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United States Geological Survey

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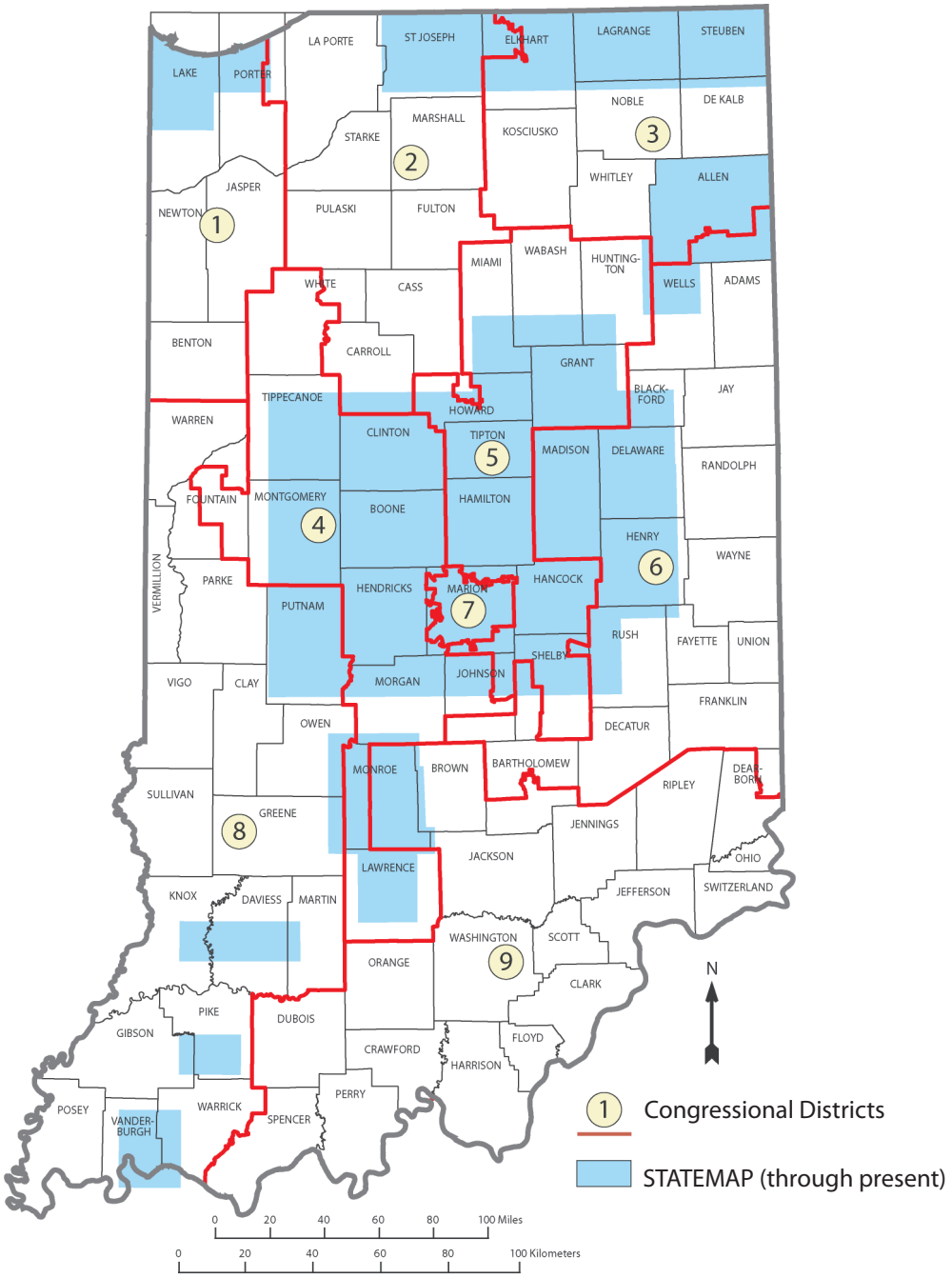
# National Cooperative Geologic Mapping Program

