#### **MAP/INFO PACKAGES:**

#### PROPOSED DELIVERY ROUTE MAPS

#### PLOT PLAN OF INTENDED PROJECT

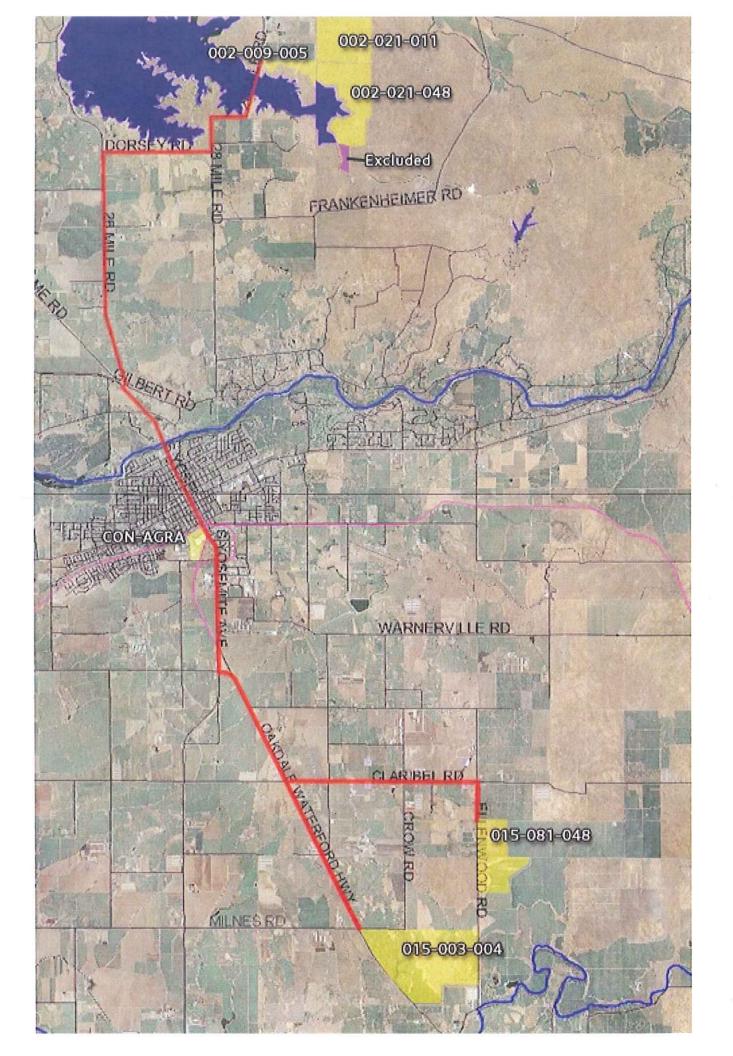
- Location, North arrow, scale and boundaries,
- Name and address of recorded owner,
- Name and person preparing the map,
- · Acreage to the nearest acre,
- Location and size of waterway, drainage courses, pipelines, existing irrigation and drainage facilities, irrigation and drainage patterns, existing or proposed water wells, septic tanks and drainage (leach) fields, sewage lines and structures used in connecting therewith, slope of the land, and
- Outline of existing buildings and other structures to remain in place within the project area, showing the distance to existing or proposed public and private roadways.

**COLOR AERIAL VIEW CROP MAP** 

**USABLE ACREAGE ESTIMATE** 

ADJACENT PARCEL MAP INCLUDING PARCEL OWNERS AND ADDRESSES

SOIL TYPES AND ABSORBTION RATE MAP



#### Parcel Information Report --- Custom Option

APN: 015-003-004

OWNERS NAME: VARODDEN INC

SITE or STREET ADDRESS: ELLENWOOD W OF RD

WATERFORD, CA

MAILING ADDRESS: 4000 ELLENWOOD RD #2

OAKDALE, CA 95361

COMMUNITY SERVICE DISTRICT: Not Within

**ELEMENTARY SCHOOL DISTRICT: WATERFORD UNIFIED** 

FEMA 2008 ZONE: FLOOD ZONE X - OUTSIDE THE 0.2% FLOODPLAIN

FEMA 2008 FIRM PANEL: 06099C0366E

FIRE DISTRICT: STANISLAUS CONSOLIDATED FIRE

FIRE HAZARD SEVERITY ZONE: LRA

GENERAL PLAN DESIGNATION (County): AG

HIGH SCHOOL DISTRICT: WATERFORD UNIFIED

HOSPITAL DISTRICT: OAK VALLEY

JURISDICTION: COUNTY

MOSQUITO ABATEMENT DISTRICT: EASTSIDE MOSQUITO

MUNICIPAL ADVISORY COUNCIL: NOT WITHIN

REDEVELOPMENT SUB-AREAS: NOT WITHIN

SPHERE OF INFLUENCE: NONE

STORM DRAINAGE DISTRICT: NOT WITHIN

SUPERVISORIAL DISTRICT: DISTRICT 1

SUPERVISOR: WILLIAM O'BRIEN

WATERLINE IMPROVEMENT AREA: NOT WITHIN

WILLIAMSON ACT: 71-0012 Year:1971

ZONING DESIGNATION (County): A-2-40

<sup>\*</sup> Ownership and mailing address information subject to verification until further notice. Rex 4.0 - Stanislaus County Public Works Department

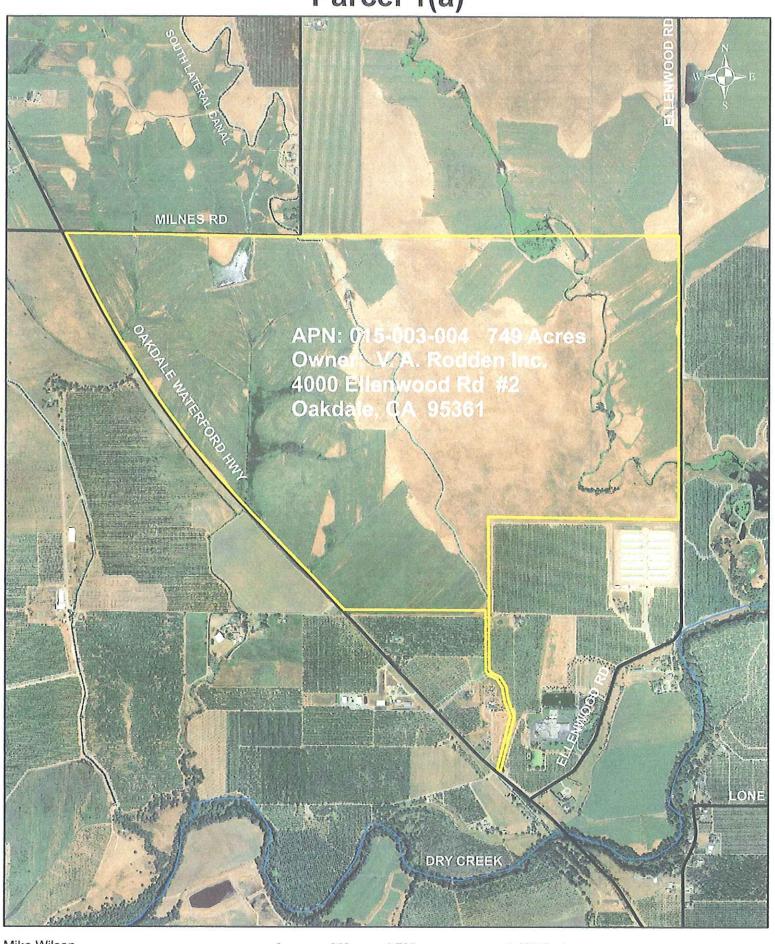


# Directions to 3000 Crow Rd, Oakdale 95361

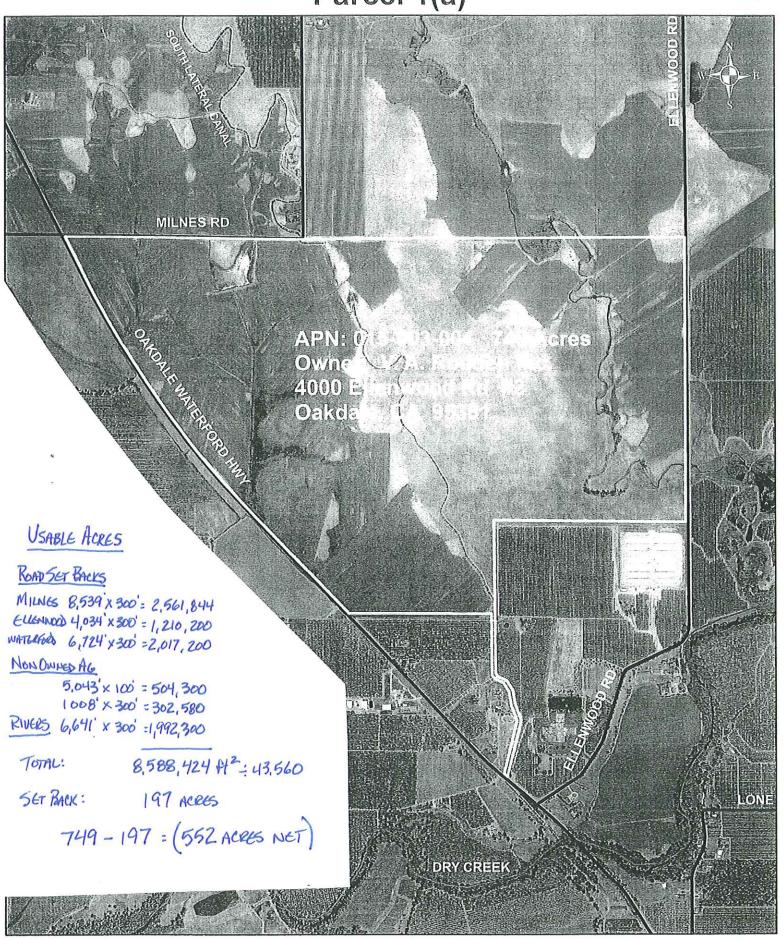
**6.6 mi** – about **14 mins**Proposed Delivery Route from ConAgra site to Parcel 1(a)



Parcel 1(a)

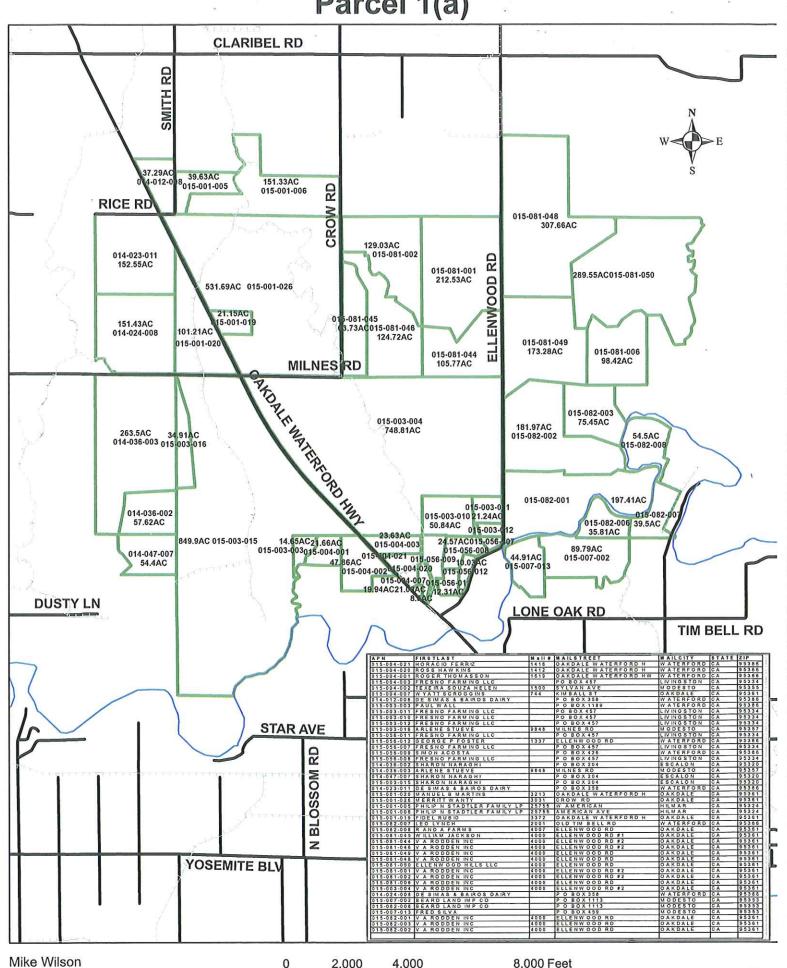


Parcel 1(a)



