United States Department of Agriculture

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 Adams County Area, Parts of Adams and Denver Counties, Colorado; and Weld County, Colorado, Southern 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.

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 Soil Data Mart Web site or the NRCS Web Soil Survey. The Soil Data Mart is the data storage site for the official soil survey information.

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Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group (Greatrock North)

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

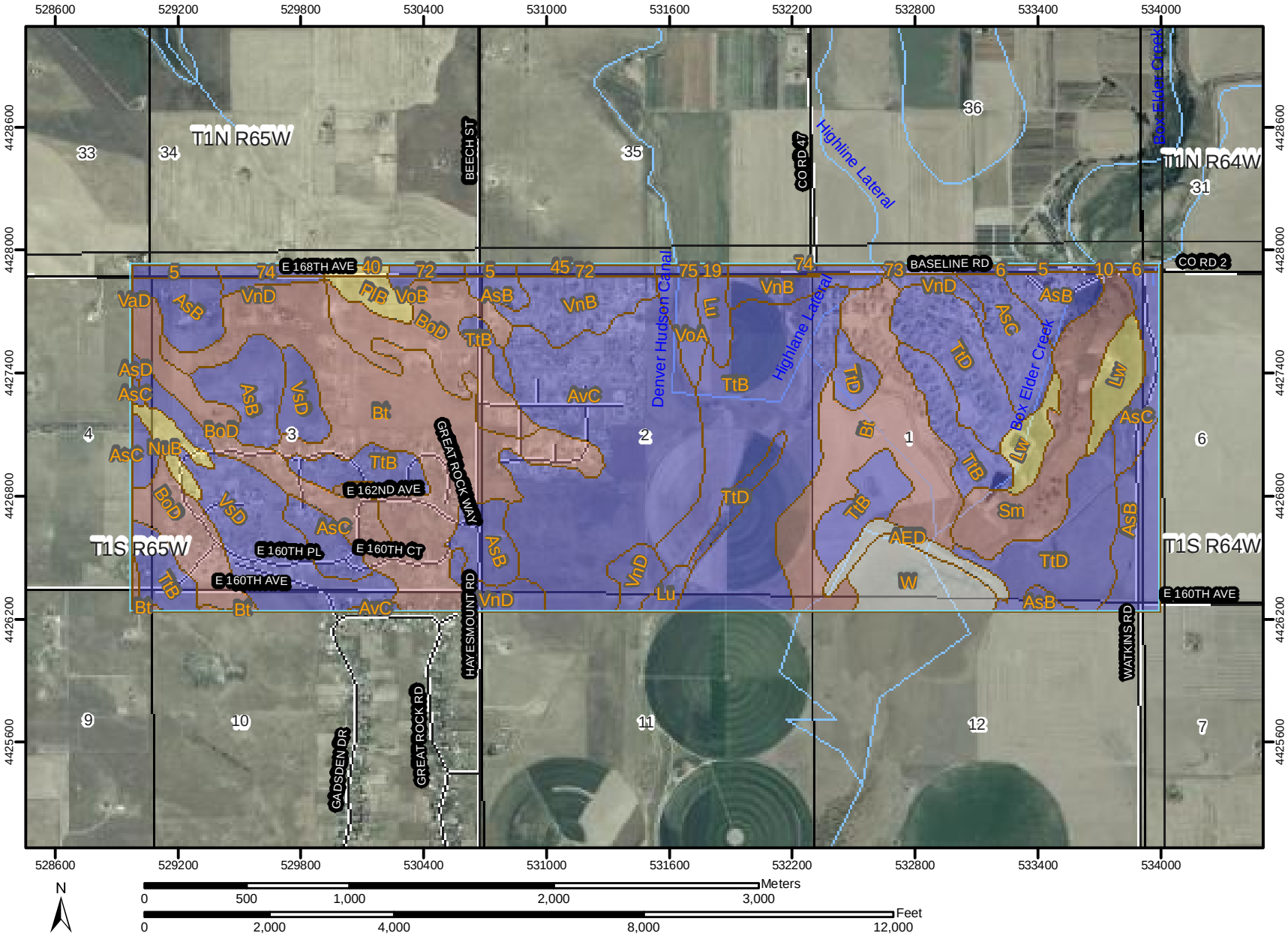
Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Custom Soil Resource Report
Map—Hydrologic Soil Group (Greatrock North)



