



Association of American State Geologists

RESOLUTION ON AASG COMMITMENT TO THE ROLE OF GEOLOGIC MAPPING IN SOCIETY

WHEREAS geologic mapping is a core activity for geological surveys that underpins geoscience as a whole and that provides the framework and understanding that supports subsurface prediction;

WHEREAS managers of energy, minerals, water, hazards, climate change, environment, waste, and engineering increasingly rely on and therefore need to invest in well-devised applications of geologic mapping;

WHEREAS investments in geological mapping return benefits including lives saved, resources discovered, costs avoided, increased efficiency, and fundamental understanding of earth composition, structure, and history;

WHEREAS geological surveys can accelerate progress in response to societal needs through proven collaboration methods, concurrent with efforts in program administration, infrastructure, formats, and accessibility;

WHEREAS benefits will be enhanced by this nationwide acceleration, including updating, coordination, and seamless compilation of multi-resolution plan view and 3D onshore and offshore geological mapping; and

WHEREAS with adequate funding, the following key objectives could be achieved by 2030: an ongoing vibrant pace of detailed mapping, regular updating, nationwide multi-resolution seamless coverage, and 3D mapping at least of depth to bedrock and basement as well as subdivision of sediments and/or little-deformed rock strata where data allow;

NOW, THEREFORE BE IT RESOLVED, that members of AASG believe that state geological surveys should increase their commitment to work with USGS and other partners through the National Cooperative Geologic Mapping Program to ensure timely provision of optimal geological mapping that will progressively be more:

- focused on immediate **user** needs while accommodating unanticipated applications, and being designed with reference to ongoing statewide **assessment** of the status of databases and mapping;
- focused on the most **detailed** mapping where needed, while committed to statewide **completion** at an appropriate scale;
- reconciled with integrated, appropriate **topographic** and bathymetric data, integrated from onshore to **offshore**, and coordinated with **soil** mapping;
- based as needed on compilation ideally of all public domain drillhole and other relevant **data**, along with strategic drilling and newly acquired geochronology, geochemistry, and geophysics;
- based on sound **stratigraphic** naming, and categorized using broadly accepted **query** language;
- committed to regular **updating** of maps as science and technology progress, and assembled as statewide **seamless** compilations;
- **3D**, in which the extent, thickness, and properties of all little-deformed sediment and rock units, and selected complex structural features such as faults and folds, are distinguished;
- coordinated with increasingly 3D versions of state, **continental**, and global-scale maps, while being fully **accessible** through robust and open-source software for conveying subsurface mapping; and
- **linked** to a complete compilation of scanned and searchable publications, as well as consistent and comprehensive geological, geophysical, and geochemical databases,

thus better fulfilling the essential role that geological surveys play in response to the needs of society.

Lexington, Kentucky, June 11, 2014