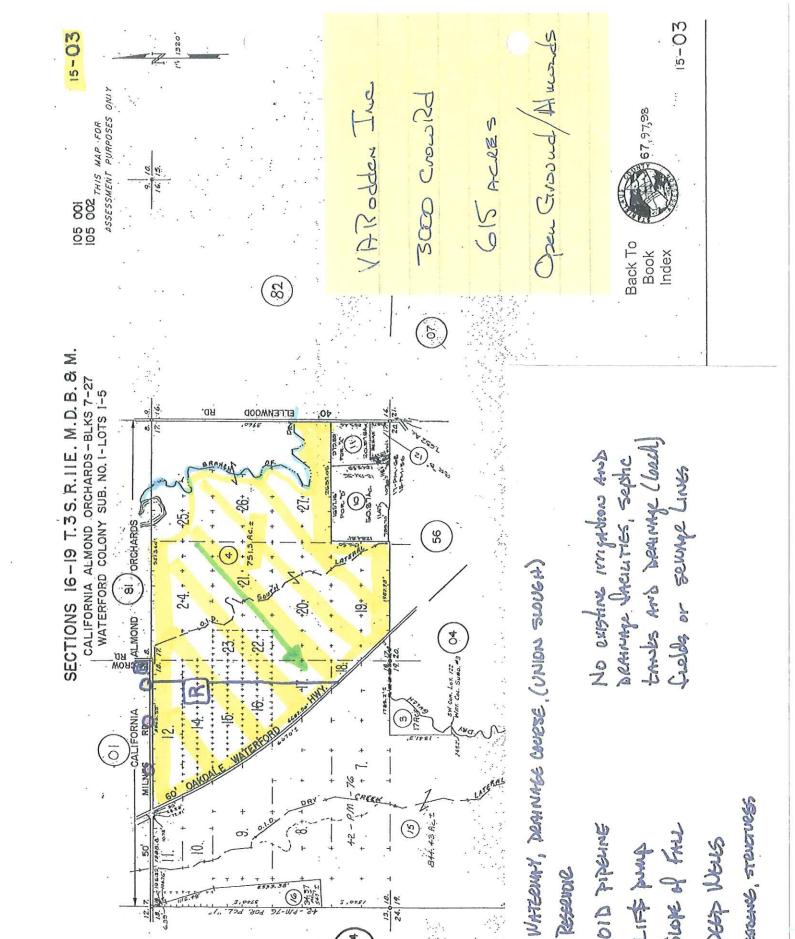
850

Parcel 1(a)



Stanislaus County Public Works

4,000 2,000 8,000 Feet



84. +3 Act

BK.14

REGIONS, STOUTURES

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Reservoir C.

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Soil Map—Eastern Stanislaus Area, California

# MAP LEGEND

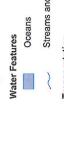
Area of Ir	Area of Interest (AOI)	8	Very Stony Spot
	Area of Interest (AOI)	≯	Wet Spot
Soils	Soil Most Licita	4	Other
]	Soli Iviap Oillis	Special	Special Line Features
Specia	Special Point Features	(C	Gully
3	Blowout	)	

Very Stony Spot	Wet Spot	Other	Special Line Features	Gully
8	÷	4	Special	(¢

	Special	Special Line Features
oint Features	ď	A Prince
Blowout	ď	ć
Borrow Pit	6.3	Short Steep Slope
:	*	Other
Clay Spot		
	Political Features	eatures
Closed Depression	0	Cities
Gravel Pit	Water Features	tures
Gravelly Spot		Oceans
Landfill	1	Streams and Can

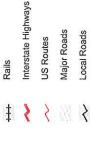
 $\boxtimes$ 

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X





Miscellaneous Water

0 0

Perennial Water

Rock Outcrop

Marsh or swamp

Lava Flow

Landfill

Mine or Quarry

Severely Eroded Spot

1

Sandy Spot Saline Spot

Slide or Slip

Sinkhole

0 A Sodic Spot

Stony Spot

Spoil Area

" Ø

# MAP INFORMATION

Map Scale: 1:4,520 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Coordinate System: UTM Zone 10N NAD83 This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Eastern Stanislaus Area, California Survey Area Data: Version 6, Jul 22, 2009 Soil Survey Area:

6/11/2005 Date(s) aerial images were photographed:

compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident. The orthophoto or other base map on which the soil lines were

### Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AnA	Anderson gravelly fine sandy loam, 0 to 3 percent slopes	4.9	0.6%
AoA	Anderson gravelly fine sandy loam, channeled, 0 to 3 percent slopes	36.0	4.6%
HbA	Hanford fine sandy loam, 0 to 3 percent slopes	5.0	0.6%
HdA	Hanford sandy loam, 0 to 3 percent slopes	0.0	0.0%
HtA	Hopeton clay loam, 0 to 3 percent slopes	92.7	11.8%
HuA	Hopeton loam, 0 to 3 percent slopes	23.9	3.0%
HuB	Hopeton loam, 3 to 8 percent slopes	4.6	0.6%
MdA	Madera sandy loam, 0 to 2 percent slopes	22.2	2.8%
MkA	Meikle clay, 0 to 1 percent slopes	24.3	3.1%
MtA	Montpellier coarse sandy loam, 0 to 3 percent slopes	36.3	4.6%
MtB	Montpellier coarse sandy loam, 3 to 8 percent slopes	59.6	7.6%
MtC	Montpellier coarse sandy loam, 8 to 15 percent slopes	5.6	0.7%
PaA	Paulsell clay, 0 to 1 percent slopes	15.4	2.0%
PmB	Pentz loam, moderately deep, 3 to 8 percent slopes	8.1	1.0%
PmC	Pentz loam, moderately deep, 8 to 15 percent slopes	39.5	5.0%
RdB	Redding gravelly loam, 0 to 8 percent slopes	14.2	1.8%
RtA	Ryer clay, 0 to 1 percent slopes	43.1	5.5%
RyA	Ryer loam, 0 to 1 percent slopes	7.4	0.9%
Tx	Terrace escarpments	13.1	1.7%
W	Water	4.3	0.5%
WmB	Whitney sandy loams, 3 to 8 percent slopes	2.0	0.3%
WmC	Whitney sandy loams, 8 to 15 percent slopes	13.2	1.7%
WrB	Whitney and Rocklin sandy loams, 3 to 8 percent slopes	309.1	39.3%
WvA	Wyman loam, 0 to 1 percent slopes	1.4	0.2%
Totals for Area of Intere	est	786.0	100.0%

#### **Map Unit Description**

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. Soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An association is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Additional information about the map units described in this report is available in other soil reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the soil reports define some of the properties included in the map unit descriptions.

#### Report—Map Unit Description

#### Eastern Stanislaus Area, California

# AnA—Anderson gravelly fine sandy loam, 0 to 3 percent slopes

Map Unit Setting

Elevation: 350 to 1,500 feet Mean annual precipitation: 25 inches Mean annual air temperature: 63 degrees F Frost-free period: 225 to 300 days

Map Unit Composition

Anderson and similar soils: 85 percent



Minor components: 15 percent

#### Description of Anderson

#### Setting

Landform: Alluvial fans

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Very gravelly alluvium derived from igneous,

metamorphic and sedimentary rock

#### Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): High (1.98

to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: Occasional Frequency of ponding: None

Available water capacity: Low (about 4.9 inches)

#### Interpretive groups

Land capability classification (irrigated): 3s Land capability (nonirrigated): 4s

#### Typical profile

0 to 14 inches: Gravelly fine sandy loam 14 to 24 inches: Very gravelly sandy loam

24 to 60 inches: Stratified very gravelly sand to very gravelly sandy

clay loam

#### **Minor Components**

#### Wyman

Percent of map unit: 5 percent

#### Honcut

Percent of map unit: 5 percent

#### Bear creek

Percent of map unit: 5 percent

# AoA—Anderson gravelly fine sandy loam, channeled, 0 to 3 percent slopes

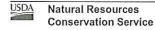
#### Map Unit Setting

Elevation: 350 to 1,500 feet

Mean annual precipitation: 25 inches

Mean annual air temperature: 63 degrees F

Frost-free period: 225 to 300 days



#### Map Unit Composition

Anderson and similar soils: 85 percent Minor components: 15 percent

#### **Description of Anderson**

#### Setting

Landform: Alluvial fans

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Very gravelly alluvium derived from igneous,

metamorphic and sedimentary rock

#### Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): High (1.98

to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: Occasional Frequency of ponding: None

Available water capacity: Low (about 4.9 inches)

#### Interpretive groups

Land capability classification (irrigated): 3s Land capability (nonirrigated): 4s

#### Typical profile

0 to 14 inches: Gravelly fine sandy loam 14 to 23 inches: Very gravelly sandy loam

23 to 60 inches: Stratified very gravelly sand to very gravelly sandy clay loam

#### **Minor Components**

#### Wyman

Percent of map unit: 5 percent

#### Honcut

Percent of map unit: 5 percent

#### Bear creek

Percent of map unit: 5 percent

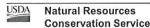
#### HbA—Hanford fine sandy loam, 0 to 3 percent slopes

#### **Map Unit Setting**

Elevation: 150 to 900 feet

Mean annual precipitation: 10 to 20 inches Mean annual air temperature: 63 degrees F

Frost-free period: 250 to 280 days



#### Map Unit Composition

Hanford and similar soils: 85 percent Minor components: 15 percent

#### **Description of Hanford**

#### Setting

Landform: Alluvial fans

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Alluvium derived from igneous rock

#### Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): High (1.98

to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Moderate (about 8.4 inches)

#### Interpretive groups

Land capability classification (irrigated): 1 Land capability (nonirrigated): 4e

#### Typical profile

0 to 12 inches: Fine sandy loam 12 to 60 inches: Sandy loam

#### **Minor Components**

#### Tujunga

Percent of map unit: 5 percent

#### Grangeville

Percent of map unit: 5 percent

#### Dinuba

Percent of map unit: 5 percent

#### HdA—Hanford sandy loam, 0 to 3 percent slopes

#### Map Unit Setting

Elevation: 150 to 900 feet

Mean annual precipitation: 10 to 20 inches Mean annual air temperature: 63 degrees F

Frost-free period: 250 to 280 days

#### **Map Unit Composition**

Hanford and similar soils: 85 percent

Minor components: 15 percent

#### **Description of Hanford**

#### Setting

Landform: Alluvial fans

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Alluvium derived from igneous rock

#### Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): High (1.98

to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Moderate (about 8.1 inches)

#### Interpretive groups

Land capability classification (irrigated): 1 Land capability (nonirrigated): 4c

#### Typical profile

0 to 12 inches: Sandy loam 12 to 60 inches: Sandy loam

#### **Minor Components**

#### Tujunga

Percent of map unit: 5 percent

#### Grangeville

Percent of map unit: 5 percent

#### Dinuba

Percent of map unit: 5 percent

#### HtA—Hopeton clay loam, 0 to 3 percent slopes

#### **Map Unit Setting**

Elevation: 100 feet

Mean annual precipitation: 18 inches Mean annual air temperature: 63 degrees F

Frost-free period: 200 to 300 days

#### **Map Unit Composition**

Hopeton and similar soils: 85 percent Minor components: 15 percent



#### Description of Hopeton

#### Setting

Down-slope shape: Convex Across-slope shape: Concave

Parent material: Residuum weathered from sandstone

#### Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 20 to 40 inches to paralithic bedrock

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm) Available water capacity: Low (about 5.1 inches)

#### Interpretive groups

Land capability classification (irrigated): 3s Land capability (nonirrigated): 4s

