



Topographic and Geologic Survey Local Government Services

About the Survey



The Bureau of Topographic and Geologic Survey (BTGS), also known as the PA Geological Survey, is a bureau within the Department of Conservation and Natural Resources (DCNR). Its legislative mission is to serve the citizens of Pennsylvania by collecting, preserving, and disseminating impartial information on the Commonwealth's geology, geologic resources, and topography in order to contribute to the understanding, wise use, and conservation of its land and included resources.

Geology for Land Use



The rocks under a specific area can have a significant impact on how that land can best be used. Groundwater, mineral resource potential, hazards and engineering conditions all depend on geology.

Geologic Maps

The Survey is a good place to start your inquiry into the geology of Pennsylvania. We have a variety of geologic maps and information about all areas of the state. The Survey has been producing geologic data, maps, and interpretations since its authorization by the General Assembly in 1919. Older publications are in the form of books, pamphlets, and oversized paper maps. Newer maps and digital datasets are available on CD-ROM or can be downloaded from our website. Data from current mapping projects, as well as historical files and databases, can be accessed in our offices. Our library has all of our publications as well as many from other government agencies, universities and professional organizations.

Basic geologic information can be used for many purposes: to develop economic resources or to minimize environmental impacts of development; to understand and avoid geologic hazards; to understand an area's potential and improve land-use planning and decision making.

Groundwater

Since the 1930s, the Survey has developed regional and statewide datasets and reports on groundwater. These reports cover much of the state and many are available online.

Over a million private water supply wells are used in Pennsylvania. Online databases and recent water resource reports are available for information about the groundwater in your area. Links are provided to information on a variety of water topics and to organizations that are involved with groundwater on our website.

Geologic Hazards

Earthquakes occasionally jostle the ground in Pennsylvania. More commonly, sinkholes cause damage in areas underlain by carbonate rocks like limestone and dolomite. Landslides are a serious geologic hazard across the Commonwealth. Although these three types of geologic hazards get most of the attention, other hazards can be just as intrusive. Radon gas, arguably the deadliest geologic hazard in Pennsylvania, is thought to be the second leading cause of lung cancer. The subsurface migration of other gases, floods, and mine subsidence are other hazards in Pennsylvania that have a geologic component.

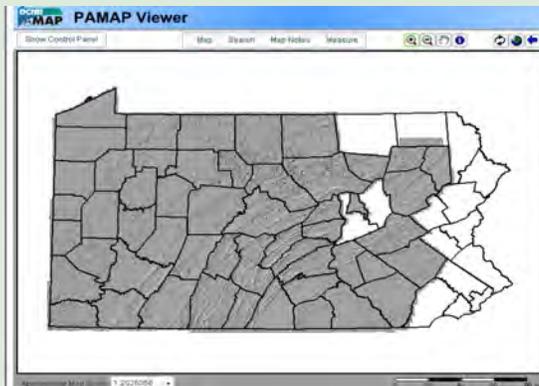


Geologic hazards can be costly and disruptive. The Survey provides online inventories, databases and maps to aid in avoiding geologic hazards where possible, and technical assistance when coping with them is unavoidable.

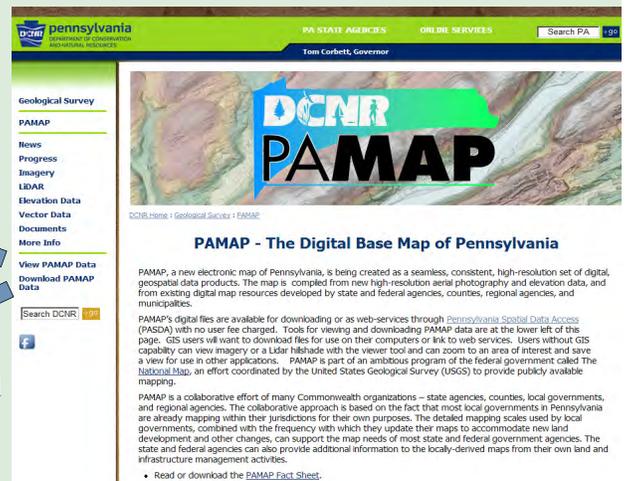
PAMAP

The Survey has historically supplied topographic base maps for Pennsylvania through our partnership with the U.S. Geological Survey. Since 2002, we have been working to fill the need for base map data digitally through PAMAP. Geographic Information Systems used by all counties and many municipalities, as well as state agencies and private companies, can use PAMAP data in specialized applications. DCNR also has a viewer tool that allows anyone with an internet connected computer to view and save aerial photo or hillshade images of any place in Pennsylvania. PAMAP lidar, a high-resolution elevation dataset, is the basis for a digital elevation model and contour data that is the best statewide, freely-available elevation data set for any state in the U.S. Aerial photographs collected from 2003 to 2010 are the base map layer for the new standard map resource for Pennsylvania.

Read about the program and link to view and download data on our web site: www.pamap.dcnr.state.pa.us



Viewer



Download



Data viewer for use if you don't have GIS (or don't need to use it):

- Find location by county, address, or coordinates (latitude and longitude).
- View orthophotos or lidar-based hillshade. Measure distance or area. Overlay roads, streams, quadrangle grid, place names. Add minor annotations.
- Save screen image as bitmap or PDF with legend for use alone or in other applications.

Download files for use in your GIS software:

- Zoom to county, address, or coordinates.
- View a variety of background maps to help find your area of interest.
- Identify data to download by line or shape intersection, screen extent or tile name.
- Links for direct download of orthophotos and lidar data products from PASDA should.

More Information

Bureau of Topographic and Geologic Survey
3240 Schoolhouse Rd.
Middletown, PA 17057
717-702-2017

www.dcnr.state.pa.us
Keyword: Geology



pennsylvania
DEPARTMENT OF CONSERVATION
AND NATURAL RESOURCES