# Appendix H
# Fresno County
# Management Areas Soils
# Report

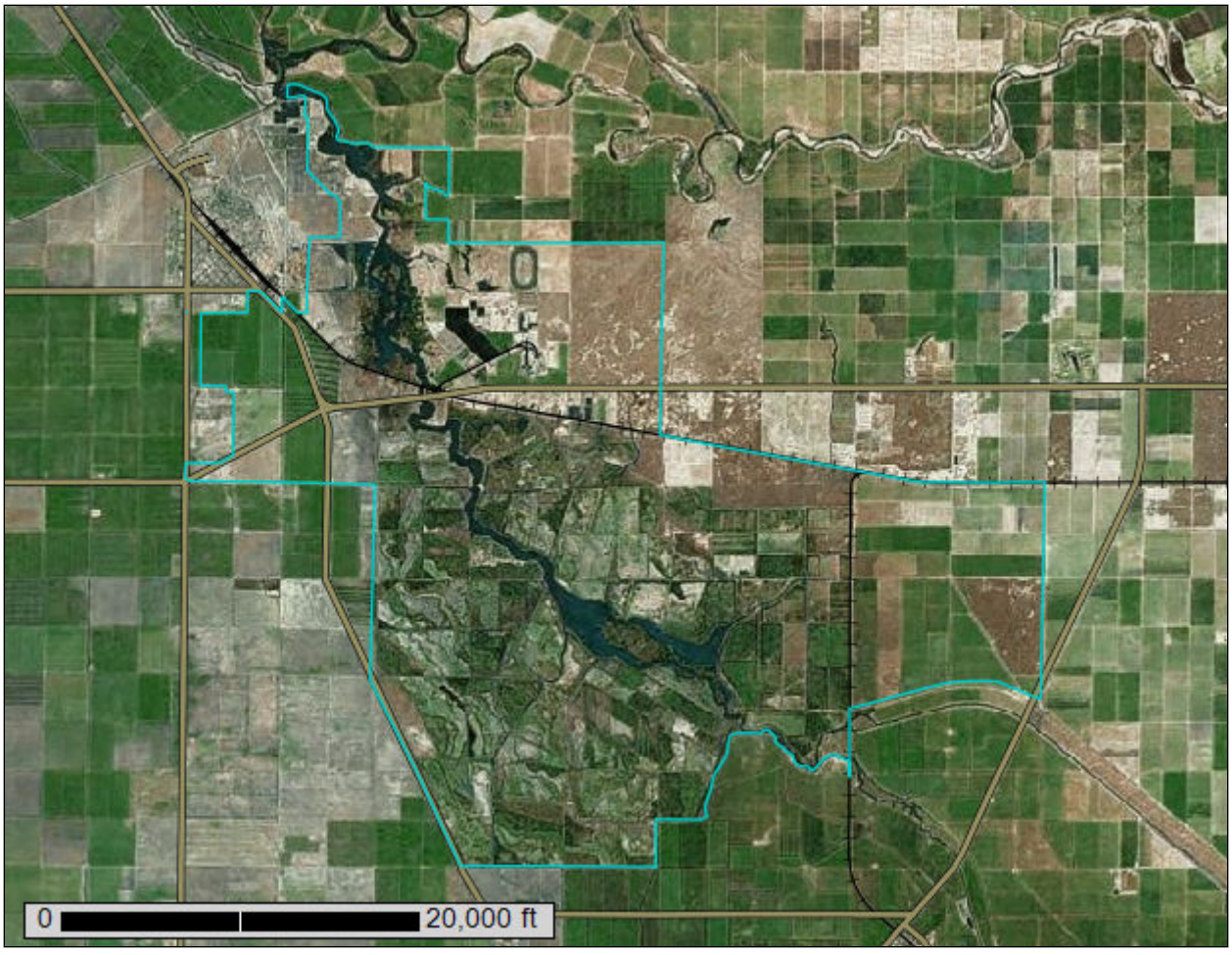
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Eastern Fresno Area, California; and Fresno County, California, Western Part




July 25, 2019

# Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# Contents

# How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

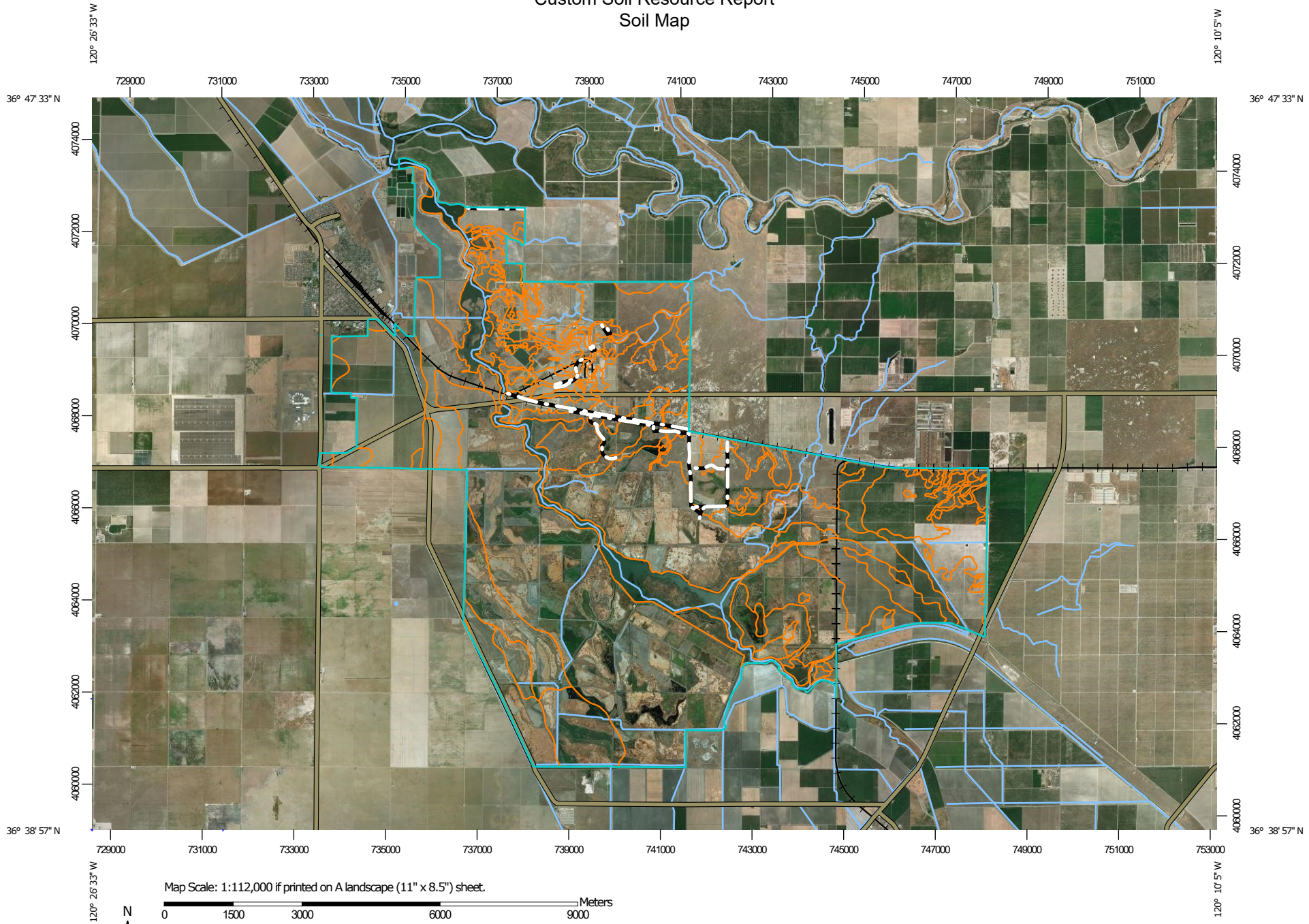
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report
## Soil Map




Map Scale: 1:112,000 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 1500 3000 6000 9000

Feet
0 5000 10000 20000 30000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

## MAP LEGEND

**Area of Interest (AOI)**
- Area of Interest (AOI)

**Soils**
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

**Special Point Features**
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

**Water Features**
- Streams and Canals

**Transportation**
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

**Background**
- Aerial Photography

## MAP INFORMATION

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

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

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

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

Soil Survey Area: Eastern Fresno Area, California
Survey Area Data: Version 11, Sep 12, 2018

Soil Survey Area: Fresno County, California, Western Part
Survey Area Data: Version 13, Sep 12, 2018

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 5, 2015—Mar 11, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