#### Typical profile

0 to 11 inches: Clay loam 11 to 29 inches: Clay loam 29 to 38 inches: Clay loam

38 to 42 inches: Weathered bedrock

#### Minor Components

#### Redding

Percent of map unit: 5 percent

#### Pentz

Percent of map unit: 5 percent

#### Corning

Percent of map unit: 5 percent

#### HuA—Hopeton loam, 0 to 3 percent slopes

#### **Map Unit Setting**

Elevation: 100 feet

Mean annual precipitation: 18 inches Mean annual air temperature: 63 degrees F

Frost-free period: 200 to 300 days

#### Map Unit Composition

Hopeton and similar soils: 85 percent Minor components: 15 percent



#### **Description of Hopeton**

#### Setting

Down-slope shape: Convex Across-slope shape: Concave

Parent material: Residuum weathered from sandstone

#### Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 20 to 40 inches to paralithic bedrock

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm) Available water capacity: Low (about 4.7 inches)

#### Interpretive groups

Land capability classification (irrigated): 3s Land capability (nonirrigated): 4s

#### Typical profile

0 to 11 inches: Loam 11 to 29 inches: Clay loam 29 to 38 inches: Clay loam

38 to 42 inches: Weathered bedrock

#### **Minor Components**

#### Redding

Percent of map unit: 5 percent

#### Pentz

Percent of map unit: 5 percent

#### Corning

Percent of map unit: 5 percent

#### HuB—Hopeton loam, 3 to 8 percent slopes

#### Map Unit Setting

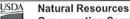
Elevation: 100 feet

Mean annual precipitation: 18 inches Mean annual air temperature: 63 degrees F

Frost-free period: 200 to 300 days

#### Map Unit Composition

Hopeton and similar soils: 85 percent Minor components: 15 percent



#### **Description of Hopeton**

#### Setting

Down-slope shape: Convex Across-slope shape: Concave

Parent material: Residuum weathered from sandstone

#### Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: 20 to 40 inches to paralithic bedrock

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm) Available water capacity: Low (about 4.7 inches)

#### Interpretive groups

Land capability classification (irrigated): 3e Land capability (nonirrigated): 4e

#### Typical profile

0 to 11 inches: Loam 11 to 29 inches: Clay loam 29 to 38 inches: Clay loam

38 to 42 inches: Weathered bedrock

#### **Minor Components**

#### Redding

Percent of map unit: 5 percent

#### Pentz

Percent of map unit: 5 percent

#### Corning

Percent of map unit: 5 percent

#### MdA—Madera sandy loam, 0 to 2 percent slopes

#### Map Unit Setting

Elevation: 20 to 250 feet

Mean annual precipitation: 14 inches

Mean annual air temperature: 61 degrees F

Frost-free period: 250 days

#### Map Unit Composition

Madera and similar soils: 85 percent Minor components: 15 percent



#### **Description of Madera**

#### Setting

Landform: Fan remnants

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Alluvium derived from granite

#### Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: 20 to 40 inches to duripan

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low

(0.00 to 0.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Very low (about 2.9 inches)

#### Interpretive groups

Land capability classification (irrigated): 4s

Land capability (nonirrigated): 4s

#### Typical profile

0 to 9 inches: Sandy loam 9 to 19 inches: Sandy loam 19 to 30 inches: Clay 30 to 36 inches: Indurated

36 to 60 inches: Stratified coarse sandy loam to clay loam

#### **Minor Components**

#### Alamo

Percent of map unit: 10 percent

Landform: Depressions

#### Unnammed

Percent of map unit: 5 percent Landform: Depressions

#### MkA—Meikle clay, 0 to 1 percent slopes

#### Map Unit Setting

Elevation: 100 to 250 feet

Mean annual precipitation: 14 inches Mean annual air temperature: 64 degrees F

Frost-free period: 280 days

#### Map Unit Composition

Meikle and similar soils: 85 percent Minor components: 15 percent



#### **Description of Meikle**

#### Setting

Landform: Basin floors

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Alluvium derived from granite

#### Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Very low

to moderately low (0.00 to 0.06 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm) Available water capacity: Moderate (about 8.8 inches)

#### Interpretive groups

Land capability classification (irrigated): 3w Land capability (nonirrigated): 4w

#### Typical profile

0 to 4 inches: Sandy clay loam

4 to 24 inches: Clay

24 to 36 inches: Sandy clay loam 36 to 60 inches: Sandy loam

#### Minor Components

#### Greenfield

Percent of map unit: 5 percent

#### Hanford

Percent of map unit: 5 percent

#### Dinuba

Percent of map unit: 5 percent

#### MtA-Montpellier coarse sandy loam, 0 to 3 percent slopes

#### Map Unit Setting

Elevation: 150 to 500 feet

Mean annual precipitation: 10 to 20 inches Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 250 to 300 days

#### Map Unit Composition

Montpellier and similar soils: 85 percent

Minor components: 15 percent

#### **Description of Montpellier**

#### Setting

Landform: Fan remnants

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Alluvium derived from granite

#### Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr) Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Moderate (about 6.7 inches)

#### Interpretive groups

Land capability classification (irrigated): 3s Land capability (nonirrigated): 4s

#### Typical profile

0 to 18 inches: Coarse sandy loam 18 to 39 inches: Sandy clay loam 39 to 45 inches: Coarse sandy loam 45 to 60 inches: Sandy loam

#### **Minor Components**

#### Whitney

Percent of map unit: 10 percent

#### Rocklin

Percent of map unit: 5 percent

#### MtB—Montpellier coarse sandy loam, 3 to 8 percent slopes

#### Map Unit Setting

Elevation: 150 to 500 feet

Mean annual precipitation: 10 to 20 inches Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 250 to 300 days

#### Map Unit Composition

Montpellier and similar soils: 85 percent

Minor components: 15 percent

#### **Description of Montpellier**

#### Setting

Landform: Fan remnants

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Alluvium derived from granite

#### Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Moderate (about 6.7 inches)

#### Interpretive groups

Land capability classification (irrigated): 3e Land capability (nonirrigated): 4e

#### Typical profile

0 to 18 inches: Coarse sandy loam 18 to 39 inches: Sandy clay loam 39 to 45 inches: Coarse sandy loam 45 to 60 inches: Sandy loam

#### Minor Components

#### Whitney

Percent of map unit: 10 percent

#### Rocklin

Percent of map unit: 5 percent

#### MtC—Montpellier coarse sandy loam, 8 to 15 percent slopes

#### Map Unit Setting

Elevation: 150 to 500 feet

Mean annual precipitation: 10 to 20 inches Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 250 to 300 days

#### Map Unit Composition

Montpellier and similar soils: 85 percent

Minor components: 15 percent

#### **Description of Montpellier**

#### Setting

Landform: Fan remnants

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Alluvium derived from granite

#### Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Moderate (about 6.7 inches)

#### Interpretive groups

Land capability classification (irrigated): 3e Land capability (nonirrigated): 4e

#### Typical profile

0 to 18 inches: Coarse sandy loam 18 to 39 inches: Sandy clay loam 39 to 45 inches: Coarse sandy loam

45 to 60 inches: Sandy loam

#### **Minor Components**

#### Whitney

Percent of map unit: 10 percent

#### Rocklin

Percent of map unit: 5 percent

#### PaA—Paulsell clay, 0 to 1 percent slopes

#### **Map Unit Setting**

Elevation: 2,000 feet

Mean annual precipitation: 35 inches

Mean annual air temperature: 57 to 63 degrees F

Frost-free period: 200 to 360 days

#### Map Unit Composition

Paulsell and similar soils: 85 percent Minor components: 15 percent

#### Description of Paulsell

#### Setting

Landform: Mud flats
Down-slope shape: Linear
Across-slope shape: Linear

Parent material: Lacustrine deposits derived from igneous rock

#### Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: Rare Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 4.0 mmhos/

cm)

Available water capacity: High (about 9.3 inches)

#### Interpretive groups

Land capability classification (irrigated): 3w Land capability (nonirrigated): 4w

#### Typical profile

0 to 24 inches: Clay 24 to 36 inches: Clay

36 to 60 inches: Stratified sandy loam to clay loam

#### **Minor Components**

#### Yokohl

Percent of map unit: 10 percent

#### Ryer

Percent of map unit: 5 percent

#### PmB—Pentz loam, moderately deep, 3 to 8 percent slopes

#### Map Unit Setting

Elevation: 100 to 600 feet

Mean annual precipitation: 18 inches Mean annual air temperature: 61 degrees F

Frost-free period: 250 to 300 days

#### Map Unit Composition

Pentz and similar soils: 85 percent Minor components: 15 percent

#### **Description of Pentz**

#### Setting

Landform: Hillslopes



Landform position (three-dimensional): Side slope

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Tuffaceous loamy residuum weathered from

volcanic sandstone

#### Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: 20 to 30 inches to paralithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Low (about 3.4 inches)

#### Interpretive groups

Land capability classification (irrigated): 3e Land capability (nonirrigated): 4e

#### Typical profile

0 to 24 inches: Loam

24 to 28 inches: Weathered bedrock

#### **Minor Components**

#### Raynor

Percent of map unit: 5 percent

#### **Peters**

Percent of map unit: 5 percent

#### Keyes

Percent of map unit: 5 percent

#### PmC—Pentz loam, moderately deep, 8 to 15 percent slopes

#### Map Unit Setting

Elevation: 100 to 600 feet

Mean annual precipitation: 18 inches Mean annual air temperature: 61 degrees F

Frost-free period: 250 to 300 days

#### **Map Unit Composition**

Pentz and similar soils: 85 percent Minor components: 15 percent

#### **Description of Pentz**

#### Setting

Landform: Hillslopes

Landform position (three-dimensional): Side slope

Down-slope shape: Convex Across-slope shape: Convex



Parent material: Tuffaceous loamy residuum weathered from volcanic sandstone

#### Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: 20 to 30 inches to paralithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Low (about 3.4 inches)

#### Interpretive groups

Land capability classification (irrigated): 4e Land capability (nonirrigated): 4e

#### Typical profile

0 to 24 inches: Loam

24 to 28 inches: Weathered bedrock

#### **Minor Components**

#### Raynor

Percent of map unit: 5 percent

#### Peters

Percent of map unit: 5 percent

#### Keyes

Percent of map unit: 5 percent

#### RdB—Redding gravelly loam, 0 to 8 percent slopes

#### Map Unit Setting

Elevation: 100 to 1,500 feet

Mean annual precipitation: 14 to 25 inches Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 230 to 320 days

#### Map Unit Composition

Redding and similar soils: 85 percent Minor components: 15 percent

#### **Description of Redding**

#### Setting

Landform: Fan remnants

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Stratified gravelly alluvium derived from igneous,

metamorphic and sedimentary rock

#### Properties and qualities

Slope: 0 to 8 percent

Depth to restrictive feature: 20 to 40 inches to duripan

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low

(0.00 to 0.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Very low (about 1.7 inches)

#### Interpretive groups

Land capability classification (irrigated): 4e Land capability (nonirrigated): 4e

#### Typical profile

0 to 12 inches: Gravelly loam 12 to 18 inches: Gravelly clay loam 18 to 22 inches: Indurated

#### Minor Components

#### Unnamed

Percent of map unit: 10 percent Landform: Depressions

#### Corning

Percent of map unit: 5 percent

#### RtA—Ryer clay, 0 to 1 percent slopes

#### **Map Unit Setting**

Elevation: 40 to 500 feet

Mean annual precipitation: 10 to 25 inches Mean annual air temperature: 63 degrees F

Frost-free period: 255 days

#### **Map Unit Composition**

Ryer and similar soils: 85 percent Minor components: 15 percent

#### Description of Ryer

#### Setting

Landform: Fan remnants

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Riser

Down-slope shape: Linear Across-slope shape: Concave

Parent material: Basic alluvium derived from igneous rock

#### Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches



Drainage class: Well drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Moderate (about 9.0 inches)

#### Interpretive groups

Land capability classification (irrigated): 3s Land capability (nonirrigated): 4s

#### Typical profile

0 to 8 inches: Clay

8 to 48 inches: Silty clay loam 48 to 60 inches: Silt loam

#### **Minor Components**

#### Yokohl

Percent of map unit: 5 percent

#### Wyman

Percent of map unit: 5 percent

#### Honcut

Percent of map unit: 5 percent

#### RyA—Ryer loam, 0 to 1 percent slopes

#### Map Unit Setting

Elevation: 40 to 500 feet

Mean annual precipitation: 10 to 25 inches Mean annual air temperature: 63 degrees F

