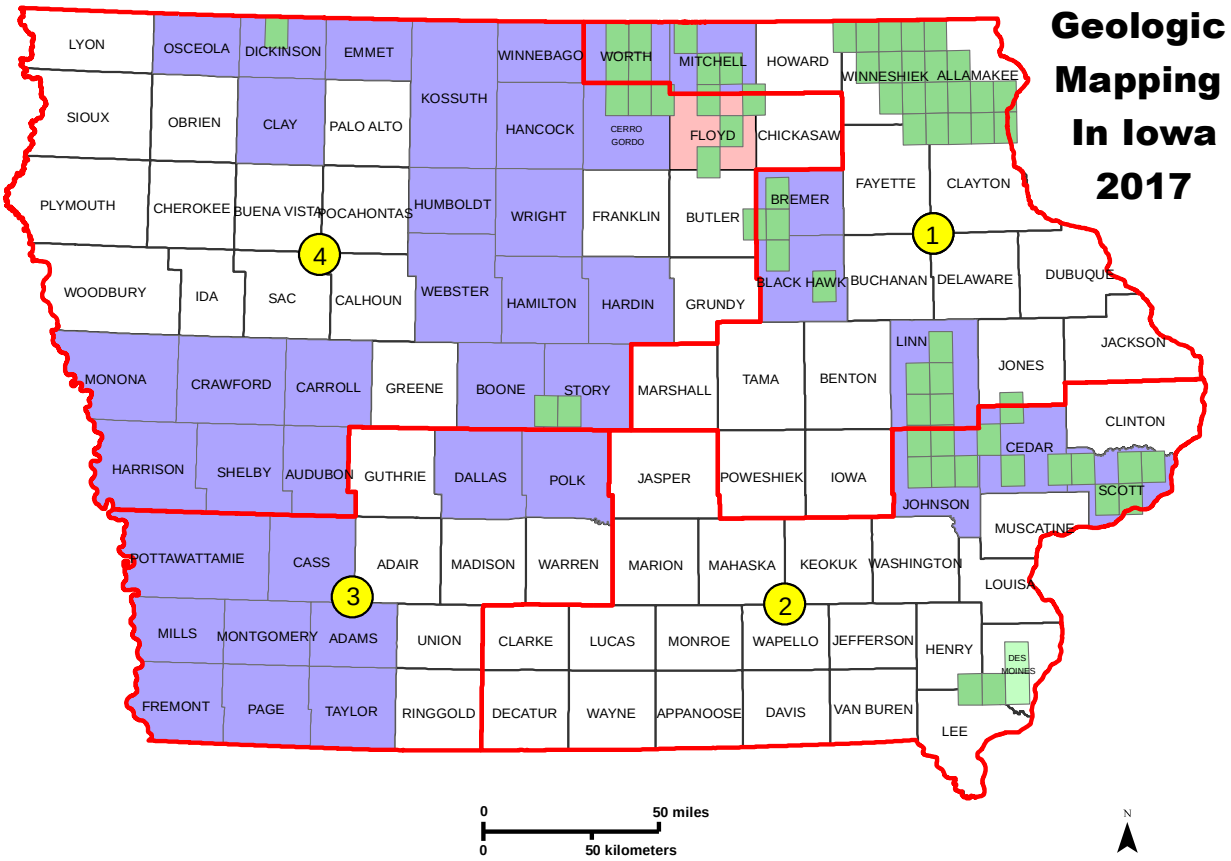
# National Cooperative Geologic Mapping Program

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




**STATEMAP Funding (FY1993 through FY2017)**

- 1 Congressional District Numbers
- Congressional District Boundaries
- Completed 1:24,000 scale geologic maps
- In-progress 1:24,000 scale geologic maps
- Completed 1:100,000 scale geologic maps
- In progress 1:100,000 scale geologic maps
- Completed statewide regional bedrock geologic maps

