/2007

Number of Days to Update: 27

Source: Department of Environmental Protection

Telephone: N/A

Last EDR Contact: 05/05/2009

Next Scheduled EDR Contact: 08/03/2009

Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/27/2009

Date Data Arrived at EDR: 02/25/2009

Date Made Active in Reports: 03/12/2009

Number of Days to Update: 15

Source: Department of Environmental Conservation

Telephone: 518-402-8651

Last EDR Contact: 02/25/2009

Next Scheduled EDR Contact: 05/25/2009

Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2007

Date Data Arrived at EDR: 09/11/2008

Date Made Active in Reports: 10/02/2008

Number of Days to Update: 21

Source: Department of Environmental Protection

Telephone: N/A

Last EDR Contact: 03/09/2009

Next Scheduled EDR Contact: 06/08/2009

Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2008

Date Data Arrived at EDR: 02/12/2009

Date Made Active in Reports: 03/11/2009

Number of Days to Update: 27

Source: Department of Environmental Management

Telephone: 401-222-2797

Last EDR Contact: 03/16/2009

Next Scheduled EDR Contact: 06/15/2009

Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2007

Date Data Arrived at EDR: 08/22/2008

Date Made Active in Reports: 09/08/2008

Number of Days to Update: 17

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 04/07/2009

Next Scheduled EDR Contact: 07/06/2009

Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data

Source: PennWell Corporation

Telephone: (800) 823-6277

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities

Source: Department of Social Services

Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK® - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

COLUSA FEE-TO-TRUST
7076 REESE ROAD
COLUSA, CA 95932

TARGET PROPERTY COORDINATES

Latitude (North): 39.26100 - 39° 15' 39.6"
Longitude (West): 122.014 - 122° 0' 50.4"
Universal Transverse Mercator: Zone 10
UTM X (Meters): 585067.9
UTM Y (Meters): 4345995.5
Elevation: 58 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map: 39122-C1 MOULTON WEIR, CA
Most Recent Revision: 1991

East Map: 39121-C8 SANBORN SLOUGH, CA
Most Recent Revision: 1973

South Map: 39122-B1 COLUSA, CA
Most Recent Revision: 1991

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

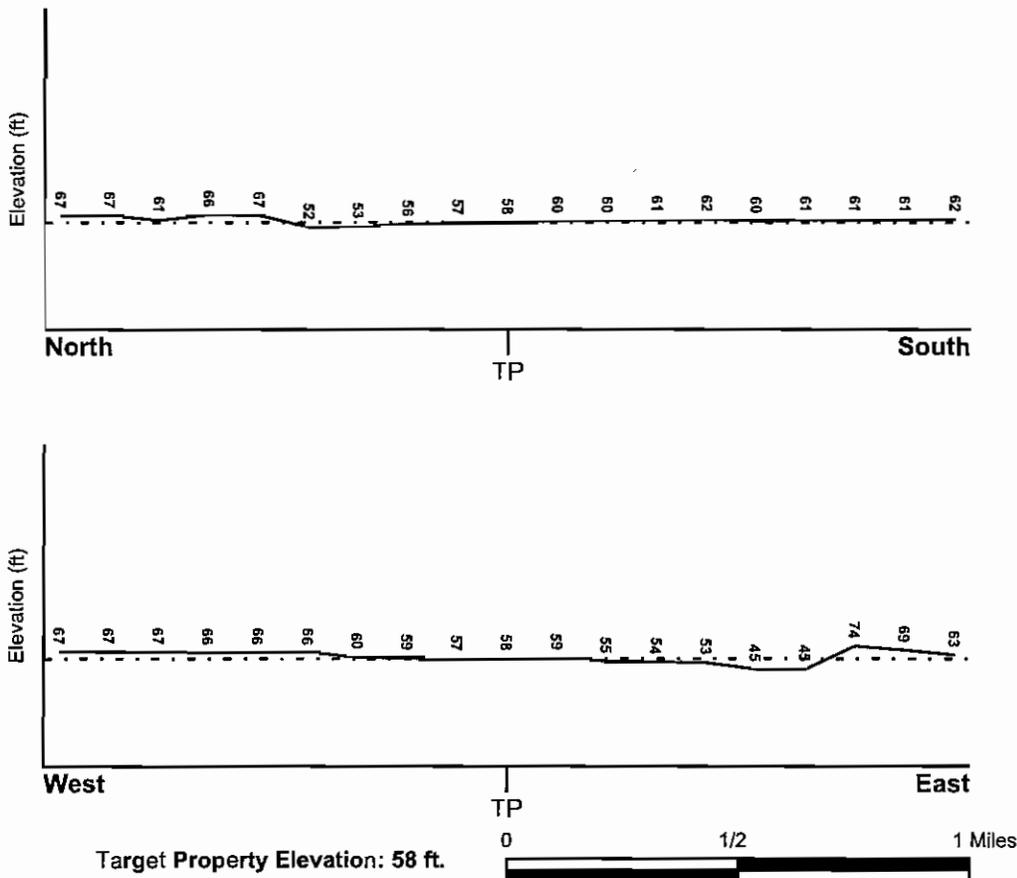
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Target Property County</u> COLUSA, CA	<u>FEMA Flood Electronic Data</u> YES - refer to the Overview Map and Detail Map
Flood Plain Panel at Target Property:	0600220023C
Additional Panels in search area:	Not Reported

