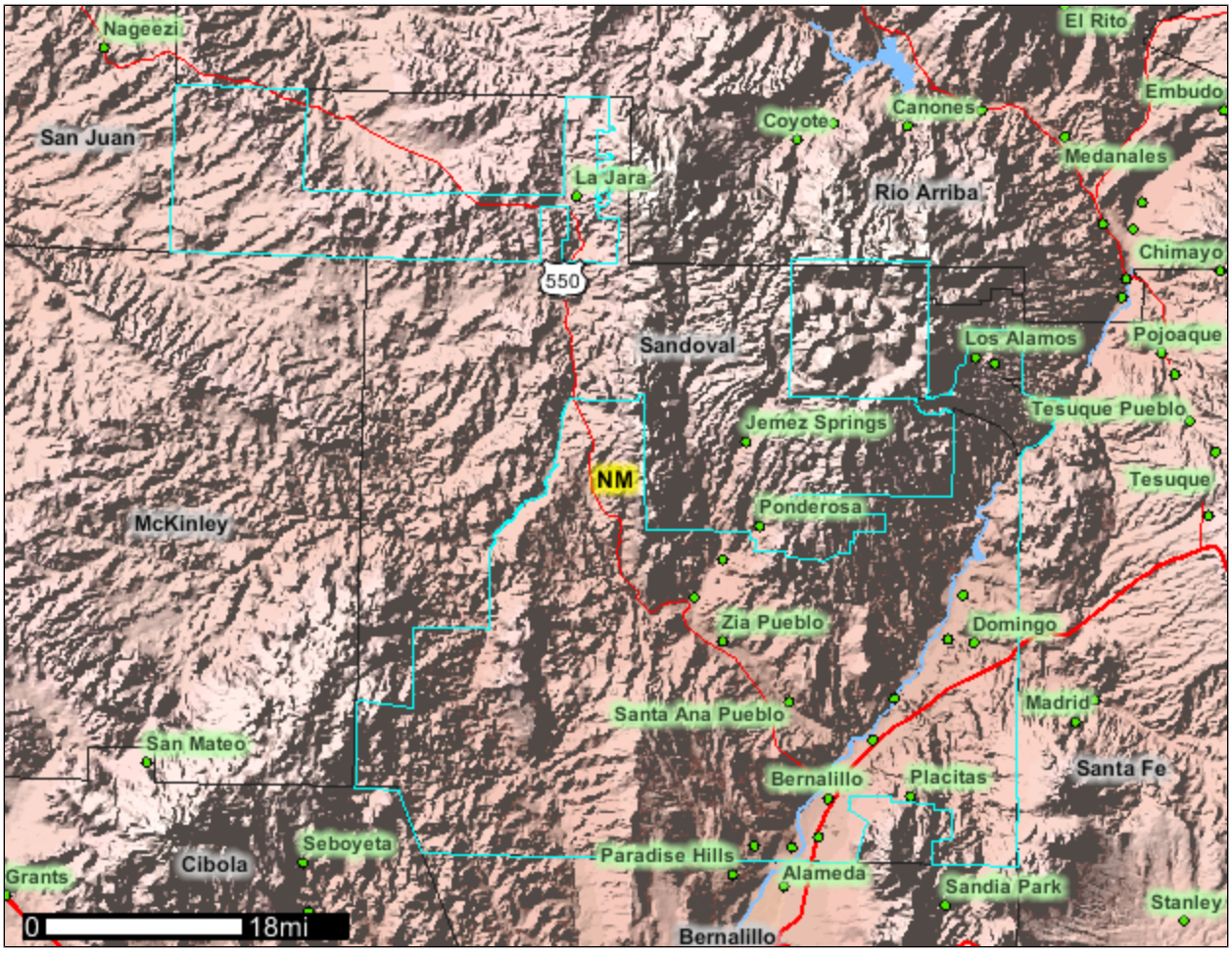
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