## MAP LEGEND

## MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| 282wf | Tachi clay, 0 to 1 percent slopes | 1,895.0 | 8.4% |
| Cb | Cajon loamy coarse sand, saline-alkali | 16.6 | 0.1% |
| Cd | Cajon coarse sandy loam, saline alkali | 11.8 | 0.1% |
| Cl | Chino sandy loam | 82.6 | 0.4% |
| Cm | Chino sandy loam, saline-alkali | 33.3 | 0.1% |
| Cn | Chino fine sandy loam | 91.0 | 0.4% |
| Cr | Chino loam | 724.6 | 3.2% |
| Cs | Chino loam, saline-alkali | 913.2 | 4.1% |
| DA | Denied access | 150.8 | 0.7% |
| Ga | Grangeville sandy loam | 39.4 | 0.2% |
| Gf | Grangeville fine sandy loam, 0 to 1 percent slopes, MLRA 17 | 6.8 | 0.0% |
| Hsc | Hesperia coarse sandy loam, saline-alkali | 93.3 | 0.4% |
| Hse | Hesperia sandy loam, saline-alkali | 13.0 | 0.1% |
| Mf | Merced clay loam | 14.4 | 0.1% |
| Mg | Merced clay loam, slightly saline | 510.2 | 2.3% |
| Mh | Merced clay | 433.2 | 1.9% |
| Mk | Merced clay, slightly saline | 825.4 | 3.7% |
| Ml | Merced clay, moderately saline | 42.1 | 0.2% |
| Mm | Merced clay, saline-alkali | 250.0 | 1.1% |
| Pl | Playas | 99.5 | 0.4% |
| Pr | Pond sandy loam | 14.1 | 0.1% |
| Pt | Pond fine sandy loam | 387.6 | 1.7% |
| Pu | Pond fine sandy loam, moderately deep | 555.1 | 2.5% |
| Pv | Pond loam | 199.7 | 0.9% |
| Pw | Pond loam, moderately deep | 197.0 | 0.9% |
| Ro | Rossi fine sandy loam | 602.7 | 2.7% |
| Rs | Rossi clay loam | 557.5 | 2.5% |
| Td | Temple clay loam | 11.3 | 0.1% |
| Te | Temple clay loam, saline | 217.9 | 1.0% |
| Tg | Temple clay | 20.9 | 0.1% |
| Tr | Traver sandy loam | 604.4 | 2.7% |

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| Ts | Traver sandy loam, moderately deep | 84.8 | 0.4% |
| Tt | Traver fine sandy loam | 395.6 | 1.8% |
| Tu | Traver fine sandy loam, moderately deep | 176.2 | 0.8% |
| TzbA | Tujunga loamy sand, 0 to 3 percent slopes | 152.9 | 0.7% |
| W | Water | 1,410.3 | 6.3% |
| Wa | Waukena fine sandy loam | 173.6 | 0.8% |
| We | Waukena loam | 1,275.7 | 5.7% |
| **Subtotals for Soil Survey Area** | | **13,283.5** | **58.9%** |
| **Totals for Area of Interest** | | **22,537.5** | **100.0%** |

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| 101 | Armona loam, partially drained, 0 to 1 percent slopes | 265.7 | 1.2% |
| 282 | Tachi clay, 0 to 1 percent slopes | 5,278.3 | 23.4% |
| 284 | Lillis clay, 0 to 1 percent slopes | 552.8 | 2.5% |
| 285 | Tranquillity-Tranquillity, wet, complex, saline-sodic, 0 to 1 percent slopes | 2.3 | 0.0% |
| 286 | Tranquillity clay, saline-sodic, wet, 0 to 1 percent slopes | 1,259.9 | 5.6% |
| 320 | Elnido sandy loam, drained, 0 to 1 percent slopes | 58.3 | 0.3% |
| 375 | Lethent silt loam, 0 to 1 percent slopes, poorly drained, MLRA 17 | 571.0 | 2.5% |
| 475 | Posochanet clay loam, saline-sodic, wet, 0 to 1 percent slopes | 1,127.0 | 5.0% |
| 482 | Calflax clay loam, saline-sodic, wet, 0 to 1 percent slopes, MLRA 17 | 137.1 | 0.6% |
| 981 | Sewage disposal pond | 1.6 | 0.0% |
| **Subtotals for Soil Survey Area** | | **9,254.0** | **41.1%** |
| **Totals for Area of Interest** | | **22,537.5** | **100.0%** |

# Map Unit Descriptions

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, 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*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one 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.

# Eastern Fresno Area, California

## 282wf—Tachi clay, 0 to 1 percent slopes

### Map Unit Setting

*National map unit symbol:* hldj
*Elevation:* 120 to 210 feet
*Mean annual precipitation:* 7 to 8 inches
*Mean annual air temperature:* 62 to 65 degrees F
*Frost-free period:* 220 to 250 days
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Tachi, clay, and similar soils:* 91 percent
*Minor components:* 9 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Tachi, Clay

#### Setting

*Landform:* Flood plains on basin floors
*Landform position (two-dimensional):* Toeslope
*Landform position (three-dimensional):* Rise, talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from igneous rock and/or alluvium derived from sedimentary rock

#### Typical profile

*Ap - 0 to 14 inches:* clay
*Bknssg - 14 to 35 inches:* clay
*Bkng - 35 to 70 inches:* clay

#### Properties and qualities

*Slope:* 0 to 1 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Very poorly drained
*Runoff class:* High
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately low (0.00 to 0.06 in/hr)
*Depth to water table:* About 48 to 60 inches
*Frequency of flooding:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 5 percent
*Gypsum, maximum in profile:* 1 percent
*Salinity, maximum in profile:* Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 50.0
*Available water storage in profile:* Moderate (about 7.2 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 3w
*Land capability classification (nonirrigated):* 7w
*Hydrologic Soil Group:* D
*Hydric soil rating:* Yes

**Minor Components**

**Gepford, clay**
*Percent of map unit:* 2 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Armona, loam, partially drained**
*Percent of map unit:* 2 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Tachi, silt loam, 3-10 inch overwash**
*Percent of map unit:* 2 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Lillis, clay**
*Percent of map unit:* 2 percent
*Landform:* Fan skirts
*Hydric soil rating:* Yes

**Unnamed, river channel**
*Percent of map unit:* 1 percent
*Landform:* Flood plains
*Microfeatures of landform position:* Channels
*Hydric soil rating:* Yes

## Cb—Cajon loamy coarse sand, saline-alkali

**Map Unit Setting**
*National map unit symbol:* hl24
*Elevation:* 170 to 250 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 63 degrees F
*Frost-free period:* 225 to 250 days
*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**
*Cajon and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Cajon**

**Setting**
*Landform:* Alluvial fans
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Base slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear

*Parent material:* Alluvium derived from granite

**Typical profile**

*A - 0 to 2 inches:* loamy coarse sand
*C - 2 to 60 inches:* loamy coarse sand

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat excessively drained
*Runoff class:* Very low
*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (5.95 to 19.98 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 5 percent
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Available water storage in profile:* Low (about 4.8 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3s
*Land capability classification (nonirrigated):* 7s
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

**Minor Components**

**Unnamed, ls surface**

*Percent of map unit:* 14 percent
*Landform:* Alluvial fans
*Hydric soil rating:* No

**Unnamed**

*Percent of map unit:* 1 percent
*Landform:* Depressions, alluvial fans
*Hydric soil rating:* Yes

## Cd—Cajon coarse sandy loam, saline alkali

**Map Unit Setting**

*National map unit symbol:* hl26
*Elevation:* 170 to 250 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 63 degrees F
*Frost-free period:* 225 to 250 days
*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**

*Cajon and similar soils:* 85 percent

*Minor components:* 14 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Cajon

#### Setting

*Landform:* Fan skirts
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Base slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*A - 0 to 12 inches:* coarse sandy loam
*C - 12 to 60 inches:* loamy coarse sand

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat excessively drained
*Runoff class:* Very low
*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
*Calcium carbonate, maximum in profile:* 5 percent
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Available water storage in profile:* Low (about 5.1 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 3s
*Land capability classification (nonirrigated):* 7s
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

### Minor Components

#### Unnamed, nonsaline-alkali

*Percent of map unit:* 10 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

#### Unnamed

*Percent of map unit:* 4 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

## CI—Chino sandy loam

### Map Unit Setting

*National map unit symbol:* hl2h
*Elevation:* 160 to 500 feet
*Mean annual precipitation:* 6 to 14 inches
*Mean annual air temperature:* 61 to 63 degrees F
*Frost-free period:* 250 to 275 days
*Farmland classification:* Prime farmland if irrigated and drained

### Map Unit Composition

*Chino and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Chino

#### Setting

*Landform:* Alluvial fans, flood plains
*Landform position (two-dimensional):* Footslope, toeslope
*Landform position (three-dimensional):* Base slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*A - 0 to 12 inches:* sandy loam
*AC - 12 to 40 inches:* sandy clay loam
*2C - 40 to 60 inches:* stratified sandy loam to loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat poorly drained
*Runoff class:* Low
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 1 percent
*Salinity, maximum in profile:* Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
*Available water storage in profile:* Moderate (about 8.1 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 1
*Land capability classification (nonirrigated):* 4c
*Hydrologic Soil Group:* C
*Hydric soil rating:* Yes

**Minor Components**

**Unnamed, compact substratum**

*Percent of map unit:* 10 percent
*Landform:* Alluvial fans, flood plains
*Hydric soil rating:* No

**Unnamed**

*Percent of map unit:* 5 percent
*Landform:* Alluvial fans, flood plains
*Hydric soil rating:* No

## Cm—Chino sandy loam, saline-alkali

**Map Unit Setting**

*National map unit symbol:* hl2j
*Elevation:* 160 to 200 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 63 degrees F
*Frost-free period:* 250 to 275 days
*Farmland classification:* Prime farmland if irrigated and reclaimed of excess salts and sodium

