



Useful Tools for Understanding Your Site

Watershed Congress
Along the Schuylkill River
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Only as good as its user...

- We provide useful online tools to help you understand the conditions on your project site in order to select the best practices to implement.
- However, some of these tools are only as good as the site assessments you make, and any data must still be ground-proven!





What might you want to know?

- Waterways (Designated use? Impairments?)
- Drainage area
- Soils (Type? Suitability?)
- Native plant community
- Nearby wetlands or floodplains
- Local municipality and school district
- Local watershed groups/potential partners
- Appropriate plants and # needed
- Endangered species habitat
- Invasive species infestations



Mapping Tools for
Water Resource
Information



PA DEP'S WAVE

“A mapping tool that provides a qualitative and quantitative description of water resources useful for designing projects or obtaining permits.”

Easier than trying to read the Integrated Water Quality Report!

Can answer the following questions:

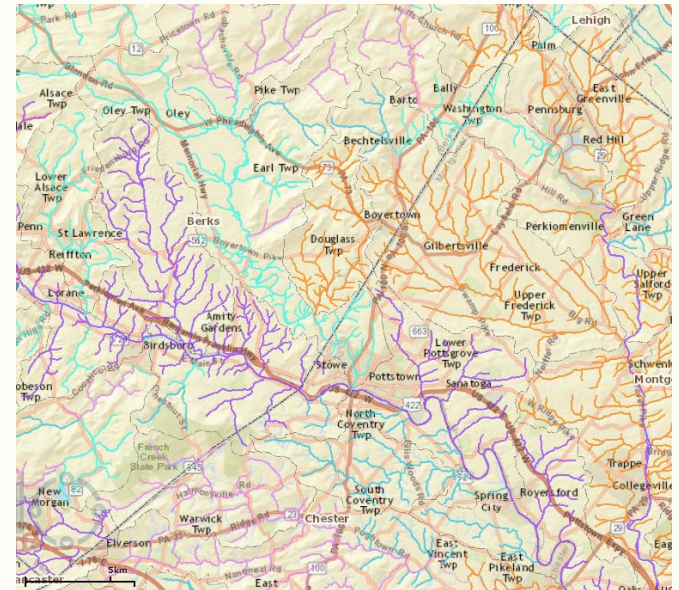
- How's the water quality in this area?
- What actions have been taken to protect the quality of this water?
- What were the results of the latest water assessments in this area?

PA DEP's WAVE

Use to determine:

- Designated Use of a Water Body
- Impairments (Attaining/Non-attaining)
- TMDLs
- Floodplains
- SO MUCH MORE!

Can download information



<http://www.depgis.state.pa.us/WAVE/WAVE.aspx>

Use Internet Explorer



DEP's EMapPA

“Developed to organize and report information about regulated facilities in the Commonwealth”

- Another GIS tool option with even more information
- Searchable database
- Works in other browsers
- Often used in regulatory community

<http://www.depgis.state.pa.us/emappa/>



USGS StreamStats

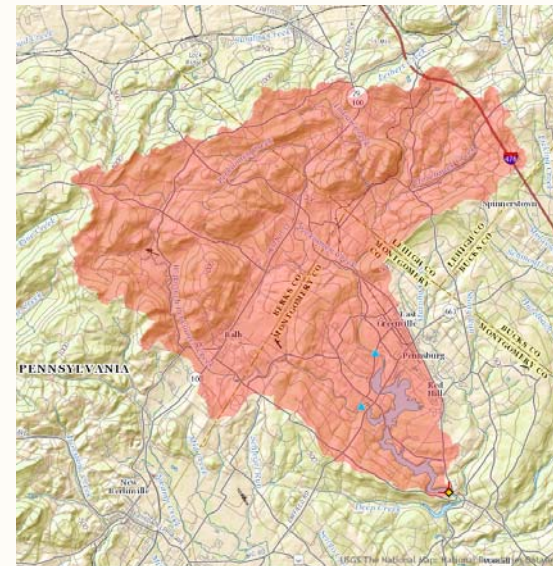
“a Web-based GIS that provides users with access to an assortment of analytical tools that are useful for water resources planning and management, and for engineering design applications...”

