U.S. GEOLOGICAL SURVEY

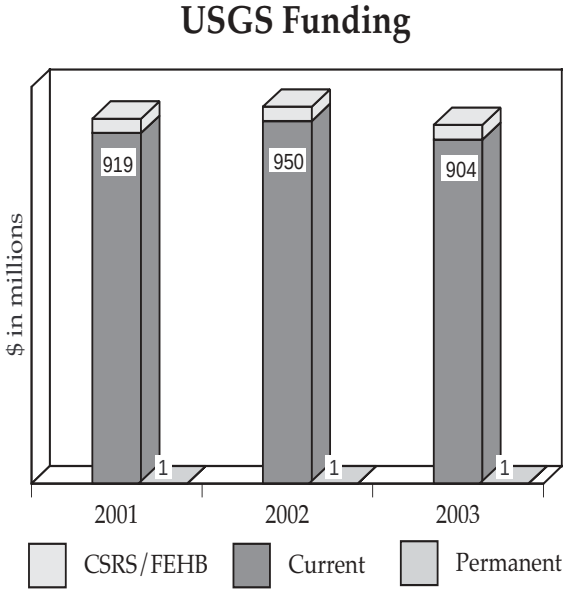
Mission - In 1879, an act of Congress established the U.S. Geological Survey. Initially, it was responsible for the "classification of public lands, and the examination of the geological structure, mineral resources, and products of the national domain." Over the past 120 years, USGS has adapted its programs to respond to the Nation's need for timely and unbiased scientific information. USGS continues to evolve in order to address increasingly complex resource, natural hazard, and earth science issues.

Today, USGS provides a broad range of national expertise in mapping, geology, hydrology, and biology. Because of the increasing complexity of managing Interior's lands and resources, the first and most important customers of USGS science are the land and resource management bureaus of the Department of the Interior.

Budget and Program Overview – The 2003 USGS budget request is $904.0 million in current appropriations, including $36.7 million for a government-wide legislative proposal to shift to agencies the full cost of the CSRS pension system and the Federal employee health benefits program for current employees. Without the legislative proposal, the request is $867.3 million, a net decrease of $46.7 million below the 2002 enacted level.

The budget preserves a number of significant program increases received in recent years that provide science support to Interior land and resource management bureaus and other high priorities. The request also includes increased funding to address Administration priorities, such as funding to enhance USGS support for the Administration's efforts to facilitate and stimulate domestic energy production, and funding for USGS to provide the ongoing science support needed to successfully implement the adaptive management-oriented Comprehensive Everglades Restoration Plan.

The 2003 USGS budget demonstrates the Administration's continued commitment to science-based land and resource management practices and policies by emphasizing program areas that support the science needs of USGS's sister bureaus. This is reflected in 2003 funding increases and in the retention of funding increases provided in 2001 and 2002. The budget proposes a $4.0 million increase in the USGS budget for the critical ecosystems science initiative, so that USGS can continue to provide the long-term science, analysis, monitoring, modeling, and decision support systems needed for the adaptive management and adaptive implementation of the CERP. The budget retains significant increases appropriated in 2001 and 2002 for base USGS science center operations and high priority tactical science support for the Fish and Wildlife Service. It also retains significant funding increases that have accelerated the pace of the Gap Analysis program and expanded the National Biological Information Infrastructure. These programs develop and disseminate data that are beneficial to land and resource managers at all levels of government. They are good examples of the many ways in which Interior can and does work with partners and stakeholders at the state and local level to advance conservation goals.



To further strengthen USGS's science support to land and resource management bureaus within the requested amounts, USGS will continue consulting and collaborating with these bureaus at the regional and headquarters levels to identify and prioritize their most pressing sci-

ence needs and to ensure that USGS is responsive to those needs. The process will also foster interagency cooperation in areas of common geographical interest.

The 2003 budget request focuses resources on other core mission programs as well, such as water, geology, and hazards, especially those activities that are most responsive to growing or emerging issues and other well-documented high priorities. For example, the 2003 budget retains recent funding increases that have significantly expanded the Ground-Water Resources program in response to the Nation's growing reliance on these resources and the recognized need for more sophisticated knowledge to support sustainable development of complex aquifers and to protect inter-related surface waters and riparian habitat.