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

## INDIANA

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# Summary of STATEMAP Geologic Mapping Program in Indiana

| Federal Fiscal Year | Projects/ Scale | Federal Dollars | State Dollars | Total Project Dollars |
|---|---|---|---|---|
| 1993 | Surficial Mapping: Gary 7.5-min quadrangle: scale 1:24,000 | 24,426 | 64,160 | 88,586 |
| 1994 | Surficial Mapping: Calumet City, Highland, Lake Calumet and Whiting 7.5-min quadrangles: scale 1:24,000 | 57,938 | 79,418 | 137,356 |
| | Surficial Mapping: Chicago 30' x 60' quadrangle: scale 1:100,000 | | | |
| | Surficial Mapping: Evansville North and Evansville South 7.5-min quadrangles: scale 1:24,000 | 30,000 | 50,079 | 80,079 |
| 1995 | Surficial Mapping: Dyer, Crown Point and Saint John 7.5-min quadrangles: scale 1:24,000 | 35,000 | 53,203 | 88,203 |
| | Surficial Mapping: Newburgh and Daylight 7.5-min quadrangles: scale 1:24,000 | 15,000 | 19,429 | 34,429 |
| 1996 | Surficial Mapping: Shipshewana, Topeka, Oliver Lake, Lagrange and Sturgis 7.5-min quadrangles: scale 1:24,000 | 51,446 | 51,673 | 103,119 |
| | Surficial Mapping: Continuation of mapping Daylight 7.5-min quadrangle: scale 1:24,000 | 16,771 | 18,787 | 35,558 |
| | Surficial & Bedrock Mapping: Loogootee and Montgomery 7.5-min quadrangles: scale 1:24,000 | 52,135 | 85,433 | 137,568 |
| | Digital Conversion: Maps and report of Allen County | 12,290 | 13,191 | 25,481 |
| 1997 | Surficial Mapping: Mongo and Wolcottville 7.5-min quadrangles: scale 1:24,000 | 44,827 | 45,101 | 89,928 |
| | Surficial & Bedrock Mapping: Washington and Wheatland 7.5-min quadrangles: scale 1:24,000 | 62,586 | 78,891 | 141,477 |
| 1998 | Surficial Mapping: Middlebury, Millersburg, Stroh, Orland and Bronson South 7.5-min quadrangles: scale 1:24,000 | 56,045 | 57,008 | 113,053 |
| | Surficial & Bedrock Mapping: Oakland City and Augusta 7.5-min quadrangles: scale 1:24,000 | 16,261 | 54,771 | 71,032 |
| 1999 | Surficial Mapping: Arcadia, Ashley, Angola East, Angola West, Bristol, Clear Lake, Edon, Elkhart, | 62,950 | 63,052 | 126,002 |
| | Foraker, Goshen, Hamilton, Kempton, Sheridan and Tipton 7.5-min quadrangles: scale 1:24,000 | 30,160 | 30,449 | 60,609 |
| | Bedrock Mapping: East 1/4 Lafayette and West 1/4 Muncie 30' x 60' quadrangles: scale 1:100,000 | 16,890 | 17,163 | 34,053 |
| 2000 | Surficial Mapping: Carmel, Fishers, Lakeville, Lydick, Noblesville, North Liberty, Osceola, South | 63,775 | 64,502 | 128,277 |
| | Bend East, South Bend West, Wakarusa, Westfield and Wyatt 7.5-min quadrangles: scale 1:24,000 | 34,990 | 35,732 | 70,722 |
| | Bedrock Mapping: Indianapolis 30' x 60' quadrangle: scale 1:100,000 | 40,807 | 41,023 | 81,830 |
| 2001 | Surficial Mapping: East 1/2 Lafayette and West 1/2 of Muncie 30' x 60' quadrangles: scale 1:100,000 | 197,152 | 197,366 | 394,518 |
| | Bedrock Mapping: West 1/2 Muncie, West 1/2 New Castle and Lafayette 30' x 60' quadrangles: scale 1:100,000 | | | |
| | National Geologic Map Database: Indiana geoscience map bibliography | 6,000 | 6,000 | 12,000 |
| 2002 | Surficial Mapping: Continuation of 2001 mapping | 227,334 | 227,689 | 455,023 |
| | Bedrock Mapping: Continuation of 2001 mapping | | | |
| 2003 | Surficial Mapping: Cleveland, Ingalls, Greenfield and Pendleton 7.5-min quadrangles: scale 1:80,000 | 147,329 | 147,887 | 295,216 |
| | Bedrock Mapping: Southwest part of the Wabash 30' x 60' quadrangle: scale 1:100,000 | | | |
| 2004 | Surficial Mapping: Dunreith, Knightstown, Lewisville, New Castle E, New Castle W and Shirley 7.5-min quadrangles: scale 1:50,000 | 125,555 | 125,807 | 251,362 |
| | Bedrock Mapping: Gosport, Modesto and Hindustan 7.5-min quadrangles: scale 1:24,000 | 78,017 | 78,019 | 156,036 |
| 2005 | Surficial Mapping: Mount Pleasant and Sulphur Springs 7.5-min quadrangles: scale 1:50,000 | 70,994 | 71,160 | 142,154 |
| | Bedrock Mapping: Whitehall, Bloomington and Unionville 7.5-min quadrangles: scale 1:24,000 | 68,130 | 69,169 | 137,299 |
| 2006 | Surficial Mapping: Muncie East and Muncie West 7.5-min quadrangles: scale 1:40,000 | 74,529 | 75,028 | 149,557 |
| | Bedrock Mapping: Allens Creek, Clear Creek, and Stanford 7.5-min quadrangles: scale 1:24,000 | 81,207 | 81,416 | 162,623 |
| 2007 | Surficial Mapping: Eaton and Wheeling 7.5-min quadrangles: scale 1:50,000 | 58,086 | 58,422 | 116,508 |
| | Bedrock Mapping: Bartlettsville and Oolitic 7.5-min quadrangles: scale 1:24,000 | 88,038 | 88,374 | 176,412 |
| 2008 | Surficial Mapping: Huntington, Zanesville, Majenica, and Markle 7.5-min quadrangles: scale 1:63,360 | 45,441 | 45,607 | 91,049 |
| | Surficial Mapping: Plainfield and Brownsburg 7.5-min quadrangles: scale 1:63,360 | 24,812 | 25,309 | 50,121 |
| | Bedrock Mapping: Bedford East and Bedford West 7.5-min quadrangles: scale 1:24,000 | 98,176 | 98,587 | 196,763 |
| | Digital Conversion: Surficial maps within parts of three counties of northern Indiana: scale 1:100,000 | 17,719 | 18,133 | 35,852 |
| | TOTALS | $2,132,816 | $2,337,038 | $4,469,855 |

