



Association of American State Geologists

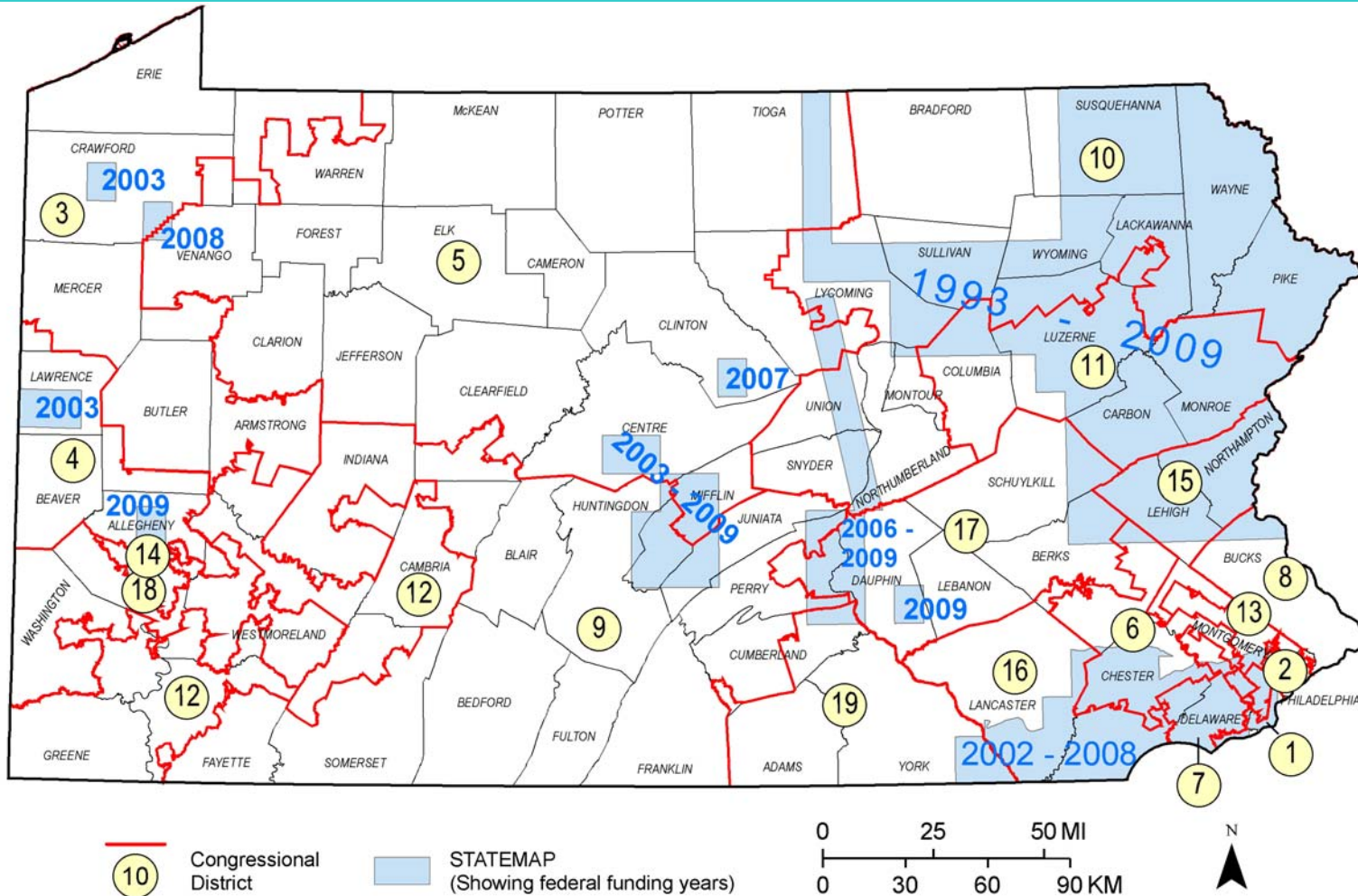


United States Geological Survey



National Cooperative Geologic Mapping Program

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



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SUMMARY OF STATEMAP GEOLOGIC MAPPING PROGRAM IN PENNSYLVANIA

Federal Fiscal Year	Project Title	State Dollars	Federal Dollars	Total Project Dollars
93	Surficial Geology of the Allentown 30 × 60 quadrangle	\$40,182	\$40,000	\$80,182
94	Surficial Geology of the Allentown 30 × 60 quadrangle	\$48,556	\$40,000	\$88,556
95	Surficial Geology of the Allentown 30 × 60 quadrangle	\$56,974	\$34,423	\$91,397
96	Bedrock and Surficial Geology of the Scranton 30 × 60 quadrangle	\$80,581	\$75,489	\$156,070
97	Bedrock and Surficial Geology of the Scranton 30 × 60 quadrangle	\$132,616	\$132,616	\$265,232
98	Bedrock and Surficial Geology of the Scranton 30 × 60 quadrangle	\$127,728	\$122,458	\$250,186
99	Bedrock and Surficial Geology of the Honesdale 30 × 60 quadrangle	\$77,094	\$75,000	\$152,094
00	Bedrock and Surficial Geology of the Honesdale 30 × 60 quadrangle	\$108,644	\$108,415	\$217,059
01	Bedrock and Surficial Geology of the Honesdale 30 × 60 quadrangle	\$131,717	\$131,444	\$263,161
02	Bedrock Geology of Selected Quadrangles of Southeastern Pa.	\$41,199	\$40,339	\$81,538
03	Surficial Geology of Eastern Pennsylvania; Bedrock Geology of the Ridge and Valley Province; Bedrock Geology of the Piedmont Province.	\$115,605	\$109,251	\$224,856
04		\$151,048	\$108,928	\$259,976
05		\$89,546	\$60,333	\$149,879
06		\$165,496	\$84,325	\$249,821
07		\$164,232	\$143,173	\$306,405
08	As above, and Surficial Geology of Northwestern Pennsylvania	\$221,418	\$214,950	\$436,368
09	Surficial Geology of Eastern PA; Bedrock Geology of the Ridge and Valley Province, Great Valley, and Pittsburgh Area	\$211,935	\$190,582	\$212,517
	TOTALS	\$1,964,571	\$1,711,726	\$3,486,297