The budget maintains recent funding increases that have enabled USGS to undertake a multidisciplinary coastal initiative. In 2003, USGS will transition the current pilot study in Tampa Bay to a fully operational effort. The Tampa study and follow-on projects are aimed at developing a comprehensive understanding of coastal and marine systems. They will provide internet accessible data and decision support systems to inform the responsible use and management of the Nation's coastal and offshore resources. Coastal regions are under enormous pressure due to population growth, and USGS science will lead to a better understanding of the impacts of natural and human-induced change on the coastal environment. The request also preserves the 2002 funding increase for continued implementation of the Advanced National Seismic System.

The USGS will continue to provide the scientific information that is vital to the President's national strategy for a sound energy policy. In addition to ongoing national assessments of coal, oil and natural gas, and other energy and mineral commodities, the 2003 budget request proposes a total of $2.7 million for USGS to step up its efforts in support of the National Energy Policy and the overall goal of increasing domestic energy production. An increase of $1.2 million will enable USGS to more fully implement the requirements of section 604 of the Energy Act of 2000, which requires USGS to conduct estimates of undiscovered oil and natural gas resources on Federal lands in the continental United States. During 2002, with reimbursable funding provided by the BLM, the USGS will estimate volumes of oil and gas resources on Federal lands in five study areas in the Rocky Mountains. The 2003 increase will enable USGS to expand this work beyond the initial five study areas. The budget includes a $1.0 million increase to produce digital base maps in Alaska, with work focused on potential lease areas in the NPR-A. The mapping effort will provide resource managers with information they need to make timely and environmentally sound resource and management decisions. The USGS budget proposal supports alternative, non-fossil fuel energy development as well, with $500,000 for USGS to begin the process of updating its geothermal energy assessments. The USGS will initiate this effort in the Great Basin region.

Besides these energy-related budget increases, USGS is also proposing a $1.0 million initiative to utilize its core mission expertise to study the relationship between environmental change and human health issues in the U.S. – Mexico border region. The border area is an important contributor to our economic vitality and encompasses important natural resources. Over 38 percent of the total land in the border region is administered by the Department of the Interior. USGS will work in partnership with the National Institute of Environmental Health Sciences, which will bring the human health dimension to the project. USGS will bring its considerable expertise in hydrology, geology, and geochemical processes to bear on these issues. The proposal aims to improve our understanding of disease causing agents in the environment — like radiation, pesticides, and pathogens — and their specific exposure pathways in water, air, and soil. For example, USGS will also produce geologic maps that depict the distribution of rock types likely to produce elevated levels of potentially toxic elements.

Prioritization of Science Needs – As described above, the 2003 budget ensures continued emphasis on USGS science programs that support the Department's role in the national energy strategy, land management, species management, and the management of our national parks, refuges, and public lands. At the same time, the budget continues funding to perform science functions that are inherent to the historical responsibilities of the USGS. The 2003 USGS budget achieves these goals at the request level through a strategy that includes reductions for certain lower priority programs, and also by scaling back funding for base programs that received extraordinary increases in 2001 and 2002. This strategy also assumes an increased reliance on cost-sharing by USGS partners and beneficiaries of USGS programs. These and other elements of the budget strategy are discussed below.

- Congressional Add-Ons – The 2003 budget discontinues funding for many congressional increases that were not requested. Some of these add-ons were for short duration projects that are completed.

- Moderation of Base Program Increases – The 2003 budget retains a portion of the extraordinary base program increases received in 2001 and 2002 for streamgages and accessible data transfer. It includes $3.0 million of the

$5.0 million increase for streamgages and $3.4 million of the $5.0 million increase for ADT. The increase of $6.0 million provided for the National Cooperative Geologic Mapping Program is discontinued.

- Lower Priority Programs – The budget includes small decreases in the Mineral Resources program, including a $750,000 decrease to the Minerals Information activity. The budget discontinues USGS funding for the Water Resources Research Institutes program. Most institutes have been enormously successful in generating funding from non-USGS sources and may no longer need USGS seed money to continue operating.

