

## Weld County, Colorado, Southern Part

### 13—Cascajo gravelly sandy loam, 5 to 20 percent slopes

#### Map Unit Setting

*National map unit symbol:* 361n

*Elevation:* 4,600 to 5,200 feet

*Mean annual precipitation:* 11 to 13 inches

*Mean annual air temperature:* 52 to 54 degrees F

*Frost-free period:* 120 to 160 days

*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Cascajo and similar soils:* 85 percent

*Minor components:* 15 percent

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

#### Description of Cascajo

##### Setting

*Landform:* Ridges, terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Calcareous gravelly alluvium

##### Typical profile

*H1 - 0 to 9 inches:* gravelly sandy loam

*H2 - 9 to 31 inches:* extremely gravelly sandy loam

*H3 - 31 to 60 inches:* very gravelly sand

##### Properties and qualities

*Slope:* 5 to 20 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Excessively drained

*Runoff class:* Low

*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 in profile:* 25 percent

*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

*Available water storage in profile:* Low (about 4.1 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 7s

*Hydrologic Soil Group:* A

*Ecological site:* Gravel Breaks (R067BY063CO)

*Hydric soil rating:* No

### **Minor Components**

#### **Renohill**

*Percent of map unit:* 8 percent

*Hydric soil rating:* No

#### **Samsil**

*Percent of map unit:* 7 percent

*Hydric soil rating:* No

## **Data Source Information**

Soil Survey Area: Weld County, Colorado, Southern Part

Survey Area Data: Version 16, Oct 10, 2017

## Weld County, Colorado, Southern Part

### 69—Valent sand, 0 to 3 percent slopes

#### Map Unit Setting

*National map unit symbol:* 2tczd

*Elevation:* 3,000 to 5,210 feet

*Mean annual precipitation:* 13 to 20 inches

*Mean annual air temperature:* 48 to 52 degrees F

*Frost-free period:* 130 to 166 days

*Farmland classification:* Farmland of local importance

#### Map Unit Composition

*Valent and similar soils:* 85 percent

*Minor components:* 15 percent

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

#### Description of Valent

##### Setting

*Landform:* Interdunes

*Landform position (two-dimensional):* Footslope, toeslope

*Landform position (three-dimensional):* Base slope

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Noncalcareous eolian sands

##### Typical profile

*A - 0 to 5 inches:* sand

*AC - 5 to 12 inches:* sand

*C1 - 12 to 30 inches:* sand

*C2 - 30 to 80 inches:* sand

##### Properties and qualities

*Slope:* 0 to 3 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Excessively drained

*Runoff class:* Negligible

*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (6.00 to 39.96 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 1 percent

*Salinity, maximum in profile:* Nonsaline (0.1 to 1.9 mmhos/cm)

*Available water storage in profile:* Very low (about 2.4 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 4e

*Land capability classification (nonirrigated):* 6e

*Hydrologic Soil Group:* A

*Ecological site:* Deep Sand (R067BY015CO), Sands (North) (PE 16-20) (R072XA021KS)

*Hydric soil rating:* No

### Minor Components

#### Dailey

*Percent of map unit:* 5 percent

*Landform:* Interdunes

*Landform position (two-dimensional):* Toeslope

*Landform position (three-dimensional):* Base slope

*Down-slope shape:* Linear

*Across-slope shape:* Concave

*Ecological site:* Deep Sand (R067BY015CO), Sandy (North) Draft (April 2010) (PE 16-20) (R072XA022KS)

*Hydric soil rating:* No

#### Julesburg

*Percent of map unit:* 5 percent

*Landform:* Interdunes

*Landform position (two-dimensional):* Toeslope

*Landform position (three-dimensional):* Base slope

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Ecological site:* Sandy Plains (R067BY024CO), Sandy (North) Draft (April 2010) (PE 16-20) (R072XA022KS)

*Hydric soil rating:* No

#### Vona

*Percent of map unit:* 5 percent

*Landform:* Interdunes

*Landform position (two-dimensional):* Toeslope

*Landform position (three-dimensional):* Base slope

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Ecological site:* Sandy Plains (R067BY024CO), Sandy (North) Draft (April 2010) (PE 16-20) (R072XA022KS)

