NRCS Improves Soils Data for Growing Customer Base

Lincoln, Neb.—On January 14, 2014, the USDA-Natural Resources Conservation Service (NRCS) updated soil data for each of the 3,265 soil survey areas mapped over the last 118 years. This massive effort took fifteen months of programming that moved the many databases to a new data structure as well as updated all software to provide more efficient and cost-effective systems for future soil survey enhancements. The spatial (soil polygons) and tabular (physical and chemical properties) data for all soil survey areas are available free from Web Soil Survey (WSS) at http://websoilsurvey.nrcs.usda.gov/app/. This site is the most widely used web site for accessing soil information used to make important land use decisions. This is the first major update of software and data since WSS came online in August 2005.

This updating has enhanced customer service, upgraded all software and databases, improved spatial data, and provided a complete suite of soil interpretations. In addition, the agency will implement an annual refresh of soil data to be done each October thereby providing customers assurance that they are using static, versioned, and official soils data in support of land use decisions.

Improvements to the spatial data include a complete spatial soil survey boundary layer and a map unit polygon layer with no gaps or overlays within the Continental United States. This is a major accomplishment in the Agency’s desire to move to a truly seamless SSURGO spatial database. The National Soil Survey Center’s GIS and digitizing unit staffs improved the quality assurance procedures and applications to help eliminate spatial errors. Customers can now be assured that soils information is complete for use in spatial analysis.
This release also includes the first set of soil survey Major Land Resource Area (MLRA) update projects. This “harmonization” effort is the initial phase of the soil survey update process. The map units are evaluated on a regional scale identifying commonalities with the intent of improving soil data quality necessary to bring the more than 100 years of data to a common standard. This update process allows soil data to flow seamlessly across political boundaries, such as counties. Customers will begin to see the improvement with this release of the soils data as the map units transcend county and state boundaries.

State Soil Scientists exported 3,265 soil surveys to the Web Soil Survey. Each soil survey now contains a full complement of national interpretations giving users the ability to analyze interpretations regionally, multi-state or across the United States.

The 53rd Congress originated the soil survey in the Agricultural Appropriations Act of 1896 for the purpose of inventorying the agricultural lands of the United States. That soil inventory became important during the Dust Bowl days of the 1930s when the Soil Conservation Service needed soils information to improve conservation efforts to decrease soil erosion. The Congressional mandated United States soil survey has reached another major milestone in providing the information to Congress and land use planners necessary for the management of natural resources. The NRCS soil survey program has met the demands of an ever changing customer base and ever changing technology from its roots as an inventory of agricultural lands into a massive soil spatial and attribute database that no other country in the world possesses. NRCS is committed to delivering science-based soils information that helps people be good stewards of the Nation’s soil, water, and related natural resources.

Every month more than 180,000 users access the Web Soil Survey, resulting in the creation of more than 20,000 printable soil survey reports and more than 75,000 individual soil property/interpretation reports. In addition, more than 25,000 soil survey data exports are downloaded, making the Web Soil Survey the most frequently used USDA web site. The systems that make up the Web Soil Survey needed updating to improve the end product. Customers now have new spatial and updated tabular soil data at their disposal. This gives the customer better tools for making their resource assessments and conservation plans.

Web Soil Survey now provides a tool to track updates for specific soil survey areas. Individuals interested in this feature can go to Web Soil Survey and click on “Subscribe” in the menu bar and follow the online directions.

Individuals interested in Soil related issues may subscribe to topics using a free subscription service called GovDelivery. Click here to go to GovDelivery and choose the topics of interest. Individuals can e-mail inquiries to soilshotline@lin.usda.gov for assistance with GovDelivery and Web Soil Survey.

Web Soil Survey customers can click on the “Contact Us” link in Web Soil Survey to get assistance from the Soils Hotline, a State Soil Scientist, or a local NRCS Office.