- Access to U.S. Geological Survey data
- Works in other browsers
- Can download information

USGS StreamStats

Use for:

- Watershed Delineation
- Basin Characteristics
 - Streamflow Statistics
 - Drainage area
 - Mean slope
 - Percent forested
 - Mean annual precipitation
 - Mean elevation
 - Percent impervious area



Direct Link:

http://streamstatsags.cr.usgs.gov/v3_beta/viewer.htm?stabbr=PA




Web Soil Survey
and SoilWeb
For Site Analysis



WebSoil Survey

- Launched August 16, 2005
- WSS provides soil data and information produced by the National Cooperative Soil Survey
- Operated by USDA Natural Resources Conservation Service (NRCS)
- More than 95% of U.S. is mapped
- Each state is responsible for populating the Soils Database for all counties in that state

How is soil information useful in understanding a site?

- 
- Provides Official Soil Series Descriptions
 - Specifications for identifying and classifying soils
 - Soil composition (sand, silt, clay)
 - Slopes and acres within Area of Interest (AOI)
 - Suitability Classes and Soil Properties
 - Used to estimate potentials and limitations of soils for many different uses

How is soil information useful in understanding a site?

- Hydric vs non-hydric soils
- Depth to water table and restrictive layer
- Hydrologic soil group (infiltration and runoff potential)
- Fencing suitability, potential for seedling mortality, suitability for hand planting, paths and trails suitability, vegetative productivity





You are here: Web Soil Survey Home

Search

Enter Keywords

All NRCS Sites ▾

Browse by Subject

- ▶ Soils Home
- ▶ National Cooperative Soil Survey (NCSS)
- ▶ Archived Soil Surveys
- ▶ Status Maps
- ▶ Official Soil Series Descriptions (OSD)
- ▶ Soil Series Extent Mapping Tool

The simple yet powerful way to access and use soil data.



Welcome to Web Soil Survey (WSS)



Web Soil Survey (WSS) provides soil data and information produced by the National Cooperative Soil Survey. It is operated by the USDA Natural Resources Conservation Service (NRCS) and provides access to the largest natural resource information system in the world. NRCS has soil maps and data available online for more than 95 percent of the nation's counties and anticipates having 100 percent in the near future. The site is

I Want To...

- Start Web Soil Survey (WSS)
- Know the requirements for running Web Soil Survey – will Web Soil Survey work in my web browser?
- Know the Web Soil Survey hours of operation
- Find what areas of the U.S. have soil data
- Find information by topic
- Know how to hyperlink from other documents to Web Soil Survey
- Know the SSURGO data structure

Announcements/Events



SoilWeb

- UC Davis California Soil Resource Lab's web-based interface to digital soil survey data from USDA's NRCS
- Explore soil areas using an interactive Googlemap OR
- SoilWeb Earth provides soil data in KML file, allowing you to view mapped areas in a 3-D display in GoogleEarth OR
- SoilWeb App for use on mobile phone
- Easy to access information includes:
 - Horizon depths, colors, texture and rock fragment content
 - Physical and chemical properties