## Statement of Outcome

### Geologic Mapping: A State Need

The Indiana Geological Survey (IGS) STATEMAP program addresses a variety of societal, scientific and operational needs within the context of the IGS long-term mapping plan. Mapping priorities are determined on the basis of several criteria, including the practical need to concentrate mapping efforts in corridors and centers of growth, the distribution of completed and in-progress work, the availability of data, opportunities for inter-agency cooperation and opportunities for education and outreach. Through their mapping efforts, IGS staff hope to promote broad-based geological understanding amongst our citizens, our most important customers, and bridge the gap between the highly technical nature of science and the need for general earth information.

### How are geologic maps used?

In many ways, geologic maps are best utilized for making informed decisions involving any land-use changes, such as:

- Showing the areal extent of aquifers and their recharge and discharge areas
- Estimating and protecting ground-water resources
- Assessing mineral and energy resources and the impact of their extraction of the environment
- Aiding in land-use planning
- Locating waste disposal sites for solid and hazardous wastes
- Evaluating the impact and helping to mitigate geologic hazards such as earthquakes and landslides

Advances in technology now allow geologists to access, view, and analyze data in ways never before possible. Geographic Information Systems and computer databases permit STATEMAP-sponsored geologists to make customized, user-friendly products for end users. Moreover, modern geologic maps are digitally stored for rapid ease of manipulation at minimal cost. These methods of data handling and manipulation in themselves create new mapping challenges and opportunities.

Overall, the intent of modern geologic maps is to permit the citizens of the state to raise the quality of their lives through informed decisions directed toward the wise use of the land.