- Fire Science – As first proposed in 2002, the 2003 budget again re-aligns science that supports the wildland fire program. USGS fire research will be funded through the Department's Wildland Fire Management account. The continued funding will ensure that Federal fire managers and land managers have access to science to support key decisions on the ground.

- Cost-Sharing and Collaborative Partnerships – The budget includes a $5.8 million reduction to the National Water-Quality Assessment program and assumes that this amount, which represents less than 10 percent of the total NAWQA budget, can be offset through cost-sharing from program partners and beneficiaries, thereby preserving the program's current schedule and scope. The program provides extensive data and information to State and Federal regulatory agencies such as the Environmental Protection Agency. This information has helped regulatory agencies, primarily EPA and the States, implement the Clean Water Act and Safe Drinking Water Act in a cost-effective manner. It is therefore reasonable that NAWQA beneficiaries contribute a small share of the cost of the program. If this modest level of cost-sharing is not obtained, it would affect the schedule and scope of the NAWQA program.

- Transferred Funding – The budget reflects a transfer of $10.0 million in Toxic Substances Hydrology program funding to the National Science Foundation where it will be used for a water quality research grants program that will complement the water quality monitoring and assessment programs at USGS and other Federal and State agencies. The transfer to NSF reflects an Administration goal of realigning the Federal government's investment in research and development to give greater support and emphasis to competitive, merit-based research. The Administration has developed a plan that will provide for the orderly phase-out of ongoing USGS-conducted toxics projects over a three-year transition period. The USGS will play a role in identifying research priorities for the NSF grant program.

Management Excellence – The 2003 USGS budget includes a reduction of $6.0 million for savings USGS will achieve by aggressively implementing the Administration's management reform and management restructuring agenda. The USGS is already analyzing workforce skills needs, developing workforce plans, developing recommendations for policies and business practices for workforce development, and conducting workforce and structural / organizational analysis to identify management actions that will result in increased efficiencies. In 2002 and 2003 USGS will conduct competitive sourcing reviews of 15 percent of the commercial positions identified in the 2000 FAIR inventory.

The 2003 USGS budget request also includes a $1.0 million increase for development of an enterprise GIS for the USGS in direct support of the President's management goal of expanding electronic government, making it easier for citizens to access and use the USGS's vast spatial data holdings. Access and transferability to all Interior bureaus will be considered during development of the enterprise GIS system.

The USGS will also support development of the E-Gov Geospatial One-Stop initiative. The initiative, led by the Federal Geographic Data Committee, will make geospatial data more accessible and usable by developing government-wide data standards and deploying a user-friendly web portal for geospatial data and mapping applications.

Government Performance and Results Act – The GPRA reporting requirements are combined into a single tab in the 2003 USGS budget justification. Impacts of program increases and decreases on performance targets are referenced in the program change tab of the justification document. In this consolidated document, which includes the annual performance plan and report, USGS presents an overview of what it has accomplished in 2001, what it plans to accomplish in 2002, and what it proposes to accomplish in 2003.

The Department is currently revising its strategic plan. Performance goals, measures, and targets presented in USGS's 2003 performance plan and last year's plan will be reviewed for consistency with the revised Interior strategic plan. As a result of that review, it may be necessary or appropriate to modify portions of the 2002 or 2003 plans.

SUMMARY OF BUREAU APPROPRIATIONS
(all dollar amounts in thousands)

Comparison of 2003 Request with 2002 Enacted (without the CSRS/FEHB legislative proposal):

	2002 Enacted		2003 Request		Change from 2002	
	FTE	Amount	FTE	Amount	FTE	Amount
Appropriations						
Surveys, Investigations, & Research	6,762	914,002	6,513	867,338	-249	-46,664
Permanents, Trust Funds, & Others						
Operations & Maintenance of Quarters	0	65	0	51	0	-14
Contributed Funds	0	917	0	917	0	0
Working Capital Fund	239	0	239	0	0	0
Subtotal, Permanents, Trust Funds, & Others	239	982	239	968	0	-14
Transfers & Reimbursables	2,432	0	2,432	0	0	0
TOTAL, U. S. GEOLOGICAL SURVEY	9,433	914,984	9,184	868,306	-249	-46,678