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Units

Soil Ratings

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Political Features

Public Land Survey

Township and Range

Section

Municipalities

Cities

Urban Areas

Water Features

Oceans

Streams and Canals

Transportation

Rails

Roads

Interstate Highways

US Routes

State Highways

Local Roads

Other Roads

MAP INFORMATION

Original soil survey map sheets were prepared at publication scale. Viewing scale and printing scale, however, may vary from the original. Please rely on the bar scale on each map sheet for proper map measurements.

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

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

Soil Survey Area: Adams County Area, Parts of Adams and Denver Counties, Colorado
Survey Area Data: Version 8, Jan 11, 2008

Soil Survey Area: Weld County, Colorado, Southern Part
Survey Area Data: Version 9, Feb 11, 2008

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.

Date(s) aerial images were photographed: 1993

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.

Table—Hydrologic Soil Group (Greatrock North)

Hydrologic Soil Group— Summary by Map Unit — Adams County Area, Parts of Adams and Denver Counties, Colorado				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
AED	Arents, earthen dam		18.3	0.9%
AsB	Ascalon sandy loam, 1 to 3 percent slopes	B	172.2	8.2%
AsC	Ascalon sandy loam, 3 to 5 percent slopes	B	103.1	4.9%
AsD	Ascalon sandy loam, 5 to 9 percent slopes	B	1.5	0.1%
AvC	Ascalon-Vona sandy loams, 1 to 5 percent slopes	B	252.9	12.0%
BoD	Blakeland loamy sand, 3 to 9 percent slopes	A	175.5	8.4%
Bt	Blakeland-Truckton association	A	373.9	17.8%
Lu	Loamy alluvial land	B	21.5	1.0%
Lw	Loamy alluvial land, moderately wet	C	43.0	2.0%
NuB	Nunn clay loam, 1 to 3 percent slopes	C	14.4	0.7%
PlB	Platner loam, 0 to 3 percent slopes	C	13.3	0.6%
Sm	Sandy alluvial land	A	83.9	4.0%
TtB	Truckton loamy sand, 0 to 3 percent slopes	B	317.5	15.1%
TtD	Truckton loamy sand, 3 to 9 percent slopes	B	157.0	7.5%
VaD	Valent loamy sand, 1 to 9 percent slopes	A	0.6	0.0%
VnB	Vona loamy sand, 0 to 3 percent slopes	B	61.2	2.9%
VnD	Vona loamy sand, 3 to 9 percent slopes	B	45.0	2.1%
VoA	Vona sandy loam, 0 to 1 percent slopes	B	17.8	0.8%
VoB	Vona sandy loam, 1 to 3 percent slopes	B	3.8	0.2%
VsD	Vona-Ascalon loamy sands, 3 to 9 percent slopes	B	116.5	5.5%
W	Water		45.9	2.2%

Hydrologic Soil Group— Summary by Map Unit — Weld County, Colorado, Southern Part				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
5	Ascalon sandy loam, 1 to 3 percent slopes	B	14.2	0.7%
6	Ascalon sandy loam, 3 to 5 percent slopes	B	3.9	0.2%
10	Bankard sandy loam, 0 to 3 percent slopes	A	0.8	0.0%
19	Colombo clay loam, 0 to 1 percent slopes	B	1.9	0.1%
40	Nunn loam, 1 to 3 percent slopes	C	4.6	0.2%
45	Olney loamy sand, 3 to 5 percent slopes	B	0.0	0.0%
72	Vona loamy sand, 0 to 3 percent slopes	B	13.9	0.7%
73	Vona loamy sand, 3 to 5 percent slopes	B	3.3	0.2%
74	Vona loamy sand, 5 to 9 percent slopes	B	15.8	0.8%
75	Vona sandy loam, 0 to 1 percent slopes	B	2.5	0.1%
Totals for Area of Interest (AOI)			2,099.9	100.0%

Rating Options—Hydrologic Soil Group (Greatrock North)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower