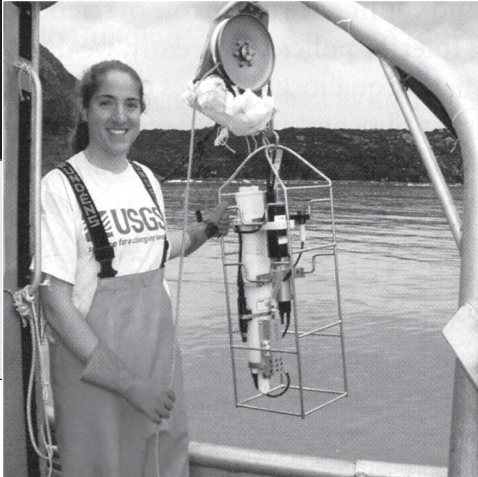


SCIENCE FOR COMMUNITIES



Scientific information is a cornerstone for Interior's natural resource and land management decisions, providing a basis for resource protection, resource use, recreation, and community-based programs. The ability of land managers to formulate solutions for a broad range of issues relies on accessible data, information, and associated tools and technologies. Priorities for these science needs are formulated using an integrated and holistic approach to science that addresses the research, monitoring, assessment and coordination needs of all the bureaus within the Department.

The 2004 President's budget request continues Interior's science program that generates objective information that is key to serving communities. The USGS is the lead bureau responsible for developing an integrated science approach within the Department. Under the scientific leadership outcome goal of the Interior's strategic plan, \$605.2 million is requested within USGS to support the advancement of science in decisionmaking processes across the Department, as well as in the States and local communities Interior serves. A net increase of \$28.2 million is focused on core science needs that are crucial to the management responsibilities of the Department. The increases will cultivate advances in water quality and available geospatial information.

Science on the Interior Landscape – The USGS has the principal Federal responsibility within Interior to provide high-quality earth and natural science information, research, and understanding needed by Interior bureaus to manage the Nation's biological, water, energy, and mineral resources. The bureaus rely on USGS to provide science

information and technical assistance to help them make informed decisions on land and resource use. The Department has placed an increased emphasis on the USGS role in providing science to the Interior bureaus to improve the effectiveness of Federal resource management decisionmaking and to avoid duplication of science among the bureaus. This increased emphasis is based on the growing needs of Interior bureaus for assistance in resolving the potentially competing and contentious resource stewardship and conservation issues through consultation and collaboration. Funding for science to support major restoration projects, such as the Everglades, is becoming an increasingly important focus within the Department. As restoration needs and costs increase, land and resource managers will depend on science to assist in making defensible and cost-effective decisions in reviving damaged and degraded landscapes into viable and healthy ecosystems.

The 2004 President's budget proposes an increase of \$3.0 million to provide dedicated funds for enhanced science support to meet high-priority projects designated by the Interior bureaus. Priority needs will be identified through a collaborative process between USGS and the bureaus that includes one-on-one meetings between the director of USGS and the directors of other bureaus. Criteria for funding definitive studies and research objectives will be based primarily on the urgency of the bureau needs, funding availability, and partnership opportunities.

The USGS has established successful partnerships through meetings, workshops, planning sessions, and other venues where information on manage-

We need to strengthen Interior's science program. We will target limited resources and take advantage of the scientific knowledge developed by others. Interior agencies will improve the quality and the timeliness of our science program to ensure that the decisions we make today are based upon and guided by the best available science.

Secretary Gale A. Norton, January 10, 2003

ment needs and science information are shared. Examples of successful collaboration include: cost-sharing activities with FWS and Reclamation to determine water quality, availability, and effects on fish species in the Klamath Basin in Oregon and California; the USGS and BLM Mancos Shale project, where both bureaus are sharing costs, expertise, and off-the-shelf products to help manage the effects of selenium and salinity from black shales on the landscape; and joint planning with NPS, FWS, tribal governments, and other Federal agencies to develop a robust science plan for Everglades restoration.

Water Resources – The USGS provides information to educate and inform resource managers and the public in order to bring about better understanding and management of water resources. Scientific data and information from USGS make it possible to understand and protect water for many uses — safe drinking water, fish and wildlife habitat, rivers and streams for recreational activities, and water allocations among competing uses by industry, agriculture, and municipalities. Through the support of a national infrastructure that provides objective scientific data on which to base decisions, USGS helps the Nation's water managers determine more efficient and effective uses of resources that will ensure plentiful, clean water for current and future generations. The 2004 budget proposes \$200.1 million to continue USGS's important water resources work, an increase of \$22.3 over 2003.