Comparison of 2003 Request with 2002 Enacted (with the CSRS/FEHB legislative proposal):

	2002 Enacted		2003 Request		Change from 2002	
	FTE	Amount	FTE	Amount	FTE	Amount
Appropriations						
Surveys, Investigations, & Research	6,762	949,872	6,513	904,048	-249	-45,824
Permanents, Trust Funds, & Others	239	982	239	968	0	-14
Transfers & Reimbursables	2,432	0	2,432	0	0	0
TOTAL, U. S. GEOLOGICAL SURVEY	9,433	950,854	9,184	905,016	-249	-45,838

HIGHLIGHTS OF BUDGET CHANGES
By Appropriation Activity/Subactivity

APPROPRIATION: Surveys, Investigations, and Research

	2001 Actual	2002 Enacted	2003 Request	Change from 2002 Enacted
Mapping, Remote Sensing, & Geographic Investigations				
Cooperative Topographic Mapping ..	81,481	81,067	80,940	-127
Land Remote Sensing	32,537	35,849	32,828	-3,021
Geographic Analysis/Monitoring	16,408	16,361	15,526	-835
Subtotal, Mapping	130,426	133,277	129,294	-3,983
Geologic Hazards, Resource, & Processes				
Geologic Hazards Assessments	72,725	75,004	73,971	-1,033
Geologic Landscape/Coastal Assess .	74,375	77,973	73,217	-4,756
Geologic Resource Assessments	78,221	79,833	77,468	-2,365
Subtotal, Geologic Hazards	225,321	232,810	224,656	-8,154
Water Resources Investigations				
Hydrologic Monitor,, Assess, & Rsch	136,167	135,508	113,489	-22,019
Cooperative Water Program	62,741	64,318	64,339	+21
Water Resources Rsch Act Program ...	5,455	6,000	0	-6,000
Subtotal, Water Resources	204,363	205,826	177,828	-27,998
Biological Research				
Biological Research/Monitoring	128,788	133,502	127,619	-5,883
Biological Info Mgmt/Delivery	17,704	18,917	18,893	-24
Cooperative Research Units	14,077	13,970	13,969	-1
Subtotal, Biological Research	160,569	166,389	160,481	-5,908
Science Support	73,732	86,255	86,104	-151
Facilities	89,239	89,445	88,975	-470
TOTAL *(without CSRS/FEHB)*	883,650	914,002	867,338	-46,664
CSRS/FEHB legislative proposal	35,519	35,870	36,710	+840
TOTAL *(with CSRS/FEHB)*	919,169	949,872	904,048	-45,824

Highlights of Budget Changes

	Amount
Uncontrollable Cost Net Increase (non-add)	[+20,268]

Mapping, Remote Sensing, and Geographic Investigations

Cooperative Topographic Mapping -127

The decrease (-$1,000) eliminates funding provided under the Conservation Spending Category in 2001 for internet accessibility enhancements. The proposed increase (+$1,000) for digital map data and map products supports energy development and related resource protection activities in Alaska. Uncontrollable costs total $1,439, of which $657 are budgeted and $782 are absorbed. The budget includes a reduction of -$73 for travel and transportation. Management savings include -$711 resulting from organizational restructuring and workforce balancing.

	Amount
Land Remote Sensing	-3,021
The proposed decrease (-$3,000) discontinues USGS funding for high performance computing and communication. Uncontrollable costs total $237, of which $108 are budgeted and $129 are absorbed. The budget includes a reduction of -$12 for travel and transportation. Management savings include -$117 resulting from organizational restructuring and workforce balancing.	
Geographic Analysis and Monitoring	-835
The proposed decrease (-$809) discontinues funding for urban dynamics studies. Uncontrollable costs total $296, of which $135 are budgeted and $161 are absorbed. The budget includes a reduction of -$15 for travel and transportation. Management savings include -$146 resulting from organizational restructuring and workforce balancing.	
Geologic Hazards, Resources and Processes	
Geologic Hazard Assessments	-1,033
The proposed decrease (-$1,000) to the Volcano Hazards program eliminates unrequested funding provided in 2002 to install volcano monitoring equipment around Shemya Island, Alaska. Uncontrollable costs total $1,255, of which $573 are budgeted and $682 are absorbed. The budget includes a reduction of -$96 for travel and transportation. Management savings include -$510 resulting from organizational restructuring and workforce balancing.	
Geologic Landscape and Coastal Assessments	-4,756
The proposed increase (+$4,000) to the Earth Surface Dynamics program will fund interdisciplinary science to meet the priority critical ecosystem studies initiative research needs of the Everglades National Park, focusing on three components: adaptive assessment, baseline ecosystem research, and simulation models and decision support tools. The proposed decrease (-$500) to the Earth Surface Dynamics program will discontinue USGS funding for the Central Great Lakes Geologic Mapping Coalition. The proposed decrease of $5,987 (including $4,989 from the funds provided under the Conservation Spending Category) returns funding for the National Cooperative Geological Mapping program to the 2000 level. Within the Coastal and Marine Geology program the proposed decrease of -$299 reflects completion of a project to provide analytical information on sediment infilling behind Hoover Dam, sediment quality, water quality, and the processes controlling sediment distribution; the 2002 funding support allowed the USGS and cooperators to complete the geophysical mapping and interpretation as planned; the proposed decrease of -$499 eliminates pass-through money to the Puget Sound LIDAR consortium; the proposed decrease of -$450 reflects completion of a project to conduct geological and geophysical mapping of Lake Mojave; the proposed decrease of -$500 eliminates an unrequested increase in 2002 to accelerate and expand ongoing coastal erosion studies in North Carolina; the proposed decrease of -$500 eliminates an unrequested funding increase in 2002 for a regional assessment of land subsidence, sea-level rise, and hurricane risks in southeast Louisiana. Uncontrollable costs total $1,285, of which $587 are budgeted and $698 are absorbed. The budget includes a reduction of -$98 for travel and transportation. Management savings include -$510 resulting from organizational restructuring and workforce balancing.	
Geologic Resource Assessments	-2,365
The proposed decrease (-$3,550) to the Mineral Resources program includes the following: the termination of three projects on aggregate materials (-$1,300); the discontinuance of USGS funding for the Alaska minerals information project (-$1,500); and a reduction in the Minerals Information Team activity (-$750) that will be targeted at international minerals information. The proposed decrease (-$474) to the Energy Resources program eliminates funding added by Congress in 2001 and 2002 to conduct a petroleum resources assessment of the Yukon Flats area in central Alaska. The work is to be completed in 2002 and no further funding is needed. The proposed increase (+$1,700) to the Energy Resources program will enable the USGS to expand its estimation and allocation of volumes of undiscovered oil and gas resources on Federal lands in support of the Energy Act of 2000 and to investigate the nature and extent of geothermal systems and produce updated assessments of available geothermal resources in selected regions of the U.S. Uncontrollable costs total $1,688, of which $770 are budgeted and $918 are absorbed. The budget includes a reduction of -$130 for travel and transportation. Management savings include -$681 resulting from organizational restructuring and workforce balancing.	

