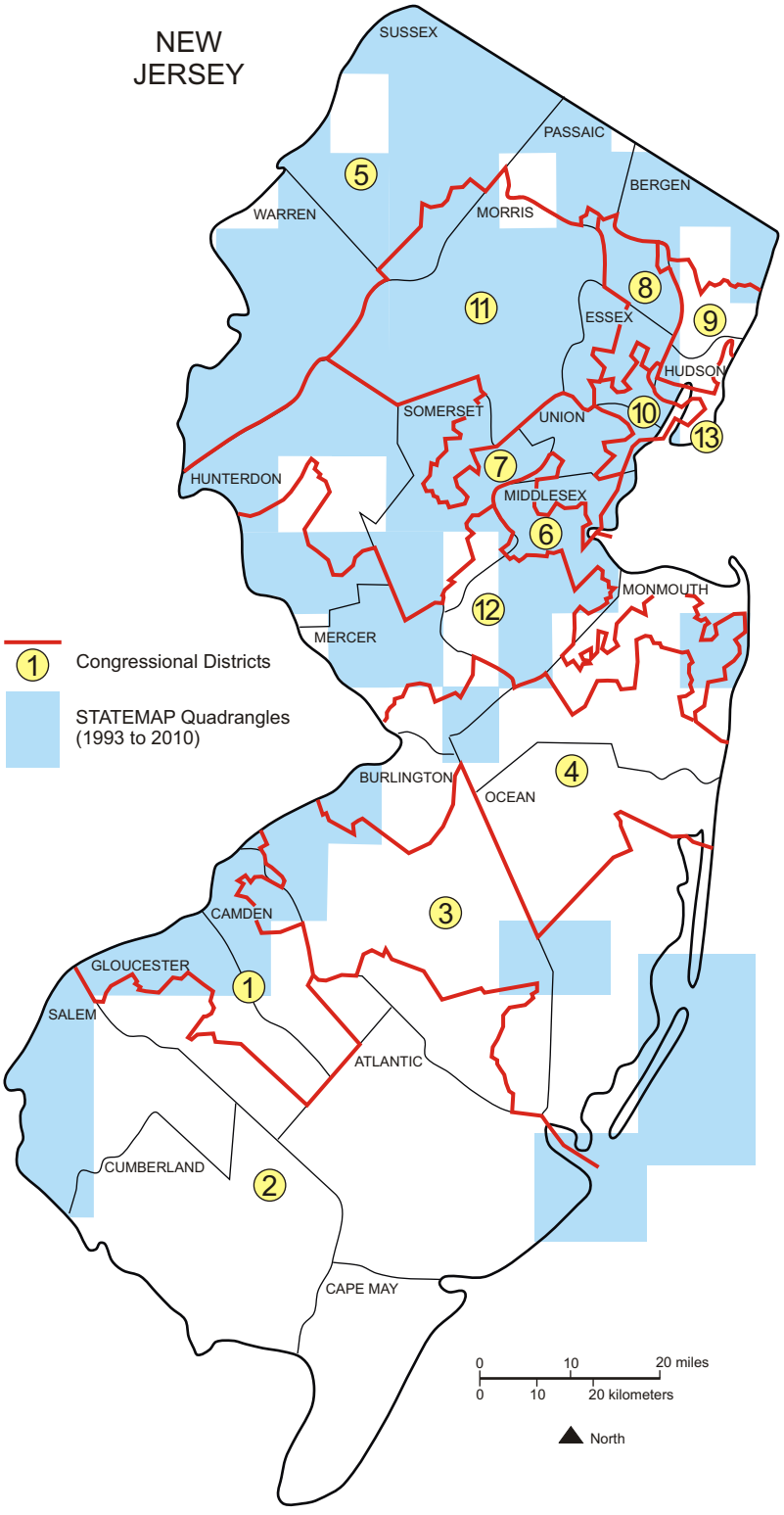
National Cooperative Geologic Mapping Program

STATEMAP Component: States compete for federal matching funds for geologic mapping



