Thank you for this opportunity to provide the American Geosciences Institute's perspective on fiscal year (FY) 2013 appropriations for geoscience programs within the Subcommittee's jurisdiction. AGI is a nonprofit federation of 50 geoscientific and professional associations that represents more than 250,000 geologists, geophysicists, and other earth scientists who work in industry, academia and government. Founded in 1948, AGI provides information services to geoscientists, serves as a voice of shared interests in our profession, plays a major role in strengthening geoscience education, and strives to increase public awareness of the vital role the geosciences play in society's use of resources, resilience to natural hazards, and the health of the environment. We ask the Subcommittee to support and sustain the critical geoscience work in the United States Geological Survey (USGS), the National Park Service and the Smithsonian Institution. **Specifically we ask for $1.2 billion for USGS, $333 million for the National Park Service’s Resource Stewardship Program, and $857 million for the Smithsonian Institution.**

As the U.S. economy improves, the nation must continue to focus on intersecting needs for energy resources, water resources, mineral resources, soil resources and healthy ecosystems. To speed up the recovery of our economy and workforce, we need to sustain and efficiently use our natural resources and cost-effectively improve our quality of life and the quality of the environment, while reducing risks from natural hazards. The USGS is the nation’s only natural resource science agency that can provide the objective data, observations, analyses, assessments, and scientific solutions to these intersecting critical needs.

**U.S. Geological Survey**

Virtually every American citizen and every federal, state, and local agency benefits either directly or indirectly from USGS products and services. A wide variety of industries rely on USGS for assessments and data to reduce their costs and risks and to help them develop their own products and services. As was made clear by the National Research Council report *Future Roles and Opportunities for the U.S. Geological Survey*, the USGS's value to the nation goes well beyond the Department of the Interior’s stewardship mission for public lands.

USGS addresses a wide range of important problems facing the nation: natural hazards, environmental change, water resources, waste disposal, and energy and mineral resources. AGI in *Critical Needs for the Twenty First Century: The Role of the Geosciences* lists seven critical and policy actions to help the nation meet these needs through the geosciences, including the USGS (available online at www.agiweb.org/gap/criticalneeds/index.html). With a burgeoning human population, rising demand for natural resources and the rising costs of natural hazards, it is critical to more fully integrate USGS data and understanding into actions for a sustainable world. The USGS plays a prominent role in meeting national needs, while growing the economy, building a skilled workforce and ensuring a natural resource-literate public.
AGI strongly supports smart growth of about $98 million compared to the USGS FY 2013 request for a total budget of $1.2 billion. Please avoid proposed cuts of $48 million and distribute an additional $50 million for energy, minerals, water, hazards, geospatial analyses, mapping and data preservation. Enhancing infrastructure, observations, data and understanding builds the workforce inside and outside of the Survey and spurs economic growth through wise resource management.

**Mineral Resources Program:** The value of domestically processed mineral materials was about $633 billion in 2011. The USGS Mineral Resources Program (MRP) is the only entity, public or private, that provides an analysis and assessment of the raw materials and processed minerals accessible from domestic and global markets. This highly regarded research program is the nation's premier credible source for regional, national and global mineral resource and mineral environmental assessments, statistics and research critical for sound economic, mineral-supply, land-use and environmental analysis, planning and decision-making. Not only does the program track global commodities, it prepares assessments such as the recent report on rare earth element deposits in the United States.

The data and analyses of the MRP are used by the Department of the Interior, Department of Defense, the Central Intelligence Agency, the Department of State, the Federal Reserve, other federal, state and local government entities, foreign governments, private companies and the general public. Analyses based on the MRP data are essential for guiding economic and environmental policy and for providing options for land use decisions posed by industry, government and private land owners. We urge the Subcommittee to support the Mineral Resources Program at a level of $54 million so that it may perform its core missions without a loss of critical information and jobs. This level is the same as the FY 2010 and FY 2005 levels and more than the FY 2013 request of $45 million.

Please avoid proposed cuts of $5.25 million in Mineral Resources to research related to minerals and human health, research on rare earth elements, analysis and assessments of resources in Alaska and in other countries, jobs associated with this work and external funding for states and universities.

AGI appreciates the consolidation of Energy, Minerals and Environmental Health, but we are concerned about two significant proposed cuts. Please avoid cuts of $1 million to the Energy Resources Program’s State Cooperative Project for assessments of coal and oil shale resources. Please avoid cuts of $2 million to Toxic Substances Hydrology to reduce research on pharmaceuticals, pesticides, and other emerging contamination as well as environmentally-robust approaches to uranium resource extraction and shale gas development.

**Water Program:** AGI is concerned with the decreased funding in the President’s request for USGS’s Water Resources Programs. The USGS is the nation’s premier federal water science agency and knowledge about water quality and quantity is necessary for economic growth and to avoid catastrophes. Going forward for FY 2013, AGI supports efficient budgets to sustain many critical water programs including National Streamflow Information, Ground Water Monitoring Network, the National Water Quality Assessment (NAWQA), Hydrologic Research and Development, Hydrologic Networks and Cooperative Water. We respectfully ask that water
programs in the FY 2013 request be restored to a total budget of $231 million, by removing proposed cuts to the Cooperative Water program (-$5 million in request), the Water Resources Research Act (-$6.5 million), the National Water Quality Assessment Program (-$6.5 million), and Hydrologic Networks and Analysis (-$3.7 million).