Frost-free period: 255 days

#### Map Unit Composition

Ryer and similar soils: 85 percent Minor components: 15 percent

#### Description of Ryer

#### Setting

Landform: Fan remnants

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Riser

Down-slope shape: Linear Across-slope shape: Concave

Parent material: Basic alluvium derived from igneous rock

#### Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: High (about 9.1 inches)

#### Interpretive groups

Land capability classification (irrigated): 2s Land capability (nonirrigated): 4s

#### Typical profile

0 to 8 inches: Loam

8 to 48 inches: Silty clay loam 48 to 60 inches: Silt loam

#### **Minor Components**

#### Yokohl

Percent of map unit: 5 percent

#### Wyman

Percent of map unit: 5 percent

#### Honcut

Percent of map unit: 5 percent

#### Tx—Terrace escarpments

#### **Map Unit Composition**

Terrace escarpments: 100 percent

#### **Description of Terrace Escarpments**

#### Setting

Landform: Terraces
Parent material: Alluvium

#### Properties and qualities

Slope: 30 to 50 percent

Depth to restrictive feature: 0 to 60 inches to paralithic bedrock

Drainage class: Excessively drained

Available water capacity: Very low (about 0.0 inches)

#### Interpretive groups

Land capability (nonirrigated): 8

#### Typical profile

0 to 60 inches: Variable

#### W-Water

#### **Map Unit Composition**

Water: 100 percent



#### WmB—Whitney sandy loams, 3 to 8 percent slopes

#### **Map Unit Setting**

Elevation: 200 to 500 feet

Mean annual precipitation: 15 inches Mean annual air temperature: 61 degrees F

Frost-free period: 250 to 300 days

#### **Map Unit Composition**

Whitney and similar soils: 85 percent Minor components: 15 percent

#### **Description of Whitney**

#### Setting

Landform: Fan remnants

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Riser

Down-slope shape: Convex Across-slope shape: Concave

Parent material: Alluvium derived from granite

#### Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: 20 to 40 inches to paralithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low

to moderately low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Low (about 3.9 inches)

#### Interpretive groups

Land capability classification (irrigated): 3e Land capability (nonirrigated): 4e

#### Typical profile

0 to 7 inches: Sandy loam 7 to 31 inches: Sandy loam

31 to 35 inches: Weathered bedrock

#### **Minor Components**

#### Rocklin

Percent of map unit: 10 percent

#### Montpellier

Percent of map unit: 5 percent

#### WmC—Whitney sandy loams, 8 to 15 percent slopes

#### Map Unit Setting

Elevation: 200 to 500 feet

Mean annual precipitation: 15 inches Mean annual air temperature: 61 degrees F

Frost-free period: 250 to 300 days

#### **Map Unit Composition**

Whitney and similar soils: 85 percent Minor components: 15 percent

#### **Description of Whitney**

#### Setting

Landform: Fan remnants

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Riser

Down-slope shape: Convex Across-slope shape: Concave

Parent material: Alluvium derived from granite

#### Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: 20 to 40 inches to paralithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low

to moderately low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Low (about 3.9 inches)

#### Interpretive groups

Land capability classification (irrigated): 3e Land capability (nonirrigated): 4e

5 0F 15

#### Typical profile

0 to 7 inches: Sandy loam 7 to 31 inches: Sandy loam

31 to 35 inches: Weathered bedrock

#### **Minor Components**

#### Rocklin

Percent of map unit: 10 percent

#### Montpellier

Percent of map unit: 5 percent



#### WrB—Whitney and Rocklin sandy loams, 3 to 8 percent slopes

#### **Map Unit Setting**

Elevation: 200 to 1,500 feet

Mean annual precipitation: 15 inches Mean annual air temperature: 61 degrees F

Frost-free period; 250 to 300 days

#### Map Unit Composition

Whitney and similar soils: 55 percent Rocklin and similar soils: 30 percent Minor components: 15 percent

#### **Description of Whitney**

#### Setting

Landform: Fan remnants

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Riser

Down-slope shape: Convex Across-slope shape: Concave

Parent material: Alluvium derived from granite

#### Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: 20 to 40 inches to paralithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low

to moderately low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Low (about 3.9 inches)

#### Interpretive groups

Land capability classification (irrigated): 3e Land capability (nonirrigated): 4e

#### Typical profile

0 to 7 inches: Sandy loam 7 to 31 inches: Sandy loam

31 to 35 inches: Weathered bedrock

#### Description of Rocklin

#### Setting

Landform: Fan remnants

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Riser

Down-slope shape: Convex Across-slope shape: Concave

Parent material: Alluvium derived from granite



#### Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 20 to 40 inches to duripan

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low

(0.00 to 0.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Low (about 3.7 inches)

#### Interpretive groups

Land capability classification (irrigated): 3e

Land capability (nonirrigated): 4e

#### Typical profile

0 to 9 inches: Sandy loam 9 to 17 inches: Sandy loam 17 to 28 inches: Sandy clay loam 28 to 34 inches: Indurated

34 to 60 inches: Stratified coarse sandy loam to fine sandy loam

#### **Minor Components**

#### Montpellier

Percent of map unit: 10 percent

#### Unnamed

Percent of map unit: 5 percent

#### WvA—Wyman loam, 0 to 1 percent slopes

#### Map Unit Setting

Elevation: 300 to 2,500 feet

Mean annual precipitation: 9 to 25 inches

Mean annual air temperature: 59 to 63 degrees F

Frost-free period: 200 to 300 days

#### Map Unit Composition

Wyman and similar soils: 85 percent Minor components: 15 percent

#### **Description of Wyman**

#### Setting

Landform: Terraces

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Alluvium derived from volcanic rock

#### Properties and qualities

Slope: 0 to 1 percent



Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: High (about 9.3 inches)

#### Interpretive groups

Land capability classification (irrigated): 1 Land capability (nonirrigated): 4c

#### Typical profile

0 to 6 inches: Loam

6 to 40 inches: Sandy clay loam 40 to 60 inches: Sandy loam

#### **Minor Components**

Yokohl

Percent of map unit: 5 percent

Ryer

Percent of map unit: 5 percent

Honcut

Percent of map unit: 5 percent

#### **Data Source Information**

Soil Survey Area: Eastern Stanislaus Area, California

Survey Area Data: Version 6, Jul 22, 2009

### Parcel Information Report --- Custom Option

APN: 015-081-048

OWNERS NAME: VARODDEN INC

SITE or STREET ADDRESS: 4000 ELLENWOOD RD

OAKDALE, CA 95361

MAILING ADDRESS: 4000 ELLENWOOD RD

OAKDALE, CA 95361

COMMUNITY SERVICE DISTRICT: Not Within

**ELEMENTARY SCHOOL DISTRICT: OAKDALE UNION ELEMENTARY** 

FEMA 2008 ZONE: FLOOD ZONE X - OUTSIDE THE 0.2% FLOODPLAIN

FEMA 2008 FIRM PANEL: 06099C0360E

FIRE DISTRICT: OAKDALE RURAL FIRE

FIRE HAZARD SEVERITY ZONE: LRA

GENERAL PLAN DESIGNATION (County): AG

HIGH SCHOOL DISTRICT: OAKDALE JOINT UNIFIED

HOSPITAL DISTRICT: OAK VALLEY

JURISDICTION: COUNTY

MOSQUITO ABATEMENT DISTRICT: EASTSIDE MOSQUITO

MUNICIPAL ADVISORY COUNCIL: NOT WITHIN

REDEVELOPMENT SUB-AREAS: NOT WITHIN

SPHERE OF INFLUENCE: NONE

STORM DRAINAGE DISTRICT: NOT WITHIN

SUPERVISORIAL DISTRICT: DISTRICT 1

SUPERVISOR: WILLIAM O'BRIEN

WATERLINE IMPROVEMENT AREA: NOT WITHIN

WILLIAMSON ACT: 71-0013 Year:1971

ZONING DESIGNATION (County): A-2-40

<sup>\*</sup> Ownership and mailing address information subject to verification until further notice. Rex 4.0 - Stanislaus County Public Works Department

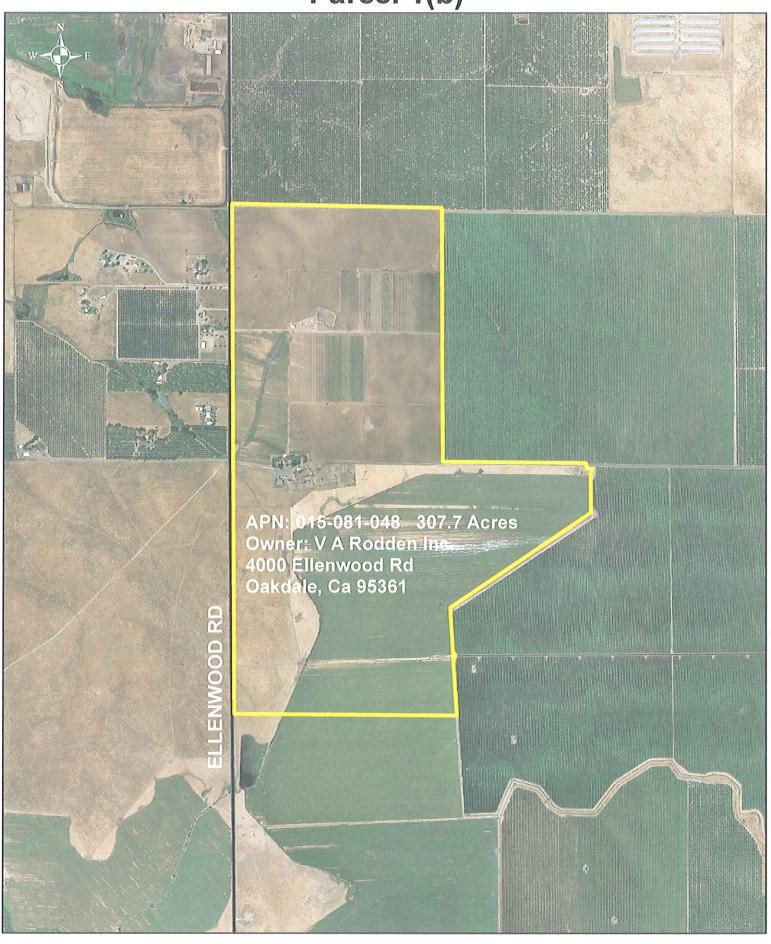


### rections to 4000 Ellenwood Rd, Adale, CA 95361 7.9 mi – about 19 mins

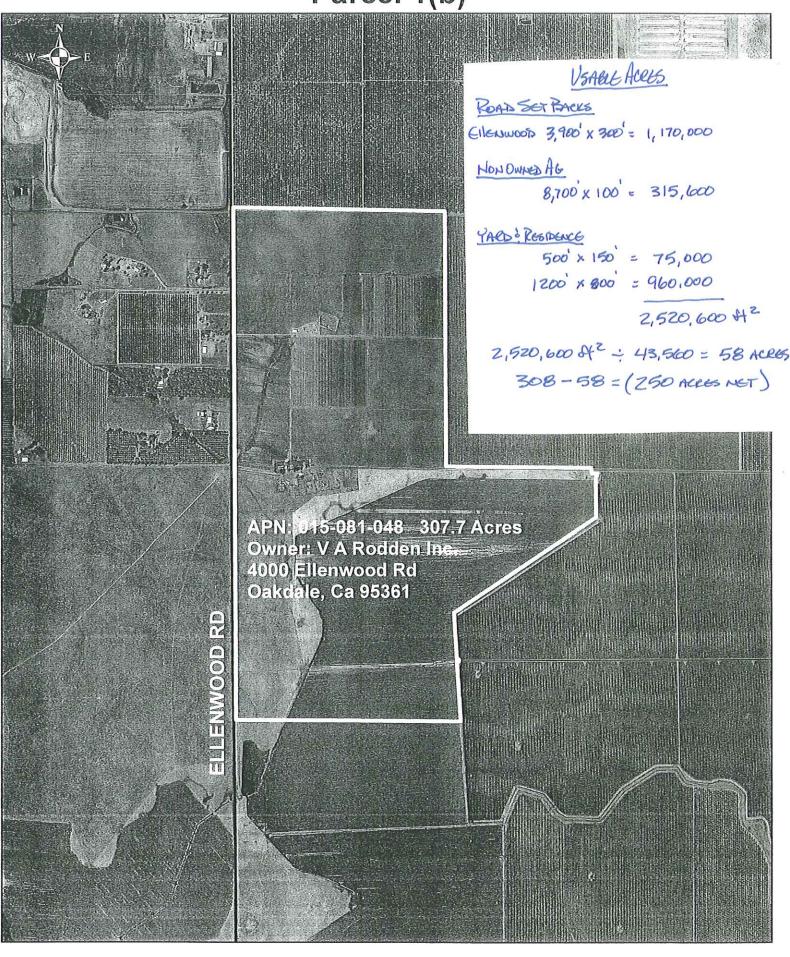
7.9 mi – about 19 minsProposed Delivery Route from ConAgra site to Parcel 1(b)