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u> MOULTON WEIR	<u>NWI Electronic Data Coverage</u> YES - refer to the Overview Map and Detail Map
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HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data:*

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

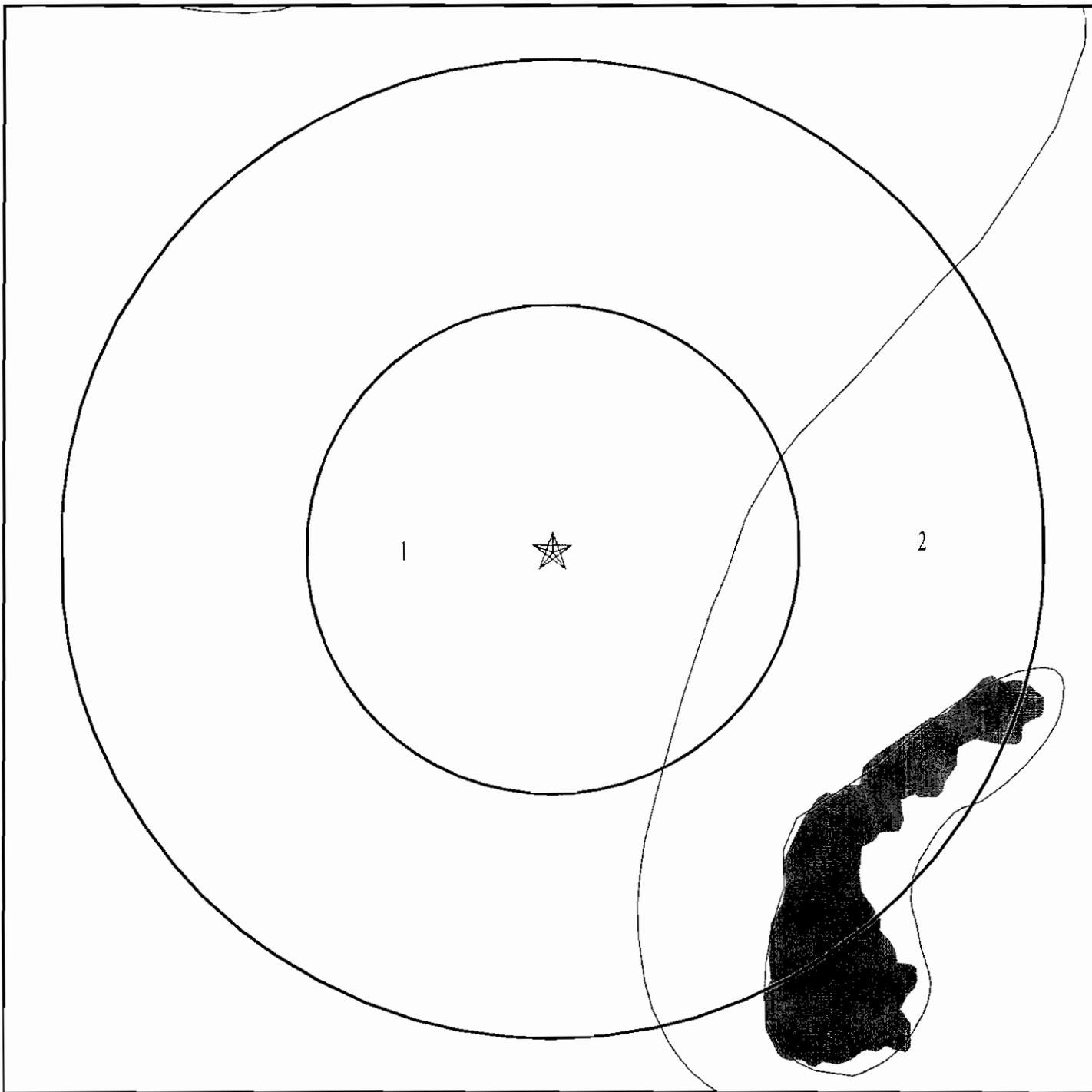
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q (decoded above as Era, System & Series)

GEOLOGIC AGE IDENTIFICATION

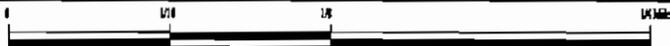
Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 02495194.1r



- ★ Target Property
- ∕ SSURGO Soil
- ∕ Water



SITE NAME: Colusa Fee-To-Trust
ADDRESS: 7076 Reese Road
Colusa CA 95932
LAT/LONG: 39.2610 / 122.0140

CLIENT: Analytical Environmental Serv.
CONTACT: Melissa Obert
INQUIRY #: 02495194.1r
DATE: May 15, 2009 7:26 am

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: MOONBEND

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	8 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14 Min: 4	Max: 8.4 Min: 6.6
2	8 inches	18 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14 Min: 4	Max: 8.4 Min: 6.6
3	18 inches	33 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14 Min: 4	Max: 8.4 Min: 6.6
4	33 inches	40 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14 Min: 4	Max: 8.4 Min: 6.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
5	40 inches	50 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 8.4 Min: 6.6
6	50 inches	62 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 8.4 Min: 6.6
7	62 inches	74 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 8.4 Min: 6.6