	Amount
Water Resources Investigations	
Hydrologic Monitoring, Assessments & Research	-22,019
The proposed increase (+$1,000) to the Ground-Water Resources program will fund interdisciplinary science, conducted in partnership with the National Institute of Environmental Health Sciences, related to environmental health issues in the U.S.-Mexico border region, aimed at understanding disease-causing agents in the environment and their specific exposure pathways in water, air, and soil. The proposed decrease to the National Water-Quality Assessment (NAWQA) program (-$5,796) reflects a plan to obtain cost-sharing funds from NAWQA partners and customers. The proposed decrease (-$13,919) to the Toxic Substances Hydrology program eliminates all funding for this research program, and transfers $10,000 to the National Science Foundation (NSF). NSF and USGS will work together with stakeholders to plan a 3-year transition period for the orderly phase-out of the USGS long-term research and methods development activities, focused field investigations and field laboratories, and watershed-scale investigations. The proposed decrease (-$200) to the Hydrologic Research and Development program eliminates unrequested funding for a study of extremophilic life at Berkeley Pit Lake. The budget includes a decrease of -$2,096 to the National Streamflow Information program from the funds provided under the Conservation Spending Category. The proposed decrease (-$1,048) to the Hydrologic Networks and Analysis program discontinues funding for the following Congressional increases: site-specific investigations of mercury in Lake Champlain (-$299), ground-water monitoring projects in Hawaii (-$449); and a hydrologic study of Noyes Slough, Alaska (-$195). Also, the decrease to the Hydrologic Networks and Analysis program reflects the completion of a ground water study of southern Maryland by the Maryland Geological Survey (-$105). Uncontrollable costs total $2,747, of which $1,255 are budgeted and $1,492 are absorbed. The budget includes a reduction of -$229 for travel and transportation. Management savings include -$986 resulting from organizational restructuring and workforce balancing.	
Cooperative Water Program	+21
Uncontrollable costs total $1,437, of which $656 are budgeted and $781 are absorbed. The budget includes a reduction of -$119 for travel and transportation. Management savings include -$516 resulting from organizational restructuring and workforce balancing.	
Water Resources Research Act Program	-6,000
The 2003 budget proposes to discontinue USGS support for the Water Resources Research Institutes (-$6,000). Uncontrollable costs total $5, of which $2 are budgeted and $3 are absorbed. Management savings include -$2 resulting from organizational restructuring and workforce balancing.	
Biological Research	
Biological Research & Monitoring	-5,883
The budget funds USGS fire ecology research from the Department's Wildland Fire Management account (-$2,800). Decreases are proposed for unrequested 2002 funding increases including: -$748 for a mining study in the Mark Twain National Forest; -$499 for ballast water research projects; -$180 for research on Yukon River chum salmon; -$400 for molecular biology studies; -$300 for a pallid sturgeon study; -$250 for research on diamondback terrapins in the Chesapeake Bay; and -$50 for Atlantic salmon research. The proposed reduction (-$500) eliminates the unrequested funding increase provided in FY 2002 for amphibian research. This ongoing research and monitoring effort will continue at the 2001 level. The proposed decrease (-$416) reflects one-time funding provided in 2001 to purchase and install research equipment on the research vessel Kiyi. Uncontrollable costs total $3,159, of which $1,441 are budgeted and $1,718 are absorbed. The budget includes a reduction of -$214 for travel and transportation. Management savings include -$967 resulting from organizational restructuring and workforce balancing.	
Biological Information Management & Delivery	-24
Uncontrollable costs total $306, of which $140 are budgeted and $166 are absorbed. The budget includes a reduction of -$21 for travel and transportation. Management savings include -$143 resulting from organizational restructuring and workforce balancing.	

	Amount
Cooperative Research Units Uncontrollable costs total $268, of which $123 are budgeted and $145 are absorbed. The budget includes a reduction of -$18 for travel and transportation. Management savings include -$106 resulting from organizational restructuring and workforce balancing.	-1
Science Support The proposed change provides an increase of $1,000 to develop enterprise GIS tools and data and a reduction of -$1,635 from the funds provided under the Conservation Spending Category for accessible data transfer to expand the capacity of the USGS network to deliver scientific information through the Internet. Uncontrollable costs total $2,031, of which $1,217 are budgeted and $814 are absorbed. The budget includes a reduction of -$103 for travel and transportation. Management savings include -$630 resulting from organizational restructuring and workforce balancing.	-151
Facilities The proposed decrease (-$4,449) eliminates the one-time congressional adds of $1,700 for phase one of the Leetown research center expansion, $2,250 for the Center for Coastal Geology in Florida, and $499 for Wellsboro deferred maintenance. Uncontrollable costs total $4,115, of which $3,979 are budgeted and $136 are absorbed.	-470