Parcel 1(b)



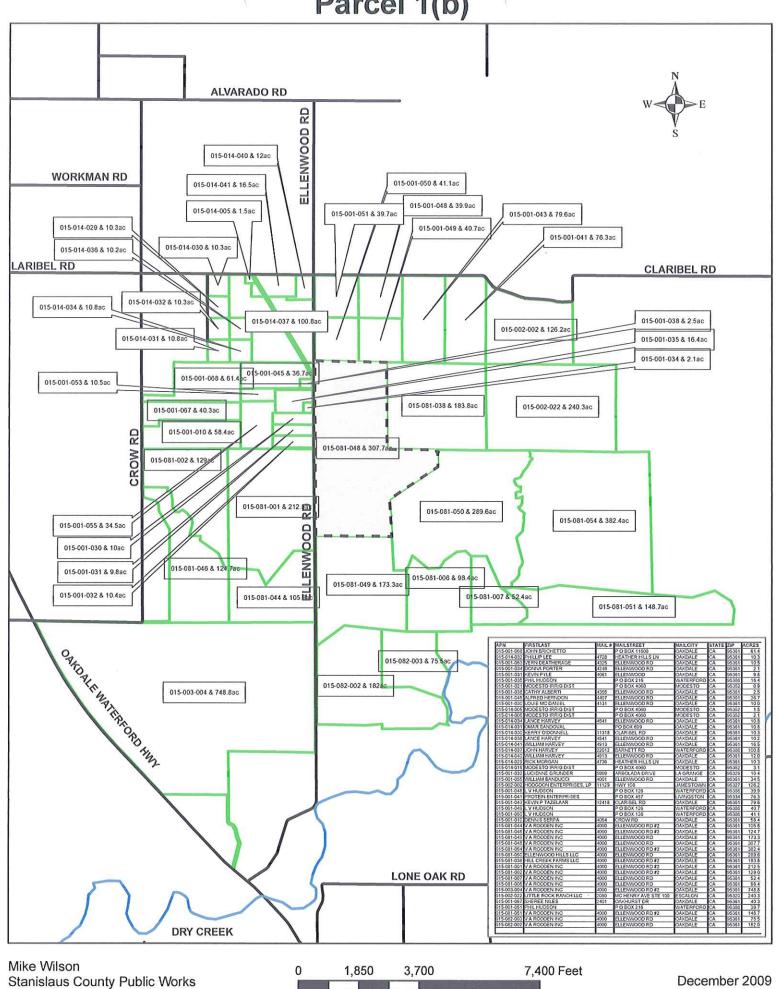
Mike Wilson Stanislaus County Public Works Parcel 1(b)

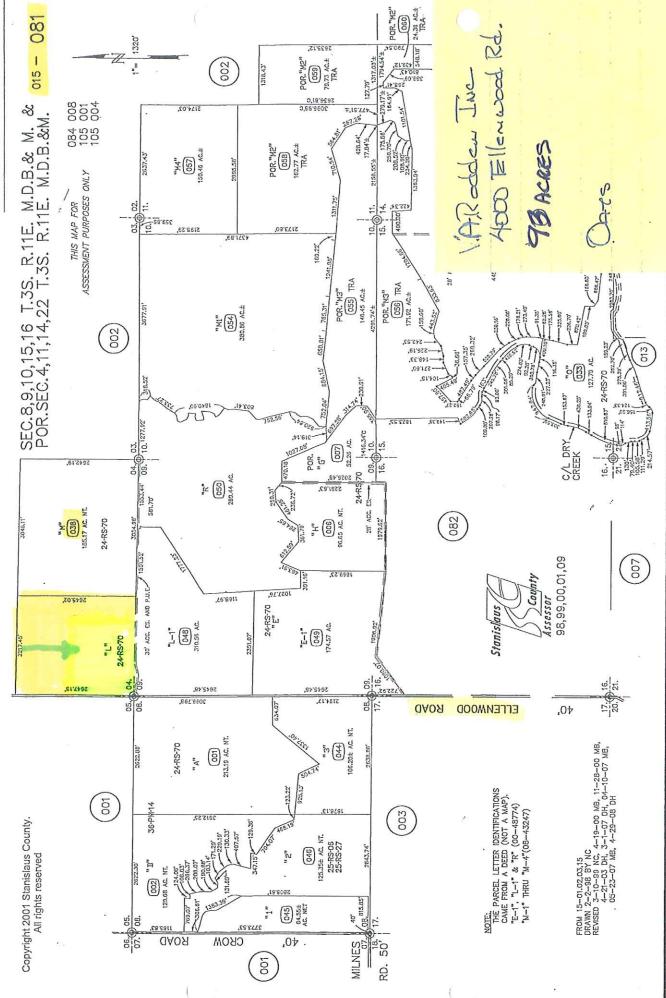


Mike Wilson Stanislaus County Public Works

0 650 1,300 2,600 Feet

Parcel 1(b)





Supple OF FALL

No existing waterways, Defining Courses, Pipeline, existing ingreboa and Defining Fallines, Septic trinis, and Definited (Lach) Fields or Seurce Lines



## MAP LEGEND

Very Stony Spot		o,		Special Line Features	Allie		Short Steep Slope	Other		Political Features	Cities	Water Features	Oceans	Streams and Canals	Transportation	- Rails	Interstate Highways	US Routes	Major Roads	Local Roads	
Area of Interest (AOI)	Area of Interest (AOI)		Soil Map Units		Special Point Features	Blowout	Borrow Dit		Clay Spot		Closed Depression	Gravel Pit Wate	Gravelly Spot	Landfill	Lava Flow Trans	Marsh or swamp	Mine or Quarry	Miscellaneous Water	Perennial Water	Rock Outcrop	Saline Spot
Area of Int		Soils		] (	Special	Э	2	₫	*	(	*	X	*:	0	γ	爿	ξĸ	0	•	>	+

Severely Eroded Spot

III  $\mathcal{H}$ 

Slide or Slip

Sinkhole

0 A Ø 111

Sodic Spot

Stony Spot Spoil Area

Sandy Spot

## MAP INFORMATION

Map Scale: 1:5,530 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Coordinate System: UTM Zone 10N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eastern Stanislaus Area, California Survey Area Data: Version 6, Jul 22, 2009

6/12/2005 Date(s) aerial images were photographed:

compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident. The orthophoto or other base map on which the soil lines were

### Map Unit Legend

Eastern Stanislaus Area, California (CA644)							
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI				
GsA	Greenfield sandy loam, 0 to 3 percent slopes	74.9	54.3%				
KeB	Keyes cobbly clay loam, 0 to 8 percent slopes	0.6	0.4%				
MtA	Montpellier coarse sandy loam, 0 to 3 percent slopes	0.8	0.6%				
MtC	Montpellier coarse sandy loam, 8 to 15 percent slopes	2.1	1.6%				
PfB	Pentz loam, 3 to 8 percent slopes	0.1	0.1%				
WmB	Whitney sandy loams, 3 to 8 percent slopes	35.4	25.7%				
WmC	Whitney sandy loams, 8 to 15 percent slopes	3.5	2.6%				
WrB	Whitney and Rocklin sandy loams, 3 to 8 percent slopes	20.5	14.9%				
Totals for Area of Intere	est	137.9	100.0%				

### Map Unit Description (Brief, Generated)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

### Report—Map Unit Description (Brief, Generated)

### Eastern Stanislaus Area, California

Map Unit: GsA-Greenfield sandy loam, 0 to 3 percent slopes

Component: Greenfield (85%)

The Greenfield component makes up 85 percent of the map unit. Slopes are 0 to 3 percent. This component is on alluvial fans. The parent material consists of alluvium derived from igneous, metamorphic and sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4c. Irrigated land capability classification is 1 This soil does not meet hydric criteria.

Component: Hanford (10%)

Generated brief soil descriptions are created for major components. The Hanford soil is a minor component.

Component: Snelling (5%)

Generated brief soil descriptions are created for major components. The Snelling soil is a minor component.

Map Unit: KeB-Keyes cobbly clay loam, 0 to 8 percent slopes

Component: Keyes (85%)

The Keyes component makes up 85 percent of the map unit. Slopes are 0 to 8 percent. This component is on fan remnants. The parent material consists of tuffaceous gravelly alluvium derived from andesite. Depth to a root restrictive layer, duripan, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very low. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria.

Component: Pentz (5%)

Generated brief soil descriptions are created for major components. The Pentz soil is a minor component.

Component: Peters (5%)

Generated brief soil descriptions are created for major components. The Peters soil is a minor component.

Component: Unnamed (5%)

Generated brief soil descriptions are created for major components. The Unnamed soil is a minor component.

Map Unit: MtA—Montpellier coarse sandy loam, 0 to 3 percent slopes

Component: Montpellier (85%)

The Montpellier component makes up 85 percent of the map unit. Slopes are 0 to 3 percent. This component is on fan remnants. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0 percent. Nonirrigated land capability classification is 4s. Irrigated land capability classification is 3s. This soil does not meet hydric criteria.

Component: Whitney (10%)

Generated brief soil descriptions are created for major components. The Whitney soil is a minor component.

Component: Rocklin (5%)

Generated brief soil descriptions are created for major components. The Rocklin soil is a minor component.

Map Unit: MtC-Montpellier coarse sandy loam, 8 to 15 percent slopes

Component: Montpellier (85%)

The Montpellier component makes up 85 percent of the map unit. Slopes are 8 to 15 percent. This component is on fan remnants. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0 percent. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Whitney (10%)

Generated brief soil descriptions are created for major components. The Whitney soil is a minor component.

Component: Rocklin (5%)

Generated brief soil descriptions are created for major components. The Rocklin soil is a minor component.

Map Unit: PfB-Pentz loam, 3 to 8 percent slopes

Component: Pentz (85%)

The Pentz component makes up 85 percent of the map unit. Slopes are 3 to 8 percent. This component is on hills. The parent material consists of tuffaceous loamy residuum weathered from volcanic sandstone. Depth to a root restrictive layer, bedrock, paralithic, is 8 to 14 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria.

Component: Keyes (5%)

Generated brief soil descriptions are created for major components. The Keyes soil is a minor component.

Component: Peters (5%)

Generated brief soil descriptions are created for major components. The Peters soil is a minor component.

Component: Raynor (5%)

Generated brief soil descriptions are created for major components. The Raynor soil is a minor component.

Map Unit: WmB—Whitney sandy loams, 3 to 8 percent slopes

Component: Whitney (85%)

The Whitney component makes up 85 percent of the map unit. Slopes are 3 to 8 percent. This component is on fan remnants. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Rocklin (10%)

Generated brief soil descriptions are created for major components. The Rocklin soil is a minor component.

Component: Montpellier (5%)

Generated brief soil descriptions are created for major components. The Montpellier soil is a minor component.

Map Unit: WmC-Whitney sandy loams, 8 to 15 percent slopes

Component: Whitney (85%)

The Whitney component makes up 85 percent of the map unit. Slopes are 8 to 15 percent. This component is on fan remnants. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Rocklin (10%)

Generated brief soil descriptions are created for major components. The Rocklin soil is a minor component.

Component: Montpellier (5%)

Generated brief soil descriptions are created for major components. The Montpellier soil is a minor component.