Soil Map ID: 2

Soil Component Name: VINA

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.3 Min: 6.1
2	7 inches	14 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.3 Min: 6.1
3	14 inches	20 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.3 Min: 6.1
4	20 inches	25 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.3 Min: 6.1
5	25 inches	46 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.3 Min: 6.1
6	46 inches	48 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.3 Min: 6.1
7	48 inches	60 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.3 Min: 6.1

Soil Map ID: 3

Soil Component Name: WATER

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
7	USGS3228568	1/2 - 1 Mile ENE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A1	CADW20000041133	1/4 - 1/2 Mile South
A2	CADW20000041134	1/4 - 1/2 Mile SSE
A3	CADW20000041135	1/4 - 1/2 Mile SSE
A4	CADW20000041136	1/4 - 1/2 Mile SSE
B5	CADW20000041132	1/2 - 1 Mile SW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
B6	CADW20000041131	1/2 - 1 Mile SW

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	CAOG50000192617	1/2 - 1 Mile South
2	CAOG50000192619	1 - 2 Miles ESE
3	CAOG50000192625	1 - 2 Miles ESE
4	CAOG50000192644	1 - 2 Miles East

PHYSICAL SETTING SOURCE MAP - 02495194.1r



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: Colusa Fee-To-Trust
 ADDRESS: 7076 Reese Road
 Colusa CA 95932
 LAT/LONG: 39.2610 / 122.0140

CLIENT: Analytical Environmental Serv.
 CONTACT: Melissa Obert
 INQUIRY #: 02495194.1r
 DATE: May 15, 2009 7:26 am

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
A1 South 1/4 - 1/2 Mile Higher		CA WELLS	CADW20000041133
Longitude:	122.0119		
Latitude:	39.2563		
Stwellno:	16N01W07G006M		
Districtco:	5		
Welluseco:	0		
Countycode:	6		
Gwcode:	502104		
Site id:	CADW20000041133		
A2 SSE 1/4 - 1/2 Mile Higher		CA WELLS	CADW20000041134
Longitude:	122.0115		
Latitude:	39.2563		
Stwellno:	16N01W07G003M		
Districtco:	5		
Welluseco:	0		
Countycode:	6		
Gwcode:	502104		
Site id:	CADW20000041134		
A3 SSE 1/4 - 1/2 Mile Higher		CA WELLS	CADW20000041135
Longitude:	122.0115		
Latitude:	39.2563		
Stwellno:	16N01W07G004M		
Districtco:	5		
Welluseco:	0		
Countycode:	6		
Gwcode:	502104		
Site id:	CADW20000041135		
A4 SSE 1/4 - 1/2 Mile Higher		CA WELLS	CADW20000041136
Longitude:	122.0115		
Latitude:	39.2563		
Stwellno:	16N01W07G005M		
Districtco:	5		
Welluseco:	0		
Countycode:	6		
Gwcode:	502104		
Site id:	CADW20000041136		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

B5
SW
1/2 - 1 Mile
Higher

CA WELLS CADW20000041132

Longitude: 122.0241
Latitude: 39.2526
Stwellno: t6N02W12J001M
Districtco: 5
Welluseco: H
Countycode: 6
Gwcode: 502104
Site id: CADW20000041132

B6
SW
1/2 - 1 Mile
Higher

CA WELLS CADW20000041131

Longitude: 122.0252
Latitude: 39.2524
Stwellno: 16N02W12J002M
Districtco: 5
Welluseco: H
Countycode: 6
Gwcode: 502104
Site id: CADW20000041131

7
ENE
1/2 - 1 Mile
Higher

FED USGS USGS3228568

Agency cd:	USGS	Site no:	391554121594601
Site name:	016N001W05L001M		
Latitude:	391554		
Longitude:	1215946	Dec lat:	39.2648885
Dec lon:	-121.99719607	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	06
State:	06	County:	011
Country:	US	Land net:	SENESWS05T16NR01WM
Location map:	SANBORN SLOUGH	Map scale:	24000
Altitude:	64.00		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	2.		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	SacramentoStone Corral. California. Area = 1850 sq.mi.		
Topographic:	Valley flat		
Site type:	Ground-water other than Spring	Date construction:	19621108
Date inventoried:	19750313	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	72.0	Hole depth:	166
Source of depth data:	driller		
Project number:	6479423708		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Peak flow data count: 0
Water quality data end date: 0000-00-00
Ground water data begin date: 1962-11-08
Ground water data count: 1

Water quality data begin date: 0000-00-00
Water quality data count: 0
Ground water data end date: 1962-11-08

Ground-water levels, Number of Measurements: 2

Date	Feet below Surface	Feet to Sealevel
1962-11-08	17.00	

Date	Feet below Surface	Feet to Sealevel
1962-11-08	17.00	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1
South
1/2 - 1 Mile

OIL_GAS CAOG50000192617

Apinumber:	01120653	Operator:	Whiting Oil and Gas Corp.
Lease:	Yerxa Farms	Well no:	1-7
Field:	Not Reported	Cagasoil m2 area:	Not Reported
Map:	618	Status cod:	006
Source:	Not Reported		
Latitude:	39.247841		
Longitude:	-122.013248		
Td:	0		
Sec:	7		
Twn:	16N	Rge:	1W
Bm:	MD		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	06/27/2007 00:00:00
Abanddate:	09/28/2007 00:00:00	Comments:	Not Reported
District:	6	Site id:	CAOG50000192617

