

**Appendix I
Fresno County
Management Areas Soils
Report**



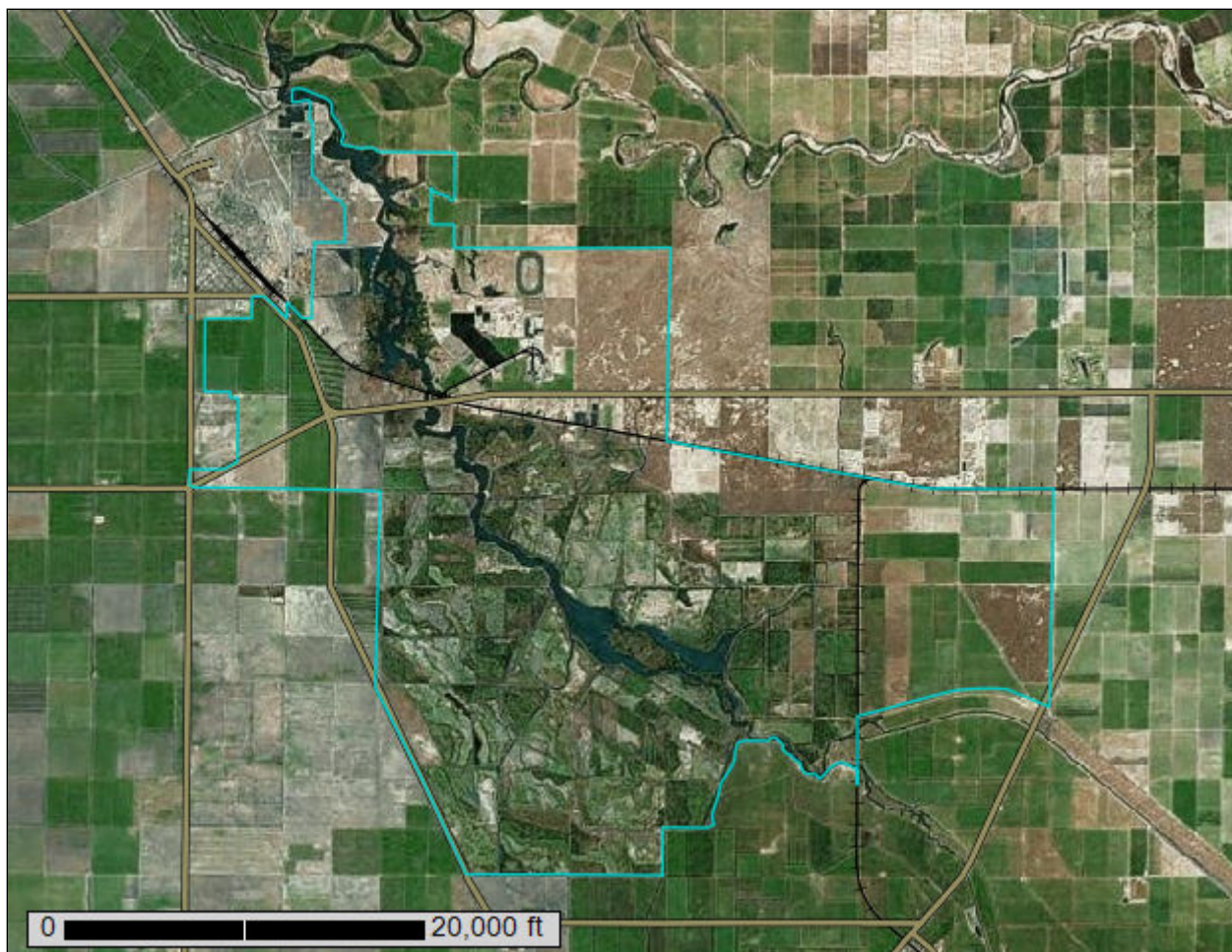
United States
Department of
Agriculture

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



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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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

