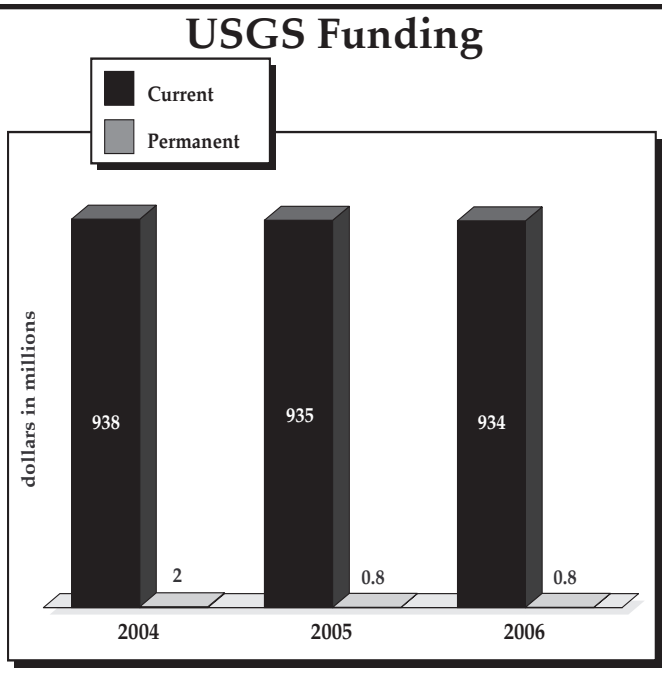
U.S. GEOLOGICAL SURVEY

Mission — The mission of the U.S. Geological Survey is to provide reliable scientific information to: describe and understand the Earth; minimize loss of life and property from natural disasters; assist others in managing water, biological, and other natural resources; and enhance and protect the quality of life.

Program Overview — The USGS provides a broad range of expertise in geography, geology, hydrology, and biology. The USGS places a special emphasis on providing science to the land and resource management bureaus of the Department of the Interior. The USGS hazards programs produce information and understanding of natural hazards, such as earthquakes, volcanoes, and landslides used to reduce the impacts on human life and the economy. The USGS is a primary Federal source of objective resource assessments and unbiased research on oil, gas, and alternative energy potential, production, consumption, and environmental effects. These investigations enable the Nation to make sound decisions regarding domestic energy production with an understanding of potential impacts on the environment.

The USGS analyses of water quality and quantity help water managers develop, regulate, and monitor management practices to ensure the continued availability of water resources for human consumption, agriculture, business, recreation, and environmental stability. The USGS biological studies are used to help maintain healthy ecosystems and natural resources so that these habitats can continue to provide food, energy, medicine, transportation, and recreation. The USGS geography program is expanding its partnerships with Federal agencies and State and local governments to develop and promote use of the geographic data and mapping products that are essential for economic and community development, land and natural resource management, and health and safety services.

To deliver the most accurate, timely, and impartial science possible, USGS is seeking ways to integrate its diverse programs, capabilities, and talents to address those issues that require a multidisciplinary solution. The USGS also places great value on partnerships and is increasing



customer involvement to work collaboratively on issue identification, resource needs, and science solutions. The USGS natural and biological science supports informed decisionmaking by land and resource managers at Federal, State, and local levels; by government program managers; by industrial and agricultural corporations; by scientists and academia; and by the public.

Management Excellence — The USGS continues to advance the President's management agenda for improving performance of the Federal government and for practicing the Secretary's vision for citizen-centered management excellence. This budget proposal supports the Department's unified strategic plan, specifically in relation to informing decisions through the application of science and advancing knowledge through scientific leadership.

The USGS has developed an integrated program and budget planning process that envelops its increased emphasis on integrated science and ensures continued improvement in the management of programs and funding at local, regional, and national levels. The USGS has begun the implementation of activity based cost management to

assist in this effort and is improving the cost reporting for activities, outputs, and outcomes.

The USGS human capital planning efforts are guiding the implementation of succession planning, competitive sourcing, and other human capital initiatives.

The USGS made substantial improvements in its financial management activities through enhanced communications and coordination with field operations, revised policies and procedures, and increased training for administrative staff. The result of these efforts is an unqualified opinion on the 2004 annual performance accountability report.

As part of the 2006 budget process, activities in water research, water information collection and disseminations, and the National Map were reviewed during 2004 using the Performance Assessment Rating Tool. The National Map was found to be effective and the water programs were found to be moderately effective.

Budget Overview — The 2006 USGS budget request is $933.5 million in current appropriations, a decrease of $1.9 million below the 2005 enacted level. The request includes $33.4 in new and expanded program funding and $17.1 million to cover fixed costs. These increases are offset by refocusing $36.7 million from lower priority research activities, including $12.0 million in earmarks. The budget also proposes $3.7 million in administrative savings, which focus on better management of travel, space, and motor vehicle fleet costs. The proposed funding level strengthens the foundation of USGS science by refocusing research priorities to ensure that USGS is able to maintain and build upon its expertise in the areas of science most needed by today's decisionmakers.

