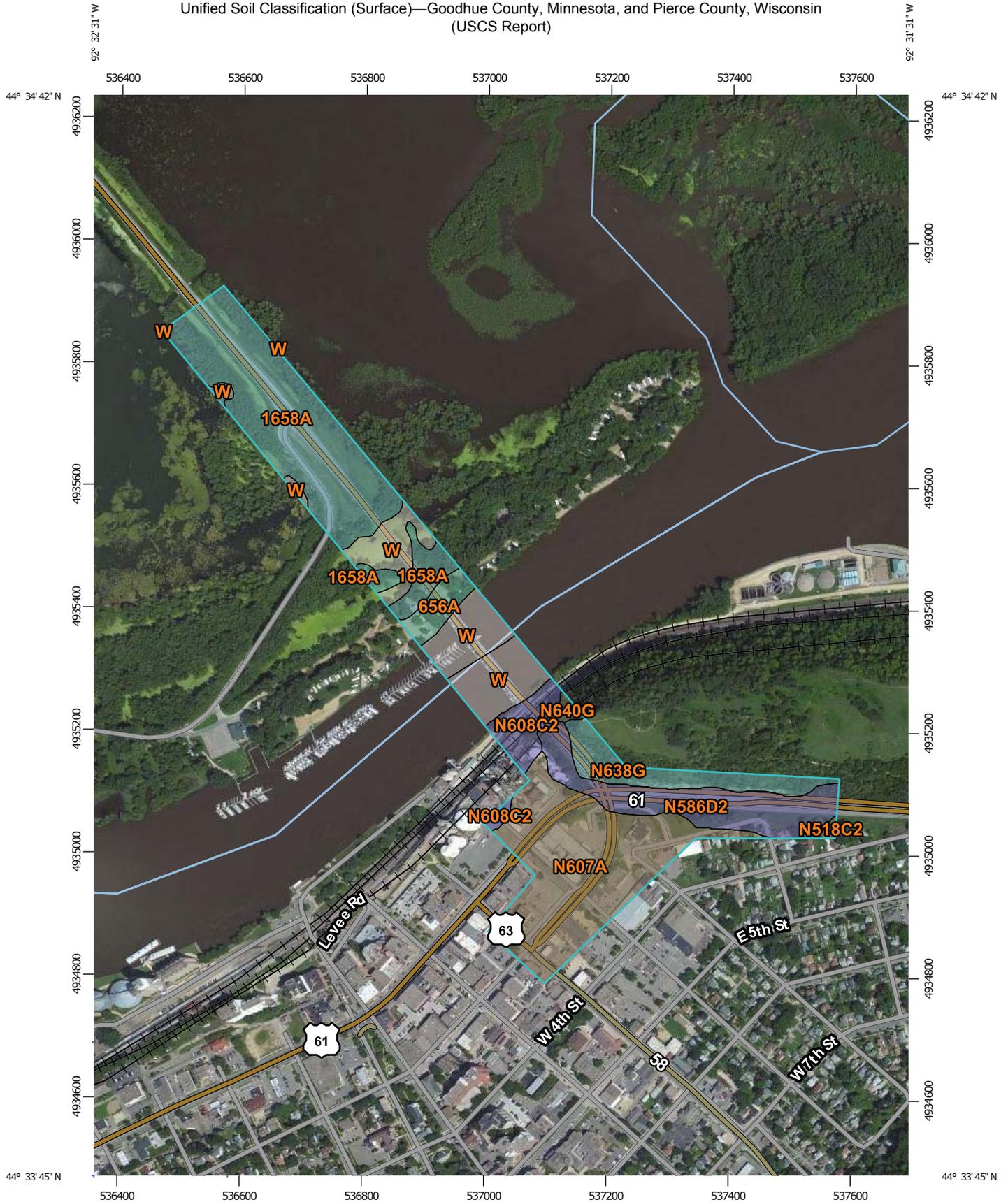


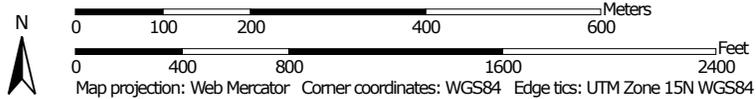
Appendix E: Unified Soil Classification System Soils Report

