FACT SHEET

ILLINOIS GEOLOGIC MAPPING ADVISORY COMMITTEE

I. FRAMEWORK

- The committee (IGMAC) meets at least annually in September
- Need established by the National Geologic Mapping Act of 1992
- Geologic mapping component...to establish the geologic framework of areas determined to be vital to the economic, social, environmental, or scientific welfare of individual States
  - Included Federal, State, and University components
  - For the State component, mapping priorities --
    1. shall be determined by State panels representing a broad range of users of geologic maps; and
    2. shall be based on --
       1. State requirements for geologic map information in areas of multiple-issue need or areas of compelling single-issue need; and
       2. State requirements for geologic map information in areas where mapping is required to solve critical earth science problems.
- The National Cooperative Geologic Mapping Program was established by the Act
  - FedMap– Federal projects are carried out by the US Geological Survey
  - StateMap – The USGS provides matching funds to State Geological Surveys
  - EdMap – The USGS provides small amounts of matching funds with Universities to train students
  - Great Lakes Geologic Mapping Coalition (GLGMC or “Coalition”) was created to provide additional funding for three-dimensional mapping in States with thick glacial cover. Illinois, Indiana, Michigan, Minnesota, New York, and Wisconsin participate, with Ontario as an advising member
- Geologic mapping by ISGS is also funded by other agencies including Counties, the Illinois Department of Transportation, the Illinois Department of Natural Resources, the National Oceanic and Atmospheric Administration.
- Key roles of IGMAC are to advise ISGS
  - on long term motivations and strategies for mapping the state at high resolution
  - Whether proposals for annual StateMap awards support the long term strategies
  - on needs across the state where synergies of activity could occur or for sources of additional funding for mapping
  - On means and mechanisms to improve communication of mapping results to stakeholders
- IGMAC webpage includes basic information and a record of activities: (https://isgs.illinois.edu/illinois-geologic-mapping-advisory-committee)

II. CURRENT MAPPING IN ILLINOIS

- Goal to map entire state at 1:24,000 scale; deliver results to stakeholders in readily usable form
- Long Term Plans of mapping focus areas originally prioritized in Special Report 1 (1992), revised over time with input from IGMAC. Focus areas expected to be mapped in 5-50 years based on societal need
- Short Term Plans prioritize quadrangles to be mapped within 2-5 years based on inertia from existing mapping, personnel, and societal need
Priority Mapping Areas – 9 are currently defined

<table>
<thead>
<tr>
<th>Area</th>
<th>Population</th>
<th>Groundwater</th>
<th>Environment</th>
<th>Resources</th>
<th>Seismic Hazard</th>
<th>Infrastructure</th>
<th>Other Hazard</th>
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Largely with StateMap and GLGMC funding

StateMap proposals annually in November for $300K in matching funds
- 8-12 7.5’ quadrangles +- 1 digital county compilation proposed
- Proposals reviewed by panel of State Geologists, with USGS as Chair
- Awards range $150K – 180K, with goal of providing level funding across the Nation according to needs and capacity of Surveys
- USGS continues $300K cap to demonstrate need; ISGS proposals of that amount demonstrate capacity and capability to complete that mapping
- Budget reduction to accommodate low awards largely by eliminating quadrangles based on scientific continuity, personnel activity, field opportunity
- Dropped quadrangles usually included in subsequent proposal

Currently mapping 6-8 quadrangles per year under StateMap for bedrock or surficial, and one 3D surficial county map every 3 years under GLGMC

StateMap Mapping Process
- Contracts start 1 September of calendar year
- Existing data discovery and compilation, and some outcrop study in the Fall – Winter
- Drilling mostly in Spring – early Summer
- Geophysics in Summer
- Lab analyses completed Spring – 31 August
- Draft maps to cartography in July
- Deliverables to USGS in last week of August
- Deliverables to USGS National Geologic Map Database before November
- Final publication by ISGS as Illinois Geologic Quadrangle in 1-10 years, or in Illinois Geologic County Geologic Map in 1-10 years

Fact sheet on IGMAC website lists quadrangles and counties completed under the NCGMP

At current funding, staffing, and activity levels it will take another 330 years to map the bedrock and surficial geology of the Illinois at 1:24,000 scale, although only 30 years to complete the Long Term Plan areas.