Please avoid proposed cuts to the Cooperative Water program to eliminate research and monitoring of local to state level water quality and availability or cuts to Water Resources Research which eliminates research grants to 54 institutes at universities. Please avoid proposed cuts to the National Water Quality Assessment Program for reductions in monitoring sites, well water sampling, and laboratory methods development for pharmaceuticals, pesticides, antibiotics, and other emerging contaminants in water systems or to the Hydrologic Networks and Analysis which eliminates real time and archived water resources data for all users.

**National Earthquake Hazards Reduction Program (NEHRP) and Other Natural Hazards:** A key role for the USGS is providing the research, monitoring, and assessment that are critically needed to better prepare for and respond to natural hazards. The tragic earthquake/tsunami in Japan and the Indian Ocean, the massive earthquakes in New Zealand, Chile, Haiti, Pakistan, and Wenchuan, and the local earthquake in Mineral, Virginia remind us of the need for preparation, education, mitigation and rapid response to natural hazards. Several National Academies’ reports and studies by other hazard experts have shown that mitigation and preparation reduces fatalities, injuries and economic losses. With great forethought, the Earthquake Hazards Reduction Authorization Act of 2000 (P.L. 106-503) called for modernization of existing seismic networks and for the development of the Advanced National Seismic System (ANSS) -- a nationwide network of shaking measurement systems focused on urban areas. ANSS can provide real-time earthquake information to emergency responders as well as building and ground shaking data for engineers and scientists seeking to understand earthquake processes and mitigate damage.

With 2,142 of 7,100 stations in operation at the end of FY 2011, the ANSS is far from achieving its goals. Critical investments now will help to reduce earthquake risks; help to create jobs and grow the economy by improving and modernizing seismic networks and the built environment; help support external earthquake research and education efforts; and help to support other major earthquake science initiatives, such as the EarthScope Observatories run by NSF. A major component of EarthScope is a seismic network that is moving across the country and is appropriately complemented and connected to ANSS. Given all of these factors, now is really the time to increase investments in USGS-NEHRP through the Earthquake Hazards Program. **AGI strongly supports reauthorization of NEHRP in 2012 (H.R. 3479/S. 646), the passage of the Volcano Warning Act (S. 566) and appropriations to meet the goals of both measures in FY 2013. AGI strongly supports robust appropriations of at least the request for the Earthquake Hazards Program ($58.9 million), the Volcano Hazards Program ($25 million) and Landslide Hazards Program ($3.9 million).**

**National Cooperative Geologic Mapping Program (NCGMP):** AGI is very grateful to Congress for passing the re-authorization of the National Cooperative Geologic Mapping Program in the 2009 public lands omnibus (P.L. 111-11, Sec. 11001). This important partnership between the USGS, state geological surveys, and universities provides the nation with fundamental data for addressing natural hazard mitigation, water resource management, environmental remediation,
land-use planning, and raw material resource development. **AGI supports a modest increase of $1.5 million for the National Cooperative Geologic Mapping Program for a total of $29.5 million in FY 2013. This additional support would restore the Federal and State Partnerships to almost FY 2010 levels; still far below authorized levels of $64 million.**

**National Geological and Geophysical Data Preservation Program (NGGDP):** The data preservation program (Public Law 109-58, Sec 351) is administered by the U.S. Geological Survey in partnership with State Geological Surveys and other stakeholders. Private and public entities collect geologic and geophysical data in the form of paper records, digital files, and physical samples. Often these data and samples are given to state geological surveys either voluntarily or because of regulatory statutes. These data are worth far more than the cost of preserving them because they provide information about natural resources and natural hazards that are used by others for business or safety. The program generates more value in terms of economic development, environmental stewardship, hazard mitigation and fulfilling regulatory requirements than it costs to run.

The President’s budget request for FY 2013 places the NGGDP and the Biological Information Management and Delivery Program within a single subactivity called Science Synthesis, Analysis, and Research. **AGI supports an appropriation of $1 million, the same as the FY 2010 amount to sustain the program.**

**Smithsonian Institution**
The Smithsonian's National Museum of Natural History plays a dual role in communicating the excitement of the geosciences and enhancing knowledge through research and preservation of geoscience collections. AGI asks the Subcommittee to support Smithsonian research with steady funds that are a tiny fraction of the overall budget, but will dramatically improve the facilities and their benefit to the country. **We strongly support the President’s request of $856.8 million for the Smithsonian Institution in FY 2013.**

**National Park Service**
The national parks are very important to the geoscience community and the public as unique national treasures that showcase the geologic splendor of our country and offer unparalleled opportunities for research, education and outdoor activities. The National Park Services’ Geologic Resources Division was established in 1995 to provide park managers with geologic expertise. Working in conjunction with USGS and other partners, the division helps ensure that geoscientists are becoming part of an integrated approach to science-based resource management in parks. **AGI supports the President’s small increase ($333 million for NPS Resource Stewardship for FY2013) so the NPS can adequately address the treasured geologic resources in the National Parks, especially as the National Parks approach their 100th anniversary.**

Thank you for the opportunity to present this testimony to the Subcommittee. If you would like any additional information for the record, please contact Linda Rowan at 703-379-2480, ext. 228 voice, 703-379-7563 fax, rowan@agiweb.org, or 4220 King Street, Alexandria VA 22302-1502.