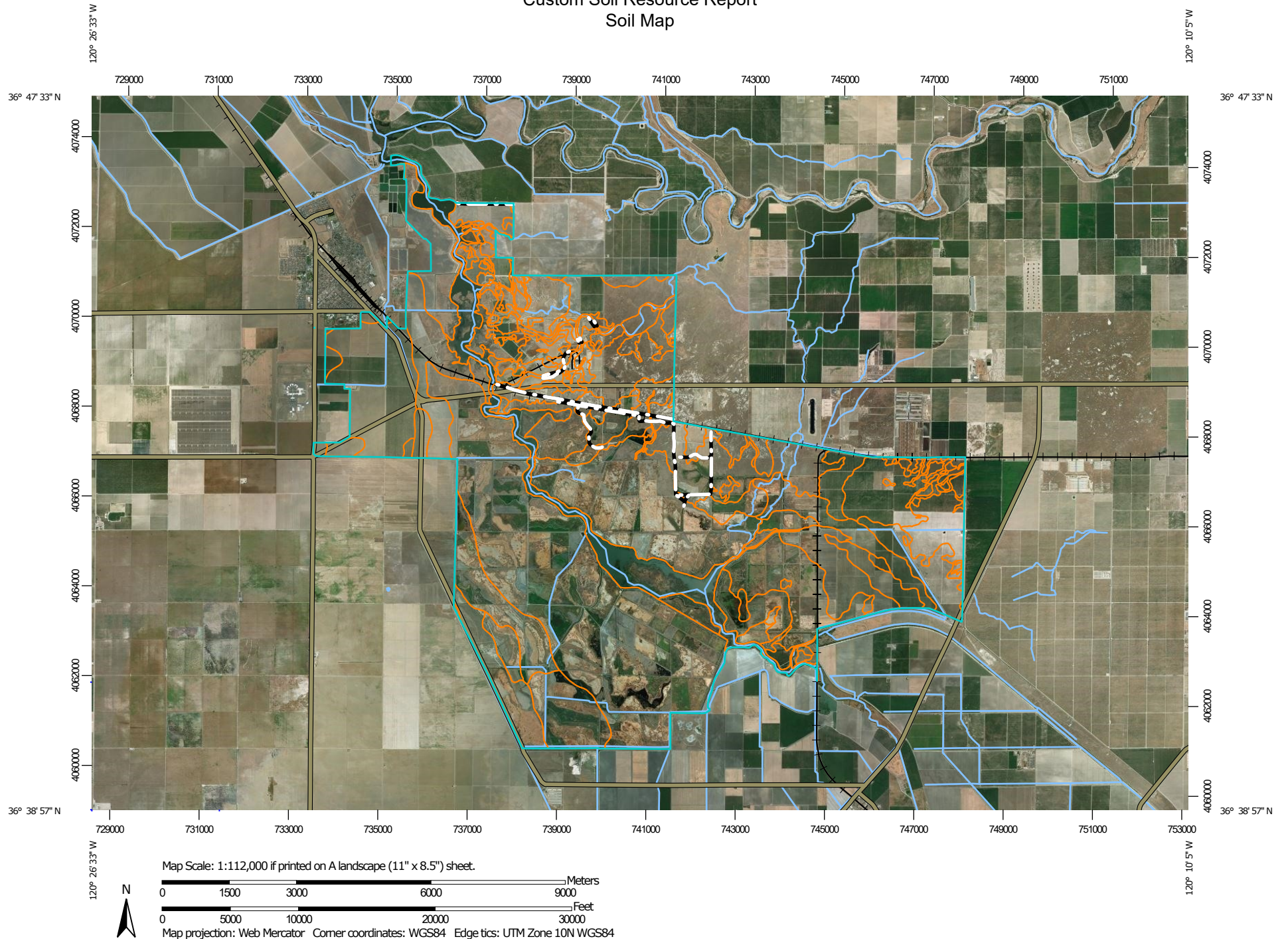
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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

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.

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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%
MI	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%

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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.

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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: h124
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

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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, Is 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: h126

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

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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: h12h
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)

Custom Soil Resource Report

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: h12k
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

Custom Soil Resource Report

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

Custom Soil Resource Report

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

Custom Soil Resource Report

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

Custom Soil Resource Report

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

Custom Soil Resource Report

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

Custom Soil Resource Report

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

Custom Soil Resource Report

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

Custom Soil Resource Report

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)

Custom Soil Resource Report

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

MI—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

Custom Soil Resource Report

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

PI—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: h184

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)

Custom Soil Resource Report

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: h186

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

Custom Soil Resource Report

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

Custom Soil Resource Report

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

Custom Soil Resource Report

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

Custom Soil Resource Report

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: h18w
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

Custom Soil Resource Report

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

Custom Soil Resource Report

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: hI9y
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: hlbq
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

Custom Soil Resource Report

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

Custom Soil Resource Report

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

Custom Soil Resource Report

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: hnny

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

Custom Soil Resource Report

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

Custom Soil Resource Report

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

Custom Soil Resource Report

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)

Custom Soil Resource Report

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

Custom Soil Resource Report

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

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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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