The Pennsylvania Geological Survey has mapped 160 quadrangles under STATEMAP since 1993. Mapping is concentrated in regions of the state where population is increasing and up-to-date or adequate geologic maps are lacking. The maps provide basic information that is critical for local engineering studies, groundwater resource investigations, geologic hazard assessments, and effective land-use planning.

In northeastern and northwestern Pennsylvania, unconsolidated glacial deposits buried large areas of the layered sedimentary bedrock. Geologic information about the glacial deposits supports investigations into water resources, sand and gravel resources, waste

disposal, and other environmental concerns. Varved lake deposits that pose a serious landslide hazard are a focus of current mapping.

In central Pennsylvania, bedrock mapping in the Ridge and Valley physiographic province has revealed additional structural and stratigraphic complexities in these rocks. Recently, exposure of acid rock has caused major problems for road construction projects in the central region of the state. Detailed geologic mapping is crucial for both prevention and mitigation of acid drainage. Mapping is ongoing to provide base data for a new balanced cross section in central Pennsylvania. In the Great Valley, we are capturing a new structural

and stratigraphic interpretation based on detailed graptolite biostratigraphy.

In southeastern Pennsylvania, bedrock mapping, geochronological studies, and geochemical analyses funded through STATEMAP have contributed to significant advances in our understanding of the geologic and tectonic history of this complex metamorphic terrane.

Coal seams are well-mapped in the Pittsburgh area. Intervals between the coals have received less attention. We are starting a program to map the non-coal geology, emphasizing those units that are sources of geologic hazards such as landslides, radon, and mine subsidence.