**Map Unit Composition**

*Chino and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Chino**

**Setting**

*Landform:* Alluvial fans, flood plains
*Landform position (two-dimensional):* Footslope, toeslope
*Landform position (three-dimensional):* Base slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**

*A - 0 to 12 inches:* sandy loam
*AC - 12 to 40 inches:* sandy clay loam
*2C - 40 to 60 inches:* stratified sandy loam to loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat poorly drained
*Runoff class:* Low
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 1 percent
*Salinity, maximum in profile:* Moderately saline to strongly saline (8.0 to 18.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 5.0
*Available water storage in profile:* Low (about 5.9 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 2s
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* C
*Hydric soil rating:* Yes

**Minor Components**

**Unnamed, strongly saline-alkali**

*Percent of map unit:* 8 percent
*Landform:* Alluvial fans, flood plains
*Hydric soil rating:* No

**Unnamed, non saline-alkali**

*Percent of map unit:* 7 percent
*Landform:* Alluvial fans, flood plains
*Hydric soil rating:* No

## Cn—Chino fine sandy loam

**Map Unit Setting**

*National map unit symbol:* hl2k
*Elevation:* 160 to 200 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 63 degrees F
*Frost-free period:* 250 to 275 days
*Farmland classification:* Prime farmland if irrigated and drained

**Map Unit Composition**

*Chino and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Chino**

**Setting**

*Landform:* Alluvial fans, flood plains
*Landform position (two-dimensional):* Footslope, toeslope
*Landform position (three-dimensional):* Base slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**

*A - 0 to 12 inches:* fine sandy loam
*AC - 12 to 18 inches:* clay loam
*2C - 18 to 24 inches:* stratified fine sandy loam to clay loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat poorly drained
*Runoff class:* Low
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 1 percent
*Salinity, maximum in profile:* Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
*Available water storage in profile:* Low (about 3.3 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 1
*Land capability classification (nonirrigated):* 4c
*Hydrologic Soil Group:* C
*Hydric soil rating:* Yes

**Minor Components**

**Unnamed**

*Percent of map unit:* 15 percent
*Landform:* Alluvial fans, flood plains
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Base slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* No

## Cr—Chino loam

**Map Unit Setting**

*National map unit symbol:* hl2n
*Elevation:* 160 to 200 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 63 degrees F
*Frost-free period:* 250 to 275 days
*Farmland classification:* Prime farmland if irrigated and drained

**Map Unit Composition**

*Chino and similar soils:* 85 percent
*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Chino**

**Setting**

*Landform:* Alluvial fans, flood plains
*Landform position (two-dimensional):* Footslope, toeslope
*Landform position (three-dimensional):* Base slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**

*A - 0 to 12 inches:* loam
*AC - 12 to 18 inches:* clay loam
*2C - 18 to 24 inches:* stratified fine sandy loam to clay loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat poorly drained
*Runoff class:* Low
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 1 percent
*Salinity, maximum in profile:* Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
*Available water storage in profile:* Low (about 3.7 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 1
*Land capability classification (nonirrigated):* 4c
*Hydrologic Soil Group:* C
*Hydric soil rating:* Yes

**Minor Components**

**Unnamed, compact substratum**

*Percent of map unit:* 10 percent
*Landform:* Alluvial fans, flood plains
*Hydric soil rating:* No

**Unnamed**

*Percent of map unit:* 5 percent
*Landform:* Depressions on alluvial fans
*Hydric soil rating:* Yes

## Cs—Chino loam, saline-alkali

### Map Unit Setting

*National map unit symbol:* hl2p
*Elevation:* 160 to 200 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 63 degrees F
*Frost-free period:* 250 to 275 days
*Farmland classification:* Prime farmland if irrigated and reclaimed of excess salts and sodium

### Map Unit Composition

*Chino and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Chino

#### Setting

*Landform:* Alluvial fans, flood plains
*Landform position (two-dimensional):* Footslope, toeslope
*Landform position (three-dimensional):* Base slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*A - 0 to 12 inches:* loam
*AC - 12 to 40 inches:* sandy clay loam
*2C - 40 to 60 inches:* stratified sandy loam to loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat poorly drained
*Runoff class:* Low
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 1 percent
*Salinity, maximum in profile:* Moderately saline to strongly saline (8.0 to 18.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 5.0
*Available water storage in profile:* Low (about 5.9 inches)

#### Interpretive groups

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

*Hydrologic Soil Group:* C
*Hydric soil rating:* Yes

**Minor Components**

**Unnamed**
*Percent of map unit:* 10 percent
*Landform:* Depressions on alluvial fans
*Hydric soil rating:* Yes

**Unnamed, non saline-alkali**
*Percent of map unit:* 5 percent
*Landform:* Depressions on alluvial fans
*Hydric soil rating:* Yes

## DA—Denied access

**Map Unit Composition**
*Denied access:* 100 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Ga—Grangeville sandy loam

**Map Unit Setting**
*National map unit symbol:* hl4t
*Elevation:* 160 to 500 feet
*Mean annual precipitation:* 8 to 12 inches
*Mean annual air temperature:* 61 to 63 degrees F
*Frost-free period:* 200 to 250 days
*Farmland classification:* Prime farmland if irrigated and drained

**Map Unit Composition**
*Grangeville and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Grangeville**

**Setting**
*Landform:* Alluvial fans, flood plains
*Landform position (two-dimensional):* Footslope, toeslope
*Landform position (three-dimensional):* Base slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Recent alluvium derived from granite

**Typical profile**
*Ap - 0 to 8 inches:* sandy loam
*C - 8 to 60 inches:* sandy loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat poorly drained
*Runoff class:* Very low
*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:* Rare
*Frequency of ponding:* None
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Available water storage in profile:* Moderate (about 8.3 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 2s
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* A
*Hydric soil rating:* Yes

**Minor Components**

**Unnamed, loam surface**

*Percent of map unit:* 10 percent
*Landform:* Alluvial fans, flood plains
*Hydric soil rating:* No

**Unnamed, channeled**

*Percent of map unit:* 5 percent
*Landform:* Alluvial fans, channels on flood plains
*Hydric soil rating:* No

## Gf—Grangeville fine sandy loam, 0 to 1 percent slopes, MLRA 17

**Map Unit Setting**

*National map unit symbol:* 2vncx
*Elevation:* 30 to 1,760 feet
*Mean annual precipitation:* 8 to 25 inches
*Mean annual air temperature:* 61 to 64 degrees F
*Frost-free period:* 240 to 300 days
*Farmland classification:* Prime farmland if irrigated and drained

**Map Unit Composition**

*Grangeville and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Grangeville

#### Setting

*Landform:* Flood plains, alluvial fans
*Landform position (two-dimensional):* Toeslope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*A - 0 to 12 inches:* fine sandy loam
*C - 12 to 79 inches:* fine sandy loam

#### Properties and qualities

*Slope:* 0 to 1 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat poorly drained
*Runoff class:* Very low
*Capacity of the most limiting layer to transmit water (Ksat):* High (1.98 to 5.95 in/hr)
*Depth to water table:* About 0 inches
*Frequency of flooding:* Occasional
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 2 percent
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 3.0
*Available water storage in profile:* High (about 9.2 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 2w
*Land capability classification (nonirrigated):* 4w
*Hydrologic Soil Group:* A/D
*Hydric soil rating:* Yes

### Minor Components

#### Traver

*Percent of map unit:* 5 percent
*Landform:* Alluvial fans, flood plains
*Landform position (two-dimensional):* Toeslope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

#### Hanford

*Percent of map unit:* 5 percent
*Landform:* Flood plains, alluvial fans
*Landform position (two-dimensional):* Toeslope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* No

#### Unnamed, hydric

*Percent of map unit:* 3 percent
*Landform:* Flood plains, alluvial fans
*Landform position (two-dimensional):* Toeslope

*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Unnamed, channeled**

*Percent of map unit:* 2 percent
*Landform:* Alluvial fans on alluvial fans, channels on flood plains on alluvial fans, channels on flood plains on flood plains
*Landform position (two-dimensional):* Toeslope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* No

## Hsc—Hesperia coarse sandy loam, saline-alkali

**Map Unit Setting**

*National map unit symbol:* hl5w
*Elevation:* 200 to 400 feet
*Mean annual precipitation:* 8 to 10 inches
*Mean annual air temperature:* 61 to 63 degrees F
*Frost-free period:* 225 to 250 days
*Farmland classification:* Prime farmland if irrigated and reclaimed of excess salts and sodium

**Map Unit Composition**

*Hesperia and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Hesperia**

**Setting**

*Landform:* Abandoned channels on alluvial fans, abandoned channels on fan skirts
*Landform position (two-dimensional):* Footslope, toeslope
*Landform position (three-dimensional):* Base slope, rise
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**

*Ap - 0 to 11 inches:* coarse sandy loam
*C - 11 to 32 inches:* coarse sandy loam
*Ck - 32 to 60 inches:* coarse sandy loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Well drained
*Runoff class:* Very low

*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 5 percent
*Salinity, maximum in profile:* Slightly saline to moderately saline (4.0 to 8.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 5.0
*Available water storage in profile:* Moderate (about 6.6 inches)

**Interpretive groups**
*Land capability classification (irrigated):* 2s
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

**Minor Components**

**Unnamed**
*Percent of map unit:* 15 percent
*Landform:* Abandoned channels on alluvial fans, abandoned channels on fan skirts
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* No

## Hse—Hesperia sandy loam, saline-alkali

**Map Unit Setting**
*National map unit symbol:* hl5y
*Elevation:* 200 to 400 feet
*Mean annual precipitation:* 8 to 10 inches
*Mean annual air temperature:* 61 to 63 degrees F
*Frost-free period:* 225 to 250 days
*Farmland classification:* Prime farmland if irrigated and reclaimed of excess salts and sodium

**Map Unit Composition**
*Hesperia and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Hesperia**

**Setting**
*Landform:* Abandoned channels, fan skirts
*Landform position (two-dimensional):* Toeslope, footslope
*Landform position (three-dimensional):* Base slope, rise
*Down-slope shape:* Linear

*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**
*Ap - 0 to 11 inches:* sandy loam
*C - 11 to 32 inches:* sandy loam
*Ck - 32 to 60 inches:* sandy loam

**Properties and qualities**
*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Well drained
*Runoff class:* Very low
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 5 percent
*Salinity, maximum in profile:* Slightly saline to moderately saline (4.0 to 8.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 5.0
*Available water storage in profile:* Moderate (about 6.6 inches)

**Interpretive groups**
*Land capability classification (irrigated):* 2s
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

**Minor Components**

**Unnamed**
*Percent of map unit:* 15 percent
*Landform:* Abandoned channels on fan skirts
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* No

## Mf—Merced clay loam

**Map Unit Setting**
*National map unit symbol:* hl6z
*Elevation:* 170 to 200 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 64 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Prime farmland if irrigated and drained

**Map Unit Composition**
*Merced and similar soils:* 85 percent

*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Merced

#### Setting

*Landform:* Basin floors
*Landform position (two-dimensional):* Toeslope
*Landform position (three-dimensional):* Base slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*Ap - 0 to 12 inches:* clay loam
*C - 12 to 46 inches:* clay
*2Ck - 46 to 70 inches:* clay loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Very poorly drained
*Runoff class:* Medium
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 10 percent
*Salinity, maximum in profile:* Nonsaline to moderately saline (0.0 to 8.0 mmhos/cm)
*Available water storage in profile:* High (about 9.3 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 2s
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* C
*Hydric soil rating:* Yes

### Minor Components

#### Unnamed, silty clay loam surface

*Percent of map unit:* 14 percent
*Landform:* Basin floors
*Hydric soil rating:* No

#### Unnamed, depression

*Percent of map unit:* 1 percent
*Landform:* Depressions on basin floors
*Hydric soil rating:* Yes

## Mg—Merced clay loam, slightly saline

### Map Unit Setting

*National map unit symbol:* hl70
*Elevation:* 170 to 200 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 64 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Prime farmland if irrigated and reclaimed of excess salts and sodium

### Map Unit Composition

*Merced and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Merced

#### Setting

*Landform:* Basin floors
*Landform position (two-dimensional):* Toeslope
*Landform position (three-dimensional):* Base slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*Ap - 0 to 12 inches:* clay loam
*C - 12 to 46 inches:* clay
*2Ck - 46 to 70 inches:* clay loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Very poorly drained
*Runoff class:* Medium
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 10 percent
*Salinity, maximum in profile:* Slightly saline to moderately saline (4.0 to 8.0 mmhos/cm)
*Available water storage in profile:* High (about 9.3 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 2s
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* C

*Hydric soil rating:* Yes

**Minor Components**

**Merced, moderately saline**
*Percent of map unit:* 10 percent
*Landform:* Basin floors
*Hydric soil rating:* Yes

**Unnamed, silty clay loam surface**
*Percent of map unit:* 5 percent
*Landform:* Basin floors
*Hydric soil rating:* No

## Mh—Merced clay

**Map Unit Setting**
*National map unit symbol:* hl71
*Elevation:* 170 to 200 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 64 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Prime farmland if irrigated and drained

**Map Unit Composition**
*Merced and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Merced**

**Setting**
*Landform:* Basin floors
*Landform position (two-dimensional):* Toeslope
*Landform position (three-dimensional):* Base slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**
*Ap - 0 to 12 inches:* clay
*C - 12 to 46 inches:* clay
*2Ck - 46 to 70 inches:* clay loam

**Properties and qualities**
*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Very poorly drained
*Runoff class:* Medium
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 10 percent
*Salinity, maximum in profile:* Nonsaline to moderately saline (0.0 to 8.0 mmhos/cm)
*Available water storage in profile:* Moderate (about 9.0 inches)

**Interpretive groups**
*Land capability classification (irrigated):* 2s
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* C
*Hydric soil rating:* Yes

**Minor Components**

**Unnamed, silty clay loam surface**
*Percent of map unit:* 14 percent
*Landform:* Basin floors
*Hydric soil rating:* No

**Unnamed, depression**
*Percent of map unit:* 1 percent
*Landform:* Depressions on basin floors
*Hydric soil rating:* Yes

## Mk—Merced clay, slightly saline

**Map Unit Setting**
*National map unit symbol:* hl72
*Elevation:* 170 to 200 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 64 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Prime farmland if irrigated and reclaimed of excess salts and sodium

**Map Unit Composition**
*Merced and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Merced**

**Setting**
*Landform:* Basin floors
*Landform position (two-dimensional):* Toeslope
*Landform position (three-dimensional):* Base slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**

*Ap - 0 to 12 inches:* clay
*C - 12 to 46 inches:* clay
*2Ck - 46 to 70 inches:* clay loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Very poorly drained
*Runoff class:* Medium
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 10 percent
*Salinity, maximum in profile:* Slightly saline to moderately saline (4.0 to 8.0 mmhos/cm)
*Available water storage in profile:* Moderate (about 9.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 2s
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* C
*Hydric soil rating:* Yes

**Minor Components**

**Temple**

*Percent of map unit:* 5 percent
*Landform:* Basin floors
*Hydric soil rating:* No

**Piper**

*Percent of map unit:* 5 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Unnamed**

*Percent of map unit:* 5 percent
*Landform:* Basin floors
*Hydric soil rating:* No

## Ml—Merced clay, moderately saline

**Map Unit Setting**

*National map unit symbol:* hl73
*Elevation:* 170 to 200 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 64 degrees F
*Frost-free period:* 225 to 275 days

*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**

*Merced and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Merced**

**Setting**

*Landform:* Basin floors
*Landform position (two-dimensional):* Toeslope
*Landform position (three-dimensional):* Base slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**

*Ap - 0 to 12 inches:* clay
*C - 12 to 46 inches:* clay
*2Ck - 46 to 70 inches:* clay loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Very poorly drained
*Runoff class:* Medium
*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 36 to 60 inches
*Frequency of flooding:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 10 percent
*Salinity, maximum in profile:* Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)
*Available water storage in profile:* Moderate (about 9.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3w
*Land capability classification (nonirrigated):* 4w
*Hydrologic Soil Group:* C
*Hydric soil rating:* Yes

**Minor Components**

**Merced, slightly saline**

*Percent of map unit:* 14 percent
*Landform:* Basin floors
*Hydric soil rating:* Yes

**Unnamed**

*Percent of map unit:* 1 percent
*Landform:* Depressions on basin floors
*Hydric soil rating:* Yes

## Mm—Merced clay, saline-alkali

### Map Unit Setting

*National map unit symbol:* hl74
*Elevation:* 170 to 200 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 64 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Merced and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Merced

#### Setting

*Landform:* Basin floors
*Landform position (two-dimensional):* Toeslope
*Landform position (three-dimensional):* Base slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*Ap - 0 to 12 inches:* clay
*C - 12 to 46 inches:* clay
*2Ck - 46 to 70 inches:* clay loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Very poorly drained
*Runoff class:* Medium
*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 36 to 60 inches
*Frequency of flooding:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 10 percent
*Salinity, maximum in profile:* Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 5.0
*Available water storage in profile:* Moderate (about 9.0 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 4w
*Land capability classification (nonirrigated):* 4w
*Hydrologic Soil Group:* C

*Hydric soil rating:* Yes

**Minor Components**

**Unnamed**

*Percent of map unit:* 15 percent
*Landform:* Basin floors
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## Pl—Playas

**Map Unit Setting**

*National map unit symbol:* hl7v
*Elevation:* 150 to 230 feet
*Mean annual precipitation:* 8 to 20 inches
*Mean annual air temperature:* 61 to 63 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Playas:* 95 percent
*Minor components:* 5 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Playas**

**Setting**

*Landform:* Playas on fan skirts, playas on basin-floor remnants
*Landform position (two-dimensional):* Toeslope
*Landform position (three-dimensional):* Base slope, dip, rise
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium

**Properties and qualities**

*Slope:* 0 to 2 percent
*Runoff class:* Negligible
*Depth to water table:* About 0 inches
*Frequency of flooding:* Rare
*Frequency of ponding:* Frequent

