

## Weld County, Colorado, Southern Part

### 37—Nelson fine sandy loam, 0 to 3 percent slopes

#### Map Unit Setting

*National map unit symbol:* 362h

*Elevation:* 4,800 to 5,050 feet

*Mean annual precipitation:* 13 to 15 inches

*Mean annual air temperature:* 48 to 57 degrees F

*Frost-free period:* 145 to 190 days

*Farmland classification:* Farmland of statewide importance

#### Map Unit Composition

*Nelson and similar soils:* 85 percent

*Minor components:* 15 percent

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

#### Description of Nelson

##### Setting

*Landform:* Plains

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Residuum weathered from sandstone

##### Typical profile

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

*H2 - 9 to 30 inches:* fine sandy loam

*H3 - 30 to 34 inches:* weathered bedrock

##### Properties and qualities

*Slope:* 0 to 3 percent

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

*Natural drainage class:* Well drained

*Runoff class:* Low

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

Moderately low to high (0.06 to 2.00 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 10 percent

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

*Available water storage in profile:* Low (about 3.7 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 4e

*Land capability classification (nonirrigated):* 4e

*Hydrologic Soil Group:* B

*Ecological site:* Sandy Plains (R067BY024CO)

### **Minor Components**

#### **Thedalund**

*Percent of map unit:* 10 percent

#### **Olney**

*Percent of map unit:* 5 percent

## **Data Source Information**

Soil Survey Area: Weld County, Colorado, Southern Part

Survey Area Data: Version 14, Sep 22, 2015

## Weld County, Colorado, Southern Part

### 47—Olney fine sandy loam, 1 to 3 percent slopes

#### Map Unit Setting

*National map unit symbol:* 362v

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

*Mean annual precipitation:* 11 to 15 inches

*Mean annual air temperature:* 46 to 54 degrees F

*Frost-free period:* 125 to 175 days

*Farmland classification:* Prime farmland if irrigated and the product of I  
(soil erodibility) x C (climate factor) does not exceed 60

#### Map Unit Composition

*Olney and similar soils:* 85 percent

*Minor components:* 15 percent

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

#### Description of Olney

##### Setting

*Landform:* Plains

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Mixed deposit outwash

##### Typical profile

*H1 - 0 to 10 inches:* fine sandy loam

*H2 - 10 to 20 inches:* sandy clay loam

*H3 - 20 to 25 inches:* sandy clay loam

*H4 - 25 to 60 inches:* fine sandy loam

##### Properties and qualities

*Slope:* 1 to 3 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Well drained

*Runoff class:* Low

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

Moderately high to high (0.57 to 2.00 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 very slightly saline (0.0 to  
2.0 mmhos/cm)

*Available water storage in profile:* Moderate (about 7.0 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 3e

*Land capability classification (nonirrigated):* 4c

*Hydrologic Soil Group:* B

*Ecological site:* Sandy Plains (R067BY024CO)

**Minor Components**

**Zigweid**

*Percent of map unit:* 10 percent

**Vona**

*Percent of map unit:* 5 percent

**Data Source Information**

Soil Survey Area: Weld County, Colorado, Southern Part

Survey Area Data: Version 14, Sep 22, 2015

## Weld County, Colorado, Southern Part

### 76—Vona sandy loam, 1 to 3 percent slopes

#### Map Unit Setting

*National map unit symbol:* 363w

*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:* Farmland of statewide importance

#### 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:* sandy loam

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

*H3 - 28 to 60 inches:* sandy loam

##### Properties and qualities

*Slope:* 1 to 3 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 6.8 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 3e

*Land capability classification (nonirrigated):* 4e

*Hydrologic Soil Group:* A

*Ecological site:* Sandy Plains (R067BY024CO)

### **Minor Components**

#### **Remmit**

*Percent of map unit:* 9 percent

#### **Olney**

*Percent of map unit:* 3 percent

#### **Julesburg**

*Percent of map unit:* 3 percent

## **Data Source Information**

Soil Survey Area: Weld County, Colorado, Southern Part  
Survey Area Data: Version 14, Sep 22, 2015

## Weld County, Colorado, Southern Part

### 77—Vona sandy loam, 3 to 5 percent slopes

#### Map Unit Setting

*National map unit symbol:* 363x

*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:* Plains

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Eolian deposits

##### Typical profile

*H1 - 0 to 6 inches:* sandy loam

*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 6.8 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 3e

*Land capability classification (nonirrigated):* 4e

*Hydrologic Soil Group:* A

*Ecological site:* Sandy Plains (R067BY024CO)

### **Minor Components**

#### **Remmit**

*Percent of map unit:* 7 percent

#### **Olney**

*Percent of map unit:* 5 percent

#### **Otero**

*Percent of map unit:* 3 percent

## **Data Source Information**

Soil Survey Area: Weld County, Colorado, Southern Part  
Survey Area Data: Version 14, Sep 22, 2015