

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION ALSTON FARMS DAIRY NO. 2

TEHAMA COUNTY, CALIFORNIA



Prepared for

Alston Farms

Prepared by



VESTRA Resources, Inc.
5300 Aviation Drive
Redding, California 96002

FEBRUARY 2009

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70824

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I. PROJECT INFORMATION

PROJECT NAME

Alston Farms Dairy No. 2
Tehama County, California

LEAD AGENCY UNDER CEQA

California Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6114
Phone: (916) 464-3291
Fax: (916) 464-4645
Contact Person: Charlene Herbst

CONTACT PERSON

Ms. Linda Alston
1010 Highway 99W
Orland, CA 95963
(530) 864-6685

PROJECT HISTORY

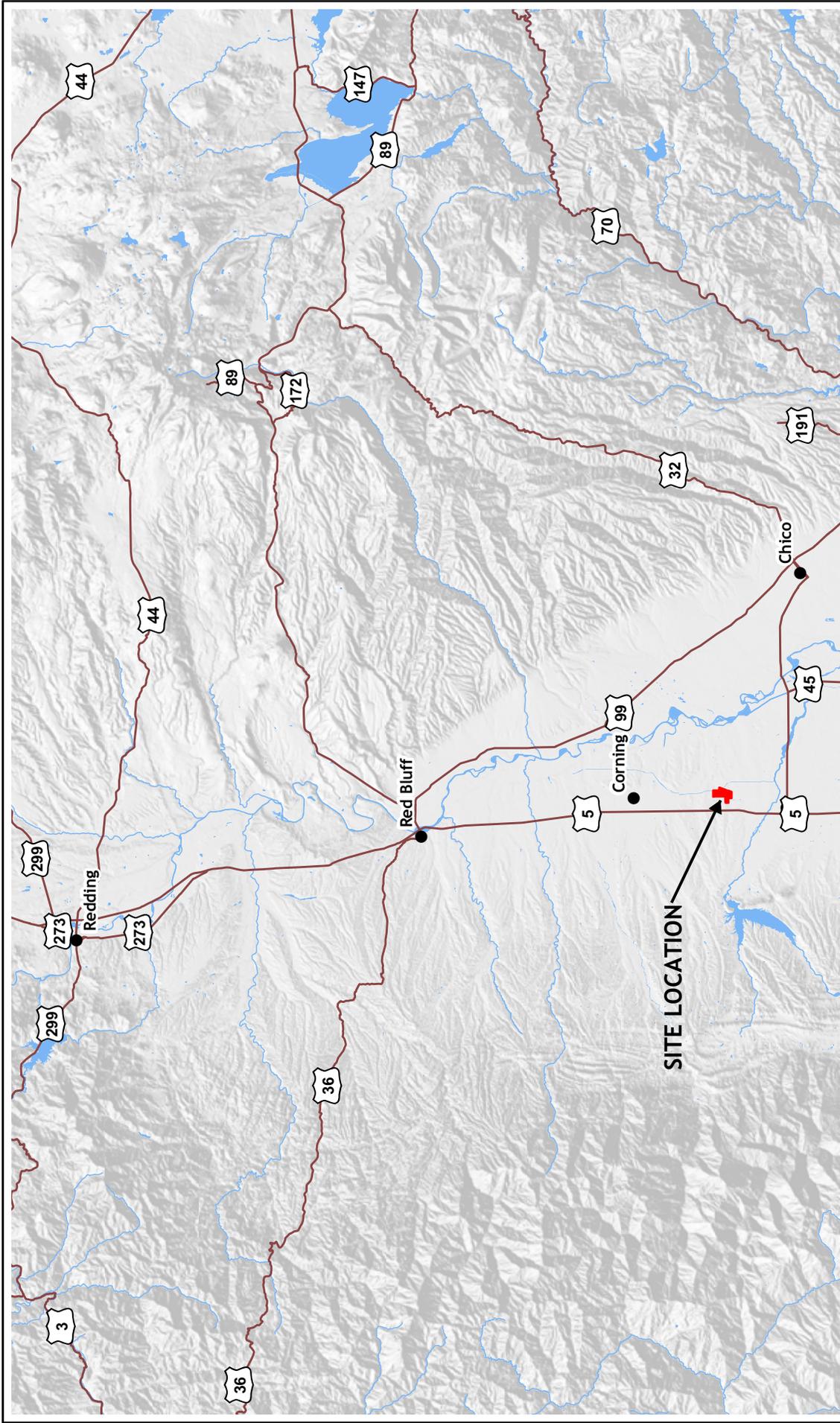
Alston Farms wishes to reopen a grade A dairy located at 22954 Christian Road in Orland, California. The dairy closed in 2002. The Regional Water Quality Control Board (RWQCB) has required that the dairy be permitted as a “new” facility and receive individual Waste Discharge Requirements (WDRs). All appurtenances for the dairy are in place. Cattle have grazed onsite pastures under lease since 2002.

SITE LOCATION

The Alston Farms Dairy No. 2 is located at 22954 Christian Road, approximately 4.5 miles north of the city of Orland in Tehama County, California. The dairy is located in portions of Sections 23, 26, and 27, Township 23N, Range 03W, MDBM, as shown in the U.S. Geological Survey (USGS) Orland 7.5-minute topographic map, Orland quadrangle. The site coordinates are latitude 39°40'21.04” and longitude 122°10'30.16.” The general site location is included as Figure 1. The USGS topographic map is included as Figure 2. Identified domestic, irrigation, municipal supply, and monitoring wells located within 2,000 feet of the site are shown on Figure 3.

ZONING AND GENERAL PLAN DESIGNATION

The project site is zoned as Exclusive Agriculture or Upland Agriculture as shown on Figure 4. The existing Tehama County General Plan (Figure 5) has identified the land use of the project



- Highway
- River
- Alston Dairy Site Location
- Lake, Pond, or Reservoir

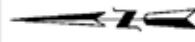
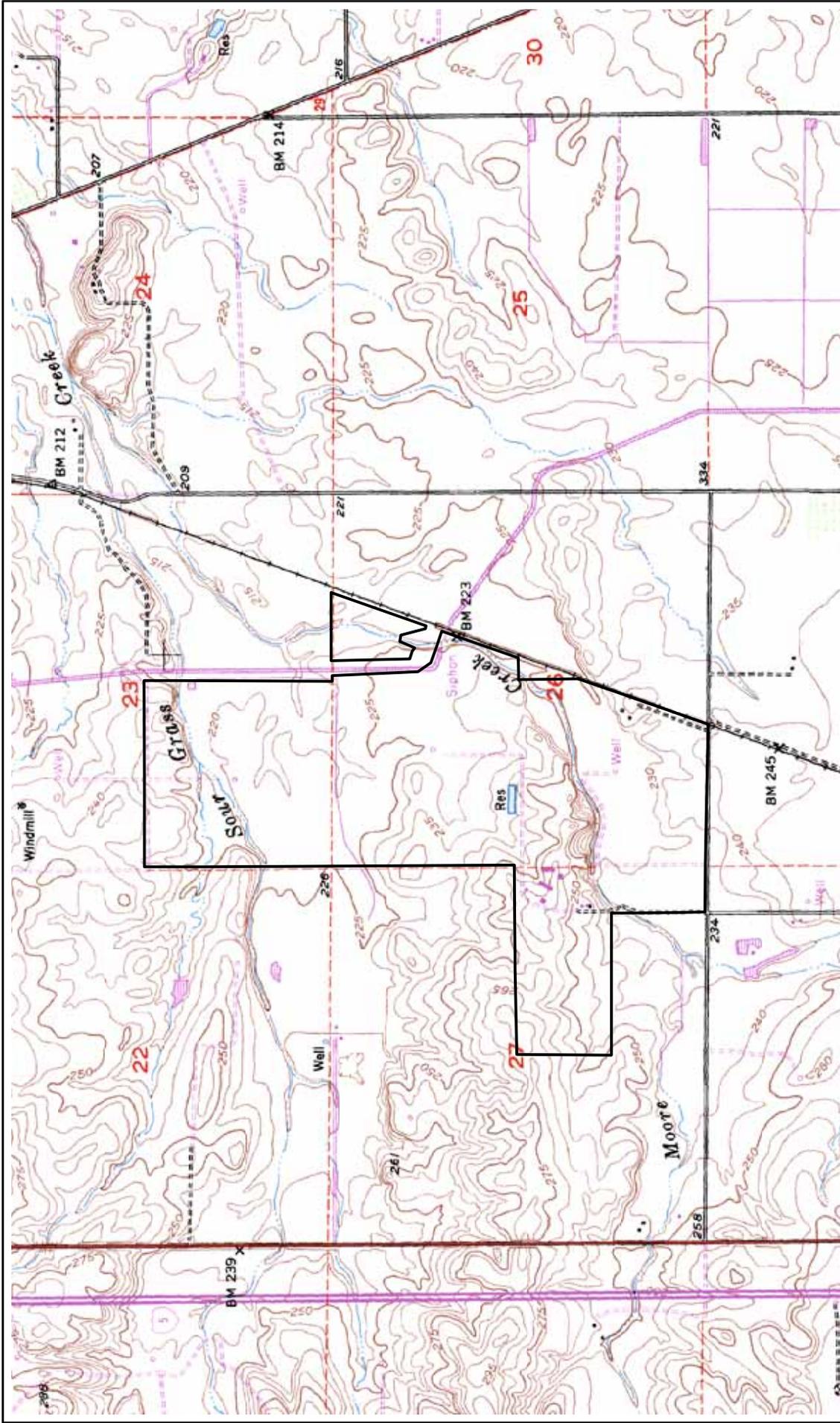


FIGURE 1
GENERAL SITE LOCATION
ALSTON DAIRY
TEHAMA COUNTY, CALIFORNIA





□ Project Boundary

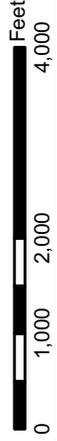


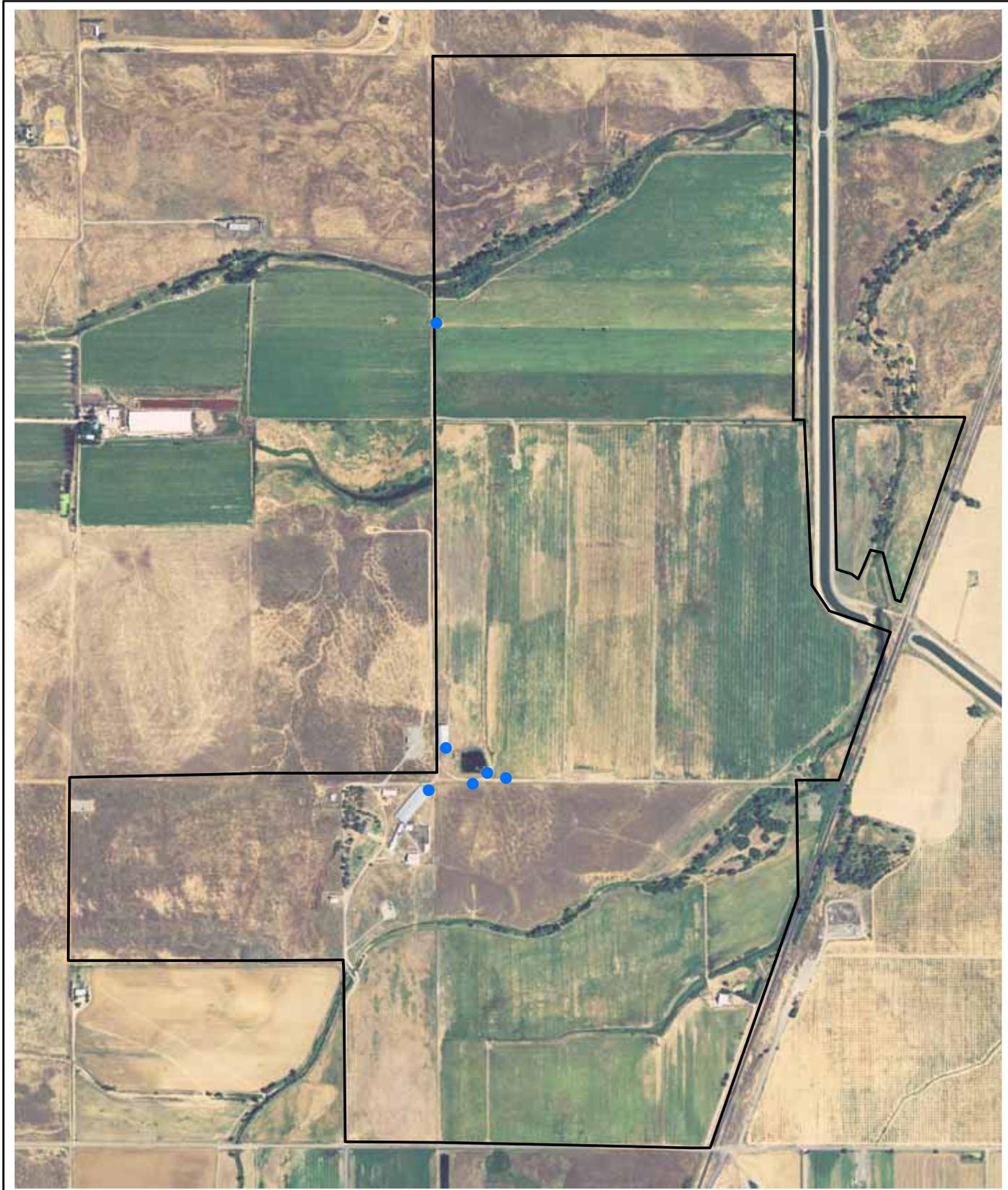
FIGURE 2
 USGS TOPOGRAPHIC MAP
 ALSTON DAIRY
 TEHAMA COUNTY, CALIFORNIA



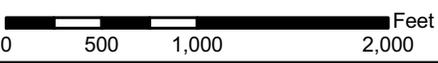
VESTRA

SOURCE: USGS 7.5' TOPOGRAPHIC MAP, KIRKWOOD QUADRANGLE

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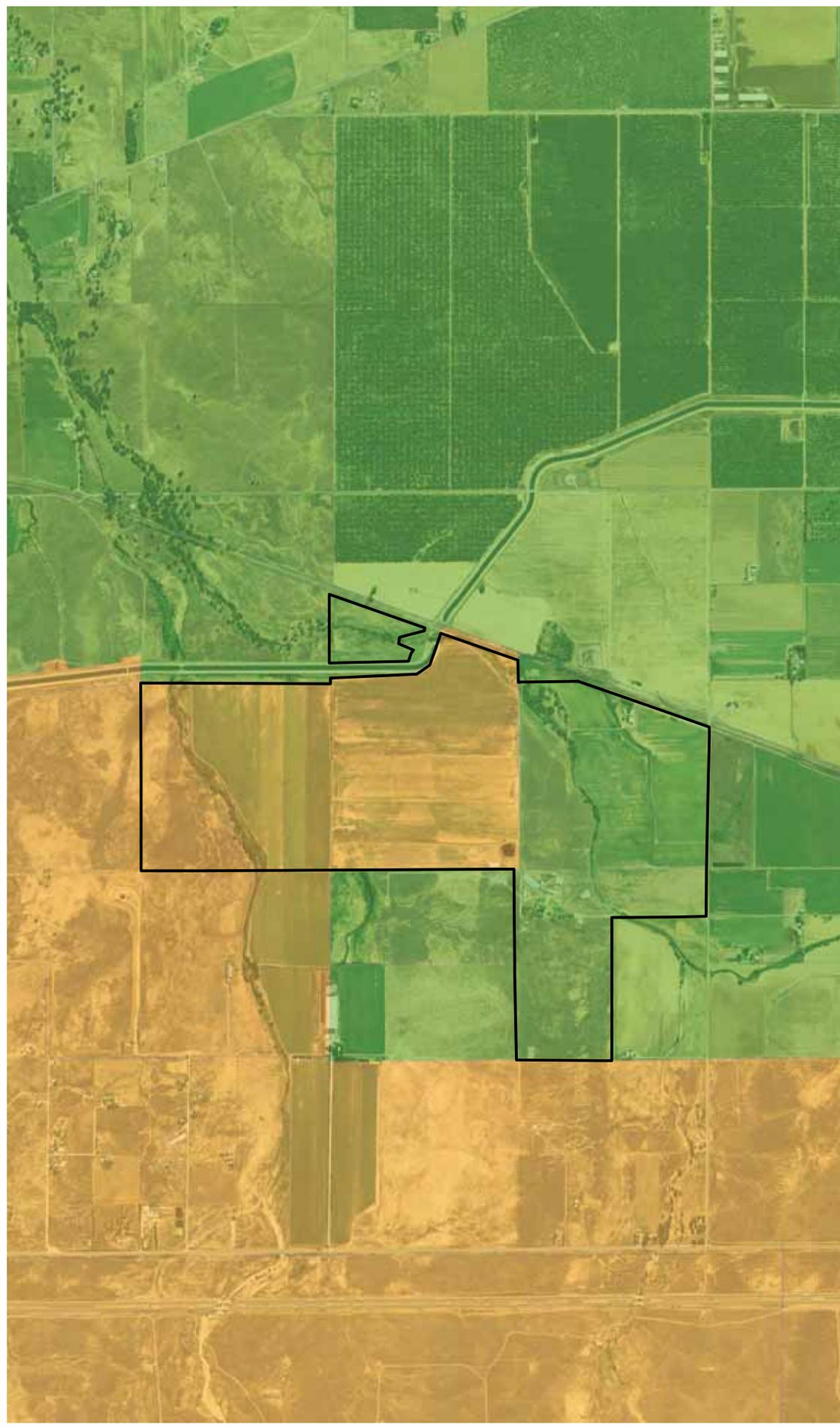
- Well Location
- ▭ Project Boundary