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 8
*Hydric soil rating:* Yes

**Minor Components**

**Unnamed**

*Percent of map unit:* 5 percent
*Landform:* Playas
*Hydric soil rating:* Yes

## Pr—Pond sandy loam

**Map Unit Setting**

*National map unit symbol:* hl84
*Elevation:* 160 to 230 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 63 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**

*Pond and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Pond**

**Setting**

*Landform:* Fan skirts
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Side slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**

*A - 0 to 8 inches:* sandy loam
*Bt - 8 to 20 inches:* sandy clay loam
*2C - 20 to 35 inches:* sandy loam
*3C - 35 to 60 inches:* sand

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat poorly drained
*Runoff class:* Low
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 5 percent
*Salinity, maximum in profile:* Strongly saline (16.0 to 30.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 20.0
*Available water storage in profile:* Low (about 5.0 inches)

**Interpretive groups**
*Land capability classification (irrigated):* 2s
*Land capability classification (nonirrigated):* 7s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

**Minor Components**

**Unnamed**
*Percent of map unit:* 13 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Unnamed**
*Percent of map unit:* 2 percent
*Landform:* Depressions on fan skirts
*Hydric soil rating:* Yes

## Pt—Pond fine sandy loam

**Map Unit Setting**
*National map unit symbol:* hl86
*Elevation:* 160 to 230 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 63 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**
*Pond and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Pond**

**Setting**
*Landform:* Fan skirts
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Side slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**
*A - 0 to 8 inches:* fine sandy loam
*Bt - 8 to 17 inches:* sandy clay loam
*2Bt - 17 to 20 inches:* clay loam
*3C - 20 to 35 inches:* sandy loam

*4C - 35 to 60 inches:* sand

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat poorly drained
*Runoff class:* Medium
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 5 percent
*Salinity, maximum in profile:* Strongly saline (16.0 to 30.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 20.0
*Available water storage in profile:* Low (about 4.8 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 2s
*Land capability classification (nonirrigated):* 7s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

## Minor Components

**Chino**

*Percent of map unit:* 3 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Playas**

*Percent of map unit:* 3 percent
*Landform:* Playas on fan skirts
*Hydric soil rating:* Yes

**Fresno**

*Percent of map unit:* 3 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Traver**

*Percent of map unit:* 3 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Unnamed**

*Percent of map unit:* 2 percent
*Landform:* Depressions on fan skirts
*Hydric soil rating:* Yes

**Pond, reclaimed**

*Percent of map unit:* 1 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

## Pu—Pond fine sandy loam, moderately deep

### Map Unit Setting

*National map unit symbol:* hl87
*Elevation:* 160 to 230 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 63 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Pond and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Pond

#### Setting

*Landform:* Fan skirts
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Side slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*A - 0 to 8 inches:* fine sandy loam
*Bt - 8 to 17 inches:* sandy clay loam
*2Bt - 17 to 35 inches:* clay loam
*3C - 35 to 60 inches:* silt loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* 20 to 40 inches to abrupt textural change
*Natural drainage class:* Somewhat poorly drained
*Runoff class:* Medium
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 5 percent
*Salinity, maximum in profile:* Strongly saline (16.0 to 30.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 20.0
*Available water storage in profile:* Low (about 3.1 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 3s
*Land capability classification (nonirrigated):* 7s
*Hydrologic Soil Group:* D

*Hydric soil rating:* No

**Minor Components**

**Unnamed**

*Percent of map unit:* 13 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Unnamed**

*Percent of map unit:* 2 percent
*Landform:* Depressions on fan skirts
*Hydric soil rating:* Yes

## Pv—Pond loam

**Map Unit Setting**

*National map unit symbol:* hl88
*Elevation:* 160 to 230 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 63 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**

*Pond and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Pond**

**Setting**

*Landform:* Fan skirts
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Side slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**

*A - 0 to 8 inches:* loam
*Bt - 8 to 17 inches:* sandy clay loam
*2Bt - 17 to 20 inches:* clay loam
*3C - 20 to 35 inches:* sandy loam
*4C - 35 to 60 inches:* sand

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat poorly drained
*Runoff class:* Medium

*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 5 percent
*Salinity, maximum in profile:* Strongly saline (16.0 to 30.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 20.0
*Available water storage in profile:* Low (about 5.0 inches)

**Interpretive groups**
*Land capability classification (irrigated):* 2s
*Land capability classification (nonirrigated):* 7s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

**Minor Components**

**Unnamed**
*Percent of map unit:* 13 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Unnamed**
*Percent of map unit:* 2 percent
*Landform:* Depressions on fan skirts
*Hydric soil rating:* Yes

## Pw—Pond loam, moderately deep

**Map Unit Setting**
*National map unit symbol:* hl89
*Elevation:* 160 to 230 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 63 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**
*Pond and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Pond**

**Setting**
*Landform:* Fan skirts
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Side slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear

*Parent material:* Alluvium derived from granite

**Typical profile**

*A - 0 to 8 inches:* loam
*Bt - 8 to 17 inches:* sandy clay loam
*2Bt - 17 to 35 inches:* clay loam
*3C - 35 to 60 inches:* silt loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* 20 to 40 inches to abrupt textural change
*Natural drainage class:* Somewhat poorly drained
*Runoff class:* Medium
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 5 percent
*Salinity, maximum in profile:* Strongly saline (16.0 to 30.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 20.0
*Available water storage in profile:* Low (about 3.2 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3s
*Land capability classification (nonirrigated):* 7s
*Hydrologic Soil Group:* D
*Hydric soil rating:* No

**Minor Components**

**Unnamed**

*Percent of map unit:* 13 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Unnamed**

*Percent of map unit:* 2 percent
*Landform:* Depressions on fan skirts
*Hydric soil rating:* Yes

## Ro—Rossi fine sandy loam

**Map Unit Setting**

*National map unit symbol:* hl8w
*Elevation:* 170 to 200 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 63 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Rossi and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Rossi**

**Setting**

*Landform:* Basin floors
*Landform position (two-dimensional):* Toeslope
*Landform position (three-dimensional):* Rise
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**

*Ap - 0 to 12 inches:* fine sandy loam
*Bt - 12 to 38 inches:* clay loam
*C - 38 to 53 inches:* loam
*2C - 53 to 65 inches:* stratified loamy sand to loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat poorly drained
*Runoff class:* Negligible
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 10 percent
*Salinity, maximum in profile:* Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 20.0
*Available water storage in profile:* Moderate (about 6.6 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 4s
*Land capability classification (nonirrigated):* 6s
*Hydrologic Soil Group:* C
*Hydric soil rating:* Yes

**Minor Components**

**Unnamed, sandy loam surface**

*Percent of map unit:* 10 percent
*Landform:* Basin floors
*Hydric soil rating:* No

**Unnamed, moderately deep compact subsoil**

*Percent of map unit:* 5 percent
*Landform:* Basin floors
*Hydric soil rating:* No

## Rs—Rossi clay loam

### Map Unit Setting

*National map unit symbol:* hl8x
*Elevation:* 170 to 200 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 63 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Rossi and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Rossi

#### Setting

*Landform:* Basin floors
*Landform position (two-dimensional):* Toeslope
*Landform position (three-dimensional):* Rise
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*Ap - 0 to 12 inches:* clay loam
*Bt - 12 to 38 inches:* clay loam
*C - 38 to 53 inches:* loam
*2C - 53 to 65 inches:* stratified loamy sand to loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat poorly drained
*Runoff class:* Negligible
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 10 percent
*Salinity, maximum in profile:* Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 20.0
*Available water storage in profile:* Moderate (about 7.6 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 4s
*Land capability classification (nonirrigated):* 6s

*Hydrologic Soil Group:* C
*Hydric soil rating:* Yes

**Minor Components**

**Unnamed**
*Percent of map unit:* 14 percent
*Landform:* Basin floors
*Hydric soil rating:* Yes

**Unnamed**
*Percent of map unit:* 1 percent
*Landform:* Depressions on basin floors
*Hydric soil rating:* Yes

## Td—Temple clay loam

**Map Unit Setting**
*National map unit symbol:* hl9v
*Elevation:* 170 to 200 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 64 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Prime farmland if irrigated and drained

**Map Unit Composition**
*Temple and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Temple**

**Setting**
*Landform:* Basin floors
*Landform position (two-dimensional):* Toeslope
*Landform position (three-dimensional):* Base slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**
*Ap - 0 to 11 inches:* clay loam
*Bk - 11 to 31 inches:* clay loam
*2C - 31 to 68 inches:* stratified loamy sand to sandy loam

**Properties and qualities**
*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Poorly drained
*Runoff class:* Low

*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 10 percent
*Salinity, maximum in profile:* Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
*Available water storage in profile:* High (about 9.9 inches)

**Interpretive groups**
*Land capability classification (irrigated):* 1
*Land capability classification (nonirrigated):* 4c
*Hydrologic Soil Group:* C
*Hydric soil rating:* Yes

**Minor Components**

**Unnamed, silty clay loam surface**
*Percent of map unit:* 15 percent
*Landform:* Basin floors
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## Te—Temple clay loam, saline

**Map Unit Setting**
*National map unit symbol:* hl9w
*Elevation:* 170 to 200 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 64 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Prime farmland if irrigated and reclaimed of excess salts and sodium

**Map Unit Composition**
*Temple and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Temple**

**Setting**
*Landform:* Basin floors
*Landform position (two-dimensional):* Toeslope
*Landform position (three-dimensional):* Base slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**

*Ap - 0 to 11 inches:* clay loam
*Bk - 11 to 31 inches:* clay loam
*2C - 31 to 68 inches:* stratified loamy sand to sandy loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Poorly drained
*Runoff class:* Low
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 10 percent
*Salinity, maximum in profile:* Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)
*Available water storage in profile:* Moderate (about 8.4 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 2s
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* C
*Hydric soil rating:* Yes

**Minor Components**

**Unnamed, moderately saline**

*Percent of map unit:* 15 percent
*Landform:* Basin floors
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## Tg—Temple clay

**Map Unit Setting**

*National map unit symbol:* hl9y
*Elevation:* 170 to 200 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 61 to 64 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Prime farmland if irrigated and drained

**Map Unit Composition**

*Temple and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Temple

#### Setting

*Landform:* Basin floors
*Landform position (two-dimensional):* Toeslope
*Landform position (three-dimensional):* Base slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*A - 0 to 18 inches:* clay
*Bk - 18 to 60 inches:* clay loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Poorly drained
*Runoff class:* Medium
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 10 percent
*Salinity, maximum in profile:* Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
*Available water storage in profile:* High (about 10.4 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 2s
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* C
*Hydric soil rating:* Yes

### Minor Components

#### Unnamed, slightly saline

*Percent of map unit:* 5 percent
*Landform:* Basin floors
*Hydric soil rating:* Yes

#### Temple, clay substratum

*Percent of map unit:* 5 percent
*Landform:* Basin floors
*Hydric soil rating:* No

#### Temple, sandy clay

*Percent of map unit:* 5 percent
*Landform:* Basin floors
*Hydric soil rating:* Yes

## Tr—Traver sandy loam

### Map Unit Setting

*National map unit symbol:* hlbg
*Elevation:* 170 to 240 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 62 to 64 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Traver and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Traver

#### Setting

*Landform:* Fan skirts
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Side slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*A - 0 to 10 inches:* sandy loam
*Bt - 10 to 23 inches:* sandy clay loam
*C - 23 to 60 inches:* sandy loam

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Well drained
*Runoff class:* Medium
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 5 percent
*Salinity, maximum in profile:* Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 20.0
*Available water storage in profile:* Low (about 5.3 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 2s
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* C

*Hydric soil rating:* No

**Minor Components**

**Traver, non saline-sodic**

*Percent of map unit:* 14 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Playas**

*Percent of map unit:* 1 percent
*Landform:* Playas on fan skirts
*Hydric soil rating:* Yes

## Ts—Traver sandy loam, moderately deep

**Map Unit Setting**

*National map unit symbol:* hlbh
*Elevation:* 170 to 240 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 62 to 64 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**

*Traver and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Traver**

**Setting**

*Landform:* Fan skirts
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Side slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**

*A - 0 to 10 inches:* sandy loam
*Bt - 10 to 23 inches:* sandy clay loam
*C - 23 to 36 inches:* sandy loam
*2C2 - 36 to 60 inches:* silt

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Well drained
*Runoff class:* Medium

*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 5 percent
*Salinity, maximum in profile:* Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 20.0
*Available water storage in profile:* Low (about 6.0 inches)

**Interpretive groups**
*Land capability classification (irrigated):* 2s
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

**Minor Components**

**Traver, non saline-sodic**
*Percent of map unit:* 14 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Playas**
*Percent of map unit:* 1 percent
*Landform:* Playas on fan skirts
*Hydric soil rating:* Yes

## Tt—Traver fine sandy loam

**Map Unit Setting**
*National map unit symbol:* hlbj
*Elevation:* 170 to 240 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 62 to 64 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**
*Traver and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Traver**

**Setting**
*Landform:* Fan skirts
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Side slope
*Down-slope shape:* Linear

*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**

*A - 0 to 10 inches:* fine sandy loam
*Bt - 10 to 23 inches:* sandy clay loam
*C - 23 to 60 inches:* sandy loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Well drained
*Runoff class:* Medium
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 5 percent
*Salinity, maximum in profile:* Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 20.0
*Available water storage in profile:* Low (about 5.3 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 2s
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

**Minor Components**

**Unnamed, loam surface**

*Percent of map unit:* 14 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Playas**

*Percent of map unit:* 1 percent
*Landform:* Playas on fan skirts
*Hydric soil rating:* Yes

## Tu—Traver fine sandy loam, moderately deep

**Map Unit Setting**

*National map unit symbol:* hlbk
*Elevation:* 170 to 240 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 62 to 64 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**

*Traver and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Traver**

**Setting**

*Landform:* Fan skirts
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Side slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**

*A - 0 to 10 inches:* fine sandy loam
*Bt - 10 to 23 inches:* sandy clay loam
*C - 23 to 36 inches:* sandy loam
*2C2 - 36 to 60 inches:* silt

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Well drained
*Runoff class:* Medium
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 5 percent
*Salinity, maximum in profile:* Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 20.0
*Available water storage in profile:* Low (about 6.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 2s
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

**Minor Components**

**Traver, non saline-sodic**

*Percent of map unit:* 14 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Playas**

*Percent of map unit:* 1 percent
*Landform:* Playas on fan skirts
*Hydric soil rating:* Yes

## TzbA—Tujunga loamy sand, 0 to 3 percent slopes

### Map Unit Setting

*National map unit symbol:* hlc1
*Elevation:* 180 to 400 feet
*Mean annual precipitation:* 8 to 12 inches
*Mean annual air temperature:* 62 to 64 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Tujunga and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Tujunga

#### Setting

*Landform:* Alluvial fans, flood plains
*Landform position (two-dimensional):* Toeslope
*Landform position (three-dimensional):* Base slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*A - 0 to 4 inches:* loamy sand
*C - 4 to 60 inches:* stratified sand to loamy sand

#### Properties and qualities

*Slope:* 0 to 3 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat excessively drained
*Runoff class:* Very low
*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (5.95 to 19.98 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* Occasional
*Frequency of ponding:* None
*Available water storage in profile:* Low (about 4.2 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 4s
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

**Minor Components**

**Unnamed, loamy coarse sand**
*Percent of map unit:* 12 percent
*Landform:* Flood plains, alluvial fans
*Hydric soil rating:* No

**Unnamed, compact substratum**
*Percent of map unit:* 2 percent
*Landform:* Flood plains, alluvial fans
*Hydric soil rating:* No

**Unnamed, flooded**
*Percent of map unit:* 1 percent
*Landform:* Flood plains
*Hydric soil rating:* Yes

## W—Water

**Map Unit Composition**
*Water:* 100 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Wa—Waukena fine sandy loam

**Map Unit Setting**
*National map unit symbol:* hlcy
*Elevation:* 160 to 180 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 62 to 64 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**
*Waukena and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Waukena**

**Setting**
*Landform:* Fan skirts
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Side slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**

*A - 0 to 4 inches:* fine sandy loam
*Btk - 4 to 19 inches:* sandy clay loam
*C - 19 to 61 inches:* stratified loamy fine sand to loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat poorly drained
*Runoff class:* Medium
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 15 percent
*Salinity, maximum in profile:* Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 20.0
*Available water storage in profile:* Low (about 5.4 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 4s
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

**Minor Components**

**Unnamed, sandy loam surface**

*Percent of map unit:* 14 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Unnamed, depression**

*Percent of map unit:* 1 percent
*Landform:* Depressions on fan skirts
*Hydric soil rating:* Yes

## We—Waukena loam

**Map Unit Setting**

*National map unit symbol:* hlcz
*Elevation:* 160 to 180 feet
*Mean annual precipitation:* 6 to 10 inches
*Mean annual air temperature:* 62 to 64 degrees F
*Frost-free period:* 225 to 275 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Waukena and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Waukena**

**Setting**

*Landform:* Fan skirts
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Side slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

**Typical profile**

*A - 0 to 4 inches:* loam
*Btk - 4 to 19 inches:* sandy clay loam
*C - 19 to 61 inches:* stratified loamy fine sand to loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat poorly drained
*Runoff class:* Medium
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 15 percent
*Salinity, maximum in profile:* Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 20.0
*Available water storage in profile:* Low (about 5.5 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 4s
*Land capability classification (nonirrigated):* 4s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

**Minor Components**

**Unnamed, clay loam surface**

*Percent of map unit:* 10 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Unnamed, channeled**

*Percent of map unit:* 4 percent
*Landform:* Channels on fan skirts
*Hydric soil rating:* Yes

**Unnamed, depression**

*Percent of map unit:* 1 percent
*Landform:* Depressions on fan skirts

*Hydric soil rating:* Yes

# Fresno County, California, Western Part

## 101—Armona loam, partially drained, 0 to 1 percent slopes

### Map Unit Setting

*National map unit symbol:* hnyy
*Elevation:* 110 to 210 feet
*Mean annual precipitation:* 7 to 8 inches
*Mean annual air temperature:* 62 to 63 degrees F
*Frost-free period:* 220 to 250 days
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Armona, loam, partially drained, and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Armona, Loam, Partially Drained