## Contact Information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# SUMMARY OF STATEMAP GEOLOGIC MAPPING PROGRAM IN IOWA

| FFY | Geologic Mapping Project Title and Scale | State Dollars | Federal Dollars | Total Dollars |
|---|---|---|---|---|
| 93 | Surficial Geology of the Letts and Blanchard Island Quadrangles, 1:24,000 | $9,000 | $9,000 | $18,000 |
| 94 | Surficial Geology of the Cedar Rapids North and Marion Quadrangles, 1:24,000; Bedrock Geology of Linn County, 1:100,000 | $40,000 | $39,095 | $79,095 |
| 95 | Surficial Geology of the Cedar Rapids South and Central City Quadrangles, 1:24,000 | $30,090 | $30,000 | $60,090 |
| 96 | Surficial Geology of the Bertram Quadrangle, 1:24,000; Surficial Geology of Linn County 1:100,000; Digital Compilation Bedrock Geology of NW Iowa, 1:250,000 | $68,179 | $68,179 | $136,358 |
| 97 | Digital Compilation Bedrock Geology of Northeast Iowa, 1:250,000 | $52,800 | $52,800 | $105,600 |
| 98 | Surficial Geology of Kossuth, Winnebago, Hancock and Wright Counties, 1:100,000 | $79,618 | $79,618 | $159,236 |
| 99 | Surficial Geology of Hamilton and Webster Counties, 1:100,000 | $60,720 | $60,720 | $121,440 |
| 00 | Surficial Geology of Boone and Story Counties, 1:100,000; Surficial Geology of the Huxley and Slater Quadrangles, 1:24,000; Digital Compilation Bedrock Geology of North-Central Iowa, 1:250,000 | $96,121 | $96,120 | $192,241 |
| 01 | Surficial Geology of Dallas and Humboldt Counties, 1:100,000; Surficial Geology of the Ely and Swisher Quadrangles, 1:24,000; Digital Compilation Bedrock Geology of South-Central Iowa, 1:250,000 | $163,750 | $163,750 | $327,500 |
| 02 | Surficial Geology of Polk County, 1:100,000; Surficial Geology of the Tiffin and Iowa City West Quadrangles, 1:24,000; Digital Compilation Bedrock Geology of Southwest and East-Central Iowa, 1:250,000 | $188,090 | $188,090 | $376,180 |
| 03 | Surficial Geology of Dickinson, Emmet, and Johnson Counties, 1:100,000; Surficial Geology of the Iowa City East and McCausland Quadrangles, 1:24,000; Digital Compilation Bedrock Geology of Southeast Iowa, 1:250,000 | $192,829 | $192,829 | $385,658 |
| 04 | Surficial Geology of Clay and Osceola Counties, 1:100,000; Surficial Geology of the Dixon, Eldridge, and Decorah Quadrangles, 1:24,000 | $142,491 | $142,491 | $284,982 |
| 05 | Surficial Geology of Hardin County, 1:100,000; Surficial Geology of the Bluffton, Freeport, Rochester, and Bennett Quadrangles, 1:24,000; Bedrock Geology of the Yellow River Watershed; 1:100,000 | $187,167 | $187,167 | $374,334 |
| 06 | Surficial Geology of the Burr Oak, Highlandville, Cedar Bluff, Stanwood, and Bremer Quadrangles, 1:24,000 | $118,310 | $118,310 | $236,620 |
| 07 | Surficial and Bedrock Geology of the Cresco NE, Dorchester and Ridgeway Quadrangles, 1:24,000; Surficial and Bedrock Geology of Cedar County, 1:100,000 | $170,293 | $170,293 | $340,586 |
| 08 | Surficial and Bedrock Geology of the Davenport West, Davenport East, and Shell Rock Quadrangles, 1:24,000; Bedrock Geology of the Waverly Quadrangle, 1:24,000; Digital Compilation: Loess Thickness Map of Western Iowa, 1:250,000 | $196,292 | $196,292 | $392,584 |
| 09 | Surficial and Bedrock Geology of Bremer County, 1:100,000; Surficial and Bedrock Geology of the Fertile SE and Manly Quadrangles, 1:24,000. | $169,108 | $169,108 | $338,216 |
| 10 | Surficial and Bedrock Geology of the Fertile NE, Northwood, and Gilbertville Quadrangles, 1:24,000; Surficial and Bedrock Geology of Scott County, 1:100,000; Digital Compilation Quaternary Geology of Adams County, 1:100,000 | $196,232 | $196,232 | $392,464 |
| 11 | Surficial and Bedrock Geology of Worth County, 1:100,000; Surficial and Bedrock Geologiy of the Cedar Falls Quadrangle, 1:24,000; Surficial Geology of the Okoboji Quadrangle, 1:24,000; Digital Compilation Quaternary Geology of Fremont, Mills, Montgomery, Page, and Taylor Counties, 1:100,000 | $158,997 | $158,997 | $317,994 |
| 12 | Surficial and Bedrock Geology of Black Hawk County, 1:100,000; Surficial and Bedrock Geology of the Clear Lake East Quadrangle, 1:24,000; Digital Compilation Quaternary Geology of Audubon, Carroll, Cass, Crawford, Harrison, Monona, Pottawatamie, and Shelby Counties, 1:100,000 | $172,573 | $172,573 | $345,146 |
| 13 | Surficial and Bedrock Geology of the Mason City, Nora Springs, Osage, and St. Ansgar Quadrangles, 1:24,000 | $173,488 | $173,488 | $346,976 |
| 14 | Surficial and Bedrock Geology of Cerro Gordo County, 1:100,000; Surficial and Bedrock Geology of the New Haven Quadrangle, 1:24,000 | $150,766 | $150,766 | $301,532 |
| 15 | Surficial and Bedrock Geology of Mitchell County, 1:100,000; Surficial and Bedrock Geology of the Orchard and Charles City Quadrangles, 1:24,000 | $173,641 | $173,522 | $347,163 |
| 16 | Surficial and Bedrock Geology of the Colwell, Greene, Lowell, and Danville Quadrangles, 1:24,000 | $169,324 | $168,934 | $338,258 |
| 17 | Surficial and Bedrock Geology of Floyd County, 1:100,000; Surficial and Bedrock Geology of the Sperry and West Burlington Quadrangles, 1:24,000 | $168,350 | $158,105 | $326,455 |
| | **TOTALS** | **$3,328,229** | **$3,316,479** | **$6,644,708** |

