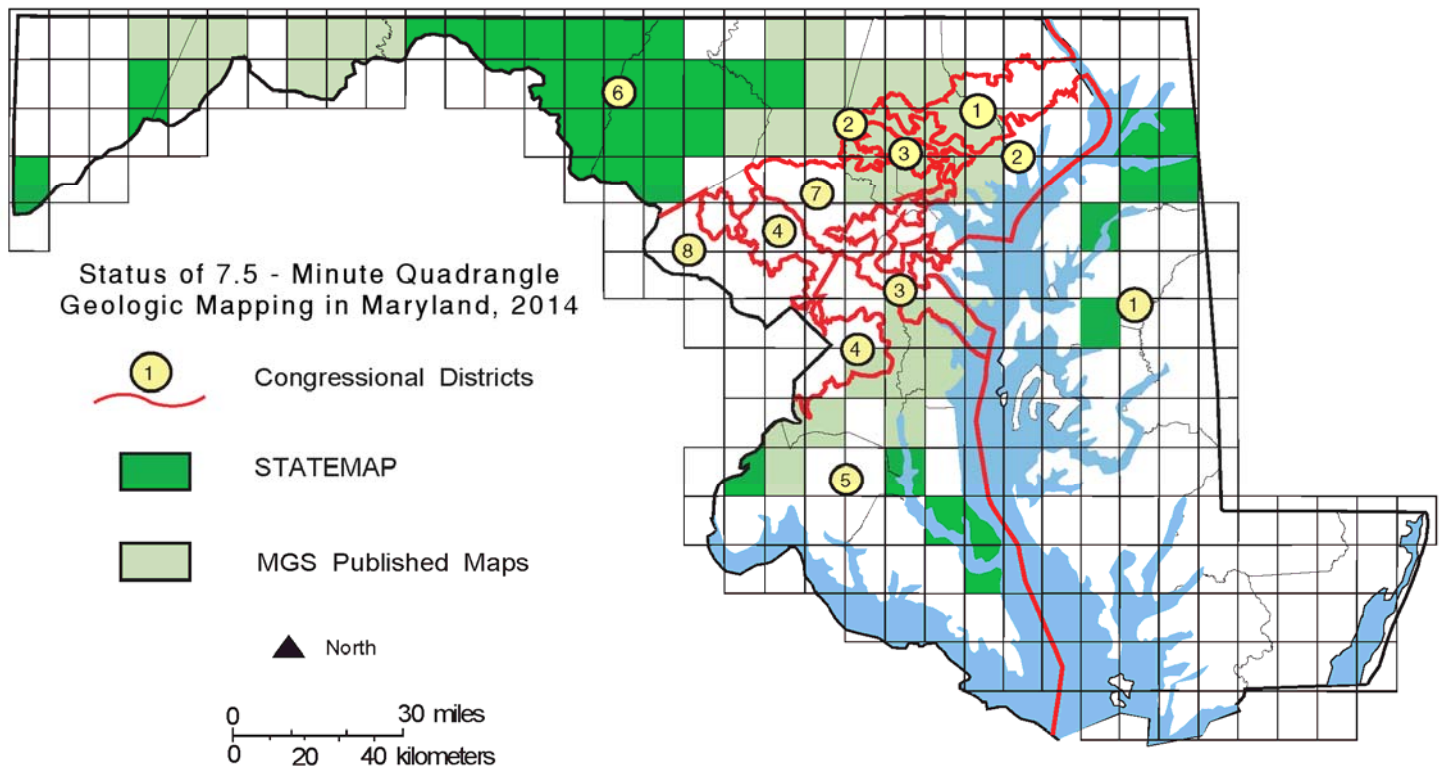


**Maryland Geological Survey  
Resource Assessment Service  
Maryland Department of Natural Resources**

**National Cooperative Geologic Mapping Program**

**STATEMAP Component: States compete for federal match funds for geologic mapping**

*Maryland*



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**SUMMARY OF STATEMAP  
GEOLOGIC MAPPING PROGRAM IN MARYLAND (2014)**

Federal Fiscal Year	Project Title	Federal Dollars	State Dollars	Total Project Dollars
99	Maryland STATEMAP	24,900	24,900	49,800
00	Maryland STATEMAP	0	0	0
01	Maryland STATEMAP	68,380	71,980	140,360
02	Maryland STATEMAP	100,000	122,425	222,425
03	Maryland STATEMAP	39,653	41,448	81,101
04	Maryland STATEMAP	76,208	77,092	153,300
05	Maryland STATEMAP	73,424	76,407	149,831
06	Maryland STATEMAP	82,209	100,259	182,468
07	Maryland STATEMAP	70,690	84,071	152,761
08	Maryland STATEMAP	72,277	93,024	165,301
09	Maryland STATEMAP	63,847	64,321	128,168
10	Maryland STATEMAP	66,419	66,912	133,331
11	Maryland STATEMAP	23,928	23,928	47,856
12 -13	Maryland STATEMAP	30,683	42,184	72,867
14	Maryland STATEMAP	29,497	60,895	90,392
Totals		\$859,364.00	\$987,639.00	\$1,847,003.00

The Maryland Geologic Mapping Advisory Committee developed an intermediate- to long-range plan for geologic mapping by the Maryland Geological Survey through the STATEMAP program. The long-term goal is to produce detailed geologic maps available in digital and GIS formats that will provide a basic framework of geologic information for water-resource evaluation, natural resource management, land-use planning, economic development, scientific investigation and education. A related long-term goal is the creation of regional geologic maps (1:100,000 scale) that incorporate the findings of the quadrangle mapping.