#### Setting

*Landform:* Flood plains on 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 igneous and/or sedimentary rock

#### Typical profile

*Ap - 0 to 14 inches:* loam
*Bkg - 14 to 22 inches:* stratified loam to clay loam
*Bkng - 22 to 42 inches:* stratified loam to clay loam
*B'kg - 42 to 60 inches:* stratified loam to clay loam

#### Properties and qualities

*Slope:* 0 to 1 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Poorly drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)
*Depth to water table:* About 48 to 60 inches
*Frequency of flooding:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 10 percent
*Gypsum, maximum in profile:* 4 percent
*Salinity, maximum in profile:* Nonsaline to moderately saline (0.0 to 8.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 40.0
*Available water storage in profile:* Moderate (about 8.4 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 3w
*Land capability classification (nonirrigated):* 7w
*Hydrologic Soil Group:* C
*Hydric soil rating:* Yes

**Minor Components**

**Tachi, clay**
*Percent of map unit:* 5 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Gepford, clay**
*Percent of map unit:* 4 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Bisgani, sandy loam, drained**
*Percent of map unit:* 3 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Elnido, sandy loam, drained**
*Percent of map unit:* 3 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

## 282—Tachi clay, 0 to 1 percent slopes

**Map Unit Setting**
*National map unit symbol:* hnz2
*Elevation:* 120 to 210 feet
*Mean annual precipitation:* 7 to 8 inches
*Mean annual air temperature:* 62 to 65 degrees F
*Frost-free period:* 220 to 250 days
*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**
*Tachi, clay, and similar soils:* 91 percent
*Minor components:* 9 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Tachi, Clay**

**Setting**
*Landform:* Flood plains on basin floors
*Landform position (two-dimensional):* Toeslope
*Landform position (three-dimensional):* Talf, rise
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from igneous rock and/or alluvium derived from sedimentary rock

**Typical profile**
*Ap - 0 to 14 inches:* clay
*Bknssg - 14 to 35 inches:* clay

*Bkng - 35 to 70 inches:* clay

**Properties and qualities**

*Slope:* 0 to 1 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Very poorly drained
*Runoff class:* High
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately low (0.00 to 0.06 in/hr)
*Depth to water table:* About 48 to 60 inches
*Frequency of flooding:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 5 percent
*Gypsum, maximum in profile:* 1 percent
*Salinity, maximum in profile:* Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 50.0
*Available water storage in profile:* Moderate (about 7.2 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3w
*Land capability classification (nonirrigated):* 7w
*Hydrologic Soil Group:* D
*Hydric soil rating:* Yes

## Minor Components

**Gepford, clay**

*Percent of map unit:* 2 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Armona, loam, partially drained**

*Percent of map unit:* 2 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Tachi, silt loam, 3-10 inch overwash**

*Percent of map unit:* 2 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Lillis, clay**

*Percent of map unit:* 2 percent
*Landform:* Fan skirts
*Hydric soil rating:* Yes

**Unnamed, river channel**

*Percent of map unit:* 1 percent
*Landform:* Flood plains
*Microfeatures of landform position:* Channels
*Hydric soil rating:* Yes

## 284—Lillis clay, 0 to 1 percent slopes

### Map Unit Setting

*National map unit symbol:* hnz3
*Elevation:* 160 to 180 feet
*Mean annual precipitation:* 7 to 8 inches
*Mean annual air temperature:* 62 to 63 degrees F
*Frost-free period:* 230 to 250 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Lillis, clay, and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Lillis, Clay

#### Setting

*Landform:* Fan skirts
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from igneous and/or sedimentary rock

#### Typical profile

*Ap1 - 0 to 2 inches:* clay
*Ap2 - 2 to 7 inches:* clay
*Bnssz - 7 to 13 inches:* clay
*Bnssyz - 13 to 21 inches:* clay
*Bnzg - 21 to 28 inches:* clay
*Bknzg1 - 28 to 39 inches:* clay
*Bknzg2 - 39 to 48 inches:* clay
*Bknzg3 - 48 to 60 inches:* clay

#### Properties and qualities

*Slope:* 0 to 1 percent
*Depth to restrictive feature:* 20 to 35 inches to salic
*Natural drainage class:* Poorly drained
*Runoff class:* High
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately low (0.00 to 0.06 in/hr)
*Depth to water table:* About 48 to 60 inches
*Frequency of flooding:* Very rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 3 percent
*Gypsum, maximum in profile:* 8 percent
*Salinity, maximum in profile:* Strongly saline (32.0 to 50.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 90.0

*Available water storage in profile:* Very low (about 1.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 4w
*Land capability classification (nonirrigated):* 7w
*Hydrologic Soil Group:* D
*Hydric soil rating:* Yes

**Minor Components**

**Tachi, clay**

*Percent of map unit:* 7 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Tranquillity, clay, saline-sodic, wet**

*Percent of map unit:* 4 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Ciervo, clay, saline-sodic, wet**

*Percent of map unit:* 3 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Lethent, silt loam**

*Percent of map unit:* 1 percent
*Landform:* Fan remnants
*Hydric soil rating:* No

## 285—Tranquillity-Tranquillity, wet, complex, saline-sodic, 0 to 1 percent slopes

**Map Unit Setting**

*National map unit symbol:* hnz4
*Elevation:* 130 to 360 feet
*Mean annual precipitation:* 7 to 8 inches
*Mean annual air temperature:* 62 to 64 degrees F
*Frost-free period:* 220 to 250 days
*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**

*Tranquillity, clay, saline-sodic, and similar soils:* 60 percent
*Tranquillity, clay, saline-sodic, wet, and similar soils:* 25 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Tranquillity, Clay, Saline-sodic**

**Setting**

*Landform:* Fan skirts
*Landform position (two-dimensional):* Footslope

*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from calcareous sedimentary rock

**Typical profile**

*Ap - 0 to 22 inches:* clay
*Bkss - 22 to 53 inches:* clay
*Bk - 53 to 71 inches:* clay

**Properties and qualities**

*Slope:* 0 to 1 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat poorly drained
*Runoff class:* High
*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:* Very rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 5 percent
*Gypsum, maximum in profile:* 3 percent
*Salinity, maximum in profile:* Slightly saline to moderately saline (4.0 to 8.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 20.0
*Available water storage in profile:* Moderate (about 7.9 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3w
*Land capability classification (nonirrigated):* 7w
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

### Description of Tranquillity, Clay, Saline-sodic, Wet

**Setting**

*Landform:* Fan skirts
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from calcareous sedimentary rock

**Typical profile**

*Ap1 - 0 to 6 inches:* clay
*Ap2 - 6 to 16 inches:* clay
*Bknssyz1 - 16 to 31 inches:* clay
*Bknssyz2 - 31 to 48 inches:* clay
*Bknyz - 48 to 65 inches:* silty clay

**Properties and qualities**

*Slope:* 0 to 1 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat poorly drained
*Runoff class:* High
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately low (0.00 to 0.06 in/hr)

*Depth to water table:* About 48 to 60 inches
*Frequency of flooding:* Very rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 5 percent
*Gypsum, maximum in profile:* 8 percent
*Salinity, maximum in profile:* Moderately saline (8.0 to 15.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 50.0
*Available water storage in profile:* Moderate (about 6.1 inches)

**Interpretive groups**
*Land capability classification (irrigated):* 3w
*Land capability classification (nonirrigated):* 7w
*Hydrologic Soil Group:* D
*Hydric soil rating:* No

**Minor Components**

**Ciervo, clay, saline-sodic, wet**
*Percent of map unit:* 5 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Armona, loam, partially drained**
*Percent of map unit:* 4 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Deldota, clay, partially drained**
*Percent of map unit:* 2 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Tachi, clay**
*Percent of map unit:* 2 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Calflax, clay loam, saline-sodic, wet**
*Percent of map unit:* 2 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

## 286—Tranquillity clay, saline-sodic, wet, 0 to 1 percent slopes

**Map Unit Setting**
*National map unit symbol:* hnz5
*Elevation:* 160 to 260 feet
*Mean annual precipitation:* 7 to 8 inches
*Mean annual air temperature:* 62 to 64 degrees F
*Frost-free period:* 220 to 250 days
*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**

*Tranquillity, clay, saline-sodic, wet, and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Tranquillity, Clay, Saline-sodic, Wet**

**Setting**

*Landform:* Fan skirts
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from calcareous sedimentary rock

**Typical profile**

*Ap1 - 0 to 6 inches:* clay
*Ap2 - 6 to 16 inches:* clay
*Bknssyz1 - 16 to 31 inches:* clay
*Bknssyz2 - 31 to 48 inches:* clay
*Bknyz - 48 to 65 inches:* silty clay

**Properties and qualities**

*Slope:* 0 to 1 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Somewhat poorly drained
*Runoff class:* High
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately low (0.00 to 0.06 in/hr)
*Depth to water table:* About 48 to 60 inches
*Frequency of flooding:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 5 percent
*Gypsum, maximum in profile:* 8 percent
*Salinity, maximum in profile:* Moderately saline (8.0 to 15.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 50.0
*Available water storage in profile:* Moderate (about 6.1 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3w
*Land capability classification (nonirrigated):* 7w
*Hydrologic Soil Group:* D
*Hydric soil rating:* No