**FIGURE 3
WELLS LOCATED
WITHIN 2,000 FEET
ALSTON DAIRY
TEHAMA COUNTY, CALIFORNIA**



SOURCE: NAIP 2005

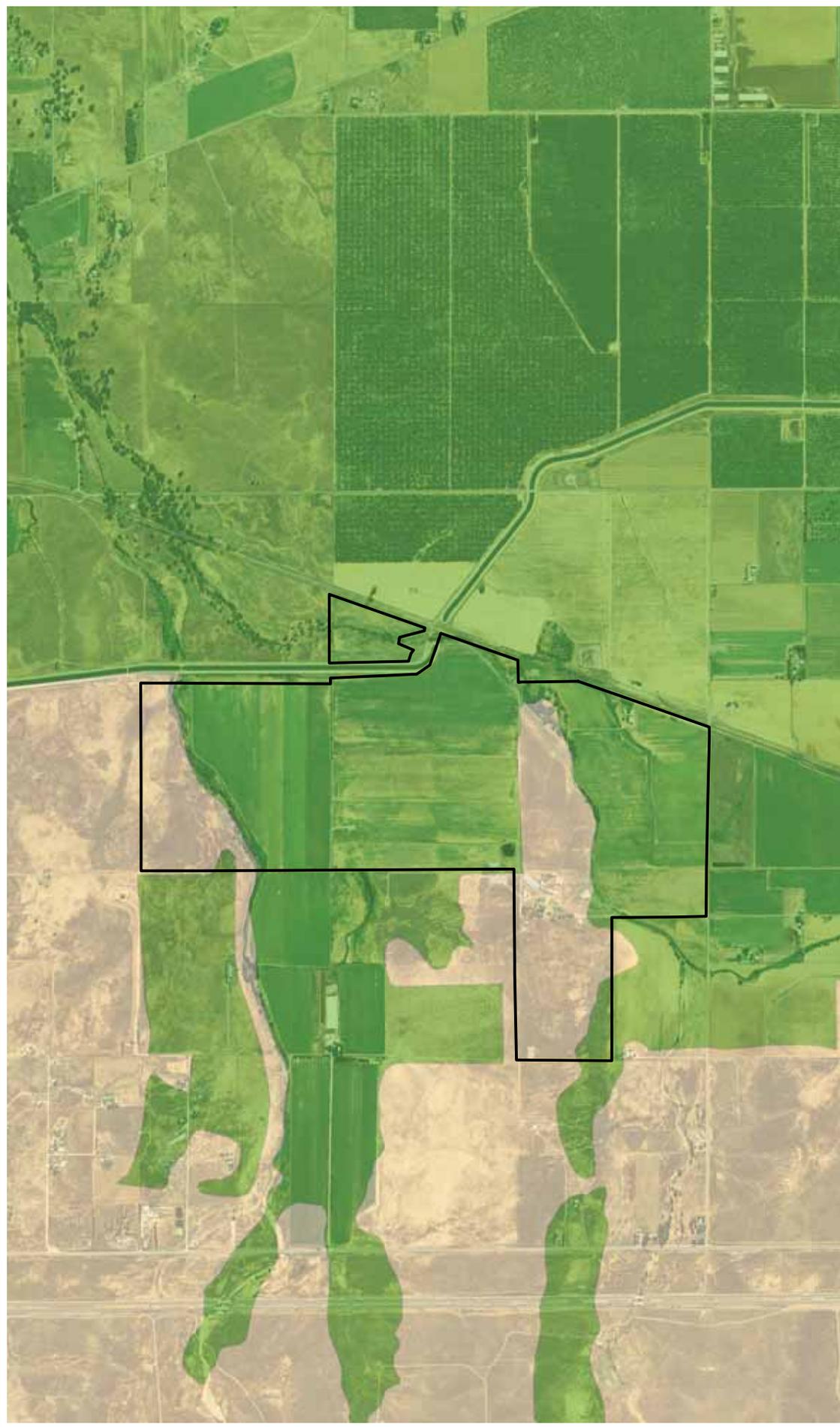


-  Project Boundary
-  Exclusive Agriculture
-  Upland Agriculture

FIGURE 4
ZONING
 ALSTON DAIRY
 TEHAMA COUNTY, CALIFORNIA



SOURCE: NAIP 2005; TEHAMA COUNTY 2005



-  Project Boundary
-  Cropland
-  Grazing

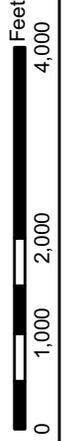


FIGURE 5
 EXISTING GENERAL PLAN
 ALSTON DAIRY
 TEHAMA COUNTY, CALIFORNIA



SOURCE: NAIP 2005; TEHAMA COUNTY 2005

area as Cropland and Grazing. The proposed General Plan would designate the site as Valley Floor Agriculture (Figure 6). The project site would continue to be used for agricultural purposes under the proposed project.

SITE CONDITIONS

Developments

The site is currently developed as a dairy and includes freestall barns, milking parlor, feed and storage building, wastewater storage lagoon, cropland, and irrigation systems. A residence is also located at the site. A site plan is shown on Figures 7a and 7b.

The class A dairy operated at the site from 1976 to 2002. The dairy operation closed in 2002; however, the croplands continued to be irrigated using onsite wells and were leased for cattle grazing. The residence has been inhabited continuously.

Vegetation

The two vegetation types that were identified with the CALVEG database were California annual grasslands and croplands. Annual grasslands are the most dominant vegetation community occurring within the project area. Cropland onsite includes wheat, oats, and sudan hay. In addition to these two mapped types of vegetation, a third vegetation type, Fremont cottonwood series, was identified during reconnaissance surveys in the riparian area along the creeks. These vegetation communities are described below.

Annual Grasslands

Annual grassland habitat occurs across most of California, especially in the lower elevation foothills much like the area surrounding the project site. This habitat has a moderate to dense herbaceous layer composed mostly of annual grasses and forbs. Common species of northern California foothill grasslands include: Cheatgrass (*Bromus tectorum*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), and soft chess (*Bromus hordeaceus*).

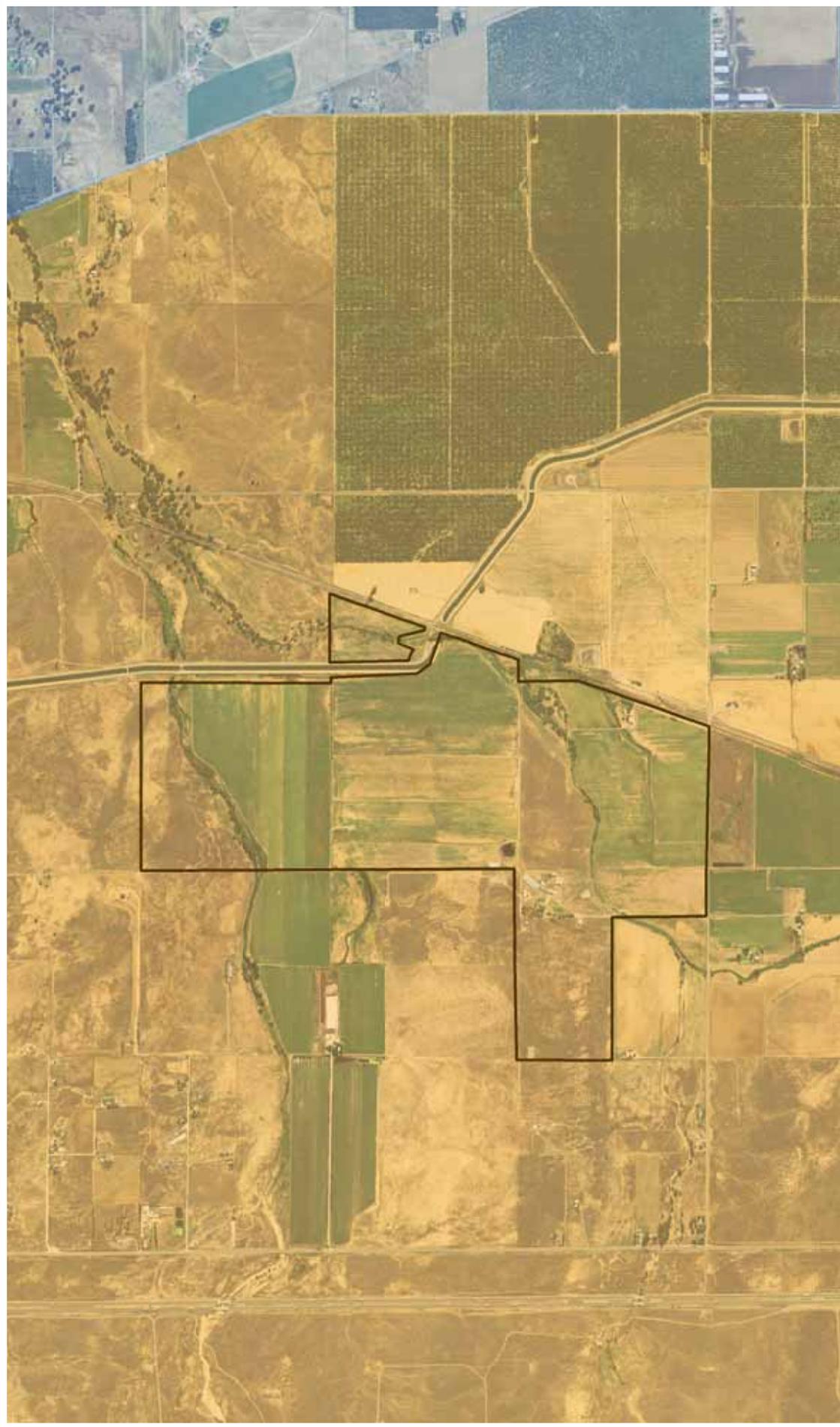
These annual grasslands are generally made up of introduced annual grasses and both native and introduced forbs. They exist in elevations below blue oak (*Quercus douglasii*) woodlands, where soil conditions do not favor other hardwood growth, or as openings in blue oak woodlands. Decades of ranching, agricultural use, and drought periods have nearly converted all of California's dry upland from perennial bunchgrass-dominated grasslands to an annual system dominated by grasses and forbs.

Croplands

Croplands on the dairy include irrigated pasture, wheat, oats, and sudan hay.

Fremont Cottonwood Series

The Fremont cottonwood series riparian zone occurs in areas along agricultural ditches and drainages. The riparian corridor is composed mostly of winter deciduous trees including, but not limited to, cottonwoods (*Populus* spp.) and willows (*Salix* spp.). There is a dense understory layer of grasses, sedges, rushes (*Juncus* spp.), and numerous other woody plants. These woody