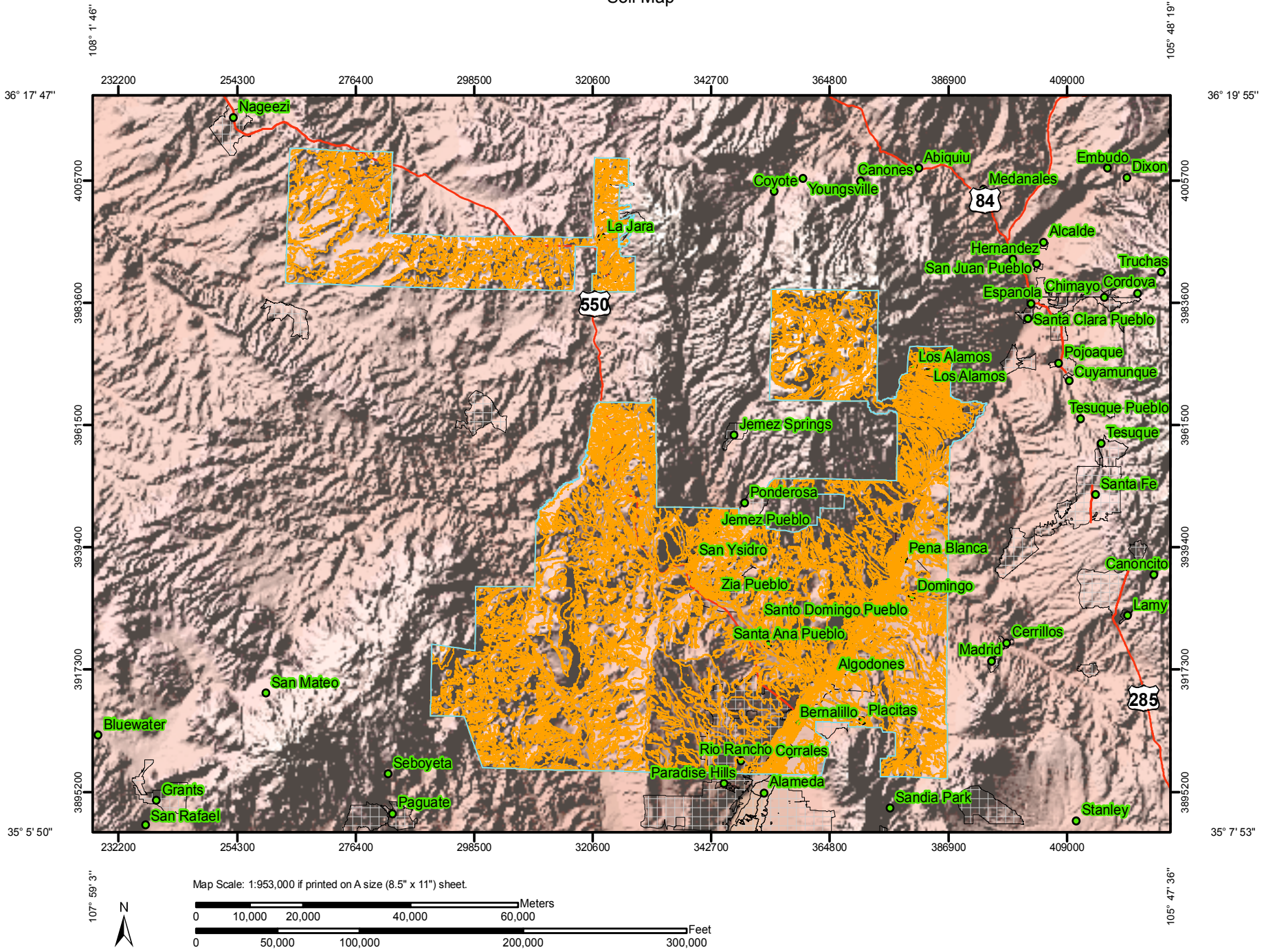
A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Sandoval County Area, New Mexico, Parts of Los Alamos, Sandoval, and Rio Arriba Counties