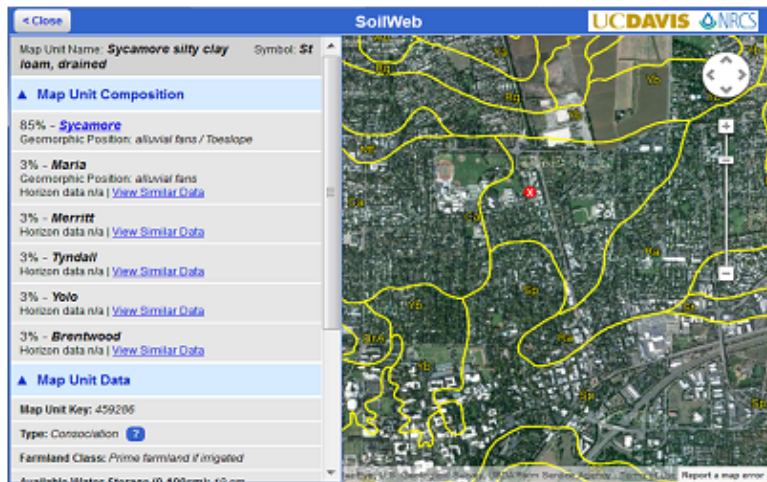
SoilWeb



SoilWeb products can be used to access USDA-NCSS detailed soil survey data (SSURGO) for most of the United States. Please choose an interface to SoilWeb:

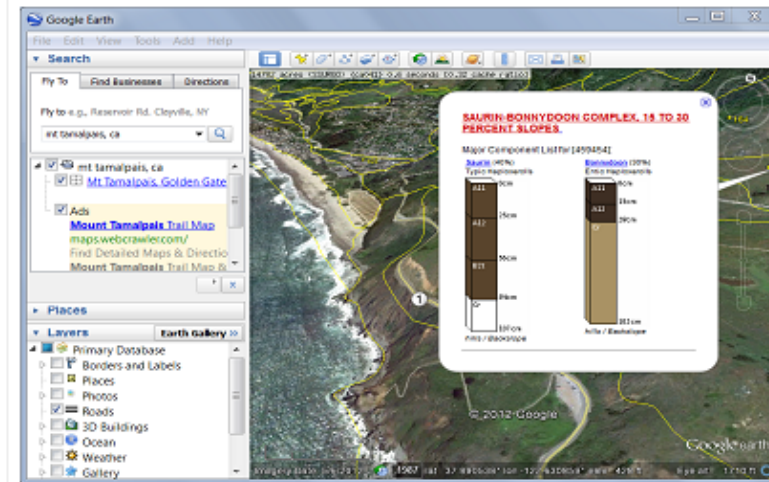
SoilWeb

Explore soil survey areas using an interactive Google map. View detailed information about map units and their components. This app runs in your web browser and is compatible with desktop computers, tablets, and smartphones.



SoilWeb Earth

Soil survey data are delivered dynamically in a [KML](#) file, allowing you to view mapped areas in a 3-D display. You must have [Google Earth](#) or some other means of viewing KML files installed on your desktop computer, tablet, or smartphone.



SoilWeb App





Other Useful Tools
for Planning and
Designing Projects

PA Natural Heritage Program

Selecting the right plants for your site:

- [Plant Communities of PA](#)
(Need to ID species on site to determine local plant community)
- County Species Inventories (maps and lists)

PLUS:

- iMapInvasives Mapping Tool
- Vernal Pools Registry
- Aquatic Community Information
- Climate Change Vulnerability Index
- PNDI Environmental Review Tool



<http://www.naturalheritage.state.pa.us/HomePage.aspx>



Native Plant Database

- Find the right native species for your site!
- Search by site conditions, plant type and other requirements

Conservation Tips


- Useful tips on water, energy and more
- Great website to provide to residents

iConservePA

<http://www.iconservepa.org/plantsmart/plantsdatabase/index.htm>

Once you pick your plants:
<https://www.landscapecalculator.com/>

Floodplains and Wetlands



Federal Emergency Management Agency
Floodplain Maps

<http://msc.fema.gov/portal>

Fish and Wildlife Service
National Wetland Inventory

<http://www.fws.gov/wetlands/Data/Mapper.html>



EPA's Surf Your Watershed

Search your watershed to find

- Political information
- Citizen-based groups
- Water quality monitoring data (STORET database)
- List of impaired waters
- USGS data
- Municipalities

<http://cfpub.epa.gov/surf/locate/index.cfm>

Questions?

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