The USGS collects its water data in one national database, the National Water Information System. The NWIS is accessible through one web site that provides users an easy-to-use, geographically seamless interface to over 100 years of historical data, as well as to current and real-time information. The NWIS won the 2002 Grace Hopper Government Technology Leadership Award for bringing together all water data into one central point on the web. The 2004 budget proposes an increase of \$1.8 million to make the NWIS interface more effective for a wider range of users by including an interactive geographic display and search capability; modernizing the NWIS information architecture; and implementing a system of backup servers to ensure reliability of service.

The National Water-Quality Assessment program is a primary source for long-term, nationwide information on the quality of streams, groundwater, and aquatic ecosystems. The NAWQA researchers have been collecting and analyzing data and information in more than 50 major river basins and aquifers across the Nation. The information derived from NAWQA studies supports national, regional, State, and local decisionmaking and policymaking for water-quality management. The 2004 President's budget proposes an increase of \$6.3 million to continue work at all 42 NAWQA study units. The funding would also allow USGS to begin microbial sampling to identify potential pathogens in water.

The Toxic Substances Hydrology program provides scientific information and tools that explain the occurrence, behavior, and effects of toxic substances in the Nation's hydrologic environments.

The 2004 President's budget proposes to fund the Toxics program at \$11.0 million.

Information on the quantity and timing of the streamflow in the Nation's rivers is a vital asset that safeguards lives and property and helps to ensure adequate water resources for a healthy environment and economy. The USGS operates and maintains approximately 7,000 streamgages nationwide that provide long-term, accurate, and unbiased information that meets the needs of many diverse users. The 2004 President's budget maintains the 2002 level of streamgages by proposing a \$2.1 million increase over the 2003 budget level.

National Biological Information Infrastructure –

The NBII is an electronic gateway to biological information maintained in partnership by USGS, other Federal, State and local government agencies; private sector organizations; and other partners around the Nation and the world. Information on the NBII is made available through a collaborative process among USGS and its partners. In addition to greater data access, the NBII program is successfully promoting the development and use of new standards that make it easier to describe and exchange these data. All of the nodes in the NBII network are fully digital and available over the web. Today, work is underway on the establishment and integration of regional, thematic, and infrastructure nodes within NBII. The 2004 President's budget proposes \$2.2 million in increased funds for NBII. These funds would be used to strengthen the resources of the existing California information node and to initiate a mid-Atlantic information node to increase the amount of chronic wasting disease and invasive species information available through the NBII.

Mapping – Federal, tribal, and local governments, as well as private industry and the general public, depend on a common set of base geographic infor-

mation as a tool for economic and community development, land and natural resource management, scientific investigation, and health and safety services. The USGS ensures that the Nation is able to access, integrate, and apply accurate and nationally consistent geospatial data.

The 2004 budget supports the role of the National Mapping program with a vision focused on leadership in geospatial data standards, data consistency, data integration, and partnerships for data collection, maintenance, and dissemination. The 2004 budget includes \$3.8 million for America View and urban dynamics. As a successful pilot,

America View demonstrated the ability to routinely acquire, process, and deliver Landsat data to a State user community within 36 hours of its acquisition, revolutionizing the utility of this data. This program now services an 11-State consortium, which is expected to grow. An important tool to local managers and planners, the urban dynamics program conducts studies to understand and forecast the impacts of urbanization.

Geospatial One-Stop –

Geospatial One-Stop is one of the Administration's government-wide e-government initiatives. Managed by Interior through an intergovernmental board of directors, it is expected to revolutionize the use of data to support the

business of government. Geospatial One-Stop will provide access to the Federal government's spatial data assets in a single location, while helping to make State and local spatial data assets more accessible, and will put in place standards to facilitate the exchange and interoperability of national, as well as local, data assets. Ready access to spatial data will support government decision and enhance e-government services for citizens.

The 2004 budget supports this initiative by proposing a \$1.5 million increase to begin a Geospatial One-Stop grant program to encourage multi-sec-



tor partnerships. Grants will be provided to local, State, and tribal governments, the academic community, and the private sector as seed money to encourage collaborative partnerships for data exchange. Multi-sector, non-Federal participation is critical to the success of this initiative.

The USGS budget includes \$31.2 million in reductions achieved as a result of savings and efficiencies in service, deferral of new investments, and

bringing lower priority projects to a close. Within science for communities, the reductions total \$9.8 million, including \$8.6 million for the mapping program and \$1.2 million for accessible data technology. Within resource use, there is a \$9.1 million reduction to end lower priority mineral assessments. Within saving lives and property, a \$1.9 million reduction to the Advanced National Seismic System defers investments until system weaknesses are addressed.