Map Unit: WrB-Whitney and Rocklin sandy loams, 3 to 8 percent slopes

Component: Whitney (55%)

The Whitney component makes up 55 percent of the map unit. Slopes are 3 to 8 percent. This component is on fan remnants. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Rocklin (30%)

The Rocklin component makes up 30 percent of the map unit. Slopes are 0 to 3 percent. This component is on fan remnants. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Montpellier (10%)

Generated brief soil descriptions are created for major components. The Montpellier soil is a minor component.

Component: Unnamed (5%)

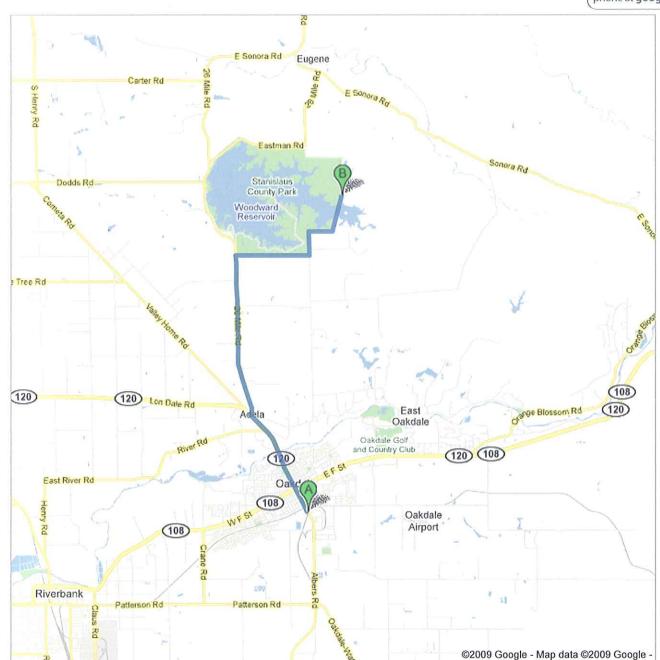
Generated brief soil descriptions are created for major components. The Unnamed soil is a minor component.

### **Data Source Information**

Soil Survey Area: Eastern Stanislaus Area, California

Survey Area Data: Version 6, Jul 22, 2009





### Parcel Information Report --- Custom Option

APN: 002-009-005

OWNERS NAME: LLOYD T PROTHERS

SITE or STREET ADDRESS: 28 MILE E OF RD

VALLEY HOME, CA

MAILING ADDRESS: 3401 SHAWNEE DR APT 47

MODESTO, CA 95350

COMMUNITY SERVICE DISTRICT: Not Within

**ELEMENTARY SCHOOL DISTRICT: VALLEY HOME JOINT** 

FEMA 2008 ZONE: FLOOD ZONE X - OUTSIDE THE 0.2% FLOODPLAIN

FEMA 2008 FIRM PANEL: 06099C0180E

FIRE DISTRICT: OAKDALE RURAL FIRE

FIRE HAZARD SEVERITY ZONE: SRA

GENERAL PLAN DESIGNATION (County): AG

HIGH SCHOOL DISTRICT: OAKDALE JOINT UNIFIED

HOSPITAL DISTRICT: OAK VALLEY

JURISDICTION: COUNTY

MOSQUITO ABATEMENT DISTRICT: EASTSIDE MOSQUITO

MUNICIPAL ADVISORY COUNCIL: VALLEY HOME MAC

REDEVELOPMENT SUB-AREAS: NOT WITHIN

SPHERE OF INFLUENCE: NONE

STORM DRAINAGE DISTRICT: NOT WITHIN

SUPERVISORIAL DISTRICT: DISTRICT 1

SUPERVISOR: WILLIAM O'BRIEN

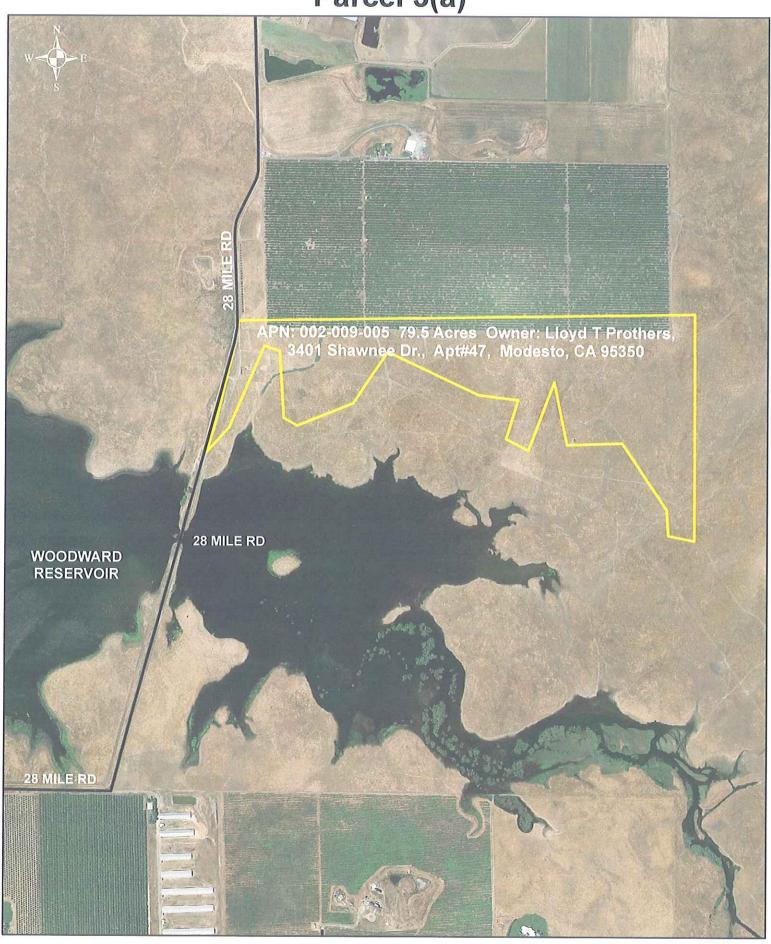
WATERLINE IMPROVEMENT AREA: NOT WITHIN

WILLIAMSON ACT: 71-0048 Year:1971

ZONING DESIGNATION (County): A-2-40

<sup>\*</sup> Ownership and mailing address information subject to verification until further notice. Rex 4.0 - Stanislaus County Public Works Department

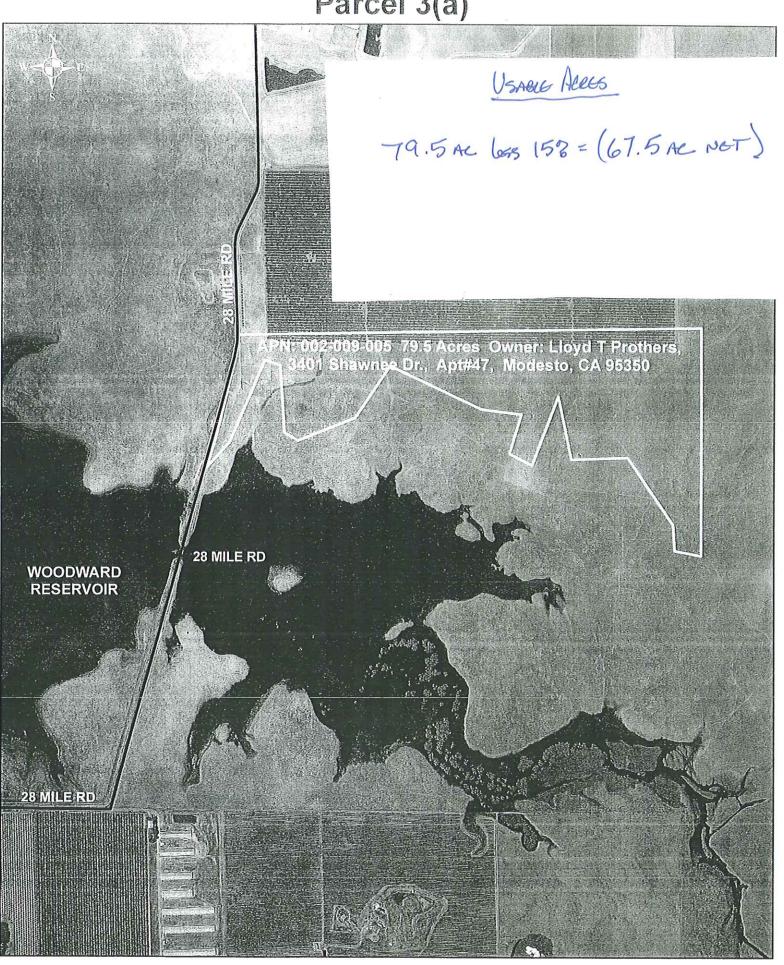
Parcel 3(a)



Mike Wilson Stanislaus County Public Works

550 1,100 2,200 Feet

Parcel 3(a)



Mike Wilson Stanislaus County Public Works

550 1,100

2,200 Feet

December 2009

Parcel 3(a) SONORA RD 28 MILE RD **EASTMAN RD** 002-021-046 002-002-011 347.3Acres 28 MILE RD 002-002-022 148.2Acres 002-002-011 489.5Acres WOODWARD 002-002-023 39.7Acres 002-021-011 002-009-061 66Acres RESERVOIR 002-021-078 303.7Acres 548.2Acres 002-009-001 002-009-062 113.1Acres 67.2Acres 002-009-005 002-009-00 21.3Acres 79.5Acres 002-021-048 002-009-006 438.9Acres 28 MILE RD 002-009-00 43.8Acres 002-009-008 3 7Acres 002-009-024 02-009-039 002-009-058 41Acres 26.3Acres 002-009-050 002-009-040 002-009-050 3Acres 002-009-063 61.2Acres 41Acres 002-072-009 110Acres 02-009-038 40.4Acres 35.2Acres 41.7Acres**WOODWARD LAKE D**\$02-009-064 002-009-024 341.7Acres 0.4Acres 002-009-047 SSJID 40Acres 002-009-04 41.7Acres 02-009-043 43.4Acres 2-009-041 DORSEY RD 41Acres 002-009-042 41Acres 002-072-011 002-009-046 002-009-044 002-072-008 43.2Acres 20.7Acres 41.1Acre 147.4Acres SIERRA SRD 28 MILE RD VIEW DR 002-072-011 320.7Acres **FRANKENHEIMER** RD FRANKENHEIMER R METTLER RD AILSTREET HAWNEE DR APT 47 FIRSTLAST LLOYD T PROTHERS N 2-009-008 LYNN CONLEY
CHARLES G SONNE
GREG TIDWELL
CARLA VERBURG
PAUL WESTBERG
JAMES SANCHEZ
COSTA FARMS
COSTA FARMS 3812 26 MILE RD M 28 ARD LAKE DR IMOTHY GALAS
SEYER RANCH FAM LTD PAR
LOYD T PROTHERS
SEYER RANCH FAM LTD PAR D OPIA WAY ST 8 MILE RD INE MONROE CT EYER RANCH FAM LTD PAR

Mike Wilson Stanislaus County Public Works

0 2,000 4,000 8,000 Feet

### Parcel Information Report --- Custom Option

APN: 002-021-011

**OWNERS NAME: LLOYD T PROTHERS** 

SITE or STREET ADDRESS: SONORA S OF RD

OAKDALE, CA

MAILING ADDRESS: 3401 SHAWNEE DR APT 47

MODESTO, CA 95350

COMMUNITY SERVICE DISTRICT: Not Within

**ELEMENTARY SCHOOL DISTRICT: VALLEY HOME JOINT** 

FEMA 2008 ZONE: FLOOD ZONE X - OUTSIDE THE 0.2% FLOODPLAIN

FEMA 2008 FIRM PANEL: 06099C0180E

FIRE DISTRICT: (OUTSIDE OF FIRE DISTRICT)