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2010 SUMMARY OF STATEMAP
GEOLOGIC MAPPING PROGRAM IN NEW JERSEY

Federal Fiscal Year	Surficial Geologic Maps (1:24,000-scale Quadrangles)		Bedrock Geologic Maps (1:24,000-scale Quadrangles)		Federal Dollars	State Dollars	Total Project Dollars
1993	New Brunswick South Amboy		New Brunswick South Amboy		$30,000	$30,000	$60,000
1994	Branchville Franklin	Hamburg	Hamburg		$40,000	$40,000	$80,000
1995	Perth Amboy		Plainfield		$30,000	$30,000	$60,000
1996	Blairstown Tranquility	Washington	Bound Brook Perth Amboy	Raritan	$104,287	$104,287	$208,574
1997	Belvidere Elizabeth	Orange	Bernardsville Chatham	Wawayanda	$100,228	$100,228	$200,456
1998	Nyack Park Ridge	Runnemede Yonkers	Caldwell Morristown	Runnemede Stockton	$99,446	$99,446	$198,892
* 1999	Portland Unionville	Woodbury	Pompton Plains Roselle	Wanaque Woodbury	$111,309	$111,309	$222,618
2000	Bloomsbury Camden-Philadelphia	Paterson	Boonton Camden-Philadelphia	Hopewell Paterson	$105,857	$105,857	$211,714
** 2001	Bangor Bridgeport-Marcus Hook	Easton Ramsey	Bridgeport-Marcus Hook Dover	Lumberville Orange	$127,114	$127,114	$254,228
*** 2002	Caldwell Milford	Moorestown Port Jervis South	Belvidere Elizabeth	Moorestown Ramsey	$150,390	$150,390	$300,780
2003	Morristown Newton West	Penns Grove-Wilmington So	Blairstown Bloomsbury	Pennington Penns Grove-Wilmington So	$117,496	$117,496	$234,992
2004	Beverly-Frankford Chatham	Chester	Beverly-Frankford Easton	High Bridge	$114,557	$114,557	$229,114
2005	Bristol High Bridge	Pompton Plains	Franklin Jamesburg	Princeton Riegelsville	$109,972	$109,972	$219,944
2006	Bernardsville Flatbrookville	Salem-Delaware City	Califon Frenchtown	Salem-Delaware City	$112,321	$112,321	$224,642
# 2007	Plainfield Woodmansie		Greenwood Lake Mendham	Yonkers	$133,877	$133,877	$267,754
2008	Allentown Hackettstown	Lake Maskenozha	Chester Long Branch	Newton East Park Ridge-Nyack	$120,610	$120,610	$241,220
## 2009	Brookville Gladstone		Brookville Gladstone	Rocky Hill Stanhope	$141,260	$141,260	$282,520
### 2010	Canton-Taylors Bridge Mendham		Canton-Taylors Bridge Tranquility	Unionville-Pine Island	$149,376	$149,376	$298,752
Total	**57 Quadrangles**		**66 Quadrangles**		**$1,898,100**	**$1,898,100**	**$3,796,200**

* includes Sussex County surficial and bedrock digital maps
** includes Southern and Central New Jersey surficial digital map and four quadrangle digital maps
*** includes Northern New Jersey surficial digital map and twelve quadrangle digital maps
\# includes eight quadrangle digital maps
includes one offshore geologic map
includes one offshore geologic map and six quadrangle digital maps

STATEMAP-funded geologic mapping in New Jersey provides basic data needed to address a number of significant public issues. Most prominent are issues related to water-resource management and natural hazards. Groundwater provides over 40% of the potable water consumed in New Jersey. Geologic maps provide basic framework data needed to identify aquifers, delineate aquifer recharge areas, model groundwater flow, and assess groundwater quality. Municipalities and counties use geologic maps as a basis for making zoning decisions and protecting recharge areas. Geologic maps are also used by federal and state agencies and the private sector to locate new water supplies, to determine safe water withdrawals, and to track and remediate groundwater contamination. Geologic hazards in New Jersey include sinkholes, naturally occurring contaminants, and earthquakes. Limestone formations in northwest New Jersey are susceptible to dissolution and collapse, forming sinkholes. Areas prone to sinkholes can be predicted from geologic maps. Some formations in the state contain elevated levels of radioactive minerals and heavy metals. These naturally occurring contaminants may present exposure hazards in soil, groundwater, or indoor air. Geologic maps show the occurrence of these formations. Damaging earthquakes are rare, but not unknown, in New Jersey. The density and value of seismically vulnerable buildings in New Jersey places the state quite high on national rankings of earthquake risk. Geologic mapping identifies soils that are prone to seismic shaking, and so provides information needed for predicting building damage.

The principal users of geologic maps in New Jersey are engineering and environmental firms, public agencies, and citizen groups working on water-supply, pollution remediation, construction, land-use, geologic-hazard, and environmental compliance issues. In 2009 there were more than 150,000 downloads of geologic maps and map-derived data sets from the New Jersey Geological Survey website.

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