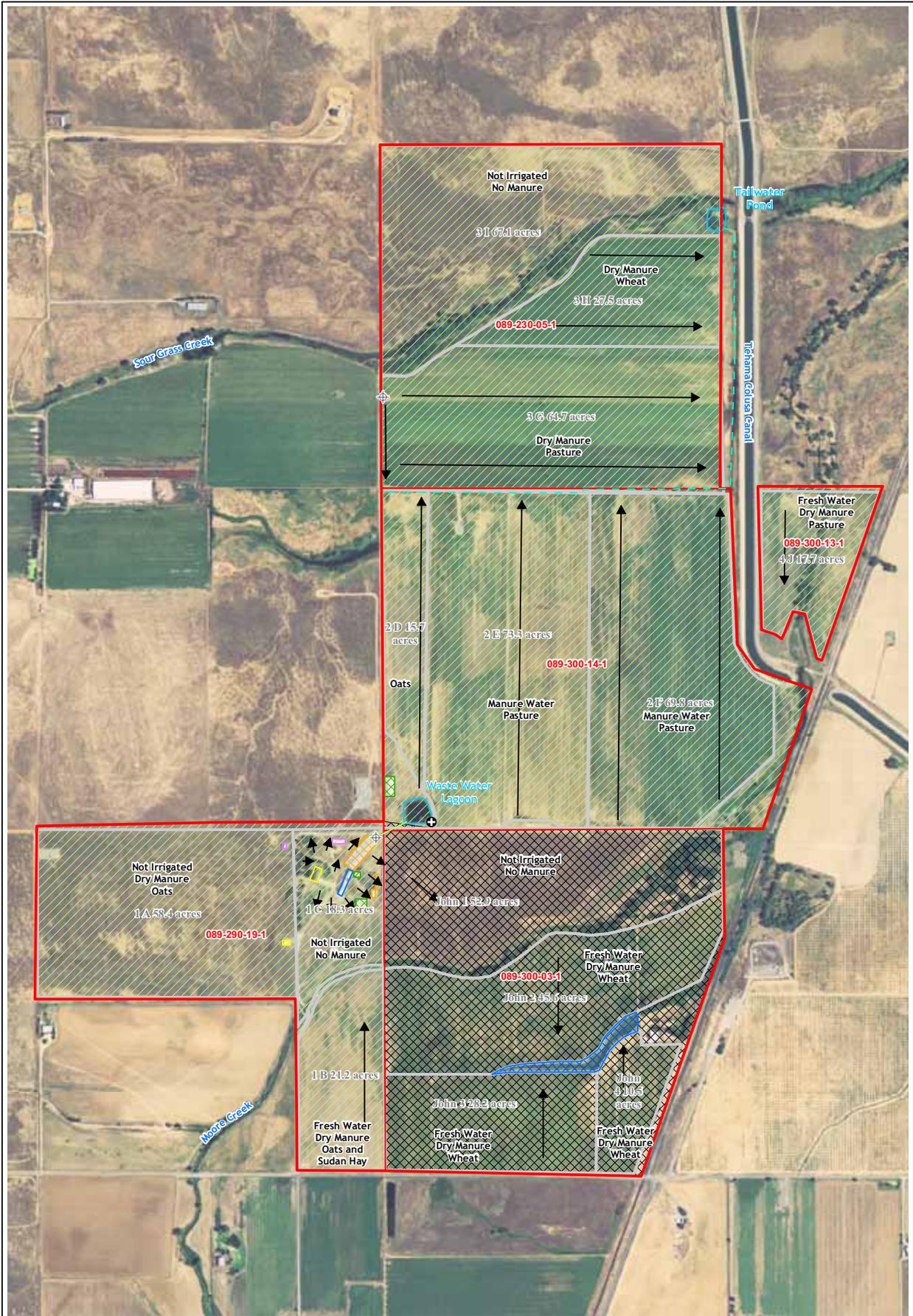


- Valley Floor Ag
- Valley Floor Ag/Capay
- Project Boundary

FIGURE 6
PROPOSED GENERAL PLAN
ALSTON DAIRY
TEHAMA COUNTY, CALIFORNIA



SOURCE: NAIP 2005; TEHAMA COUNTY 2008



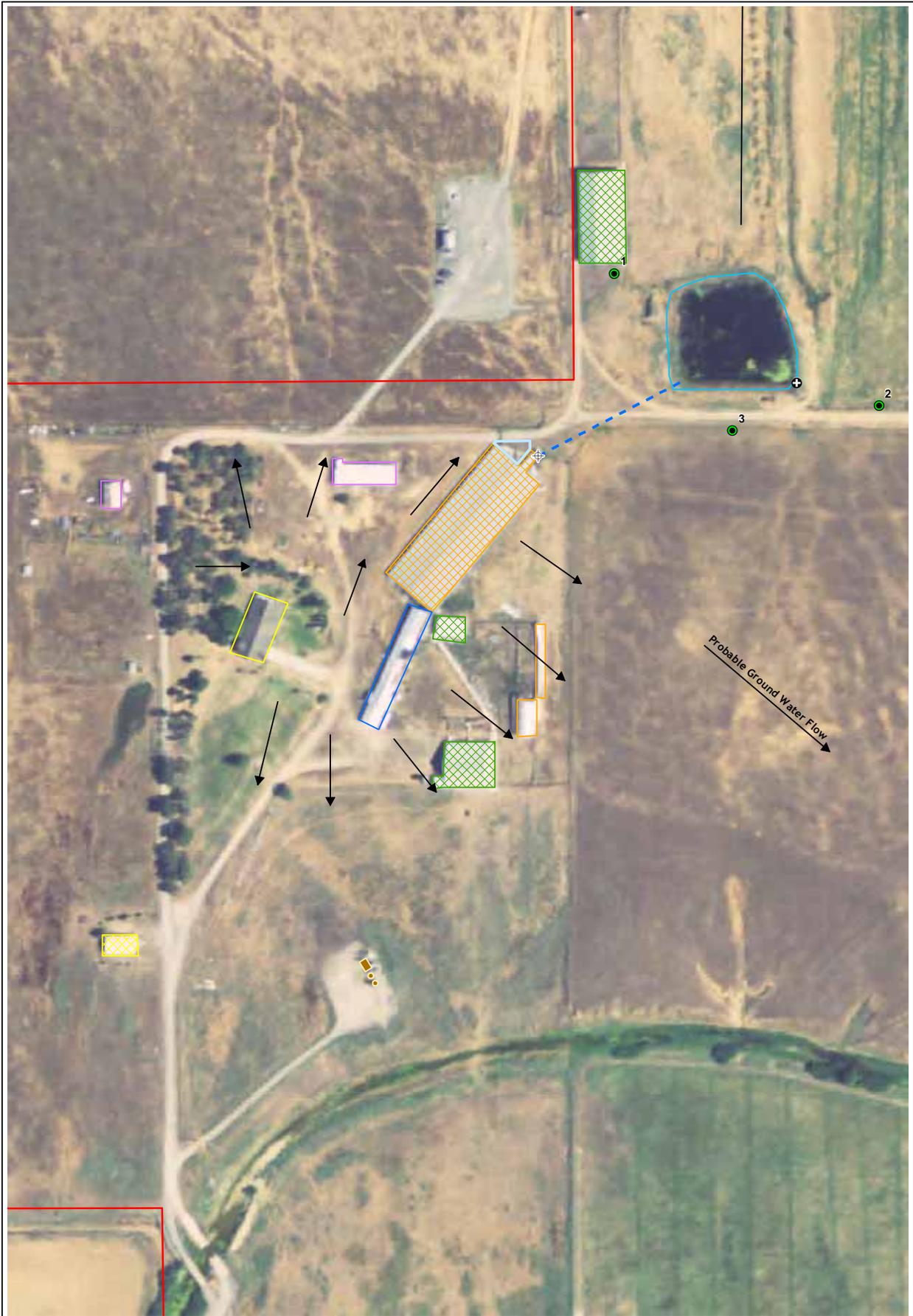
- | | | | |
|------------------|----------------------------|------------------------|--|
| ⊕ Pump | — Milking Parlor Washwater | □ Milking Complex | ▭ Field Boundary |
| ⊕ Well | - - - Tailwater | □ Old Dilapidated Barn | ▭ Leased from Elsie Sewald |
| → Flow Direction | ▨ Abandoned Residence | □ Residence | ▨ Original Alston Dairy Property (John Alston) |
| | ▨ Freestall Barn | □ Shop | ▨ Tailwater Collection Area |
| | ▨ Hay Storage | ▨ Project Boundary | ▨ Parcel Boundary |

VESTRA

SOURCE: NAIP 2005



FIGURE 7A
SITE PLAN A
ALSTON DAIRY
TEHAMA COUNTY, CALIFORNIA



- Monitoring Well
- ⊕ Pump
- ⊕ Well
- - - Tailwater
- - - Milking Parlor Washwater
- Surface Water Flow Direction
- Area Draining To Tailwater Pond
- Pond
- Tailwater Pond
- Abandoned Residence
- Freestall Barn
- Hay Storage
- Milking Complex
- Abandoned Natural Gas Facility
- Old Dilapidated Barn
- Residence
- Shop
- Project Boundary

VESTRA
 SOURCE: NAIP 2005



FIGURE 7B
SITE PLAN AND MONITORING
WELL LOCATIONS
ALSTON DAIRY
TEHAMA COUNTY, CALIFORNIA

plants include, but are not limited to, wild grape (*Vitis californica*), wild rose (*Rosa californica*), Himalayan blackberry (*Rubus armeniacus*), and poison oak (*Toxicodendron diversilobum*).

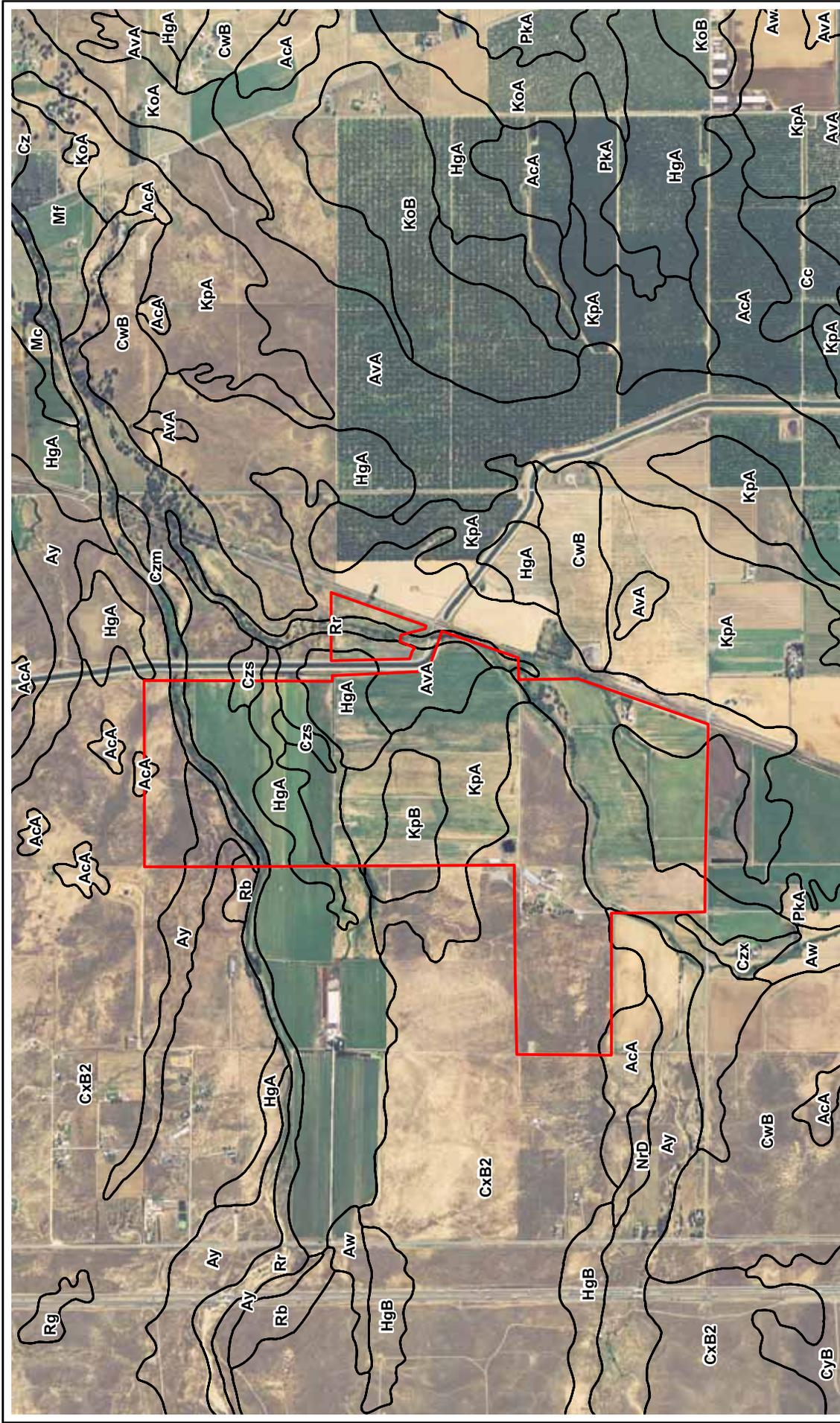
Soils

According to the Tehama County Soil Survey, the project area includes seven different soil types as shown on Figure 8. These include:

- Kimball loam, 0 to 3 percent slopes (KpA):
Areas of soil are quite variable in size and shape. The surface is smooth. The soil is well drained. There is no erosion hazard. The subsoil of dense clay is at a depth of 10 to 20 inches and is penetrated slowly by roots and water.
- Corning-Newville gravelly loams, 3 to 10 percent slopes, eroded (CxB2):
This complex consists of Corning gravelly loam, 3 to 8 percent slopes, and Newville gravelly loam, 3 to 10 percent slopes, eroded. Either soil may occupy 20 to 80 percent of the area.

Corning gravelly loam, 3 to 8 percent slopes, has an uneven surface because of small drainage-ways that cut through most of the area. Most of the short drainage-ways are cut by gullies, which generally can be crossed with equipment used for cultivation. Because of a claypan in the subsoil, permeability is slow.

Newville gravelly loam, 3 to 10 percent slopes, eroded, are the less steep of the Newville Series. The soils are well-drained, permeability is slow, the available water-holding capacity is low, runoff is medium, and the erosion hazard is moderate. The clay subsoil, at a depth of 10 to 20 inches, is slowly penetrated by roots and water.
- Cortina very gravelly fine sandy loam (Czs):
Soil is in fairly small areas. It is 50 to 90 percent gravel by volume. Drainage is excessive, runoff is very slow, and permeability is very rapid. The available water-holding capacity is low.
- Hillgate loam, 0 to 3 percent slopes (HgA):
Areas vary in size and shape from place to place but are very smooth. The soil is well drained. Runoff is slow, and permeability is slow to very slow. Available water-holding capacity is low. Movement of water and roots through the soil is restricted by the dense subsoil. There is little or no erosion.
- Kimball loam, 3 to 8 percent slopes (KpB):
The soil is gently sloping. Runoff is slow to medium, and the hazard of sheet and gully erosion is slightly moderate. The soil is well-drained loam, and the subsoil is clay.
- Arbuckle gravelly loam, 0 to 3 percent slopes (Ava):
Soil is gently sloping, well drained, and gravelly. Runoff is slow, and permeability is moderate to moderately rapid. The available water-holding capacity is moderate. There is no erosion hazard.
- Riverwash (Rr):
Riverwash consists of channels of intermittent streams and active streams where the water is high. The areas are made up of deposits of sand and gravel.



Soil Map Unit
 Project Boundary

FIGURE 8
 SOILS
 ALSTON DAIRY
 TEHAMA COUNTY, CALIFORNIA



SOURCE: NAIP 2005; NRCS 2004

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- Altamont clay, terrace, 0 to 3 percent slopes (Aca):
Surface is smooth but rounded, and slopes are gentle. Drainage is good. During the first rains, water intake is rapid, but when the soil expands, cracks close and intake of water slows. Runoff from moist soil is slow to moderate. During high rainfall periods, the soil may slip.

Geology

The project area is located within the Great Valley geomorphic province. The predominant geologic unit in this area is the Upper Pliocene Nonmarine, which characteristically contains formed, rounded hills with moderate relief. It is composed of fluvial sedimentary deposits of semi-consolidated pale green, gray and tan sands, tuffaceous sands, silts, and clays with minor discontinuous gravel lenses and lenses of pebble and cobble conglomerates.

The Great Valley Province is a sedimentary basin approximately 400 miles long by 50 miles wide, located throughout the central portion of California. In the watershed, the province is characterized by a thick deposit of moderately deformed Jurassic and Cretaceous marine sedimentary layers that consist of detrital materials derived from uplifted basement rocks of the Klamath Mountain and Coast Range Provinces. Great Valley rocks consist primarily of mudstone, shale, and sandstone and occur mostly along the west side of the central valley. These units yield an abundance of suspended sediment but relatively little gravel to drainages.

The faults in the area are the Willows, Corning, and the Red Bluff faults. The Willows Fault system is a northwest trending, steeply east-dipping reverse fault (east side up movement). The fault system lies just west of the Orland Buttes extending northwest near the town of Red Bank. Fault activity is noted as occurring between approximately 60 and 53 million years ago. The Corning Fault is oriented roughly north-south along the Interstate-5 corridor. The fault has been identified from Red Bluff south through Orland, where it turns in a southwesterly direction before intersecting the Paskenta Fault Zone southwest of Artois. The Corning Fault is a reverse fault, dipping steeply to the east and passing west of the Corning domes and the Green Wood anticline. The youngest deposits deformed by the Corning Fault are noted as gravels of the Red Bluff Formation. The Red Bluff Fault extends in a northeasterly direction through Red Bluff. The fault is a subsurface structure interpreted as showing approximately 450 feet of vertical offset (south side down) from seismic-reflection data. These inactive faults typically present no particular geologic or seismic hazards.

Topography

The topography of the project site is very characteristic of the valley floor conditions, with steady rolling hills supporting introduced annual grasslands and sparse trees. The site is comparatively flat to the steeper and more vegetated nearby western foothills. Elevations within the project area range from 215 to 270 feet above mean sea level. The USGS topographic map of the project area was shown on Figure 2.

Climate

The Mediterranean climate of this area is characterized by warm to hot dry summers and cool wet winters. Temperature ranges in this area differ from lower elevations to the high elevations of the mountains to the west. Average monthly precipitation in Corning varies between 0.06 inches in July to 4.3 inches in January. Average monthly temperatures range between a low of 54.2°F in January to 95.2°F in July. In the Corning area, the first frost typically occurs during the first week of December, and the last frost occurs during the first week of March. There are approximately 275 frost-free days per year. Figure 9 presents the average minimum and maximum temperatures by month for the Corning weather station for the period of record between 1952 and 2003. Average monthly precipitation at the Corning station is included in Figure 10. Average annual precipitation at the Corning station is 21.11 inches.

Biological Resources

Database searches for potentially occurring special-status plant and wildlife species were conducted using the California Natural Diversity Database (CNDDDB), the California Wildlife Habitat Relationship System Database (CWHR), and the California Native Plant Society's Inventory of Rare and Endangered Plants (CNPS). The CNDDDB was reviewed for records of special-status plant and wildlife species occurrence within 2 miles surrounding the study site. The CNDDDB, however, is limited to reported sightings and is not a comprehensive list of special-status plant and wildlife species that may occur in a particular area. The CWHR is a scientifically based program that outputs a list of wildlife species that potentially occur within the study area based on wildlife habitats present, habitat elements, and geographic location. The CNPS database outputs a list of rare plants that could occur in the project area.

For the purpose of this study, state and federally listed plants and wildlife that could potentially occur in the area are included (see biological discussion). This includes Federally Endangered, Federally Threatened, Federal Species of Special Concern, California Endangered, California Threatened, California Fully Protected, California Protected, and California Species of Special Concern listed on the CNDDDB, CWHR and CNPS databases. Figure 11 shows noted CNDDDB occurrences within a 2-mile radius of the study site.