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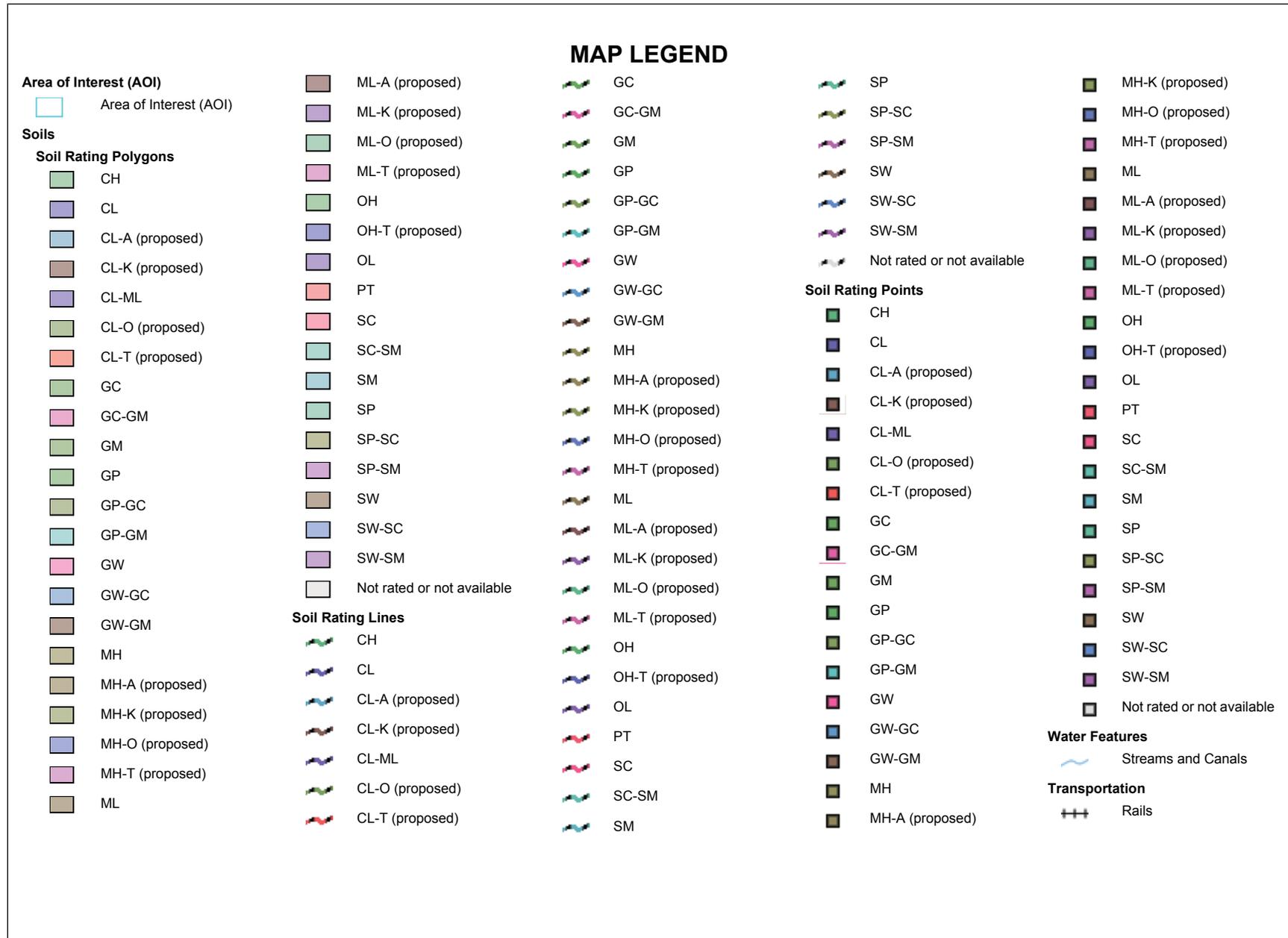
Unified Soil Classification (Surface)—Goodhue County, Minnesota, and Pierce County, Wisconsin (USCS Report)



Map Scale: 1:8,590 if printed on A portrait (8.5" x 11") sheet.