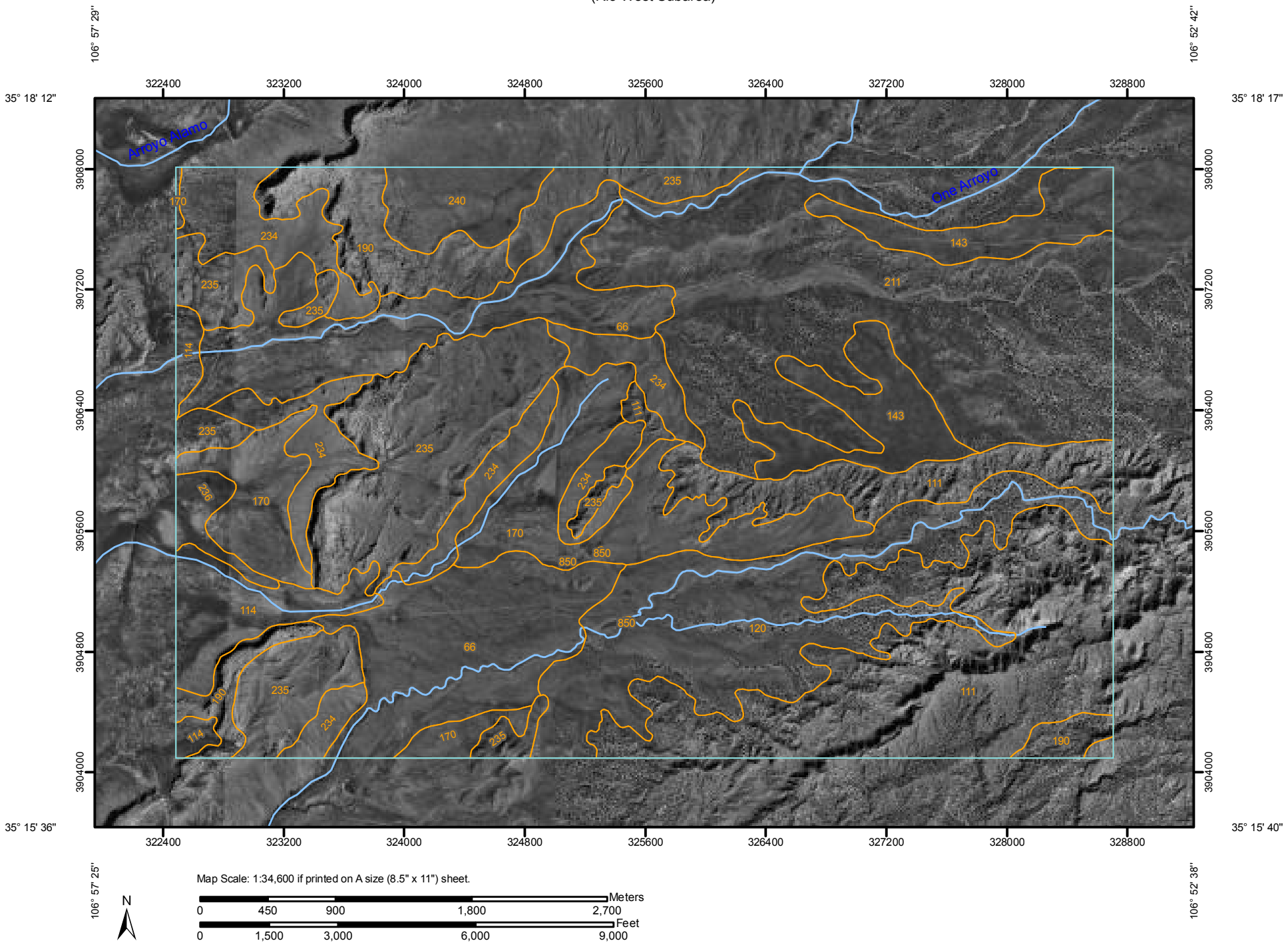


October 15, 2009

Custom Soil Resource Report
Soil Map



Soil Map—Sandoval County Area, New Mexico, Parts of Los Alamos, Sandoval, and Rio Arriba Counties
(Rio West Subarea)



MAP LEGEND

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

Soils
- Soil Map Units

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
- Gully
- Short Steep Slope
- Other

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

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

MAP INFORMATION

Map Scale: 1:34,600 if printed on A size (8.5" × 11") sheet.

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

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

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 13N NAD83

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

Soil Survey Area: Sandoval County Area, New Mexico, Parts of Los Alamos, Sandoval, and Rio Arriba Counties
Survey Area Data: Version 7, Dec 9, 2008

Date(s) aerial images were photographed: 10/6/1996

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

Map Unit Legend

Sandoval County Area, New Mexico, Parts of Los Alamos, Sandoval, and Rio Arriba Counties (NM656)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
66	Zia sandy loam, 3 to 6 percent slopes	752.2	12.5%
111	Rock outcrop-Zia complex, 8 to 25 percent slopes	955.1	15.9%
114	Zia-San Mateo association, 0 to 9 percent slopes	181.5	3.0%
120	Pinavetes loamy sand, 3 to 5 percent slopes	603.3	10.0%
143	Clovis fine sandy loam, 1 to 4 percent slopes	296.2	4.9%
170	San Mateo loam, 0 to 3 percent slopes	489.2	8.1%
190	Zia-Skyvillage-Rock outcrop complex, 5 to 40 percent slopes	254.6	4.2%
211	Zia-Clovis association, 2 to 10 percent slopes	1,151.0	19.1%
234	Querencia-Zia complex, 2 to 8 percent slopes	436.7	7.2%
235	Sandoval fine sandy loam, 3 to 15 percent slopes	738.3	12.3%
236	Sparank clay loam, moderately saline, sodic, 0 to 1 percent slopes	44.9	0.7%
240	Penistaja-Hagerman association, 1 to 5 percent slopes	119.1	2.0%
850	Water	2.3	0.0%
Totals for Area of Interest		**6,024.5**	**100.0%**

Interpretive groups

Land capability (nonirrigated): 7e
Ecological site: Limy (R070CY108NM)

Typical profile

0 to 4 inches: Loam
4 to 23 inches: Loam
23 to 36 inches: Loam
36 to 60 inches: Sandy loam

66—Zia sandy loam, 3 to 6 percent slopes

Map Unit Setting

Elevation: 5,100 to 5,700 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 120 to 140 days

Map Unit Composition

Zia and similar soils: 85 percent

Description of Zia

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian deposits over fan alluvium derived from sandstone

Properties and qualities

Slope: 3 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 5.0
Available water capacity: Moderate (about 7.2 inches)

Interpretive groups

Land capability (nonirrigated): 6c
Ecological site: Sandy (R035XA113NM)

Typical profile

0 to 4 inches: Sandy loam
4 to 60 inches: Sandy loam

111—Rock outcrop-Zia complex, 8 to 25 percent slopes

Map Unit Setting

Elevation: 5,400 to 6,400 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 120 to 140 days

Map Unit Composition

Rock outcrop: 50 percent
Zia and similar soils: 35 percent

Description of Rock Outcrop

Setting

Landform: Breaks, escarpments

Properties and qualities

Depth to restrictive feature: 0 inches to lithic bedrock
Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.01 in/hr)

Interpretive groups

Land capability (nonirrigated): 8s

Typical profile

0 to 60 inches: Bedrock

Description of Zia

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian deposits over fan alluvium derived from sandstone

Properties and qualities

Slope: 8 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 5.0
Available water capacity: Moderate (about 8.3 inches)

Interpretive groups

Land capability (nonirrigated): 6e
Ecological site: Foothills (R035XA131NM)

Typical profile

0 to 5 inches: Sandy loam
5 to 60 inches: Fine sandy loam

112—Tijeras gravelly fine sandy loam, 1 to 5 percent slopes

Map Unit Setting

Elevation: 5,100 to 5,600 feet
Mean annual precipitation: 8 to 10 inches
Mean annual air temperature: 53 to 55 degrees F
Frost-free period: 140 to 160 days

Map Unit Composition

Tijeras and similar soils: 85 percent

Description of Tijeras

Setting

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

Properties and qualities

Slope: 1 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 5.0
Available water capacity: Moderate (about 6.5 inches)

Interpretive groups

Land capability (nonirrigated): 7c
Ecological site: Sandy (R042XA051NM)

Typical profile

0 to 3 inches: Gravelly fine sandy loam
3 to 14 inches: Sandy clay loam
14 to 60 inches: Gravelly sandy loam

114—Zia-San Mateo association, 0 to 9 percent slopes

Map Unit Setting

Elevation: 5,500 to 6,200 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 120 to 140 days

Map Unit Composition

San mateo and similar soils: 40 percent
Zia and similar soils: 40 percent

Description of Zia

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian deposits over fan alluvium derived from sandstone

Properties and qualities

Slope: 1 to 9 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 5.0
Available water capacity: Moderate (about 8.4 inches)

Interpretive groups

Land capability (nonirrigated): 6c
Ecological site: Sandy (R035XA113NM)

Typical profile

0 to 3 inches: Fine sandy loam
3 to 60 inches: Fine sandy loam

Description of San Mateo

Setting

Landform: Flood plains, valley sides, alluvial fans
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Stream alluvium derived from sandstone and shale

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Slightly saline to strongly saline (5.0 to 30.0 mmhos/cm)
Sodium adsorption ratio, maximum: 5.0
Available water capacity: High (about 9.3 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability (nonirrigated): 6e
Ecological site: Swale (R035XA120NM)

Typical profile

0 to 7 inches: Sandy loam
7 to 60 inches: Stratified sandy loam to loam to clay loam to silty clay loam

120—Pinavetes loamy sand, 3 to 5 percent slopes

Map Unit Setting

Elevation: 5,300 to 6,000 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 120 to 140 days

Map Unit Composition

Pinavetes and similar soils: 85 percent

Description of Pinavetes

Setting

Landform: Valley sides, dunes
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Eolian deposits derived from sandstone

Properties and qualities

Slope: 3 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)

Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water capacity: Very low (about 2.9 inches)

Interpretive groups

Land capability (nonirrigated): 6e
Ecological site: Deep Sand (R035XA115NM)

Typical profile

0 to 10 inches: Loamy sand
10 to 35 inches: Sand
35 to 60 inches: Sand

124—Rock outcrop

Map Unit Setting

Elevation: 5,300 to 6,000 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 52 to 54 degrees F

Map Unit Composition

Rock outcrop: 90 percent

Description of Rock Outcrop

Setting

Landform: Escarpments, mesas

Properties and qualities

Depth to restrictive feature: 0 inches to lithic bedrock
Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.01 in/hr)

Interpretive groups

Land capability (nonirrigated): 8s

Typical profile

0 to 60 inches: Bedrock

129—Menefee clay loam, 5 to 35 percent slopes

Map Unit Setting

Elevation: 6,800 to 7,800 feet
Mean annual precipitation: 13 to 16 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 110 to 130 days

143—Clovis fine sandy loam, 1 to 4 percent slopes

Map Unit Setting

Elevation: 6,000 to 6,600 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 120 to 140 days

Map Unit Composition

Clovis and similar soils: 85 percent

Description of Clovis

Setting

Landform: Fan remnants, mesas, plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian deposits over slope alluvium derived from sandstone and shale

Properties and qualities

Slope: 1 to 4 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 25 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water capacity: Moderate (about 8.9 inches)

Interpretive groups

Land capability (nonirrigated): 6c
Ecological site: Loamy (R035XA112NM)

Typical profile

0 to 3 inches: Fine sandy loam
3 to 7 inches: Sandy clay loam
7 to 12 inches: Sandy clay loam
12 to 22 inches: Sandy clay loam
22 to 34 inches: Sandy clay loam
34 to 60 inches: Sandy clay loam

Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water capacity: Moderate (about 7.0 inches)

Interpretive groups
Land capability (nonirrigated): 7c
Ecological site: Pseudotsuga menziesii-Pinus ponderosa/Festuca arizonica (F048AY009NM)

Typical profile
0 to 3 inches: Loam
3 to 24 inches: Clay loam
24 to 39 inches: Sandy clay loam
39 to 60 inches: Bedrock

170—San Mateo loam, 0 to 3 percent slopes

Map Unit Setting
Elevation: 5,800 to 6,800 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 120 to 140 days

Map Unit Composition
San mateo and similar soils: 85 percent

Description of San Mateo

Setting
Landform: Alluvial fans, valley sides, flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Stream alluvium derived from sandstone and shale

Properties and qualities
Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to slightly saline (1.0 to 8.0 mmhos/cm)

Sodium adsorption ratio, maximum: 30.0
Available water capacity: High (about 10.8 inches)

Interpretive groups
Land capability classification (irrigated): 2e
Land capability (nonirrigated): 6e
Ecological site: Swale (R035XA120NM)

Typical profile
0 to 2 inches: Loam
2 to 10 inches: Clay loam
10 to 23 inches: Clay loam
23 to 32 inches: Clay loam
32 to 54 inches: Clay loam
54 to 60 inches: Clay loam

180—Councelor-Eslendo-Mespun complex, 5 to 30 percent slopes

Map Unit Setting
Elevation: 6,600 to 7,000 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 110 to 130 days

Map Unit Composition
Councelor and similar soils: 40 percent
Eslendo and similar soils: 30 percent
Mespun and similar soils: 25 percent

Description of Councelor

Setting
Landform: Valley floors, valley sides, fan remnants, stream terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian deposits over stream alluvium derived from sandstone and shale

Properties and qualities
Slope: 5 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0

8 to 13 inches: Very gravelly clay loam
13 to 20 inches: Extremely gravelly sandy loam
20 to 60 inches: Fragmental material

190—Zia-Skyvillage-Rock outcrop complex, 5 to 40 percent slopes

Map Unit Setting

Elevation: 5,800 to 6,400 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 120 to 140 days

Map Unit Composition

Zia and similar soils: 35 percent
Skyvillage and similar soils: 25 percent
Rock outcrop: 15 percent

Description of Zia

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian deposits over fan alluvium derived from sandstone

Properties and qualities

Slope: 5 to 20 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water capacity: Moderate (about 7.2 inches)

Interpretive groups

Land capability (nonirrigated): 6c
Ecological site: Sandy (R035XA113NM)

Typical profile

0 to 5 inches: Sandy loam
5 to 28 inches: Sandy loam
28 to 60 inches: Sandy loam

Description of Skyvillage

Setting

Landform: Breaks, cuestas, hills, mesas, ridges, structural benches
Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Head slope, side slope, nose slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Slope alluvium derived from sandstone

Properties and qualities

Slope: 5 to 40 percent
Depth to restrictive feature: 6 to 20 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water capacity: Very low (about 2.3 inches)

Interpretive groups

Land capability (nonirrigated): 7s
Ecological site: Shallow Sandstone (R035XG121NM)

Typical profile

0 to 2 inches: Fine sandy loam
2 to 11 inches: Fine sandy loam
11 to 16 inches: Fine sandy loam
16 to 60 inches: Bedrock

Description of Rock Outcrop

Setting

Landform: Escarpments, breaks

Properties and qualities

Depth to restrictive feature: 0 inches to lithic bedrock
Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.01 in/hr)

Interpretive groups

Land capability (nonirrigated): 8s

Typical profile

0 to 60 inches: Bedrock

191—Sheppard loamy fine sand, 3 to 8 percent slopes

Map Unit Setting

Elevation: 5,200 to 5,700 feet
Mean annual precipitation: 8 to 10 inches
Mean annual air temperature: 53 to 55 degrees F
Frost-free period: 140 to 160 days