2
ESE
1 - 2 Miles

OIL_GAS CAOG50000192619

Apinumber:	01120054	Operator:	Great Basins Petroleum Co.
Lease:	Halsey	Well no:	1-8
Field:	Not Reported	Cagasoil m2 area:	Not Reported
Map:	618	Status cod:	006
Source:	Not Reported		
Latitude:	39.24935		
Longitude:	-121.98996		
Td:	0		
Sec:	8		
Twn:	16N	Rge:	1W
Bm:	MD		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	06/27/2007 00:00:00
Abanddate:	09/28/2007 00:00:00	Comments:	Not Reported
District:	6	Site id:	CAOG50000192619

3
ESE
1 - 2 Miles

OIL_GAS CAOG50000192625

Apinumber:	01120680	Operator:	Vintage Production California LLC
Lease:	Lady Raiders	Well no:	1-8
Field:	Not Reported	Cagasoil m2 area:	Not Reported
Map:	618	Status cod:	016
Source:	Not Reported		
Latitude:	39.25226616		
Longitude:	-121.984836762		
Td:	0		
Sec:	8		
Twn:	16N	Rge:	1W

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Bm:	MD	Spuddate:	06/27/2007 00:00:00
X coord:	0	Comments:	Not Reported
Y coord:	0	Site id:	CAOG50000192625
Zone:	Not Reported		
Abanddate:	09/28/2007 00:00:00		
District:	6		

4

East

1 - 2 Miles

OIL_GAS

CAOG50000192644

Apinumber:	01120522	Operator:	Pueblo Oil & Gas
Lease:	Wilbur	Well no:	1-9
Field:	Not Reported	Cagasoil m2 area:	Not Reported
Map:	618	Status cod:	025
Source:	Not Reported		
Latitude:	39.25935		
Longitude:	-121.97951		
Td:	0		
Sec:	9		
Twn:	16N	Rge:	1W
Bm:	MD		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	06/27/2007 00:00:00
Abanddate:	09/28/2007 00:00:00	Comments:	Not Reported
District:	6	Site id:	CAOG50000192644

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for COLUSA County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for COLUSA COUNTY, CA

Number of sites tested: 2

<u>Area</u>	<u>Average Activity</u>	<u>% <4 pCi/L</u>	<u>% 4-20 pCi/L</u>	<u>% >20 pCi/L</u>
Living Area - 1st Floor	0.550 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Amdt and W.J. Bawiec, *Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).*

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database

Source: Department of Water Resources

Telephone: 916-651-9648

California Drinking Water Quality Database

Source: Department of Health Services

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations

Source: Department of Conservation

Telephone: 916-323-1779

RADON

State Database: CA Radon

Source: Department of Health Services

Telephone: 916-324-2208

Radon Database for California

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRRA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

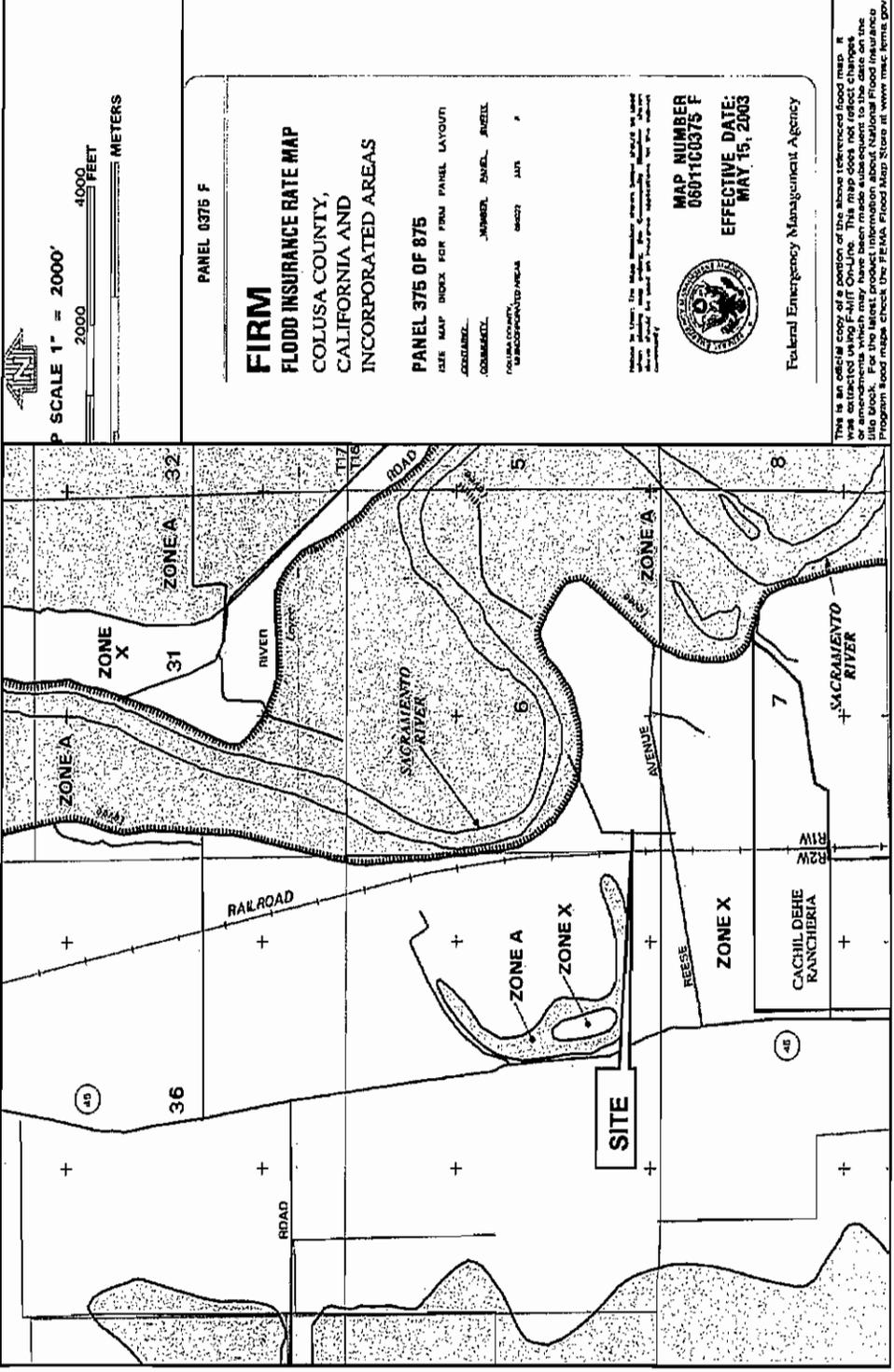
California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX E