Hydrology

Surface Water: Scattered intermittent streams with occasional high flows best summarize the project area hydrology, with a few large reservoirs used for agricultural and fire applications. Two streams, Moore Creek and Sour Grass Creek, cross the site. They are shown on Figure 12, along with FEMA Zone A flood areas.

Groundwater: Tehama County has several water-bearing geologic formations. The Tehama Formation on the east side of the county supplies groundwater to deep wells. The Riverbank Formation occurs in patches throughout Tehama County, and provides water to shallow wells in the valley. The Modesto Formation is near the Sacramento River and also supplies water to shallow wells in the valley.

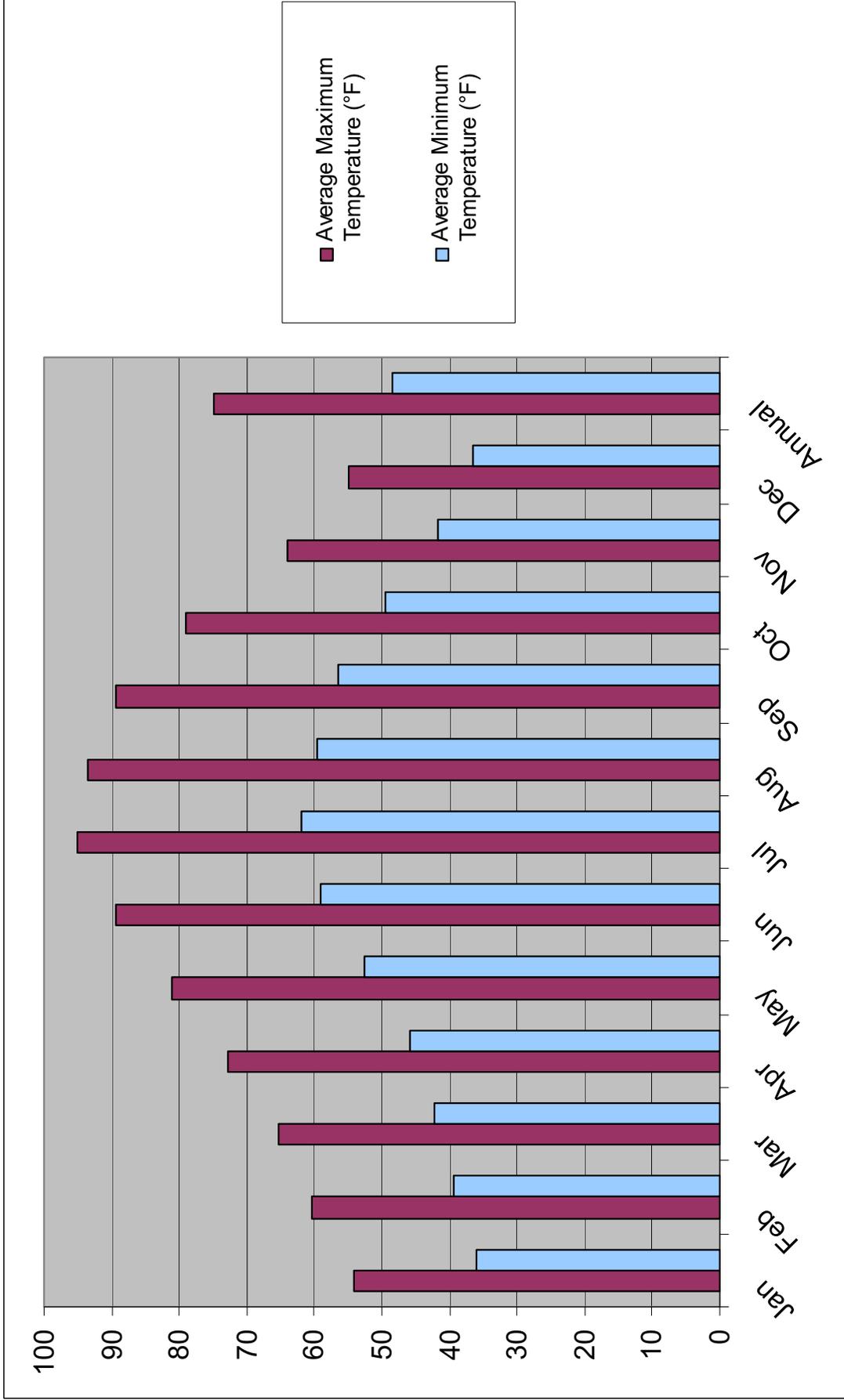


FIGURE 9
 AVERAGE ANNUAL MINIMUM AND
 MAXIMUM TEMPERATURES
 ALSTON DAIRY
 TEHAMA COUNTY, CALIFORNIA



SOURCE: CORNING AIRPORT (CRG) WEATHER STATION, PERIOD OF RECORD 1952 TO 2005

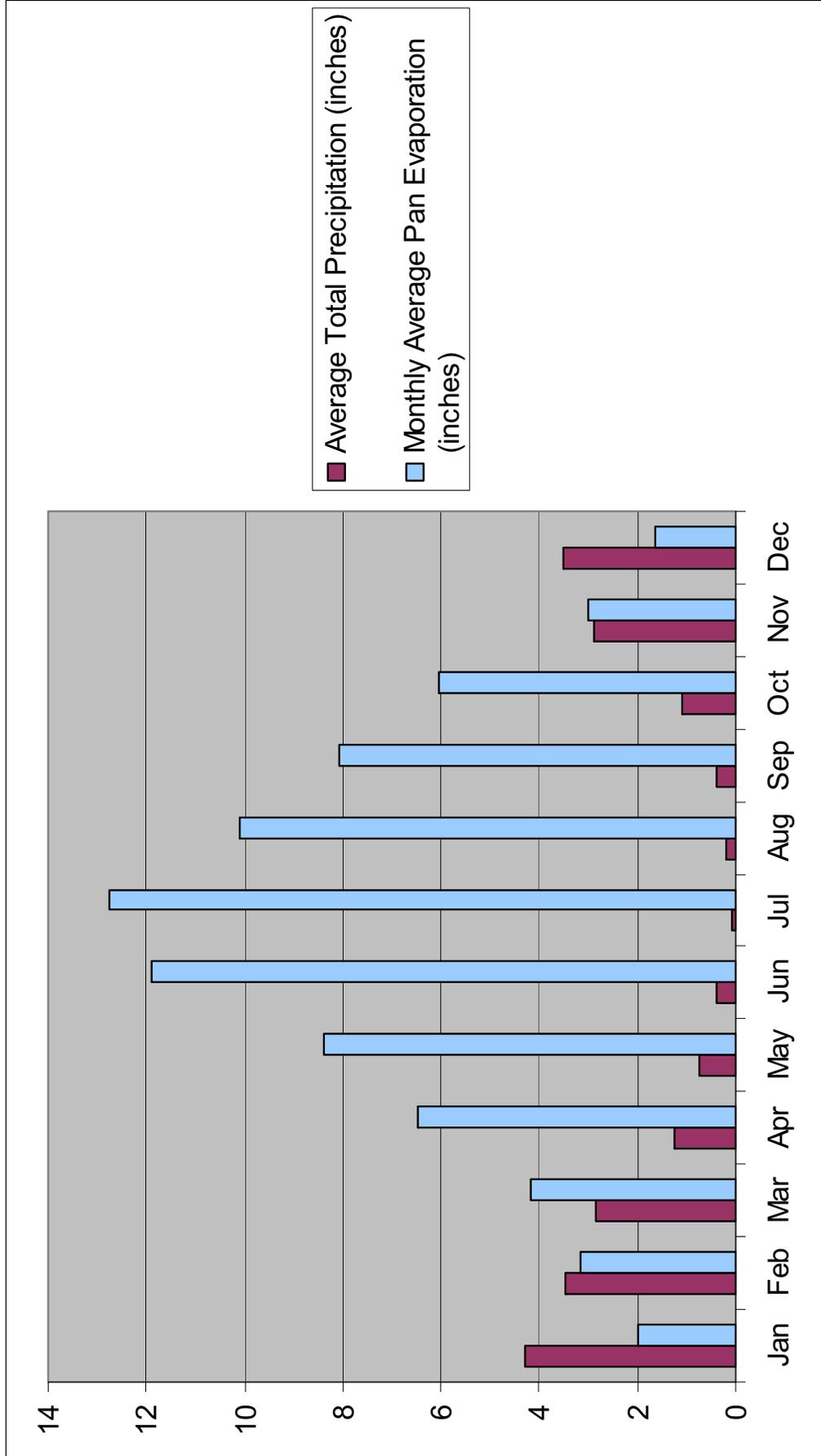
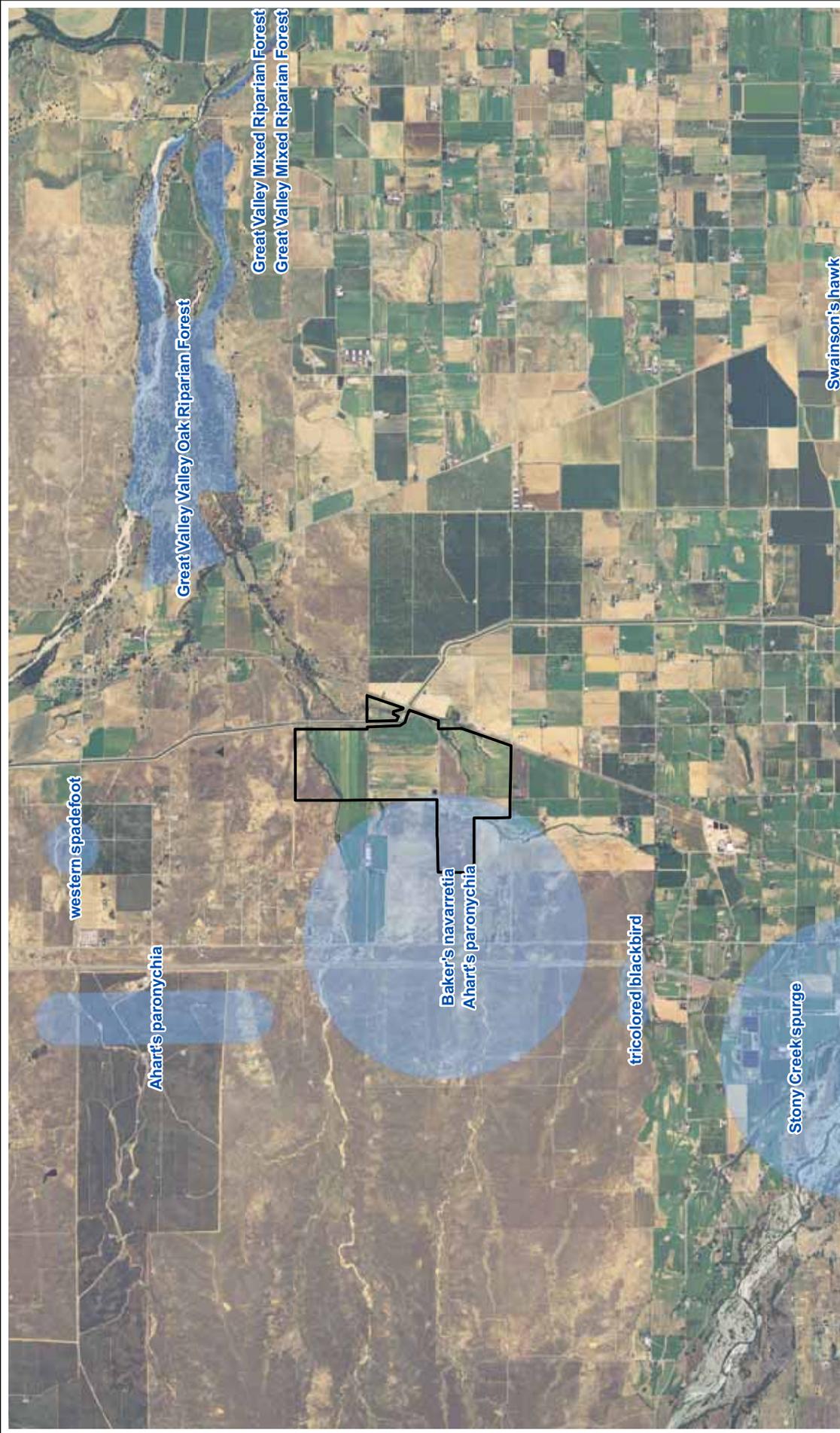


FIGURE 10
 AVERAGE ANNUAL PRECIPITATION
 AND EVAPOTRANSPIRATION
 ALSTON DAIRY
 TEHAMA COUNTY, CALIFORNIA



SOURCE: CORNING AIRPORT (CRG) WEATHER STATION, PERIOD OF RECORD 1952 TO 2005



 Project Boundary
 CNDDB Occurrence

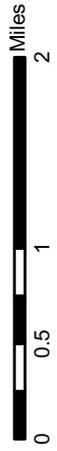
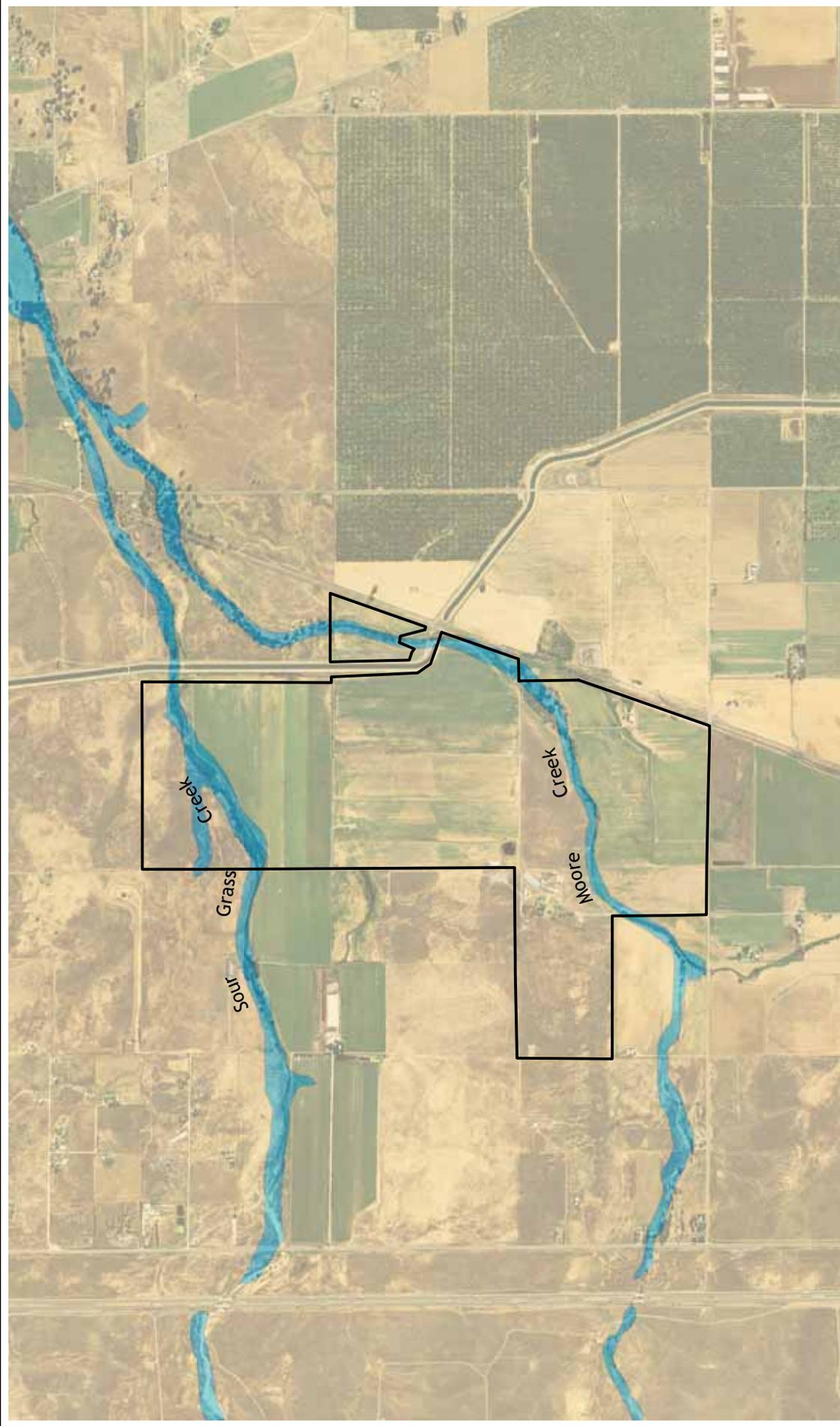


FIGURE 11
 CNDDB OCCURRENCE
 ALSTON DAIRY
 TEHAMA COUNTY, CALIFORNIA



SOURCE: NAIP 2005; CNDDDB OCTOBER 2008 EDITION



-  Project Boundary
-  Zone A - Area Subject to Inundation
-  Zone X - Area Outside of 500-Year Flood

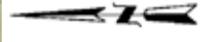


FIGURE 12
 HYDROLOGY & FEMA FLOOD DATA
 ALSTON DAIRY
 TEHAMA COUNTY, CALIFORNIA



SOURCE: NAIP 2005; FEMA 2003

Groundwater levels in the county show seasonal drawdown because of summer crop and landscape irrigation demands. Groundwater levels decrease during the summer with larger seasonal variations in areas that use groundwater. Areas that use groundwater as the primary supply typically show increased seasonal drawdown. These areas include Action Tree Farm and El Camino Irrigation District.