210—Ildefonso very stony loam, 25 to 70 percent slopes, rubbly

Map Unit Setting

Elevation: 5,000 to 5,800 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 120 to 140 days

Map Unit Composition

Ildefonso and similar soils: 85 percent

Description of Ildefonso

Setting

Landform: Mesas, fan remnants, hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fan alluvium over colluvium derived from sandstone and shale

Properties and qualities

Slope: 25 to 70 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 20 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 4.0 mmhos/cm)
Available water capacity: Low (about 4.8 inches)

Interpretive groups

Land capability (nonirrigated): 7e
Ecological site: Limy (R035XG129NM)

Typical profile

0 to 3 inches: Very stony loam
3 to 9 inches: Very stony loam
9 to 60 inches: Very stony loam

211—Zia-Clovis association, 2 to 10 percent slopes

Map Unit Setting

Elevation: 5,500 to 6,400 feet

Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 120 to 140 days

Map Unit Composition
Zia and similar soils: 45 percent
Clovis and similar soils: 30 percent

Description of Zia

Setting
Landform: Plateaus
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian deposits derived from sandstone over fan alluvium derived from sandstone; eolian deposits and alluvium derived from sandstone and shale

Properties and qualities
Slope: 2 to 10 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water capacity: Moderate (about 7.6 inches)

Interpretive groups
Land capability (nonirrigated): 6c
Ecological site: Sandy (R035XA113NM)

Typical profile
0 to 5 inches: Sandy loam
5 to 14 inches: Sandy loam
14 to 33 inches: Sandy loam
33 to 46 inches: Sandy clay loam
46 to 60 inches: Sandy loam

Description of Clovis

Setting
Landform: Fan remnants, plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian deposits derived from sandstone over fan alluvium derived from sandstone and shale; eolian deposits and alluvium derived from sandstone and shale

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 25 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water capacity: Moderate (about 8.9 inches)

Interpretive groups

Land capability (nonirrigated): 6c
Ecological site: Loamy (R035XA112NM)

Typical profile

0 to 5 inches: Fine sandy loam
5 to 60 inches: Sandy clay loam

213—Pinavetes-Rock outcrop complex, 15 to 35 percent slopes

Map Unit Setting

Elevation: 5,600 to 6,100 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 120 to 140 days

Map Unit Composition

Pinavetes and similar soils: 55 percent
Rock outcrop: 30 percent

Description of Pinavetes

Setting

Landform: Dunes, valley sides
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Eolian deposits derived from sandstone

Properties and qualities

Slope: 15 to 35 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)

234—Querencia-Zia complex, 2 to 8 percent slopes

Map Unit Setting

Elevation: 5,800 to 6,900 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 120 to 140 days

Map Unit Composition

Querencia and similar soils: 60 percent
Zia and similar soils: 20 percent

Description of Querencia

Setting

Landform: Stream terraces, valley sides, alluvial fans
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fan alluvium over colluvium derived from sandstone and shale

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 5.0
Available water capacity: High (about 9.4 inches)

Interpretive groups

Land capability (nonirrigated): 6c
Ecological site: Loamy (R035XA112NM)

Typical profile

0 to 3 inches: Fine sandy loam
3 to 25 inches: Loam
25 to 60 inches: Stratified loam to fine sandy loam

Description of Zia

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Rise
Down-slope shape: Linear

Across-slope shape: Linear
Parent material: Eolian deposits over fan alluvium derived from sandstone

Properties and qualities
Slope: 2 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 5.0
Available water capacity: Moderate (about 7.2 inches)

Interpretive groups
Land capability (nonirrigated): 6c
Ecological site: Sandy (R035XA113NM)

Typical profile
0 to 11 inches: Sandy loam
11 to 60 inches: Sandy loam

235—Sandoval fine sandy loam, 3 to 15 percent slopes

Map Unit Setting
Elevation: 5,800 to 6,400 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 120 to 140 days

Map Unit Composition
Sandoval and similar soils: 85 percent

Description of Sandoval

Setting
Landform: Ridges, hills
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Slope alluvium derived from shale

