SSURGO WCT Metadata Report

Description

This soil data layers used by the NRCS Wetlands Conservation Tool (WCT) are produced using Soil Survey Geographic Database (SSURGO) data derived from Soil Data Access (SDA). The survey area version number and date used to create the maps are displayed directly on the map headers. Not all determinations will use all available interpretations included in the default WCT, however all possible interpretations that could be provided by the WCT are defined in this metadata report. If NRCS uses Web Soil Survey to produce additional soil maps or reports beyond the scope of the WCT, those interpretations are not detailed in this metadata report.

Drainage Class (drainagecl)

Drainage class (natural) refers to the frequency and duration of wet periods under conditions similar those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized-excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the Soil Survey Manual.

Flooding Frequency (flodfreqdcd)

The annual probability of a flood event expressed as a class. This column displays the dominant flood frequency class for the map unit, based on composition percentage of map unit components whose composition in the map unit is equal to or exceeds 15%.

Hydric Classification Presence (hydclprs)

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as:

- 100 percent hydric components,
- 66 to 99 percent hydric components,
- 33 to 65 percent hydric components,
- 1 to 32 percent hydric components, and
- Less than one percent hydric components.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are

either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

Hydrologic Soil Group (hydgrp)
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.

Ponding Frequency - Presence (pondfreqprs)
Ponding is standing water in a closed depression. The water is removed only by deep percolation, transpiration, or evaporation or by a combination of these processes. Ponding frequency classes are based on the number of times that ponding occurs over a given period. Frequency is expressed as none, rare, occasional, and frequent.

- "None" means that ponding is not probable. The chance of ponding is nearly 0 percent in any year.
- "Rare" means that ponding is unlikely but possible under unusual weather conditions. The chance of ponding is nearly 0 percent to 5 percent in any year.
- "Occasional" means that ponding occurs, on the average, once or less in 2 years. The chance of ponding is 5 to 50 percent in any year.
- "Frequent" means that ponding occurs, on the average, more than once in 2 years. The chance of ponding is more than 50 percent in any year.

Water Table Depth Annual Minimum (wtdepannmin)
The shallowest depth to a wet soil layer (water table) at any time during the year expressed as centimeters from the soil surface, for components whose composition in the map unit is equal to or exceeds 15%.

Ecological Classification Name (ecoclassname)
The descriptive name of a particular ecological community. For NRCS ecological sites, it is the concatenated form of three or six other fields. The actual fields that are concatenated together to form this name differ between range and forest ecological sites.

Ecological Classification ID (ecoclassid)
The identifier of a particular ecological community. For NRCS ecological sites, it is the concatenated form of ecological site type, ecological site MLRA, ecological site LRU, ecological site number and ecological site state FIPS alpha code.

Ecological Classification Type Name (ecoclasstypename)
An ecological site name provides a general description of a particular ecological site. An ecological site is the product of all the environmental factors responsible for its development. It has characteristic soils that have developed over time; a characteristic hydrology particularly infiltration and runoff, that has developed over time; and a characteristic plant community (kind and amount of vegetation). The vegetation, soils, and hydrology are all interrelated. Each is influenced by the others and influences the development of the others. For example, the hydrology of the site is influenced by development of the soil and plant community. The plant community on an ecological site is typified by an association of species that differs from that of other ecological sites in the kind and/or proportion of species or in total production. Descriptions of ecological sites are provided in the Field Office Technical Guide, which is available in local offices of the Natural Resources Conservation Service. Descriptions of those displayed in this map and summary table may also be accessed through the Ecological Site Assessment tab in Web Soil Survey.

Credits

USDA - NRCS, Soil and Plant Science Division

Use limitations

Soil survey data seldom contain detailed, site-specific information. They are not intended for use as primary regulatory tools in site-specific permitting decisions. They are, however, useful for broad regulatory planning and application.

Soil survey information cannot replace site-specific details, which require onsite investigation. It is a valuable tool where acquiring onsite data is not feasible or is cost prohibitive. It is most useful as a tool for planning onsite investigation. Understanding the capability and limitations of the different types of soil data is essential for making the best conservation-planning decisions.