FEMA MAP



FEDERAL EMERGENCY MANAGEMENT AGENCY
 PHASE I ENVIRONMENTAL SITE ASSESSMENT

Colusa Indian Community 225-Acre
 Colusa, California 95932



PROJECT NO: 209520
 DESIGNED BY: MO
 DRAWN BY: MO
 SCALE: NTS
 DATE: 08/09
 FILE: 0001-FEMA MAP

APPENDIX F

PROPERTY OWNER AND USER QUESTIONNAIRES

Analytical Environmental Services
CLIENT QUESTIONNAIRE

Per ASTM Standard Practice E 1527-05, Section 6, User Responsibilities, the User of an ESA has specific obligations for performing tasks during the ESA that will help identify the possibility of *recognized environmental conditions* in connection with the Site. Failure by the User to fully comply with the requirements may result in a *data gap* being identified in the report and may impact the ability to use the report to help qualify for *Landowner Liability Protections* (LLPs) under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). If this questionnaire is not returned to Analytical Environmental Services (AES) prior to issuance of the draft Phase I report, then AES assumes that the User does not have any information or actual knowledge pursuant to ASTM Standard Practice E 1527-05, Section 6, User Responsibilities. AES makes no representations or warranties regarding a User's qualification for protection under any federal, state or local laws, rules or regulations.

Please complete the following and return immediately via email or fax to the attention of:

Melissa Oberti
E-mail: moberti@analyticalcorp.com
Fax: (916) 447-1665

If other parties are intending to be the Users of the ESA report, then please forward a copy of this questionnaire for them to complete and return to AES.

Please provide the following information (if available) per the requirements of ASTM E 1527-05.

1. Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25)

Are you aware of any environmental cleanup liens against the site that are filed or recorded under federal, tribal, state or local law? Yes or No

If yes, please provide a description of the lien(s).

2. Activity and land use limitations (AULs) that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26)

Are you aware of any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law? Yes or No If yes, please provide.

3. Specialized knowledge or experience of the person seeking to qualify for the Landowner Liability Protections (40 CFR 312.28)

As the user of this ESA do you have any specialized knowledge or experience related to the site or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the site or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

Yes or No If yes, please explain.

4. Relationship of the purchase price to the fair market value of the site if it were not contaminated (40 CFR 312.29)

a. Does the purchase price being paid for this site reasonably reflect the fair market value of the site? Yes or No

b. If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the site?

Yes or No If yes, please explain.

**5. Commonly known or reasonably ascertainable information about the site
(40 CFR 312.30)**

Are you aware of commonly known or reasonably ascertainable information about the site that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user,

- a. Do you know the past uses of the site? Yes or No
If yes, please state.

AGRICULTURE LAND WITH SCATTERED HOMESITES

- b. Do you know of specific chemicals that are present or once were present at the site?
Yes or No If yes, please state.

- c. Do you know of spills or other chemical releases that have taken place at the site?
Yes or No If yes, please state.

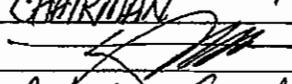
6. Do you know of any environmental cleanups that have taken place at the site?
Yes or No If yes, please state.

7. The degree of obviousness of the presence or likely presence of contamination at the site, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31)

As the user of this ESA, based on your knowledge and experience related to the site are there any obvious indicators that point to the presence or likely presence of contamination at the site?

Yes or No If yes, please explain.