*Hydric soil rating:* No

## Data Source Information

Soil Survey Area: Weld County, Colorado, Southern Part

Survey Area Data: Version 16, Oct 10, 2017

## Weld County, Colorado, Southern Part

### 70—Valent sand, 3 to 9 percent slopes

#### Map Unit Setting

*National map unit symbol:* 2tczf

*Elevation:* 3,050 to 5,150 feet

*Mean annual precipitation:* 12 to 18 inches

*Mean annual air temperature:* 48 to 55 degrees F

*Frost-free period:* 130 to 180 days

*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Valent and similar soils:* 80 percent

*Minor components:* 20 percent

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

#### Description of Valent

##### Setting

*Landform:* Hills, dunes

*Landform position (two-dimensional):* Backslope, shoulder, footslope, summit

*Landform position (three-dimensional):* Side slope, head slope, nose slope, crest

*Down-slope shape:* Linear, convex

*Across-slope shape:* Linear, convex

*Parent material:* Noncalcareous eolian sands

##### Typical profile

*A - 0 to 5 inches:* sand

*AC - 5 to 12 inches:* sand

*C1 - 12 to 30 inches:* sand

*C2 - 30 to 80 inches:* sand

##### Properties and qualities

*Slope:* 3 to 9 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Excessively drained

*Runoff class:* Very low

*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (6.00 to 39.96 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 1 percent

*Salinity, maximum in profile:* Nonsaline (0.0 to 1.9 mmhos/cm)

*Available water storage in profile:* Very low (about 2.4 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 4e

*Land capability classification (nonirrigated):* 6e  
*Hydrologic Soil Group:* A  
*Ecological site:* Deep Sand (R067BY015CO), Rolling Sands (R072XY109KS)  
*Hydric soil rating:* No

### Minor Components

#### Dailey

*Percent of map unit:* 10 percent  
*Landform:* Interdunes  
*Landform position (two-dimensional):* Footslope, toeslope  
*Landform position (three-dimensional):* Base slope  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Ecological site:* Deep Sand (R067BY015CO), Sands (North) (PE 16-20) (R072XA021KS)  
*Hydric soil rating:* No

#### Vona

*Percent of map unit:* 5 percent  
*Landform:* Hills  
*Landform position (two-dimensional):* Footslope, backslope, shoulder  
*Landform position (three-dimensional):* Side slope, head slope, nose slope, base slope  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Ecological site:* Sandy Plains (R067BY024CO), Sandy (North) Draft (April 2010) (PE 16-20) (R072XA022KS)  
*Hydric soil rating:* No

#### Haxtun

*Percent of map unit:* 5 percent  
*Landform:* Interdunes  
*Landform position (two-dimensional):* Footslope, toeslope  
*Landform position (three-dimensional):* Base slope  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Ecological site:* Sandy Plains (R067BY024CO), Sandy Plains (R072XY111KS)  
*Hydric soil rating:* No

## Data Source Information

Soil Survey Area: Weld County, Colorado, Southern Part  
Survey Area Data: Version 16, Oct 10, 2017

## Weld County, Colorado, Southern Part

### 73—Vona loamy sand, 3 to 5 percent slopes

#### Map Unit Setting

*National map unit symbol:* 363s

*Elevation:* 4,600 to 5,200 feet

*Mean annual precipitation:* 13 to 15 inches

*Mean annual air temperature:* 48 to 55 degrees F

*Frost-free period:* 130 to 160 days

*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Vona and similar soils:* 85 percent

*Minor components:* 15 percent

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

#### Description of Vona

##### Setting

*Landform:* Terraces, plains

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Alluvium and/or eolian deposits

##### Typical profile

*H1 - 0 to 6 inches:* loamy sand

*H2 - 6 to 28 inches:* fine sandy loam

*H3 - 28 to 60 inches:* sandy loam

##### Properties and qualities

*Slope:* 3 to 5 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 6.00 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 15 percent

*Salinity, maximum in profile:* Nonsaline to slightly saline (0.0 to 4.0  
mmhos/cm)

*Available water storage in profile:* Moderate (about 6.5 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 3e

*Land capability classification (nonirrigated):* 4e

*Hydrologic Soil Group:* A

*Ecological site:* Sandy Plains (R067BY024CO)

*Hydric soil rating:* No

### **Minor Components**

#### **Remmit**

*Percent of map unit:* 8 percent

*Hydric soil rating:* No

#### **Valent**

*Percent of map unit:* 7 percent

*Hydric soil rating:* No

## **Data Source Information**

Soil Survey Area: Weld County, Colorado, Southern Part

Survey Area Data: Version 16, Oct 10, 2017