Properties and qualities
Slope: 3 to 15 percent
Depth to restrictive feature: 10 to 20 inches to paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.02 in/hr)

Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Gypsum, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 13.0
Available water capacity: Low (about 3.7 inches)

Interpretive groups

Land capability (nonirrigated): 7s
Ecological site: Shallow (R035XG116NM)

Typical profile

0 to 2 inches: Fine sandy loam
2 to 16 inches: Clay loam
16 to 19 inches: Clay loam
19 to 60 inches: Bedrock

236—Sparank clay loam, moderately saline, sodic, 0 to 1 percent slopes

Map Unit Setting

Elevation: 5,800 to 6,400 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 120 to 140 days

Map Unit Composition

Sparank, moderately saline, sodic, and similar soils: 85 percent

Description of Sparank, Moderately Saline, Sodic

Setting

Landform: Flood plains, valley sides, alluvial fans, stream terraces, valley floors
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Stream alluvium derived from sandstone and shale

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Slightly saline to moderately saline (8.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 30.0

Available water capacity: High (about 10.3 inches)

Interpretive groups

Land capability (nonirrigated): 7s
Ecological site: Salty Bottomland (R036XB010NM)

Typical profile

0 to 2 inches: Clay loam
2 to 10 inches: Silty clay
10 to 24 inches: Silty clay
24 to 40 inches: Silty clay loam
40 to 44 inches: Silty clay
44 to 60 inches: Silty clay

237—Sparank silty clay loam, 0 to 3 percent slopes

Map Unit Setting

Elevation: 5,500 to 6,400 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 120 to 140 days

Map Unit Composition

Sparank and similar soils: 85 percent

Description of Sparank

Setting

Landform: Alluvial fans, flood plains, stream terraces, valley floors, valley sides
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Stream alluvium derived from sandstone and shale

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 10.0
Available water capacity: High (about 12.0 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability (nonirrigated): 6c
Ecological site: Clayey Bottomland (R035XA119NM)

Typical profile
0 to 4 inches: Silty clay loam
4 to 60 inches: Silty clay loam

240—Penistaja-Hagerman association, 1 to 5 percent slopes

Map Unit Setting
Elevation: 6,000 to 6,400 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 120 to 140 days

Map Unit Composition
Penistaja and similar soils: 45 percent
Hagerman and similar soils: 35 percent

Description of Penistaja

Setting
Landform: Alluvial fans, bajadas, cuestas, hills, mesas, plateaus
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Nose slope, head slope, side slope, rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian material and slope alluvium derived from sandstone and shale

Properties and qualities
Slope: 1 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water capacity: High (about 9.4 inches)

Interpretive groups
Land capability (nonirrigated): 6c
Ecological site: Loamy (R035XA112NM)

Typical profile
0 to 5 inches: Fine sandy loam
5 to 14 inches: Clay loam
14 to 29 inches: Sandy clay loam
29 to 60 inches: Stratified sandy clay loam to fine sandy loam to loam

Description of Hagerman

Setting

Landform: Hills, mesas, ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Eolian material and slope alluvium derived from sandstone and shale

Properties and qualities

Slope: 1 to 5 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water capacity: Low (about 4.7 inches)

Interpretive groups

Land capability (nonirrigated): 6c
Ecological site: Loamy (R035XA112NM)

Typical profile

0 to 2 inches: Fine sandy loam
2 to 9 inches: Clay loam
9 to 24 inches: Clay loam
24 to 60 inches: Bedrock

250—Pinavetes loamy fine sand, 5 to 15 percent slopes

Map Unit Setting

Elevation: 5,200 to 5,700 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 120 to 140 days

Map Unit Composition

Pinavetes and similar soils: 90 percent

Description of Pinavetes

Setting

Landform: Dunes, valley sides
Landform position (two-dimensional): Shoulder

850—Water

Map Unit Composition
Water: 95 percent

DAM—Dam

Map Unit Composition
Dam: 100 percent