This questionnaire was completed by:

Name WAYNE R. MARCHUM SR.
Title CHAIRMAN
Signature 
Company of User COWSA INDIAN COMMUNITY
Address of User 3730 Highway 49
COWSA, Ca 95932
Date 7/29/09

ENVIRONMENTAL QUESTIONNAIRE

Assessor's Parcel Numbers: 015-030-005, 015-030-046, 015-030-048, 015-030-049,
015-030-050, 015-030-051, 015-030-079, 015-030-080, 015-030-081, 015-030-082, 015-
030-083, and 015-030-089

Question	Answer	Responses to "Yes" Questions
1. Is the property or any adjoining property currently used for industrial purposes?	Property: NO UNK YES Adjoining: NO UNK YES	
2. To the best of your knowledge, has the property or any adjoining property been used for industrial purposes in the past?	Property: NO UNK YES Adjoining: NO UNK YES	
3. Is the property or any adjoining property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?	Property: NO UNK YES Adjoining: NO UNK YES	<i>ONE THE RESERVATION THERE IS A WASTE TREATMENT PLANT AND A DISPOSAL SITE WHERE CUTTINGS, BUSHES, AND YARD CLIPPINGS ARE PILED AND BURNED.</i>
4. To the best of your knowledge, has the property or any adjoining property been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?	Property: NO UNK YES Adjoining: NO UNK YES <i>SAME ANSWER AS # 3 ABOVE.</i>	
5. Has fill dirt been brought onto the property that originated from a contaminated site or that is of an unknown origin?	NO UNK YES	

ENVIRONMENTAL QUESTIONNAIRE

<p>6. Are there currently, or to the best of your knowledge have there been previously, any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of greater than five gallons (19 liters) in the aggregate, stored on or used at the property or at the facility?</p>	<p>New?: <input checked="" type="radio"/> NO <input type="radio"/> UNK <input type="radio"/> YES Past?: <input checked="" type="radio"/> NO <input type="radio"/> UNK <input type="radio"/> YES</p>	
<p>7. Are there currently, or to the best of your knowledge have there been previously, any industrial drums (typically 55 gallon [208 liters]) or sacks of chemicals located on the property or at the facility?</p>	<p>New?: <input checked="" type="radio"/> NO <input type="radio"/> UNK <input type="radio"/> YES Past?: <input checked="" type="radio"/> NO <input type="radio"/> UNK <input type="radio"/> YES</p>	
<p>8. Are there currently, or to the best of your knowledge have there been previously, any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?</p>	<p>New?: <input checked="" type="radio"/> NO <input type="radio"/> UNK <input type="radio"/> YES Past?: <input checked="" type="radio"/> NO <input type="radio"/> UNK <input type="radio"/> YES</p>	
<p>9. Is there currently, or to the best of your knowledge has there been previously, any areas of stained soil on the property?</p>	<p>New?: <input checked="" type="radio"/> NO <input type="radio"/> UNK <input type="radio"/> YES Past?: <input checked="" type="radio"/> NO <input type="radio"/> UNK <input type="radio"/> YES</p>	
<p>10. Are there currently, or to the best of your knowledge have there been previously, any registered or unregistered storage tanks (above or underground) located on the property?</p>	<p>New?: <input checked="" type="radio"/> NO <input type="radio"/> UNK <input type="radio"/> YES Past?: <input checked="" type="radio"/> NO <input type="radio"/> UNK <input type="radio"/> YES</p>	

ENVIRONMENTAL QUESTIONNAIRE

<p>11. Are there currently, or to the best of your knowledge have there been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?</p>	<p>New?: <input checked="" type="radio"/> NO <input type="radio"/> UNK <input type="radio"/> YES Past?: <input checked="" type="radio"/> NO <input type="radio"/> UNK <input type="radio"/> YES</p>	
<p>12. Are there currently, or to the best of your knowledge have there been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors?</p>	<p>New?: <input checked="" type="radio"/> NO <input type="radio"/> UNK <input type="radio"/> YES Past?: <input checked="" type="radio"/> NO <input type="radio"/> UNK <input type="radio"/> YES</p>	
<p>13. If the property is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environment/health agency?</p>	<p><input checked="" type="radio"/> NO <input type="radio"/> UNK <input type="radio"/> YES</p>	
<p>14. Does the owner or occupant of the property have any knowledge of environmental liens or governmental notification relating to past or recurrent violations of environmental laws with respect to the property or any facility located on the property?</p>	<p><input checked="" type="radio"/> NO <input type="radio"/> UNK <input type="radio"/> YES</p>	

ENVIRONMENTAL QUESTIONNAIRE

<p>15. Has the owner or occupant of the property been informed of the past or current existence of hazardous substances or petroleum products or environmental violations with respect to the property or any facility located on the property?</p>	<p style="text-align: center;">NO UNK YES</p>	
<p>16. Does the owner or occupant of the property have any knowledge of any environmental site assessment of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assessment of the property?</p>	<p style="text-align: center;">NO UNK YES</p>	
<p>17. Does the owner or occupant of the property know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum products involving the property by any owner or occupant of the property?</p>	<p style="text-align: center;">NO UNK YES</p>	
<p>18. Does the property discharge waste water on or adjacent to the property other than storm water into a sanitary sewer system?</p>	<p style="text-align: center;">NO UNK YES</p>	

ENVIRONMENTAL QUESTIONNAIRE

<p>19. To the best of your knowledge, have any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried, and/or burned on the property?</p>	<p>NO UNK YES</p>	
<p>20. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?</p>	<p>NO UNK YES</p>	

21. How do you currently use the property and how have you used the property in the past (please be specific).

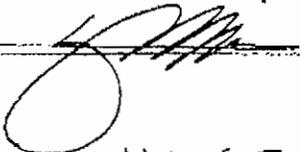
THE PROPERTY IS AGRICULTURE GROUND AND HAS BEEN IN THE PAST. IT IS THE INTENT TO CONTINUE THE AGRICULTURE USE. WALNUTS HAVE BEEN PLANTED ON ALL PARCELS, AS WELL AS HOMESITES FOR TRIBAL MEMBERS.