July 2017

# STATEMAP PROGRAM IN IOWA

The STATEMAP component of the National Cooperative Geologic Mapping Program (USGS) has enhanced the Iowa Geological Survey's (IGS) ability to produce geologic maps. Iowa's mapping program addresses priority state-wide issues with longer term goals in mind.

**In recent years, the Iowa STATEMAP program has focused on three key areas:**

1) ***Developing Areas Mapping*** (urban areas and developing areas).

2) ***Impaired Watershed Mapping*** (mapping in vulnerable watersheds, karst, shallow bedrock and flood prone areas).

3) ***Digital Compilation Mapping*** (regional and state-wide scale bedrock and surficial geologic mapping projects).

The State Geologist, in consultation with the State Mapping Advisory Committee, sets the mapping priorities for the state. IGS and the advisory committee recognize the need for maps of varying scales to address the complex environmental issues facing urban and rural Iowans. The advisory committee consists of individuals from state and local governments (IDOT, NRCS, planning and zoning), academics, professional societies, private industry (aggregate producers to environmental consultants), and watershed groups. Issues in developing urban areas include residential and commercial development along major transportation corridors, rapid subdivision expansion on the fringes of urban areas, aggregate potential (identification and protection of resources), flood protection, and water quality and quantity concerns. In rural areas, issues are focused on the proper siting of animal confinement facilities, water quality, watershed management, nutrient management, wetland delineation and protection, and aggregate potential mapping. Since 1993, the volume of statewide mapping projects completed by IGS has grown immensely from mapping two quadrangles with a federal contribution of $9,000 to multi-year projects producing quadrangle-scale (1:24,000), county-scale (1:100,000) and regional-scale compilation mapping with contributions as high as $196,292 in 2008.

The STATEMAP program helps establish and improve the stratigraphic framework for Iowa. New logging and updates to the GeoSam database provide additional information available to a wide range of users. This geologic information is applied to a variety of projects at the local, regional, and state level. IGS geologists also undertake projects related to STATEMAP that assist Iowans with societal concerns. Recent examples include delineating the Lime Creek Formation deposits for the Cerro Gordo County arsenic study and conducting an evaluation of potential bedrock confining units in north-central Iowa. Geologic data and an improved stratigraphic understanding may be applied to water resource investigations and groundwater vulnerability studies, or used to assist public and private entities.