A detailed water inventory and analysis was completed for Tehama County in 2003 by Camp Dresser McGee (CDM). The dairy is located in the Corning east water inventory unit. Groundwater in the vicinity, based on DWR wells 23N03W22Q001M (record 1950-2009) and 23N03W36M002M (record 1970-1995), the two wells closest to the dairy site, varies from 40 to 60 feet below ground surface. Based on groundwater contours from the CDM 2003 report, groundwater in the vicinity moves to the southeast toward the Sacramento River (see Figure 13).

DAIRY OPERATIONS

The project is the reopening of a grade A dairy that previously operated from 1976 to 2002. The RWQCB has required that the facility obtain individual WDRs as the facility is not considered an “existing” dairy under the General Order for Milk Cow Dairies R5-2007-0035 (General Order).

All appurtenances for the dairy operation are currently in place and include:

- Freestall barn
- Hay storage barn
- Shop
- Milking parlor
- Wastewater lagoon
- Residence

These are shown on the site plan included as Figures 7a and 7b.

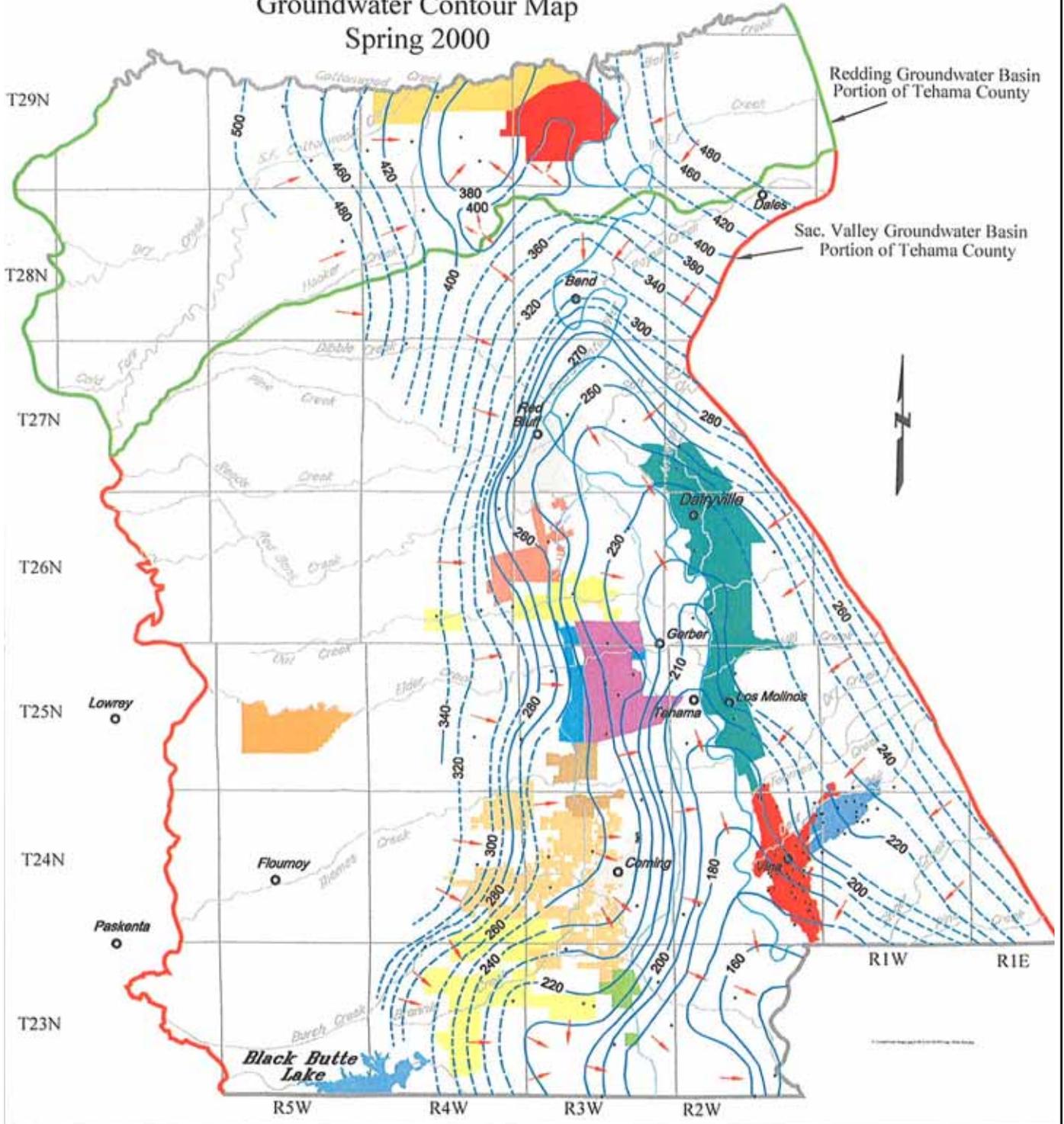
The operation intends to milk up to 400 cows per day. Up to 400 dry cows and bred heifers will be kept on pasture onsite; calves will be located elsewhere.

The reestablished operation has two irrigation wells, both of which are elevated above a gated irrigation system in order to prevent backflows. Reestablished operations include a wash parlor, freestall housing, and exercise pens. Feed storage facilities include barns used to store concentrated feedstuffs and feed commodities. Additional storage of concentrates and feed stocks would be on concrete slabs under cover. Storage of bedding material would be under cover in a barn. Production estimates for the facilities report total yearly manure production at 36,667 cyd, of which 24,147 cyd would be dried in a storage area for field application. The reopened dairy would also generate an estimated 87,000 gallons of wet manure per year and another 1,094,000 gallons of milk barn wash water per year, which will be flushed into the storage lagoon.

Milk parlor wash water is conveyed to a wastewater lagoon, mixed as necessary with fresh well water, and used to irrigate Fields 2D, 2E, and 2F. Wastewater is not applied, has not ever been applied, and will not be applied to Fields 3G and 3H. Fields receiving wastewater have a tailwater management system that drains to a tailwater pond. Barns are scraped; manure is dried, mixed with bedding, and applied to fields as available. Manure will be applied to Fields 3H and

Tehama County Groundwater Contour Map Spring 2000

Draft



--- 200 ---
 Groundwater Elevation Contour
 dashed where uncertain
 Contour Interval = 10 feet up to 300 ft
 Contour Interval = 20 feet after to 300 ft
→ General Direction of
 Groundwater Movement

--- Sac. Valley Groundwater Basin Boundary
--- Redding Groundwater Basin Boundary
--- Tehama County Line

0 1 2 3 4 5 10
 MILES

● Well Location used for Contours
 NOTE: Location of groundwater contours should be considered approximate. Change in groundwater level contours represent data collected from wells that produce from mixed aquifer zones between -80 to 300 feet. Groundwater level data from perched aquifer zones and from aquifers deeper than 300 feet were not included in the contouring data set.

FIGURE 13
 ALSTON DAIRY
 TEHAMA COUNTY, CALIFORNIA

3G, primarily. In addition, Fields John2, John3, John4, 4J, 1A, and 1B may be used for manure application in the future and are included here.

Irrigation system water from Fields 2D, 2E, 2F, 3G, and 3H (see Site Plan) is recycled into a tailwater pond. Other fields have berms and/or tailwater collection areas that can be pumped with a portable sump pump. The wastewater lagoon is not lined; however, underlying soils are from the Corning-Newville series which contain clays and have low permeabilities.

The RWQCB has required that the Report of Waste Discharge include a Monitoring Well Installation and Sampling Plan. Four wells will be installed to determine impacts to underlying groundwater. The dairy operations will use two well pumps with a combined capacity of 1,700 gallons per minute for pasture irrigation as well as animal and facilities wash water. Approximately 1,000 gallons of water available for recycling will also be used as wash water. As previously mentioned, depth to water in a test well near the site has remained constant over the past several years and continues to range between 65 and 75 feet. During extremely wet years, the well's depth ranges between 45 and 50 feet.

Tillage patterns on irrigated and unirrigated pastures, cropped fields, and grazing operations would remain the same. No changes are expected to occur along the banks or stream channel of Sour Grass Creek or Moore Creek. Other than minor building modifications, no significant increase in impervious surface will result from the execution of this project. As a result, no additional contributions of storm water are anticipated. All structures within the project area are above the 100-year floodplain, and there are no threats to existing structures attributable to flooding, seiche, tsunami, or mudflows. The field system is bermed to prohibit transfer of tailwater to adjacent surface water courses. Buffers and setbacks provide additional protection.

II. DISCRETIONARY APPROVAL ACTION BEING CONSIDERED



INDIVIDUAL WASTE DISCHARGE REQUIREMENTS

Region Approving Project: California Regional Water Quality Control Board
Central Valley Region
Dairy Unit

Contact Person: Charlene Herbst
Chief, Confined Animal Facility Regulatory Unit
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6114
Phone: (916) 464-3291
Fax: (916) 464-4645

III. ENVIRONMENTAL CONDITIONS POTENTIALLY AFFECTED

SUMMARY OF IMPACTS

The boxes checked below identify environmental factors that were found in the following ENVIRONMENTAL SETTING/IMPACT ANALYSIS section to be potentially affected by this project, involving at least one impact that is “Potentially Significant” or “Potentially Significant Unless Mitigated”.

- Aesthetics
- Air Quality
- Agricultural Resources
- Biological Resources
- Cultural Resources
- Geology & Soils
- Hazards & Hazardous Materials
- Hydrology & Water Quality
- Land Use Planning
- Mineral Resources
- Noise
- Population & Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities & Service Systems

IV. ENVIRONMENTAL SETTING/IMPACT ANALYSIS

The following pages provide a brief description of the physical environmental conditions that exist within the area affected by the proposed project and an analysis of whether or not those conditions will be potentially impacted by the proposed project. A list of references used to support the following discussion and analysis are contained in Section VI.

SUMMARY

Actions that are included in the project design to avoid or reduce impacts to a level of insignificance are summarized below.

Baseline

The project is the reopening of a grade A dairy that previously operated from 1976 to 2006. All appurtenances for dairy use remain onsite. For purposes of CEQA analysis, the baseline conditions onsite include:

- All in-place dairy buildings
- Existing irrigation wells and irrigation system
- Ongoing grazing of pastureland by up to 800 head of cattle
- Occupied residence

Water Quality

- BMPs will be used in all phases of project.
- Monitoring wells will be installed at wastewater lagoon.
- Issuance of WDRs will cover land application of waste.
- There will be a 100-foot buffer from Sour Grass Creek for wastewater application.
- Berms and tailwater system will be used.

PROJECT DESCRIPTION

The project as defined under CEQA includes only the reuse of the facility for the milking of dairy cattle and the associated transfer of runaway flush water to the existing holding lagoon and reuse of wastewater and dried manure on adjoining cropland.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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I. AESTHETICS -- Would the project:

a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The project area contains scenic resources characteristic of western Tehama County in general, including gently rolling hills and agricultural settings. The project area and surrounding lands are relatively unpopulated and have been used largely for agricultural purposes for more than 100 years. The existing agricultural use of the project site is consistent with the rural aesthetic quality of the project area. The project area does not contain scenic vistas or scenic resources including trees, rock outcroppings, or historic buildings. The project area is not located adjacent to a state highway.

The proposed project does not involve the construction of new structures, sources of light, or glare. The proposed project would result in the continued agricultural use of the project site. The reestablishment of milking operations at the dairy will utilize already in-place equipment and structures; no changes in the footprint of developed areas are foreseen. As a result, this project will not result in adverse impacts to scenic vistas or damage scenic resources. As the visual characteristics of the project site and surrounding area are related to developed agriculture, no degradation in these characteristics is expected. The developed portions of the project site are isolated from surrounding homes and other structures and as a consequence would not produce light or glare that would negatively affect day or nighttime views. This use is consistent with the rural aesthetic quality of the project area. No impact would occur.

II. AGRICULTURE RESOURCES -- In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

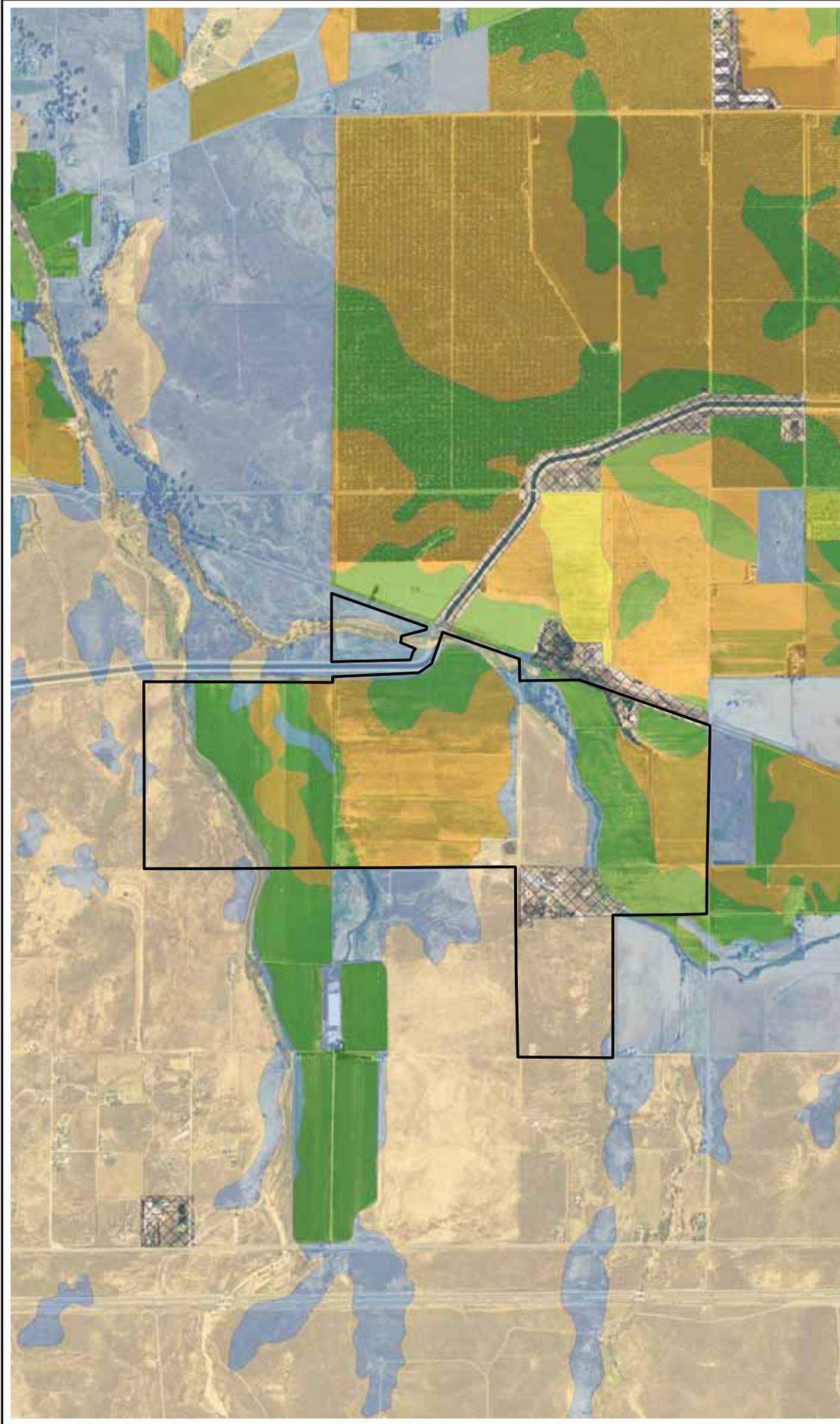
	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment which, due to their location or nature that could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The project area is zoned as Exclusive Agriculture, and the current Tehama County General Plan has identified the land use of the project area as cropland (see previous Figures 5 and 6). Agriculture and agricultural production are valued land uses in Tehama County. The site would continue to be used for agricultural purposes under the proposed project. In the proposed General Plan, the site is zoned Valley Agriculture.

The reestablishment of operations at the dairy would not result in changes to the current condition of agricultural resources within the project area including conversion of Prime or Unique farmland as well as those classified as Farmland of Statewide Importance to nonagricultural use. Prime farmland mapping is included on Figure 14. The project will not conflict with existing zoning for agricultural use or any Williamson Act contract and will not result in conversion of farmland to nonagricultural uses.

No impacts would occur to agricultural resources as a result of the proposed project.



-  Project Boundary
-  Farmland of Statewide Importance
-  Unique Farmland
-  Farmland of Local Importance
-  Prime Farmland
-  Other Land

FIGURE 14
PRIME FARMLAND
 ALSTON DAIRY
 TEHAMA COUNTY, CALIFORNIA



SOURCE: NAIP 2005; CALIFORNIA DEPARTMENT OF CONSERVATION 2007



III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The project site is located in the Northern Sacramento Valley Air Basin (NSVAB). The NSVAB is bounded on the north and west by the Coastal Mountain Range and on the east by the southern portion of the Cascade Mountain Range and the northern portion of the Sierra Nevada Mountains. These mountain ranges reach heights in excess of 6000 feet with peaks rising much higher. This provides a substantial physical barrier to locally created pollution as well as that transported northward on prevailing winds from the Sacramento Metropolitan area.

The valley is often subjected to inversion layers that, coupled with geographic barriers and high summer temperatures, create a high potential for air pollution problems. This is due to relatively stable atmospheric conditions which act to suppress vertical air movement. Common pollutants in the region are summarized in Table 1.

Ambient Air Quality Standards

Federal

At the federal level, the U.S. EPA has been charged with implementing national air quality programs. The U.S. EPA air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was signed into law in 1970. Congress substantially amended the CAA in 1977 and again in 1990.

Table 1 CRITERIA AIR POLLUTANTS SUMMARY OF COMMON SOURCES AND EFFECTS				
Pollutant	Description	Sources	Health Effects	Welfare Effects
Carbon Monoxide	Colorless, odorless gas	Motor vehicle exhaust, indoor sources include kerosene heaters and wood-burning stoves	Headaches, reduced mental alertness, heart attack, cardiovascular diseases, impaired fetal development and death	Contributes to the formation of smog
Sulfur Dioxide	Colorless gas that dissolves in water vapor to form an acid, and interacts with other gases and particulates in the air	Coal-fired power plants, petroleum refineries, manufacture of sulfuric acid and smelting of ores containing sulfur	Eye irritation, wheezing, chest tightness, shortness of breath, and lung damage	Contributes to acid rain formation, impairs visibility and plant photosynthesis, degrades water quality, results in aesthetic damage to buildings
Nitrogen Dioxide	Reddish brown, highly reactive gas	Motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuels	Susceptibility to respiratory infections, irritation of the lung and respiratory symptoms (e.g., cough, chest pain, difficulty breathing)	Contributes to the formation of smog and acid rain, degrades water quality, contributes to global warming, and impairs visibility
Ozone	Gaseous pollutant when it is formed in the troposphere	Vehicle exhaust and certain other fumes. Formed from the combination of reactive organic gases and oxides of nitrogen in the presence of sunlight	Eye and throat irritation, coughing, respiratory tract problems, asthma, and lung damage	Plant and ecosystem damage
Lead	Metallic element	Metal refineries, lead smelters, battery manufacturers, iron and steel producers, and use of leaded fuels by racing and aircraft industries	Anemia, high blood pressure, brain and kidney damage, and neurological disorders, cancer and a lowered IQ	Affects plants, animals, and aquatic ecosystems
Particulate Matter	Very small particles of dust, soot, or other matter, including tiny droplets of liquids	Diesel engines, power plants, industries, windblown dust and wood stoves	Eye irritation, asthma, bronchitis, lung damage, cancer, heavy metal poisoning, and cardiovascular effects	Impairs visibility, impairs plant photosynthesis, and results in atmospheric deposition and aesthetic damage to buildings
<i>Source: ARB 2005; EPA 2005</i>				

The CAA required EPA to establish the national ambient air quality standards (NAAQS), and to also establish deadlines for their attainment. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare from nonhealth-related adverse effects, such as visibility restrictions.

The CAA Amendments of 1990 made major changes in deadlines for attaining NAAQS and in the actions required of areas of the nation that exceed these standards. Under the CAA, state and local agencies in areas that exceed the NAAQS are required to develop and implement air pollution control plans designed to achieve and maintain the NAAQS established by EPA. States may also establish their own standards, provided that state standards are at least as stringent as the NAAQS. California has established California ambient air quality standards (CAAQS) pursuant to California Health and Safety Code Section 39606(b) and its predecessor statutes. The NAAQS and CAAQS are presented in Table 2.

Table 2 SUMMARY OF AMBIENT AIR QUALITY STANDARDS				
Pollutant	Averaging Time	California Standards ^{a, d}	National Standards ^{b, d}	
			Primary ^e	Secondary ^f
Ozone (O _e)	1-hour	0.09 ppm (180 ug/m ³)	--	Same as Primary
	8-hour	0.070 ppm (137 ug/m ³) ^c	0.08 ppm (157 ug/m ³)	
Particulate Matter (PM ₁₀)	AAM	20 ug/m ³	50 ug/m ³ ^f	Same as Primary
	24-hour	50 ug/m ³	150 ug/m ³	--
Fine Particulate Matter (PM _{2.5})	AAM	12 ug/m ³	15 ug/m ³	Same as Primary
	24-hour	No Standard	65 ug/m ³	--
Carbon Monoxide (CO)	1-hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	None
	8-hour	9 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	
	8-hour Lake Tahoe	6 ppm (7 mg/m ³)	--	
Nitrogen Dioxide (NO ₂)	AAM	--	0.053 ppm (100 ug/m ³)	Same as Primary
	1-hour	0.25 ppm (470 ug/m ³)	--	
Sulfur Dioxide (SO ₂)	AAM	--	0.03 ppm (80 ug/m ³)	--
	24-hour	0.04 ppm (105 ug/m ³)	0.14 ppm (365 ug/m ³)	--
	3-hour	--	--	0.5 ppm (1,300 ug/m ³)
	1-hour	0.25 ppm (655 ug/m ³)	--	--
Lead	30-day Average	1.5 ug/m ³	--	--
	Calendar Quarter	--	1.5 ug/m ³	Same as Primary
Sulfates	24-hour	25 ug/m ³	No Federal Standards	
Hydrogen Sulfide	1-hour	0.03 ppm (42 ug/m ³)		
Vinyl Chloride	24-hour	0.01 ppm (26 ug/m ³)		
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient of 0.23 per km, visibility of 10 miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when relative humidity is < 70%		

a) California standards for O₃, CO (except Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, PM (PM₁₀ and PM_{2.5}), and visibility-reducing particles are values that are not to be exceeded. All others are not to be equalled or exceeded.

b) National standards (other than O₃, PM, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The O₃ standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 ug/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of daily concentrations, average over three years, are equal to or less than the standard.

c) This concentration was approved by the Air Resources Board on April 28, 2005, and was expected to become effective in early 2006.

d) Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25 degrees C and a reference pressure of 760 torr.

e) The levels of air quality necessary to protect the public health.

f) The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

AAM = Annual Arithmetic Mean
 ug/m³ = Micrograms per Cubic Meter
 mg/m³ = Milligrams per Cubic Meter
 Ppm = Parts per Million
 Source: ARB 2006; EPA 2006(a)

The CAA requires states to develop an air quality control plan referred to as the State Implementation Plan (SIP). The SIP contains the strategies and control measures that California will use to attain the NAAQS. EPA approved the California SIP in September 1996. The SIP became effective on February 7, 1997. Pursuant to the recently adopted SIP, the State of California will strive for compliance with federal ozone standards by the year 2010. This will be accomplished using a combination of performance standards and market-based programs that will speed the introduction of cleaner technology and expand compliance flexibility (ARB, 2006).

Attainment Status Designations

An attainment designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A nonattainment designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation(s) was caused by an exceptional event, as defined in the criteria.

All Northern Sacramento Valley air districts have been designated as nonattainment areas for the state standards for PM₁₀. All of Northern Sacramento Valley air districts, with the exception of Colusa and Glenn Counties, have been designated as nonattainment areas for the state standard of ozone. This classification has since been amended, with Butte County reverting back to nonattainment for ozone. The nonattainment transitional designation is made by operation of law if, during a single calendar year, the state standard is not exceeded more than three times at any monitoring location within the district. Tehama County is currently nonclassified for ozone (in attainment) and nonattainment for PM₁₀. No monitoring is completed in Tehama County for PM_{2.5}.

Thresholds of Significance

The AQMD is developing air quality thresholds for determination of impact significance for projects subject to CEQA review. Until the Tehama County thresholds are adopted, Tehama County uses thresholds developed by adjoining Shasta County. Thresholds of significance are summarized in Table 3.

Shasta County Air Quality Thresholds	Emissions (lbs/day)		
	NO_x	ROG	PM₁₀
Level "A" Thresholds	25	25	80
Level "B" Thresholds	137	137	137

- Apply Standard Mitigation Measures (SMM) to all projects based on potential air quality impacts.
- Apply SMM and appropriate Best Available Mitigation Measures (BAMM) when a project exceeds Level "A" thresholds. The appropriate type and number of BAMM applied to a project will be based on the unique characteristics of the project. BAMM will be selected from a list of measures kept updated by the Shasta County Planning Division (SCPD) and the Shasta County Air Quality Management District (AQMD).
- Apply SMM, BAMM, and special BAMM (when project exceeds Level "B" thresholds) based on their emission reduction potential to lower project emissions below Level "B" thresholds. The AQMD will advise the SCPD of the efficiency of proposed emission measures as part of the effort to reduce project emissions below Level "B" thresholds.
- If application of the above procedures results in reducing project emissions below Level "B" thresholds, the project can proceed with an environmental determination of a Mitigated Negative Declaration assuming other project impacts do not require more extensive environmental review.
- If project emissions cannot be reduced to below Level "B" thresholds, emission offsets will be required. The SCPD may seek the assistance of AQMD regarding other efforts and measures that could be used to reduce unmitigated emissions exceeding the 137 lbs per day. If, after applying the emissions offsets, the project emissions still exceed the Level "B" threshold, an EIR will be required before the project can be considered for action by the reviewing authority.

Source: Shasta County, 1998

In addition to the thresholds of significance, the proposed project would have a significant impact on air quality if it would:

- Violate any ambient air quality standards; or
- Substantially contribute to an existing or projected violation of an ambient air quality standard; or
- Expose sensitive receptors (i.e., individuals with respiratory disease, the young, the elderly) to substantial pollutant concentrations; or
- Expose members of the public to frequent objectionable odors; or
- Increase global warming; or if
- TACs would exceed or contribute to an exceedance of the action level for cancer risk (10 in a million) or a hazard index risk level of one or higher for the maximally exposed individual (MEI).

At the present time, Tehama County has no specific local air regulations pertaining to air emissions generated in connection with the raising and maintenance of confined or unconfined animal herds. The applicable regulation addressing air issues related to dairy operations are those found under Title 17, Division 1, Chapter 1, Subchapter 2.7 *Large Confined Animal Facilities*. These regulations as administered by the California Air Board related to the emission of POC, NO_x, and PM₁₀ generated at dairy facilities which maintain 1,000 or more milk-producing dairy cows at any one time. As planned, the reopened dairy facility would process a herd of approximately 400 head of milking cattle and up to 400 dry cows and bred heifers. The Large Confined Animal Facilities regulations would not apply to this dairy project.

No new diesel-powered equipment will be put into operation within the reopened dairy operation.

The reopening dairy project will not conflict with or obstruct implementation of the applicable air quality plan, violate any air quality standard or contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors. The project location is reasonably remote (4.5 miles from the nearest town) and will not expose sensitive receptors to substantial pollutant concentrations. A wastewater lagoon is a source of odor. However, given the small size of the wastewater lagoon and the relatively remote location of the project site, it will not be a source of significant objectionable odor affecting a substantial number of people. The wastewater lagoon is small and should not be a source of significant odors.

IV. BIOLOGICAL RESOURCES – Would the project:

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

Discussion

Lands within the project site have been used for agriculture and cattle production since 1976 and lands in the vicinity for agriculture and cattle production for more than 100 years. The reestablishment of milking operations at the dairy will entail the use of currently in-place equipment and structures. Project work will not require the construction of additional facilities or other changes to the developed footprint of the site. The CNDDDB was queried on September 11, 2008, with results related to listed species (Endangered, Threatened, or Sensitive Species) shown on Figure 11.

The following occurrences were noted in the vicinity of the site:

- Western spadefoot (*Spea hammondi*; 2 miles to north)
- Ahart's paronychia (*Paronychia abartii*; on project site; 1.5 miles northwest of project site)
- Baker's navarretia (*Navarretia leucocephala* ssp. *bakeri*; on project site)
- Tricolored blackbird (*Agelaius tricolor*; 1.5 miles to southwest)
- Stony Creek spurge (*Chamaesyce ocellata* ssp. *rattanii*; 2.5 miles to southwest)
- Swainson's hawk (*Buteo swainsoni*; 4 miles to southeast)
- Great valley oak/riparian forest (2 miles to northeast)

The Ahart's paronychia and Baker's navarretia are located on the unirrigated areas of the project site where vernal pool habitat is present (see Figure 11).

The CWHR search returned 37 special-status species with the potential to occur in the project area based upon the habitats present. Three of the 37 species were identified in the CNDDDB search (western spadefoot, tricolored blackbird, and Swainson's hawk). The remaining species are listed below:

- Red-legged frog (*Rana aurora*)
- Double-crested cormorant (*Phalacrocorax auritus*)
- Black-crowned night-heron (*Nycticorax nycticorax*)
- Osprey (*Pandion haliaetus*)
- Bald eagle (*Haliaeetus leucocephalus*)
- Sandhill crane (*Grus canadensis*)
- Long-billed curlew (*Numenius americanus*)
- California gull (*Larus californicus*)
- Black tern (*Clidonias niger*)
- Yellow warbler (*Dendroica petechia*)
- Western pond turtle (*Emys marmorata*)
- White-tailed kite (*Elanus leucurus*)
- Northern Harrier (*Circus cyaneus*)
- Sharp-shinned hawk (*Accipiter striatus*)
- Cooper's hawk (*Accipiter cooperi*)
- Ferruginous hawk (*Buteo regalis*)
- Golden eagle (*Aquila chrysaetos*)
- Merlin (*Falco columbarius*)
- Peregrine falcon (*Falco peregrinus*)
- Prairie falcon (*Falco mexicanus*)
- Yellow-billed Cuckoo (*Coccyzus americanus*)
- Burrowing owl (*Athene cunicularia*)
- Long-eared owl (*Asio otus*)
- Short-eared owl (*Asio flammeus*)
- Bank swallow (*Riparia riparia*)
- Loggerhead shrike (*Lanius ludovicianus*)

- Yellow-breasted chat (*Icteria virens*)
- Long-eared myotis (*Myotis evotis*)
- Western red bat (*Lasiurus blossevilli*)
- Spotted bat (*Euderma maculatum*)
- Townsend's big-eared bat (*Corynorhinus townsendii*)
- Pallid bat (*Antrozous pallidus*)
- Western mastiff bat (*Eumops perotis*)
- Ringtail (*Bassariscus astutus*)
- American marten (*Martes Americana*)
- American badger (*Taxidea taxus*)

In addition to the plants that were identified in the CNDDDB search, the CNPS search returned the following 11 plant species with the potential to occur on the project area:

- Brittscale (*Atriplex depressa*)
- San Joaquin spearscale (*Atriplex joaquiniana*)
- Round-leaved filaree (*California macrophylla*)
- Brown fox sedge (*Carex vulpinoidea*)
- Pink creamsacs (*Castilleja rubicundula* ssp. *rubicundula*)
- Recurved larkspur (*Delphinium recurvatum*)
- Dwarf downingia (*Downingia pusilla*)
- Adobe-lily (*Fritillaria pluriflora*)
- Red Bluff dwarf rush (*Juncus leiospermus* var. *leiospermus*)
- Caper-fruited tropidocarpum (*Tropidocarpum capparideum*)
- Brazilian watermeal (*Wolffia brasiliensis*)

The project will have no adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. No substantial adverse effects on riparian habitat or other related sensitive natural communities will occur. The site has no natural ponds and has been under continuous grazing and cultivation since 1976. No interference with the movement of native resident or migratory fish or wildlife species or established native resident or migratory wildlife corridors will occur, nor will project work impede the use of native wildlife nursery sites. No tree ordinances are applicable, and the project will not conflict with any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved plan.

Because cattle in essentially the same numbers have grazed the site continuously since 1976, this is considered a baseline condition. There is no change in this baseline condition; therefore, no project impacts will occur to these species. The existing riparian habitat associated with Moore and Sour Grass Creeks will not be disturbed by nor impacted by the reopening of the dairy and reuse of the wastewater lagoon.

V. CULTURAL RESOURCES – Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

A “historical resource” includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. In 1992, the Public Resources Code was amended as it affects historical resources. The amendments included creation of the California Register of Historic Resources. The State Historical Resources Commission administers the California Register and adopted implementing regulations effective January 1, 1998. The California Register includes historical resources that are listed automatically by virtue of their appearance on, or eligibility for, certain other lists of important resources. The California Register incorporates historical resources that have been nominated by application and listed after public hearing. Also included are historical resources listed as a result of the State Historical Resources Commission’s evaluation in accordance with specific criteria and procedures. CEQA requires consideration of potential impacts to resources that are listed or qualify for listing on the California Register, as well as resources that are significant but may not qualify for listing.

The reestablishment of the dairy would entail the reoperation of existing milking facilities and equipment. No increase in the developed footprint is anticipated, and no ground disturbance is planned. The structures are included as a background condition. There will be no impacts to significant historical, archeological, or paleontological resources, nor will project work cause a substantial adverse change in the significance of archaeological, paleontological resource, or unique geologic features. Project work will not have the potential to disturb any human remains, including those interred outside of formal cemeteries.

VI. GEOLOGY AND SOILS -- Would the project:

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

Discussion

The project area is located within the Great Valley geomorphic province. The predominant geologic unit in this area is the Upper Pliocene Nonmarine, which characteristically contains formed rounded hills with moderate relief. It is composed of fluvial sedimentary deposits of semiconsolidated pale green, gray and tan sands, tuffaceous sands, silts, and clays with minor discontinuous gravel lenses and lenses of pebble and cobble conglomerates.

The Great Valley Province is a sedimentary basin approximately 400 miles long by 50 miles wide, located throughout the central portion of California. In the watershed, the province is

characterized by a thick deposit of moderately deformed Jurassic and Cretaceous marine sedimentary layers that consist of detrital materials derived from uplifted basement rocks of the Klamath Mountain and Coast Range Provinces. Great Valley rocks consist primarily of mudstone, shale, and sandstone and occur mostly along the west side of the central valley. These units yield an abundance of suspended sediment but relatively little gravel to drainages.

The faults in the area are the Willows fault, Elder Creek Fault, and the Red Bluff fault. These inactive faults typically present no particular geologic or seismic hazards. Tehama County does not have any areas listed as being located within an Alquist-Priolo Earthquake Fault Zone. The Alquist-Priolo Earthquake Fault Zoning Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. Earthquake Fault Zones are regulatory zones around active faults. The zones are defined by turning points connected by straight lines. Most of the turning points are identified by roads, drainages, and other features on the ground. Earthquake Fault Zones are plotted on topographic maps at a scale of 1 inch equals 2,000 feet. The zones vary in width, but average about one-quarter mile wide.

According to the Tehama County Soil Survey, the project area consists of seven different soil types (as was shown on Figure 8):

- Kimball loam, 0 to 3 percent slopes, has smooth surface and is well drained. No erosion hazard. The subsoil of dense clay is at a depth of 10 to 20 inches and is penetrated slowly by roots and water.
- Corning-Newville gravelly loams, 3 to 10 percent slopes, consists of Corning gravelly loam, 3 to 8 percent slopes, and Newville gravelly loam, 3 to 10 percent slopes, eroded. Either soil may occupy 20 to 80 percent of the area.

Corning gravelly loam, 3 to 8 percent slopes, has an uneven surface because of small drainage-ways that cut through most of the area. Most of the short drainage-ways are cut by gullies, which generally can be crossed with equipment used for cultivation. Because of a claypan in the subsoil, permeability is slow.

Newville gravelly loam, 3 to 10 percent slopes, eroded. The less steep of the Newville Series. Well drained, slow permeability. The available water-holding capacity is low, runoff is medium, and erosion hazard is moderate. The clay subsoil, at a depth of 10 to 20 inches, is slowly penetrated by roots and water.

- Cortina very gravelly fine sandy loam is 50 to 90 percent gravel by volume. Drainage is excessive, runoff is very slow, and permeability is very rapid. The available water-holding capacity is low.
- Hillgate loam, 0 to 3 percent slopes, varies in size and shape but is very smooth. The soil is well drained. Runoff is slow, and permeability is slow to very slow. Available water-holding capacity is low. Movement of water and roots through the soil is restricted by the dense subsoil. There is little or no erosion.
- Kimball loam, 3 to 8 percent slopes, is gently sloping. Runoff is slow to medium, and the hazard of sheet and gully erosion is slightly moderate. The soil is well-drained loam. The subsoil is clay.

- Arbuckle gravelly loam, 0 to 3 percent slopes, is gently sloping, well drained, and gravelly. Runoff is slow, and permeability is moderate to moderately rapid. The available water-holding capacity is moderate. There is no erosion hazard.
- Riverwash consists of channels of intermittent streams and active streams where the water is high. The areas are made up of deposits of sand and gravel.
- Altamont clay, terrace, 0 to 3 percent slopes, has a smooth, rounded surface and slopes are gentle. Drainage is good. During the first rains, water intake is rapid, but when the soil expands, cracks close and intake of water slows. Runoff from moist soil is slow to moderate. During high rainfall periods, the soil may slip.

The project will involve no new development and will not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. The project does not change any site features and will not result in strong seismic ground shaking, seismic-related ground failure including liquefaction, or landslides.

The proposed project will not involve any new development or earth-moving activities and will not result in substantial soil erosion or the loss of topsoil. It will not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse. The project includes no new development and is not located on expansive soil, creating substantial risks to life or property.

The project site supports an existing wastewater lagoon used as a surge pond for irrigation water and to contain water from the milking parlor and barn flushing systems. The pond was part of the original dairy operations from 1976 to 2002. The pond is not lined. Soils in the vicinity contain a dense clay subsoil resulting in low permeability (KpA and CxB2). The RWQCB will require installation of monitoring wells in the vicinity of the pond to determine the impact on groundwater quality. The conditions of the WDRs (permit) will serve to protect groundwater quality and thereby serve as mitigation hereunder.

The project will not be located in an area known to have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. No septic tanks or alternative wastewater disposal systems will be installed.

VII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:

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

Discussion

Hazardous materials to be used in the reopened dairy facilities include animal health disinfectants (containing iodine) and chlorine compounds. Iodine-based materials are in liquid form and packaged in bulk containers. The chlorine-based disinfectants are packaged in 500-pound drums. These arrive intermittently by truck and are permitted for highway shipment. There are no schools or airports within ¼ mile of the project site or within the immediately surrounding area, and the operation is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. No emergency response plan or emergency evacuation plan has been established for the project area.

Risk from wildland fire is minimal as the majority of lands within the project site are devoted to irrigated pasture. Local fire protection service is provided by the Capay Fire Protection District's Orland station located roughly 6 miles from the project site. Fire protection service could also be provided by the Tehama County Fire Department's Corning Fire stations located approximately 10 miles from the project site.

The proposed project is located in a rural area that contains substantial fuels (i.e. grasses, shrubs) that are susceptible to wildland fire. However, the proposed project does not consist of any activities that would introduce potential new sources of fire. No impacts are anticipated due to project activities.

VIII. HYDROLOGY AND WATER QUALITY -- Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

amount of surface runoff in a manner which would result in flooding on- or off-site?

- e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
- f) Otherwise substantially degrade water quality?
- g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?
- h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?
- i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure or a levee or dam?
- j) Inundation by seiche, tsunami, or mudflow?

Discussion

Runoff from the combined dairy operations would consist of irrigation tailwater, animal and facilities wash water from milking operations, and rain runoff from buildings, animal holding pens, and other developed areas (4 acres total area) of the operation. The collected runoff would be applied to pasture and cropland. Solid manure would be generated in corrals, holding pens, and chutes. The following describes how each source of manure-contaminated runoff and solid manure would be managed in order to eliminate negative impacts to water quality and violations of WDRs.

Groundwater

DWR reports that water in the vicinity is from 40 to 60 feet below ground surface and moves to the southeast toward the Sacramento River. Onsite wells are 50 feet deep and are screened from 20 to 35 feet. Wells were sampled onsite pursuant to the General Order. The results are summarized in Table 4 and are included in Appendix A.

Sample Location	Date	Conductivity (umhos/cm)	Nitrate/Nitrogen (mg/l)
Lower Irrigation Well	10/22/2007	351	0.3
Irrigation Well (Dairy)	10/22/2007	367	0.7
Domestic Well/SE House	10/22/2007	470	2.1
Domestic Well/SW House	10/22/2007	470	2.1

Fifteen wells were identified within 2,000 feet of the facility. The wells are summarized by type on Figure 3 and listed in Table 5.

Hydrology

Sour Grass Creek and Moore Creek cross the project site. Sour Grass Creek flows along the northern Fields 3G and 3H, and Moore Creek borders Fields John1, John2, and 1B to the south.

Well ID No.	Type	Location	Depth (ft bgs)
2	Domestic	145 Ingram Road	107
9	Irrigation	Christian Road & Malton Ave.	344.5
58	Irrigation	0.5 mi north of Christian Road	260
59	Irrigation	Christian Road	330

Irrigation Tailwater

The dairy production facilities will use a currently in-operation tailwater recovery system (see Site Plan) to collect both irrigation and rainwater water runoff from Fields 2D, 2E, 2F, 3G, 3H, and 3I. This system would also be used to collect occasional runoff of wash water that has been stored in a lagoon and applied to pastures. Once excess water is collected in the tailwater pond, it would be reapplied to fields during subsequent irrigation operations. Moore Creek is protected from runoff from Fields 4J and 1B by berms. Runoff from Field John2 flows to the south, away from Moore Creek. Runoff from John1 will enter Moore Creek. There are no plans to irrigate or apply manure to these fields. All tailwater collected in tailwater collection areas or behind berms will be pumped back to the head of the fields. Through use of the current tailwater recovery system, all manure-contaminated wash and irrigation water flowing through fields containing spread animal manure is retained onsite. All onsite fields are bermed, and 100-foot buffers with significant riparian vegetation are maintained along both creeks.

Stormwater onsite is directed to the pond if in contact with manure. Roof runoff is directed offsite. The surface flow directions are included in the Waste Management Plan and Site Plans (Figures 7a and 7b).

Animal and Facilities Wash/Flush Water

Wash water used on livestock and facilities is collected in a lagoon located adjacent to milking facilities (see Site Plan). The pond is not lined but is underlain by clay soils. The RWQCB will require the pond to be lined as a condition of the WDRs. The liner will be required to meet equivalent protection to the retrofit requirements contained in the General Order for Milk Cow Dairies.

The RWQCB has required the operator to install four monitoring wells in the vicinity of the site to evaluate impacts to water quality, equivalent to the requirements in the General Order. The operation of the dairy will be covered by WDRs and authority of the RWQCB, which will serve to mitigate via regulation any impacts resulting from pond use. A Monitoring Well Installation and Sampling Plan was prepared to address well installation at the site and has been approved by the RWQCB. A copy is included as Appendix B.

Nearby Well Information

Information available for nearby wells was obtained from the Department of Water Resources and is included in Table 5. Wells located within 2,000 feet for which information was not available are identified by letters on Figure 15.

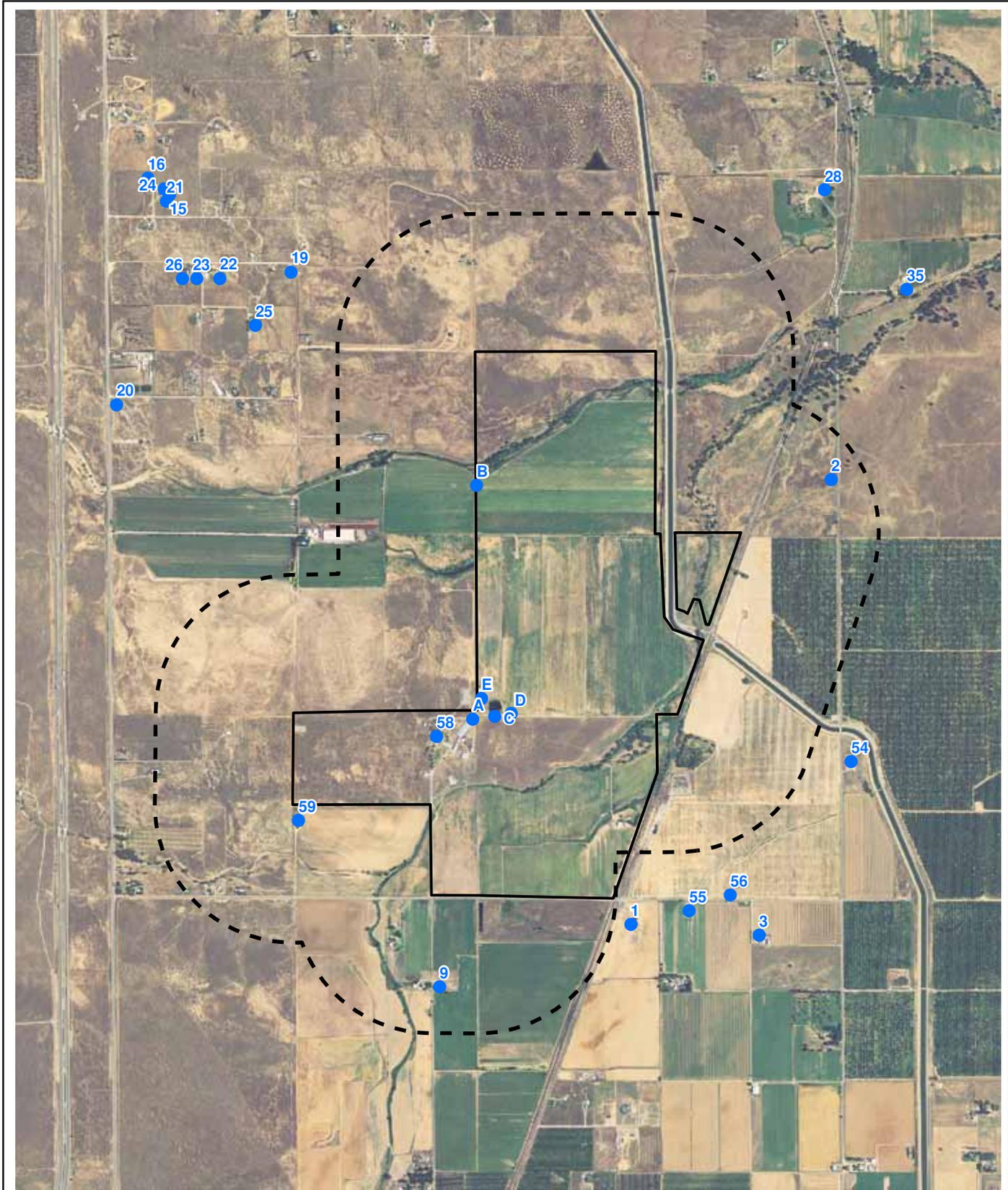
The proposed reopening of the dairy, if properly operated and using required BMPs, should not violate any water quality standards or WDRs. In addition, the proposed reopening of the project as currently configured and existing will not:

- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion, siltation, or flooding on- and offsite.
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems resulting in polluted runoff.
- Otherwise substantially degrade water quality.