22. What is your understanding of how the property was used before your ownership/occupancy?

AGRICULTURE

ENVIRONMENTAL QUESTIONNAIRE

I hereby certify that to the best of my knowledge all of the information provided in this environmental questionnaire is true and correct.

Signature:  _____

Print Name/Address: WAYNE R. MITCHELL SR. - CHAIRMAN
3730 HIGHWAY 45
COLUSA, CA 95932

Phone: (530) 458-8231

Date complete: 7/29/09

Relation to property: owner operator _____ manager _____ tenant _____

APPENDIX G

RESUMES



ANALYTICAL ENVIRONMENTAL SERVICES

DAVID ZWEIG, P.E.

Principal Engineer

David Zweig, a Civil Engineer and graduate from UC Berkley, has 15 years experience in Environmental Impact Reporting, Phase I and Phase II Site Assessments, Water Permitting and Regulatory Compliance, and Project Management. Prior to forming AES, Mr. Zweig was the Sacramento Office Manager for Environmental Science Associates. He led ESA's Engineering group in the areas of environmental analysis; hazardous materials; water project permitting and regulatory compliance; water quality studies, water rights; and public infrastructure project coordination. Mr. Zweig has provided technical oversight and completed numerous Phase I and Phase II hazardous materials investigations for public agencies and private parties throughout California and the U.S.

REGISTRATION AND LICENSES

California Professional Engineer
Washington Professional Engineer
California Department of Health Services Water Treatment Plant Operator

EDUCATION

University of California, Berkeley
Bachelor of Science in Civil Engineering Degree

REPRESENTATIVE PROJECTS

- **Defense Distribution Region West Sharpe Depot Effluent and Receiving Water Quality Assessment, Lathrop, California.** Under contract to the US Army Corps of Engineers, prepared an ERWQA for the depot's wastewater treatment plant effluent discharge. Effluent is treated at a secondary facility on-site, and discharged into an irrigation ditch that is tributary to French Camp Slough. Water quality concerns associated with the implementation of the Inland Surface Water Plan prompted the Regional Water Quality Control Board to require an ERWQA as a condition in the plant's Waste Discharge Requirements. Based on a limited number of lab tests, a work plan was prepared for the ERWQA to assess the impact of continued effluent discharges on the receiving water and possibly lead to treatment process and/or operational modifications.

- **Sacramento Municipal Utilities District Phase I and II Environmental Assessments.** Performed Phase I and Phase II environmental site assessments on two cogeneration plant sites. The assessments consisted of records searches, interviews with representatives from regulatory agencies, field reconnaissance, sampling of surface soils, laboratory testing, and analysis of data. The assessments resulted in recommendations regarding the need for additional subsurface investigations and the risks associated with disposing of soil from the sites.
- **City of Willits Sanitary Survey, Mendocino County.** Managed the preparation of a watershed sanitary survey for the City Water Department for submission to the Department of Health Services to comply with the California Surface Water Treatment Regulation. In accordance with AWWA guidelines, the survey identifies potential contaminant sources within the watershed, and suggests methods for effectively managing the watershed. Potential contaminant sources within the 3,200-acre watershed include septic systems, mining, and a police shooting range.
- **Carmichael Water District Bajamont Way Phase I Environmental Site Assessment and Disposal Area Preliminary Assessment.** Performed a Phase 1 environmental assessment on the District's Corporation Yard site. The assessment consisted of a records search, interviews with representatives from regulatory agencies, field reconnaissance, sampling of surface soils, laboratory testing, and analysis of data. The assessment resulted in recommendations regarding the need for additional subsurface investigations and the risks associated with disposing of soil from the site. A preliminary assessment of a spoils disposal area at the site was also performed.
- **City of San Leandro Groundwater Monitoring Program.** Developed and implemented a groundwater monitoring program for the City's Dredged Material Management Site, adjacent to San Francisco Bay. The site is used to dewater dredged material from the City's marina prior to land disposal. As a condition of the City's NPDES permit, ESA developed and implemented a groundwater investigation that included the installation and quarterly sampling of six monitoring wells. Four quarterly reports were prepared and submitted to the Regional Water Quality Control Board.
- **Auto Park Treatment Tank Relocation Engineering, Environmental Review, and Land Acquisition.** Relocated Calgon activated carbon adsorption system, consisting of two tanks each with 20,000 pounds of granular activated carbon. Project included installing water and sewer pipelines, booster pump station, and electronic controls, so as to allow continued use of a 1,000+ gpm well. The treatment system had been temporarily sited as an emergency measure to treat PCE contamination discovered in water from an existing well. Community concerns about visual impacts necessitated relocation.