**Minor Components**

**Ciervo, clay, saline-sodic, wet**

*Percent of map unit:* 4 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Tranquillity, clay, saline-sodic**

*Percent of map unit:* 3 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Calflax, clay loam, saline-sodic, wet**
*Percent of map unit:* 2 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Tachi, clay**
*Percent of map unit:* 2 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Gepford, clay**
*Percent of map unit:* 2 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Armona, loam, partially drained**
*Percent of map unit:* 1 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Lethent, silt loam**
*Percent of map unit:* 1 percent
*Landform:* Fan remnants
*Hydric soil rating:* No

## 320—Elnido sandy loam, drained, 0 to 1 percent slopes

**Map Unit Setting**
*National map unit symbol:* hnz7
*Elevation:* 110 to 170 feet
*Mean annual precipitation:* 8 to 9 inches
*Mean annual air temperature:* 62 to 63 degrees F
*Frost-free period:* 230 to 250 days
*Farmland classification:* Prime farmland if irrigated

**Map Unit Composition**
*Elnido, sandy loam, drained, and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Elnido, Sandy Loam, Drained**

**Setting**
*Landform:* Flood plains on 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 igneous rock

**Typical profile**

*Ap - 0 to 14 inches:* sandy loam
*Bwg - 14 to 32 inches:* sandy loam
*Bkg - 32 to 40 inches:* fine sandy loam
*Cg1 - 40 to 53 inches:* sandy loam
*Cg2 - 53 to 60 inches:* sand

**Properties and qualities**

*Slope:* 0 to 1 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Poorly drained
*Runoff class:* Negligible
*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:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 3 percent
*Salinity, maximum in profile:* Nonsaline to slightly saline (1.0 to 4.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 20.0
*Available water storage in profile:* Moderate (about 6.6 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 2w
*Land capability classification (nonirrigated):* 4w
*Hydrologic Soil Group:* A
*Hydric soil rating:* Yes

**Minor Components**

**Bolfar, loam, drained**

*Percent of map unit:* 2 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Dospalos, clay loam, drained**

*Percent of map unit:* 2 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Palazzo, sandy loam, drained**

*Percent of map unit:* 2 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Tachi, clay**

*Percent of map unit:* 2 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Wekoda, clay, partially drained**

*Percent of map unit:* 2 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Armona, loam, partially drained**

*Percent of map unit:* 2 percent
*Landform:* Flood plains on basin floors

*Hydric soil rating:* Yes

**Bisgani, sandy loam, drained**

*Percent of map unit:* 2 percent
*Landform:* Flood plains on basin floors
*Hydric soil rating:* Yes

**Unnamed, river channel**

*Percent of map unit:* 1 percent
*Landform:* Flood plains
*Microfeatures of landform position:* Channels
*Hydric soil rating:* Yes

## 375—Lethent silt loam, 0 to 1 percent slopes, poorly drained, MLRA 17

### Map Unit Setting

*National map unit symbol:* 2vnd7
*Elevation:* 160 to 170 feet
*Mean annual precipitation:* 8 to 9 inches
*Mean annual air temperature:* 62 degrees F
*Frost-free period:* 240 to 270 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Lethent, silt loam, poorly drained, and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Lethent, Silt Loam, Poorly Drained

#### Setting

*Landform:* Fan remnants
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from sedimentary and igneous rock

#### Typical profile

*Ap - 0 to 7 inches:* silt loam
*Btnzg - 7 to 20 inches:* silty clay
*Btknzg - 20 to 39 inches:* silty clay
*Bknzg - 39 to 79 inches:* silty clay loam

#### Properties and qualities

*Slope:* 0 to 1 percent
*Depth to restrictive feature:* 4 to 10 inches to natric; 15 to 25 inches to salic
*Natural drainage class:* Poorly drained
*Runoff class:* High
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately low (0.00 to 0.06 in/hr)
*Depth to water table:* About 4 inches
*Frequency of flooding:* Very rare

*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 5 percent
*Gypsum, maximum in profile:* 4 percent
*Salinity, maximum in profile:* Strongly saline (30.0 to 60.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 60.0
*Available water storage in profile:* Very low (about 1.1 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3w
*Land capability classification (nonirrigated):* 7w
*Hydrologic Soil Group:* D
*Hydric soil rating:* Yes

**Minor Components**

**Lillis, clay**

*Percent of map unit:* 7 percent
*Landform:* Fan skirts
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

**Tranquillity, clay, saline-sodic, wet**

*Percent of map unit:* 4 percent
*Landform:* Fan skirts
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* No

**Ciervo, clay, saline-sodic, wet**

*Percent of map unit:* 4 percent
*Landform:* Fan skirts
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* No

## 475—Posochanet clay loam, saline-sodic, wet, 0 to 1 percent slopes

**Map Unit Setting**

*National map unit symbol:* hp0b
*Elevation:* 160 to 270 feet
*Mean annual precipitation:* 6 to 8 inches
*Mean annual air temperature:* 62 to 63 degrees F
*Frost-free period:* 230 to 250 days
*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**

*Posochanet, clay loam, saline-sodic, wet, and similar soils:* 88 percent
*Minor components:* 12 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Posochanet, Clay Loam, Saline-sodic, Wet

#### Setting

*Landform:* Fan skirts
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from calcareous sedimentary rock

#### Typical profile

*Ap1 - 0 to 7 inches:* clay loam
*Ap2 - 7 to 15 inches:* clay loam
*Bw - 15 to 24 inches:* stratified loam to silty clay loam
*Bknz - 24 to 60 inches:* stratified loam to silty clay loam

#### Properties and qualities

*Slope:* 0 to 1 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Moderately well drained
*Runoff class:* Medium
*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 48 to 60 inches
*Frequency of flooding:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 2 percent
*Gypsum, maximum in profile:* 2 percent
*Salinity, maximum in profile:* Slightly saline to strongly saline (4.0 to 20.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 50.0
*Available water storage in profile:* Moderate (about 7.4 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 3s
*Land capability classification (nonirrigated):* 7s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

### Minor Components

#### Calflax, clay loam, saline-sodic, wet

*Percent of map unit:* 4 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

#### Tranquillity, clay, saline-sodic, wet

*Percent of map unit:* 3 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

#### Lethent, clay loam

*Percent of map unit:* 3 percent
*Landform:* Fan remnants
*Hydric soil rating:* No

**Ciervo, clay, saline-sodic**

*Percent of map unit:* 2 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

## 482—Calflax clay loam, saline-sodic, wet, 0 to 1 percent slopes, MLRA 17

### Map Unit Setting

*National map unit symbol:* 2vncl
*Elevation:* 160 to 340 feet
*Mean annual precipitation:* 7 to 9 inches
*Mean annual air temperature:* 62 to 64 degrees F
*Frost-free period:* 230 to 250 days
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Calflax, clay loam, saline-sodic, wet, and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Calflax, Clay Loam, Saline-sodic, Wet

#### Setting

*Landform:* Fan skirts
*Landform position (two-dimensional):* Footslope
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from calcareous sedimentary rock

#### Typical profile

*Ap - 0 to 8 inches:* clay loam
*Bw - 8 to 26 inches:* clay loam
*Bny - 26 to 33 inches:* loam
*Bnyz1 - 33 to 47 inches:* silt loam
*Bnyz2 - 47 to 65 inches:* loam

#### Properties and qualities

*Slope:* 0 to 1 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Moderately well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)
*Depth to water table:* About 48 to 60 inches
*Frequency of flooding:* Rare
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 3 percent
*Gypsum, maximum in profile:* 5 percent

*Salinity, maximum in profile:* Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 40.0
*Available water storage in profile:* Moderate (about 7.3 inches)

**Interpretive groups**
*Land capability classification (irrigated):* 3s
*Land capability classification (nonirrigated):* 7s
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

**Minor Components**

**Ciervo, clay, saline-sodic, wet**
*Percent of map unit:* 6 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Cerini, clay loam**
*Percent of map unit:* 2 percent
*Landform:* Alluvial fans
*Hydric soil rating:* No

**Posochanet, clay loam, saline-sodic, wet**
*Percent of map unit:* 2 percent
*Landform:* Fan skirts
*Hydric soil rating:* No

**Lethent, clay loam**
*Percent of map unit:* 2 percent
*Landform:* Fan remnants
*Hydric soil rating:* No

**Kimberlina, fine sandy loam**
*Percent of map unit:* 1 percent
*Hydric soil rating:* No

**Garces, silt loam**
*Percent of map unit:* 1 percent
*Hydric soil rating:* No

**Twisselman, clay, saline-sodic**
*Percent of map unit:* 1 percent
*Hydric soil rating:* No

## 981—Sewage disposal pond

**Map Unit Setting**
*National map unit symbol:* hp2n
*Elevation:* 140 to 650 feet
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Sewage disposal pond:* 100 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Sewage Disposal Pond**

**Properties and qualities**

*Slope:* 0 percent

*Frequency of flooding:* Very rare

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