Priorities for new mapping are based on the greatest current societal, economic and scientific needs and demands for geologic information within the state (fig. 1). New geologic mapping is conducted at a scale of 1:24,000, standard for a 7.5-minute quadrangle.

The Maryland Geological Survey has a strong cooperative program in place with the U.S. Geological Survey. STATEMAP-funded geologic mapping projects will benefit programs such as the geohazards mapping program and evaluation of the geologic setting of Western Maryland's natural gas resources.

The Maryland Geologic Mapping Advisory Committee and the Maryland Geological Survey agree that digital maps are an effective way to disseminate geologic map information and to support derivative work such as developing regional hydrogeologic frameworks and creating synergism with other environmental scientific disciplines. They further agree that the availability of digital geologic maps will lead to increased use of geologic maps by the public, private and government sectors. The Maryland Geological Survey has increasing demands for digital geologic maps, particularly products for

geographic information systems (GIS), and believes that new geologic maps should be produced in a digital GIS format. The continued need for hard-copy maps is recognized, however, and new geologic maps will be plotted on demand.

The current intermediate-range plan for geologic mapping focuses on the following goals:

- (1) Continue new quadrangle mapping in central and western Maryland. The quadrangle(s) selected for mapping are chosen based on societal, economic, geohazard and scientific needs for geologic information with the intermediate goal in mind of creating a set of mapped quadrangles in areas where the development of energy and water resources may affect existing environmental conditions.
- (2) Clarify, update and refine the existence of potential geohazards including sinkholes, subsidence, landslides and flooding hazards.

Geological mapping by the Maryland Geological Survey includes conducting new geologic mapping at a scale of 1:24,000 as part of the STATEMAP component of the U.S. Geological Survey's National Cooperative Geologic Mapping program. The detailed geologic mapping provides the basic geologic framework and the structural and stratigraphic data needed for hydrogeologic and mineral resource assessment studies, energy exploration, mine restoration, power generation station siting, water quality assessments, shoreline erosion, karst terrain studies and other geohazard mapping. Geologic quadrangle mapping also provides information about the physical environment that the plants and animals within Maryland's watersheds depend on and the geologic, historic and current information that assists local and state planning agencies, and also help shed light on current issues such as sea level rise and global warming.

From FY 2001 through 2003, STATEMAP supported production of digital geologic maps of the following previously mapped, but unpublished quadrangles: Davis, Table Rock, Barton, and Westernport quadrangles in Western Maryland; Hancock, Cherry Run, and Big Pool quadrangles in the Valley and Ridge Province; Indian Head and Benedict quadrangles in the Coastal Plain of Southern Maryland. In FY 2003 STATEMAP also supported production of a revised digital version of the 1978 USGS geologic map of the New Windsor quadrangle in Central Maryland. In FY 2004 STATEMAP supported the revision and digitization of the geologic map of the Middletown quadrangle map in western Frederick County, and in FY 2005, the digital preparation of a revised version of the geologic map of the Union Bridge quadrangle in Frederick and Carroll Counties. From FY2006 to the present, Geologic quadrangle mapping proceeded in the Frederick and Great Valley regions, focusing on karst geologic hazards. Cooperatives with the Maryland State Highways Administration and STATEMAP funded the field mapping and production of GIS geologic data for these quadrangles. As of FY2014 sixteen quadrangles in this area are complete.

From FY 2002 through the FY 2007 STATEMAP funds were also used for new geologic mapping of Coastal Plain quadrangles on the upper part of Maryland's Eastern Shore in Cecil, Kent and Queen Anne's Counties. Quadrangles mapped as part of this effort are Earleville and the eastern part of Spesutie in FY2002 and FY 2003, Cecilton in FY2004, Galena in FY2005, and Millington in FY2006. In FY2007, STATEMAP funding is supporting mapping of the Chestertown quadrangle. Mapping of these quadrangles will be used to produce a revised regional map of the surface and subsurface geology of Maryland's upper Eastern Shore. In FY2011 STATEMAP supported geologic mapping on the Delmarva Peninsula, with an emphasis on ground water supplies for a growing population

In FY2015 STATEMAP has funded a revision of the geology of the Accident (Garrett County) quadrangle. Work begins in September, 2014. Most of the completed STATEMAP maps and GIS data are available from the Maryland Geological Survey web site (<http://www.mgs.md.gov>).