- **Strasbaugh Well Nitrate Treatment Engineering Studies.** Studied the feasibility of providing nitrate removal for a contaminated groundwater source. Proven groundwater supplies were unusable because of nitrate contamination in the area. The contamination was the result of decades of intensive agricultural activity. An ion exchange process designed to remove nitrates from well water, and supporting infrastructure, was evaluated.
- **American I Cogeneration Facility Spill Prevention Control and Countermeasure Plan.** In cooperation with Sage Environmental, prepared a SPCCP for a cogeneration facility in King City. The American I facility uses a gas turbine cogeneration unit to generate electricity and provide steam and hot water to a neighboring food processing plant. Because of the large quantities of fuels and other chemicals stored at the facility, a SPCCP was required by the Regional Water Quality Control Board (RWQCB). In requiring the SPCCP, the RWQCB was implementing the regulations contained in Title 40 of the Code of Federal Regulations, Part 112. The SPCCP consists of an inventory of storage tanks and containment systems at the facility and recommendations to prevent hazardous materials from being released into nearby surface waters.
- **Defense Distribution Region West Sharpe Depot Storm Water Pollution Prevention Plan, Lathrop, California.** Under contract to the US Army Corps of Engineers, prepared a SWPPP for the 300 acre Sharpe Depot. The depot receives, warehouses, and ships out military supplies and equipment. Shipments of bulk chemicals, mechanical parts, weapons, ammunition, and supplies arrive at the depot by air, rail, and truck. Previous spills at the depot have caused groundwater contamination and required remedial actions. To comply with Regional Water Quality Control Board NPDES permit requirements, a SWPPP was prepared that inventoried possible sources of stormwater pollution, and recommended measures to prevent those pollutants from entering storm water.

**PROFESSIONAL
AFFILIATIONS**

Association of California Water Agencies
American Water Works Association
American Society of Civil Engineers
California Water Reuse Association
State Water Resources Control Board Inland Surface Water Plan Task Force, 1994-1995
Sacramento Metropolitan Water Authority Board of Directors, 1995-1996
Citrus Heights Water District Board of Directors, 1994-1997
Pismo Beach Public Works Commission, Vice President, 1992-93



ANALYTICAL ENVIRONMENTAL SERVICES

MELISSA OBERTI

Environmental Analyst

Melissa Oberti is an Environmental Analyst for AES. She has experience in Phase I Environmental Site Assessments and has experience in performing site reconnaissance for environmental site assessments, identifying environmental concerns, and research of historical documents under the American Society of Testing Materials (ASTM) Standard Practice E1527-05. Additionally, she has knowledge in report preparation of CEQA & NEPA documents for a variety of local, state, and federal agencies. She also has experience in writing Storm Water Pollution Prevention Plans (SWPPPs) for various sites. Ms. Oberti has experience in asbestos sampling, drafting sample location diagrams, interpretation of analytical sampling results and report preparation. Additionally, Ms. Oberti has experience in abatement project monitoring, abatement project air monitoring, clearance air monitoring, and project close-out.

EDUCATION

University of San Francisco
BACHELOR OF ARTS, ENVIRONMENTAL STUDIES

PROFESSIONAL EXPERIENCE

Environmental Services

- **Cherokee Tahlequah Casino Project EA.** Participated in developing NOA.
- **Table Mountain Rancheria 175-acre Fee to Trust Project Phase I ESA.** The Phase I ESA consisted of nine parcels located in Fresno County, California. Primary author.
- **Table Mountain Rancheria 147-acre Fee to Trust Project Phase I ESA.** The Phase I ESA consisted of eight parcels located in Fresno County, California. Primary author.
- **Table Mountain Rancheria 175-acre Fee-to-Trust EO.** Primary author for Hazardous Materials Section.
- **UAIC Indian Ridge Preschool Storm Water Prevention Plan (SWPPP), Placer County, California.** Authored the SWPPP for erosion and sediment control for compliance with the state NPDES permits for the construction site.
- **Phase I Environmental Site Assessment / Confidential Client / Northern California.** Responsible for performing site walks for environmental site

assessments, identifying environmental concerns, interview of appropriate government officials, research historical documents, and report preparation in accordance with applicable ASTM and client standards.

- **Transaction Screening Process Assessments / Various Locations.** Responsible for performing site reconnaissance for environmental site assessments, interviewing property owners, identifying environmental concerns, and report preparation in accordance with industry and client standards.
- **Environmental Audits / Confidential Client/ Various Locations.** Responsible for performing site reconnaissance for environmental audits, interviewing property owners, and report preparation in accordance with industry and client standards.
- **Participated in the publication of the *Environmental Assessment of Redwood Creek Watershed 2004-2006* (Department of Environmental Science USF).** Responsible for testing water quality of designated streams, performing habitat assessments, locating and identifying BMI's, and identifying environmental concerns and hazards related to the designated streams.

Building Sciences

- **Asbestos Sampling /Various Clients /Sacramento.** Responsible for performing asbestos sampling for multiple projects and for interpretation of analytical sampling results, report preparation and drafting sample location diagrams using computer-aided drafting software.
- **Asbestos Survey Report Preparation / Confidential Bank / Various Locations.** Responsible for report preparation of asbestos surveys performed at various locations. Responsible for drafting sample location diagrams, interpretation of analytical sampling results and report preparation. Responsible for bank specific asbestos tracking and uploading of documents to Bank Center website.
- **Asbestos Abatement Monitoring/Sacramento/ Various Locations** Responsible for abatement project monitoring, abatement project air monitoring, clearance air monitoring, and project close-out.

Specialized Training

- **Storm Water Pollution Prevention Plan Training**