Unified Soil Classification (Surface)—Goodhue County, Minnesota, and Pierce County, Wisconsin
(USCS Report)



Unified Soil Classification (Surface)—Goodhue County, Minnesota, and Pierce County, Wisconsin
(USCS Report)

MAP INFORMATION

-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads
- Background**
-  Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:12,000.

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

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
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: Goodhue County, Minnesota
Survey Area Data: Version 10, Sep 16, 2014

Soil Survey Area: Pierce County, Wisconsin
Survey Area Data: Version 14, Sep 16, 2014

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: Jul 6, 2011—Jul 20, 2011

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.

Unified Soil Classification (Surface)

Unified Soil Classification (Surface)— Summary by Map Unit — Goodhue County, Minnesota (MN049)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
N518C2	Lindstrom silt loam, 6 to 12 percent slopes, moderately eroded	ML	0.2	0.3%
N586D2	Ridgeton, sandy substratum-Eden Prairie complex, 12 to 20 percent slopes, moderately eroded	CL	7.3	12.9%
N607A	Meridian silt loam, 0 to 3 percent slopes	ML	15.5	27.6%
N608C2	Malardi loam, 6 to 12 percent slopes, moderately eroded	CL	2.3	4.1%
N638G	Brodale, flaggy-Bellechester complex, 30 to 70 percent slopes	SM	3.9	7.0%
N640G	Lacrescent, flaggy-Frontenac-Rock outcrop complex, 45 to 90 percent slopes	ML	0.3	0.6%
W	Water		3.2	5.6%
Subtotals for Soil Survey Area			32.6	58.0%
Totals for Area of Interest			56.3	100.0%

Unified Soil Classification (Surface)— Summary by Map Unit — Pierce County, Wisconsin (WI093)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
656A	Scotah loamy fine sand, 0 to 3 percent slopes, occasionally flooded	SC-SM	1.6	2.8%
1658A	Alganssee-Kalmarville complex, 0 to 3 percent slopes, frequently flooded	SM	16.5	29.2%
W	Water		5.6	10.0%
Subtotals for Soil Survey Area			23.6	42.0%
Totals for Area of Interest			56.3	100.0%

Description

The Unified soil classification system classifies mineral and organic mineral soils for engineering purposes on the basis of particle-size characteristics, liquid limit, and plasticity index. It identifies three major soil divisions: (i) coarse-grained soils having less than 50 percent, by weight, particles smaller than 0.074 mm in diameter; (ii) fine-grained soils having 50 percent or more, by weight, particles smaller than 0.074 mm in diameter; and (iii) highly organic soils that demonstrate certain organic characteristics. These divisions are further subdivided into a total of 15 basic soil groups. The major soil divisions and basic soil groups are determined on the basis of estimated or measured values for grain-size distribution and Atterberg limits. ASTM D 2487 shows the criteria chart used for classifying soil in the Unified system and the 15 basic soil groups of the system and the plasticity chart for the Unified system.

The various groupings of this classification correlate in a general way with the engineering behavior of soils. This correlation provides a useful first step in any field or laboratory investigation for engineering purposes. It can serve to make some general interpretations relating to probable performance of the soil for engineering uses.

For each soil horizon in the database one or more Unified soil classifications may be listed. One is marked as the representative or most commonly occurring. The representative classification is shown here for the surface layer of the soil.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Layer Options (Horizon Aggregation Method): Surface Layer (Not applicable)

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