The RWQCB will address dairy operating requirements in individual WDRs for the site project. The WDRs will address onsite operational BMPs for the control of the facility's waste stream. These BMPs will include:

- Grazing cattle are excluded from streams
- Lagoon is constructed with sufficient volume to handle waste from dairy
- Manure is flushed and/or scraped from barns on a daily basis to minimize odors
- Maintain sufficient freeboard in lagoon to prevent inadvertent discharges
- Runoff water that comes into contact with waste is diverted to lagoon
- Runoff from feed storage areas is directed to lagoon
- Runoff from manure storage areas is directed to lagoon
- Fresh water from precipitation is diverted away from waste stream
- Wastewater from milk barn is diverted to lagoon
- Water is recycled from equipment to minimize milk barn water use
- Waste stream system is inspected on regular basis to ensure proper function
- Apply waste at agronomic rates
- Grade feed and manure storage areas to prevent ponding of water

In addition, the RWQCB will require installation of groundwater monitoring wells to evaluate the impact of the wastewater pond on the underlying groundwater. The RWQCB will require retrofitting of the pond with a synthetic liner. The RWQCB regulatory authority and permit



- Well Location
- 2,000-Foot Buffer Around Project Boundary
- ▭ Project Boundary



SOURCE: NAIP 2005



FIGURE 15
WELL LOCATIONS
ALSTON DAIRY
TEHAMA COUNTY, CALIFORNIA

conditions will provide necessary mitigation should water quality impacts occur to either groundwater or stormwater onsite.

The mitigation measures required by the RWQCB will have no or less than significant impacts. All proposed mitigation measures have been evaluated. Construction of the pond liner may result in a minor increase in dust due to construction; dust mitigation measures have been included under *Air Quality*. Minor increases in noise due to pond lining construction are also identified as less than significant. There will be no other physical change to the environment due to mitigation.

Because of the physical location of the site away from flood hazard areas and the ocean, the project would not:

- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows.
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam (no dam is included in the project).
- Cause inundation by seiche, tsunami, or mudflow.

IX. LAND USE AND PLANNING -- Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The project site is located in a rural area in Tehama County. The Tehama County General Plan Land Use Element and its policies guide growth and the development and use of land in Tehama County. The Land Use Element of the General Plan designates the project area as

“valley floor.” The zoning ordinance designates the project area as Exclusive Agriculture and Upland Agriculture.

The area within the project site is currently developed as irrigated pasture and inactive dairy. The proposed project would not result in the development of physical barriers that would divide an established community. Under the proposed project, the project site would continue to be used for agricultural purposes which are consistent with the area’s General Plan and zoning designations. No habitat conservation plans or natural community conservation plans currently exist for the project site or immediate vicinity. The proposed project would not have the potential to conflict with any existing habitat conservation plans or natural community conservation plans.

X. MINERAL RESOURCES -- Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The project area is not located in an area containing mineral resource deposits that would be of value to the region and the residents of the state. No mineral resources are located near the project site. No impacts would occur to mineral resources as a result of the proposed project.

XI. NOISE -- Would the project result in:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

Operational noise will occur during milking and pasture management operations and would only be experienced by dairy employees. The level of noise is not expected to exceed those associated with current and surrounding agricultural operations and would not exceed standards established in the Tehama County General Plan and applicable standards of regulatory agencies. Noise levels at the dairy will not result in the exposure of persons to excessive groundborne vibration or groundborne noise. There will be no permanent increase in ambient or periodic noise levels in the project vicinity above those already existing at the site. The project site is not located in the vicinity of a public or private airport; consequently, no major adverse impacts from noise are foreseen.

XII. POPULATION AND HOUSING -- Would the project:

- | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|--------------------------------|---|------------------------------|-------------------------------------|
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

The proposed project is located in a rural area of Tehama County in an area that is currently developed with agricultural uses. The proposed project does not involve the development of

any homes or businesses. It will not generate commercial activities substantial enough to induce substantial growth in the project area and does not involve the displacement of people or housing. The proposed project will have no impacts to population and housing.

XIII. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

Public services provided to the project area include fire protection by the CalFire and the Tehama County Fire Department, police protection by the Tehama County Sheriff's Department, and K through 12th grade public education by the Corning Unified School District.

The proposed project will not result in new demand for government facilities or services. No impacts will occur to public services as a result of the proposed project.

XIV. RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

Tehama County has various types of parklands including federal recreation areas, state parks, regional parks, and local parks. Recreational opportunities include fishing, camping, swimming, picnicking, horseback riding, bicycling, hunting, hiking, and walking.

The proposed project will result in the continued agricultural use of the project site. No new demand will be generated for the use of the existing area parks. The proposed project does not include recreation facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. No impacts to recreation will occur as a result of the proposed project.

XV. TRANSPORTATION/TRAFFIC -- Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

Access to the project site is by public and private roads. Potential increases in traffic at or near the project site would result from one additional tanker truck which will haul milk to a nearby processing plant each day and is considered a less than significant impact. No feed truck

additions are anticipated. No impacts to publicly owned and maintained transportation facilities will occur. Ingress and egress to the site will not require any modification to publicly owned roads. No level of service standards are expected to be exceeded by this project. The project site is not located near an airport or airstrip, and no impacts to air travel will occur. No significant impacts to the public, traffic flow, or patterns along the travel route or transportation infrastructure are anticipated. There will be no impact to parking or public transportation.

XVI. UTILITIES AND SERVICE SYSTEMS -- Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

Residences in the project area rely on private wells for domestic water supply and private septic systems for wastewater treatment. The Red Bluff Landfill in Tehama County accepts solid waste

from the project area and has sufficient capacity. A small increase in solid waste will occur as a result of reopening of the dairy. The impact will be less than significant.

Groundwater to irrigate the pastures is currently pumped from two irrigation supply wells onsite. Wastewater generated in connection with the reestablished milking operations will be stored in an existing retention lagoon for application to pastures. This will reduce the total water demand of the project. Any excess water applied to irrigated lands will be captured in a tailwater system and recirculated to pasture lands. The project will not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, nor will the reestablished operations require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

A slight increase in power usage is anticipated with reestablishment of the milking operations; however, the power demand would not exceed previous use from 1976 to 2002 and falls within the 1990 base level for AB32 global warming requirements. Impacts to utilities and service systems as a result of the proposed project are considered less than significant.

V. PROJECT MONITORING

RESPONSIBLE PARTIES

The ultimate responsibility for implementation of the project and project monitoring is Alston Farms. Contact information for parties involved is as follows:

Operator: Ms. Linda Alston
Alston Farms
1010 Highway 99W
Orland, CA 95963
(530) 864-6685

Agent: Wendy Johnston
VESTRA Resources, Inc.
5300 Aviation Drive
Redding, CA 96002
(530) 223-2585

VI. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION OF CUMULATIVE EFFECTS

A cumulative impact is the effect on the environment, which results from the incremental impact of the proposed project when combined with the effects of other past, present, and reasonably foreseeable future projects. The significance of a cumulative impact may be greater than the significance of individual effects resulting from the individual actions. This section evaluates the reasonably foreseeable potential effects of other existing activities in the area (including other planned projects) when added to the impacts of the project.

Criteria for evaluating the significance of adverse effects are also applicable to cumulative impacts. The timing and duration of each activity is also an important consideration for evaluating the potential cumulative effects of activities that occur only for a limited period. In those cases, a cumulative effect may occur only when two or more of the activities are occurring simultaneously.

The CEQA Guidelines provide that “cumulative impacts shall be discussed when they are significant,” and that “the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence...” (Section 15130 a and b). This section considers the likelihood of such impacts and evaluates any significant effects. These effects, where they occur, are then evaluated for their impact in combination with other activities in the area for cumulative impact.

The impacts associated with the reopening of the milking operations against the existing baseline condition are not considered to be significant individually or cumulatively. The site was

operating as a dairy as recently as 2002. The pastures have been grazed by as many as 800 cows each year since closure of the dairy. The project results in no net change in cow numbers on the site, and the cows will be Holsteins, which is the same type that was present in 2002. The site is currently being leased for grazing purposes by the dairy operation that proposes to reopen the dairy. All dairy appurtenances are already in place. No physical ground disturbance will occur with the exception of lining the lagoon.

The value of agriculture in the county is identified in both the current and proposed General Plan. Tehama County is a right-to-farm county. Dairies are an important aspect of Tehama County agriculture, being in the top 10 agricultural commodities in the county. This area of Tehama County contains numerous small dairies of the size proposed for reopening. The site is designated as “agricultural” in the current and proposed General Plan, so the proposed “dairy” site use is in compliance with the General Plan.

One cumulatively considerable impact identified in the proposed General Plan is loss of agricultural resources to urban development. The continued use of the dairy will preserve agricultural land for agricultural uses.

As of 2002, the county had approximately 68,000 head of cattle, down from a peak of 100,000 in the 1970s (Proposed Tehama County General Plan, 2008). The 400 milking cows that the dairy contained in 2002 were less than 1/10th of 1 percent of the cows in the county at that time. There will be no change in methane emissions from 2002 levels because there is no net change in the number of cows from 2002 conditions. Emissions on the site have fluctuated since 2002 with fluctuations in the number of cattle being grazed on the site, but up to 800 cattle have been grazed on the site since that time. Cumulative impacts of greenhouse gas emissions in the area will not be increased because the number of cattle in the county has declined over the years. This decline is likely to continue as more agricultural land is converted to urban uses in the new General Plan.

There will be no cumulative impacts on traffic in the area due to the reopening of the dairy. A single milk truck will transport milk from the dairy each day. The roads servicing the dairy are designed to handle this kind of truck traffic. This traffic level is not a change from 2002 conditions. No increase will occur due to increased employee traffic because the dairy will be operated by a family that currently utilizes the land for animal grazing.

VII. DETERMINATION OF SIGNIFICANT EFFECT

After review of the project description, the detailed information presented in this Initial Study, project monitoring, and review of the Mandatory Findings of Significance:

- I find that the proposed project COULD NOT have a significant effect on the environment. A NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project COULD HAVE a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project COULD HAVE a significant effect on the environment. An ENVIRONMENTAL IMPACT REPORT will be prepared.

Charlene Herbst
Name

Chief, Confined Animal Facility Regulatory Unit
Title

Signature

Date

VIII. GLOSSARY OF ACRONYMS

The following acronyms are found throughout the Initial Study:

<u>Acronym</u>	<u>Meaning</u>
BLM	Bureau of Land Management
BMPs	Best Management Practices
CCR	California Code of Regulations
CDF	California Department of Forestry
CEQA	California Environmental Quality Act
cfs	Cubic Feet Per Second
CMP	Corrugated Metal Pipe
CNDDDB	California Natural Diversity Data Base
CQA	Construction Quality Assurance
CSP	Corrugated Steel Pipe
DFG	California Department of Fish and Game
DWR	California Department of Water Resources
FIRM	Flood Insurance Rate Map
fps	Feet Per Second
MDBM	Mount Diablo Base Meridian
MSL	Mean Sea Level
NEIC	Northeast Center of the California Historical Resources Information
NOAA	National Oceanographic and Atmospheric Administration
RB	Rural Resident B
RWQCB	Regional Water Quality Control Board, Central Valley Region
SCS	Soil Conservation Service
SSP	Special Status Plants
USFS	United States Forest Service
USGS	United States Geological Survey
WDR	Waste Discharge Requirements
WHR	Wildlife Habitat Relationships

Appendix A
Laboratory Analytical Results



ENVIRONMENTAL

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ANALYTICAL CHEMISTS

October 30, 2007

Lab ID : CH 0776281-004

Customer ID : 7-9156

Alston Dairy

1010 Hwy 99W
Orland, CA 95963

Sampled On : October 21, 2007-17:00

Sampled By : Gil Alston

Received On : October 22, 2007-15:52

Matrix : Drinking Water

Description : Elsie 4 *lower Irrigation Well*
Project :

Sample Results - Inorganic

Constituent	Result	PQL	Units	MCL	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Wet Chemistry ^{P:1}								
Conductivity	351	1	umhos/cm	1600 ²	2510B	10/24/07:210366	2510B	10/24/07:210931
Nitrate Nitrogen	0.3	0.1	mg/L	10	4500NO3F	10/24/07:210388	4500NO3F	10/24/07:211100

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: H2SO4 pH < 2
MCL = Maximum Contamination Level. ²- Secondary Standard.



ENVIRONMENTAL



ANALYTICAL CHEMISTS

October 30, 2007

Lab ID : CH 0776281-005

Customer ID : 7-9156

Alston Dairy
1010 Hwy 99W
Orland, CA 95963

Sampled On : October 21, 2007-17:00

Sampled By : Gil Alston

Received On : October 22, 2007-15:52

Matrix : Drinking Water

Description : Elsie 5 *irrigation well*
Project : *Q Dairy*

Sample Results - Inorganic

Constituent	Result	PQL	Units	MCL	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Wet Chemistry ^{P,1}								
Conductivity	367	1	umhos/cm	1600 ²	2510B	10/24/07:210366	2510B	10/24/07:210931
Nitrate Nitrogen	0.7	0.1	mg/L	10	4500NO3F	10/24/07:210388	4500NO3F	10/24/07:211100

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: H2SO4 pH < 2
MCL = Maximum Contamination Level. ² Secondary Standard.



ENVIRONMENTAL



ANALYTICAL CHEMISTS

October 30, 2007

Lab ID : CH 0776281-006

Customer ID : 7-9156

Alston Dairy

1010 Hwy 99W

Orland, CA 95963

Sampled On : October 21, 2007-17:00

Sampled By : Gil Alston

Received On : October 22, 2007-15:52

Matrix : Drinking Water

Description : Elsie 6 *domestic S/E Home*

Project :

Sample Results - Inorganic

Constituent	Result	PQL	Units	MCL	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Wet Chemistry ^{P.1}								
Conductivity	470	1	umhos/cm	1600 ²	2510B	10/24/07:210366	2510B	10/24/07:210931
Nitrate Nitrogen	2.1	0.1	mg/L	10	4500NO3F	10/24/07:210388	4500NO3F	10/24/07:211100

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: H2SO4 pH < 2

MCL = Maximum Contamination Level. ²- Secondary Standard.



ANALYTICAL CHEMISTS

October 30, 2007

Lab ID : CH 0776281-007

Customer ID : 7-9156

Alston Dairy

1010 Hwy 99W

Orland, CA 95963

Sampled On : October 21, 2007-17:00

Sampled By : Gil Alston

Received On : October 22, 2007-15:52

Matrix : Drinking Water

Description : Elsie 7 domestic s/w home
Project :

Sample Results - Inorganic

Constituent	Result	PQL	Units	MCL	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Wet Chemistry ^{2,1}								
Conductivity	470	1	umhos/cm	1600 ²	2510B	10/24/07:210366	2510B	10/24/07:210931
Nitrate Nitrogen	2.1	0.1	mg/L	10	4500NO3F	10/24/07:210388	4500NO3F	10/24/07:211100

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: H2SO4 pH < 2

MCL = Maximum Contamination Level. ²- Secondary Standard.