FIRE HAZARD SEVERITY ZONE: SRA

GENERAL PLAN DESIGNATION (County): AG

HIGH SCHOOL DISTRICT: OAKDALE JOINT UNIFIED

HOSPITAL DISTRICT: OAK VALLEY

JURISDICTION: COUNTY

MOSQUITO ABATEMENT DISTRICT: EASTSIDE MOSQUITO

MUNICIPAL ADVISORY COUNCIL: VALLEY HOME MAC

REDEVELOPMENT SUB-AREAS: NOT WITHIN

SPHERE OF INFLUENCE: NONE

STORM DRAINAGE DISTRICT: NOT WITHIN

SUPERVISORIAL DISTRICT: DISTRICT 1

SUPERVISOR: WILLIAM O'BRIEN

WATERLINE IMPROVEMENT AREA: NOT WITHIN

WILLIAMSON ACT: 71-0048 Year:1971

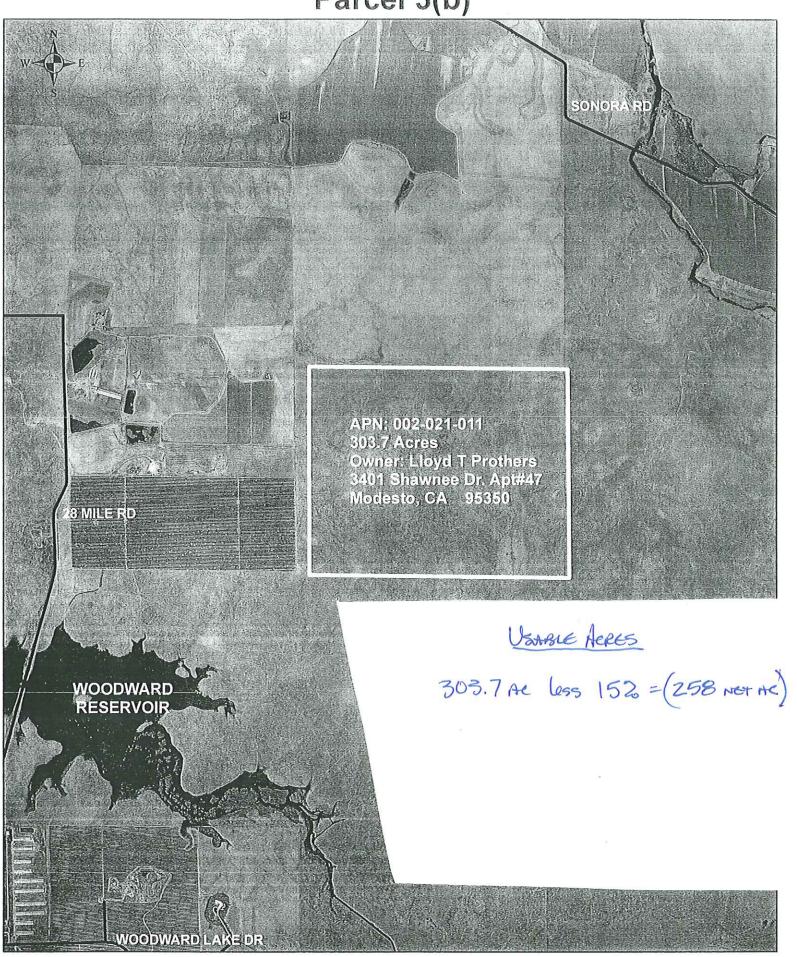
ZONING DESIGNATION (County): A-2-40

<sup>\*</sup> Ownership and mailing address information subject to verification until further notice. Rex 4.0 - Stanislaus County Public Works Department

Parcel 3(b)



Mike Wilson Stanislaus County Public Works Parcel 3(b)



Mike Wilson Stanislaus County Public Works

0 1,000

2,000

4,000 Feet

December 2009

Parcel 3(b) 002-021-002 002-021-047 152.48Acres 190.48Acres 28 MILE RD<sub>002-002-018</sub> 718.22Acres SONORA RD EASTMAN RD 002-002-020 220.68Acres 002-021-046 002-002-01 347.3Acres 28 MILE RD 002-002-022 148.2Acres 002-002-011 489.5Acres WOODWARD 002-002-023 RESERVOIR 002-021-011 002-009-061 002-021-078 66Acres 002-009-062 303.7Acres 002-009-001 548.2Acres 113.1Acres 67.2Acres 002-009-005 002-021-013 1162.09Acres 002-009-00 79.5Acres 002-021-048 438.9Acres 28 MILE RD 02-009-008 3. Acres 002-009-03002-009-058 41Acres 26 3Acres 002-009-050 002-009-04602-009-053Acres 002-009-063 002-009-038 40 4Acres 35 2Acres 1.7AcresWOODWARD LAKE DR 002-072-009 002-072-010 110Acres 212.09Acres SSJID DORSEY RD 002-072-01 002-072-011 320 73Acres SIERRA 28 MILE RD VIEW DR 002-072-011 320.7Acres FRANKENHEIMER RD FRANKENHEIMER RD METTLER RD 28 MILE RD 26 MILE RD AILSTREET HAWNEE DR APT 47 D LAKE DR RIGATION DISTRICT EE DR APT 47 OTHERS CH FAM LTD PAR PIA WAY STE C ROECT YER RANCH FAM LTD PAR Mike Wilson 0

Stanislaus County Public Works

2,375 4,750 9,500 Feet

### Parcel Information Report --- Custom Option

APN: 002-021-048

**OWNERS NAME: LLOYD T PROTHERS** 

SITE or STREET ADDRESS: FRANKENHEIMER W O RD

OAKDALE, CA 95383

MAILING ADDRESS: 3401 SHAWNEE DR APT 47

MODESTO, CA 95350

COMMUNITY SERVICE DISTRICT: Not Within

**ELEMENTARY SCHOOL DISTRICT: VALLEY HOME JOINT** 

FEMA 2008 ZONE: FLOOD ZONE X - OUTSIDE THE 0.2% FLOODPLAIN

FEMA 2008 FIRM PANEL: 06099C0180E

FIRE DISTRICT: OAKDALE RURAL FIRE

FIRE HAZARD SEVERITY ZONE: SRA

GENERAL PLAN DESIGNATION (County): AG

HIGH SCHOOL DISTRICT: OAKDALE JOINT UNIFIED

HOSPITAL DISTRICT: OAK VALLEY

JURISDICTION: COUNTY

MOSQUITO ABATEMENT DISTRICT: EASTSIDE MOSQUITO

MUNICIPAL ADVISORY COUNCIL: VALLEY HOME MAC

REDEVELOPMENT SUB-AREAS: NOT WITHIN

SPHERE OF INFLUENCE: NONE

STORM DRAINAGE DISTRICT: NOT WITHIN

SUPERVISORIAL DISTRICT: DISTRICT 1

SUPERVISOR: WILLIAM O'BRIEN

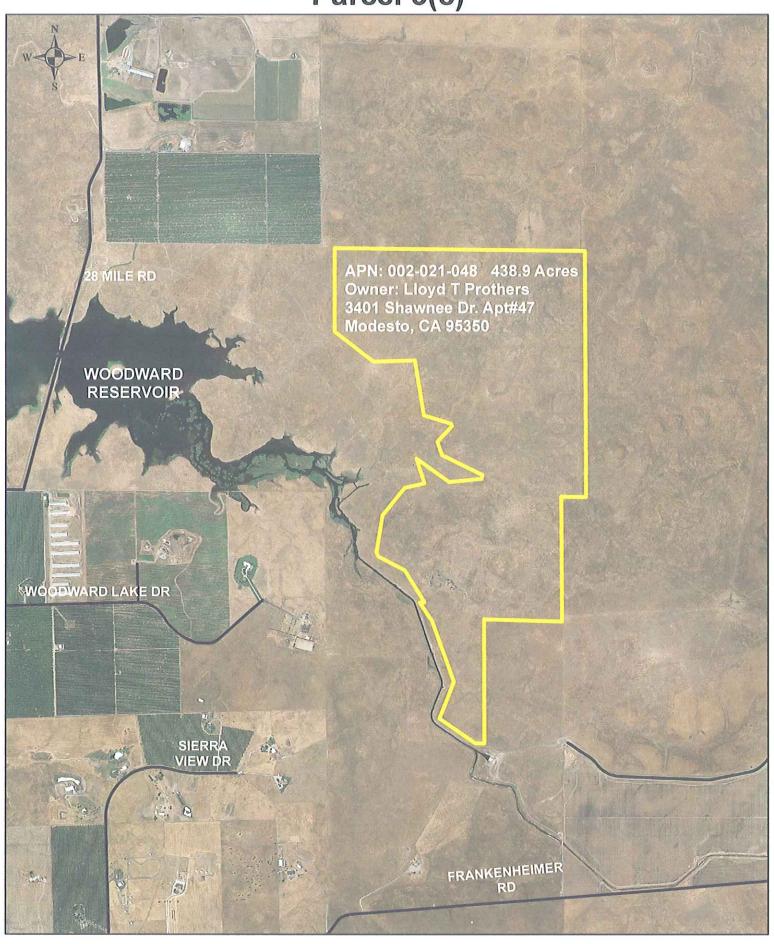
WATERLINE IMPROVEMENT AREA: NOT WITHIN

WILLIAMSON ACT: 71-0048 Year:1971

ZONING DESIGNATION (County): A-2-40

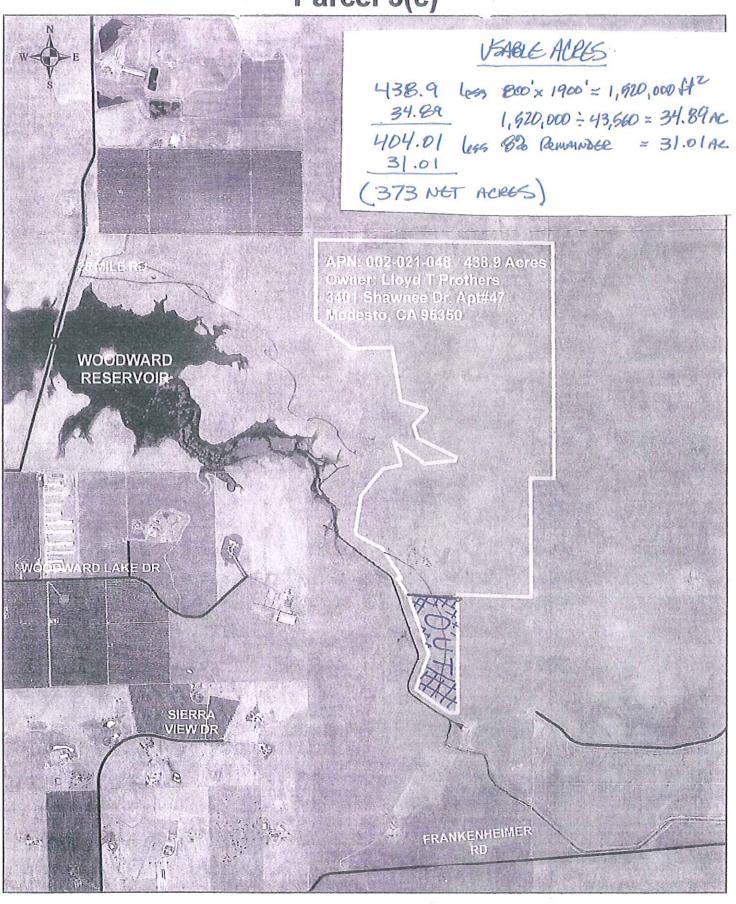
Ownership and mailing address information subject to verification until further notice.
 Rex 4.0 - Stanislaus County Public Works Department

Parcel 3(c)



2,000

Parcel 3(c)

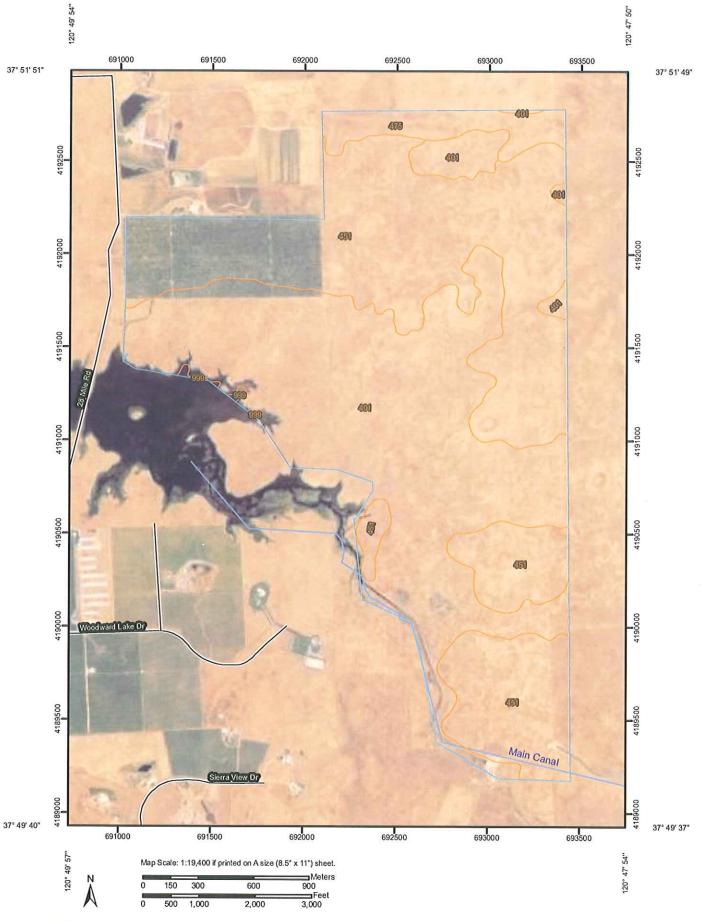


Mike Wilson Stanislaus County Public Works

1,000 2,000 4,000 Feet

Parcel 3(c) SONORA RD 28 MILE RD EASTMAN RD 002-021-046 347.3Acres 28 MILE RD 002-002-022 148.2Acres 002-002-023 WOODWARD 002-021-011 002-009-061 002-021-078 RESERVOIR 303.7Acres 66Acres 002-009-062 002-009-001 548.2Acres 67.2Acres 002-009-005 002-021-013 1162.09Acres 002-009-00 79.5Acres 002-021-048 438.9Acres 28 MILE RD -009-008 002-009-024 002-009 03(002 009 058 41Acres 26 3Acres 002-009-050 002-009-04(002-009-)5(93Acres 002-009-063 002-009-05(002-009-)5(93Acres 002-009-063 9-038 40 4Acres 35 2Acres 341.7Acres 002-072-009 002-009-024 002-072-010 212.09Acres 110Acres 341.7Acres 002-009-047 SSJID 002-009-042 002-009-044 002-009-045 4 .1Ac(6)2-009-046-022-009-045-009-048-002-009-041 2-009-041 41Acres 41.7Acres 43.2Acres DORSEY RD 002-072-01 320.7Acres 002-072-008 002-072-007 136Acres 147.4Acres 002-020-015 39.7Acres 002-020-016 002-072-011 3Acres 002-072-003 002-072-00 002-072-001 26 3Acres 2-072-095/Acre 40Acres 002-072-092-072-004 40Acres 13 7Acres FRANKENHEIMER SIERRA 28 MILE RD VIEW DR 002-072-011 320.7Acres 002-020-013 40.1Acres RD FRANKENHEIMER RD 002-072-012 METTLER RD 111.3Acres LSTREET AWNEE DR APT 47 26 MILE RD RAPT 47 LAKE DR ONNE N LAKE DR SS AVE WEE DR APT 47 UNCH FAM LTD PAR TRAMOS ERRD BAKER-WILLIAMS PIA WAY STE C ROECT Mike Wilson 0

Stanislaus County Public Works



12/3/2009 Page 2 of 3

# MAP INFORMATION

Map Scale: 1:19,400 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Coordinate System: UTM Zone 10N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Stanislaus County, California, Northern Part Survey Area Data: Version 5, Aug 31, 2009

6/12/2005 Date(s) aerial images were photographed:

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident. The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

## MAP LEGEND

### 8 Area of Interest (AOI) Soil Map Units Area of Interest (AOI) Soils

Wet Spot Other



Oceans Cities Water Features 0







Miscellaneous Water

Perennial Water

Rock Outcrop



Marsh or swamp

Lava Flow

Landfill

Mine or Quarry





Severely Eroded Spot

Slide or Slip

Sinkhole

Sodic Spot

Sandy Spot Saline Spot



Special Point Features

Blowout

9

Political Features Closed Depression

Clay Spot

**Borrow Pit** 

**Gravelly Spot** 

**Gravel Pit** 

Transportation

Major Roads

### **Map Unit Legend**

Stanislaus County, California, Northern Part (CA632)							
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI				
401	Peters-Pentz association, 2 to 8 percent slopes	608.8	47.9%				
451	Pentz-Peters association, 2 to 15 percent slopes	609.2	47.9%				
475	Pentz-Peters association, 15 to 50 percent slopes	51.5	4.0%				
999	WATER	2.6	0.2%				
Totals for Area of Inte	erest	1,272.1	100.0%				

### Map Unit Description

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. Soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An association is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Additional information about the map units described in this report is available in other soil reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the soil reports define some of the properties included in the map unit descriptions.

### Report—Map Unit Description

### Stanislaus County, California, Northern Part

401—Peters-Pentz association, 2 to 8 percent slopes

### Map Unit Setting

Elevation: 200 to 410 feet

Mean annual precipitation: 13 to 15 inches

Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 230 to 275 days

### Map Unit Composition

Peters, clay, and similar soils: 60 percent Pentz, loam, and similar soils: 25 percent



Minor components: 15 percent

### Description of Peters, Clay

### Setting

Landform: Hillslopes

Landform position (two-dimensional): Toeslope, footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Linear

Parent material: Tuffaceous clayey colluvium derived from volcanic

sandstone

### Properties and qualities

Slope: 2 to 5 percent

Depth to restrictive feature: 10 to 20 inches to paralithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Very low (about 1.9 inches)

### Interpretive groups

Land capability classification (irrigated): 4e Land capability (nonirrigated): 4e

### Typical profile

0 to 2 inches: Silty clay loam 2 to 6 inches: Silty clay 6 to 14 inches: Silty clay

15 to 60 inches: Weathered bedrock

### Description of Pentz, Loam

### Setting

Landform: Hillslopes

Landform position (two-dimensional): Backslope, summit

Landform position (three-dimensional): Side slope

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Tuffaceous loamy residuum weathered from

volcanic sandstone

### Properties and qualities

Slope: 5 to 8 percent

Depth to restrictive feature: 10 to 20 inches to paralithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Very low (about 1.5 inches)



### Interpretive groups

Land capability (nonirrigated): 6e

### Typical profile

0 to 9 inches: Silt loam 9 to 12 inches: Silt loam 12 to 16 inches: Silt loam

16 to 60 inches: Weathered bedrock

### **Minor Components**

### Typic durixerepts, sandy clay loam

Percent of map unit: 7 percent Landform: Fan remnants

### Pentz, loam

Percent of map unit: 3 percent

Landform: Hillslopes

Landform position (two-dimensional): Summit, backslope

### Archerdale, loam

Percent of map unit: 2 percent Landform: Stream terraces

### Hicksville, clay loam

Percent of map unit: 1 percent Landform: Stream terraces

### Hollenbeck, clay

Percent of map unit: 1 percent Landform: Backswamps

### Ultic haploxerolls, clayey-skeletal, gravelly loam

Percent of map unit: 1 percent

Landform: Hillslopes

Landform position (two-dimensional): Backslope

### 451—Pentz-Peters association, 2 to 15 percent slopes

### Map Unit Setting

Elevation: 130 to 380 feet

Mean annual precipitation: 13 to 15 inches Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 255 to 275 days

### Map Unit Composition

Pentz, loam, and similar soils: 65 percent Peters, clay, and similar soils: 35 percent

Minor components: 15 percent

### Description of Pentz, Loam

### Setting

Landform: Hillslopes

Landform position (two-dimensional): Backslope, summit

Landform position (three-dimensional): Side slope

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Tuffaceous loamy residuum weathered from

volcanic sandstone

### Properties and qualities

Slope: 5 to 15 percent

Depth to restrictive feature: 10 to 20 inches to paralithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Very low (about 1.6 inches)

### Interpretive groups

Land capability (nonirrigated): 6e

### Typical profile

0 to 6 inches: Silt loam 6 to 10 inches: Silt loam 10 to 12 inches: Silt loam

12 to 60 inches: Weathered bedrock

### Description of Peters, Clay

### Setting

Landform: Hillslopes

Landform position (two-dimensional): Footslope, toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Linear

Parent material: Tuffaceous clayey colluvium derived from volcanic

sandstone

### Properties and qualities

Slope: 2 to 8 percent

Depth to restrictive feature: 10 to 20 inches to paralithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Very low (about 1.9 inches)

### Interpretive groups

Land capability classification (irrigated): 4e

Land capability (nonirrigated): 4e

### Typical profile

0 to 2 inches: Silty clay loam 2 to 6 inches: Silty clay 6 to 14 inches: Silty clay 15 to 60 inches: Weathered bedrock

### **Minor Components**

### Ultic haploxerolls, clayey-skeletal, gravelly loam

Percent of map unit: 4 percent

Landform: Hillslopes

Landform position (two-dimensional): Backslope

### Pentz, loam

Percent of map unit: 3 percent

Landform: Hillslopes

Landform position (two-dimensional): Backslope, summit

### Typic durixerepts, sandy clay loam

Percent of map unit: 3 percent

Landform: Fan remnants

### Redding, sandy loam

Percent of map unit: 2 percent

Landform: Fan remnants

### Archerdale, gravelly loam

Percent of map unit: 1 percent

Landform: Stream terraces

### Pachic haploxerolls, loam

Percent of map unit: 1 percent

Landform: Hillslopes

Landform position (two-dimensional): Backslope

### Rock outcrop

Percent of map unit: 1 percent

### 475—Pentz-Peters association, 15 to 50 percent slopes

### Map Unit Setting

Elevation: 130 to 380 feet

Mean annual precipitation: 13 to 15 inches

Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 255 to 275 days

### Map Unit Composition

Pentz, loam, and similar soils: 60 percent

Peters, clay, and similar soils: 25 percent

Minor components: 15 percent

### Description of Pentz, Loam

### Setting

Landform: Hillslopes

Landform position (two-dimensional): Backslope, summit

Landform position (three-dimensional): Side slope

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Tuffaceous loamy residuum weathered from volcanic sandstone

### Properties and qualities

Slope: 15 to 50 percent

Depth to restrictive feature: 10 to 20 inches to paralithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Very low (about 1.5 inches)

### Interpretive groups

Land capability (nonirrigated): 6e

### Typical profile

0 to 9 inches: Silt loam 9 to 12 inches: Silt loam 12 to 16 inches: Silt loam

16 to 60 inches: Weathered bedrock

### Description of Peters, Clay

### Setting

Landform: Hillslopes

Landform position (two-dimensional): Toeslope, footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Linear

Parent material: Tuffaceous clayey colluvium derived from volcanic

sandstone

### Properties and qualities

Slope: 2 to 8 percent

Depth to restrictive feature: 10 to 20 inches to paralithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Very low (about 1.9 inches)

### Interpretive groups

Land capability classification (irrigated): 4e Land capability (nonirrigated): 4e

### Typical profile

0 to 2 inches: Silty clay loam 2 to 6 inches: Silty clay 6 to 14 inches: Silty clay

15 to 60 inches: Weathered bedrock

### **Minor Components**

### Ultic haploxerolls, clayey-skeletal, gravelly loam

Percent of map unit: 4 percent

Landform: Hillslopes

Landform position (two-dimensional): Backslope

### Typic durixerepts, sandy clay loam

Percent of map unit: 3 percent Landform: Fan remnants

### Redding, sandy loam

Percent of map unit: 2 percent Landform: Fan remnants

### Pentz, Ioam

Percent of map unit: 2 percent

Landform: Hillslopes

Landform position (two-dimensional): Backslope, summit

### Archerdale, gravelly loam

Percent of map unit: 2 percent Landform: Stream terraces

### Pachic haploxerolls, loam

Percent of map unit: 1 percent

Landform: Hillslopes

Landform position (two-dimensional): Backslope

### Rock outcrop

Percent of map unit: 1 percent

### 999—WATER

### Map Unit Composition

Water: 100 percent

### **Data Source Information**

Soil Survey Area: Stanislaus County, California, Northern Part

Survey Area Data: Version 5, Aug 31, 2009