Partnerships — Partnerships are a crucial part of USGS science efforts. The USGS works in close cooperation with more then 2,000 Federal, State, tribal, and local governmental agencies, private sector companies, and non-profit organizations across the country. Partnerships provide highly effective means for leveraging resources among many contributors and for bringing a greater wealth of knowledge, expertise, and capability to bear on important land and resource management issues.

Geography — The 2006 request of $133.5 million in Geography supports a strong role for USGS in mapping, land remote sensing, and geographic research. The request level is $14.7 million above the 2005 enacted level, which includes a decrease of $986,000 for earmarks.

Increases to the budget include $19.5 million in land remote sensing to maintain and bolster U.S. landsat archives and capabilities. In 2005, due to the failure of the scan line corrector on board the Landsat 7 satellite, USGS has continued to experience difficulty recovering reimbursable funding for the project. Thus, USGS will propose to reprogram $6.0 million by deferring other projects in 2005 to cover this shortfall. The 2006 request includes $12.0 million for Landsat, which includes $6.0 million to replenish the funds for activities deferred from 2005 and $6.0 million to cover the 2006 shortfall stemming from the failure of Landsat.

The Land Remote Sensing request also includes $7.5 million to begin building ground station capabilities to download and archive landsat-like data from the Landsat 7 follow-on mission. The first Landsat Data Continuity Mission sensor will be flown on a National Oceanic Atmospheric Administration polar orbiting satellite, set to launch in late 2009. Both the National Aeronautics and Space Administration and NOAA propose funding in their 2006 budgets for their roles in this landsat data continuity mission.

The 2006 budget contains an increase of $250,000 for a science impact program designed to improve and expand the use of USGS science information both within and outside the Department. The program helps decision makers better understand what USGS science is telling them and how to apply it.

Geology — The 2006 budget proposes $208.1 million for Geology activities, which is $21.1 million below the 2005 enacted level. This funding level includes an increase of $5.4 million to build, in conjunction with NOAA, a tsunami early warning system for the United States. In 2005, the Administration announced a plan for an improved tsunami and earthquake detection and warning system for the U. S.s. The new system will provide nearly 100 percent detection capability in the case of a U.S. coastal tsunami, allowing response within minutes. The Administration will request $8.1 million in supplemental 2005 funding for USGS to improve its earthquake detection capabilities, which is a key element in determining tsunami risks. In addition to providing improved tsunami warning capabilities, the enhanced earthquake detection capability will provide more rapid earthquake warning within the U.S., allowing faster response by emergency response personnel.

The 2006 budget requests $864,000 to increase volcanic monitoring at U.S. volcanoes posing the largest risks to public safety; $500,000 for increased geothermal assessments, and $912,000 to enhance ecosystem studies within Puget Sound. The budget includes decreases of $1.5 million in lower priority earmarks, $1.2 million in the national coastal program, and $500,000 in carbon sequestration studies. The budget also includes a refocus

of the mineral resources program to concentrate on activities that are inherently governmental responsibilities. The budget reduces the minerals resources program by $28.5 million.

Water Resources — The Water Resources discipline is funded at $204.2 million in the 2006 budget request, which expands upon the water availability work currently being done in the Great Lakes with an increase of $400,000. The request also includes decreases of $5.1 million in earmarks and $6.4 million for the Water Resources Research Institutes, which have been generally successful in generating funds from non-USGS sources and may be self-supporting.

Biological Research — The 2006 budget requests $172.9 million in biological research and proposes expanding biological research programs to find solutions and assist in the mitigation of biological resource problems facing Federal agencies, as well as State, local, and tribal governments. The budget proposes increases of $750,000 to expand on science needed by Interior bureaus, $750,000 to expand research in the Grand Canyon, $252,000 for deepwater fisheries research in the Great Lakes, $300,000 for invasive species research, and $250,000 for ecological systems mapping. The budget also includes a decrease of $4.4 million in lower priority earmarks.

Science Support, Enterprise Information, and Facilities — The 2006 budget requests $214.8 million for these activities, a $10.3 million increase over the 2005 enacted level. The request includes increases of $1.2 million for the USGS portion of the Enterprise Services Network, $1.0 million for the certification and accreditation of USGS information technology systems, and $1.0 million for e-government initiatives.

Other Program Changes — The budget also includes reductions in anticipation of $2.0 million in savings stemming from better management of travel within the bureau, $250,000 from continuing to improve management of the USGS motor vehicle fleet, and $1.5 million from better management of lease agreements and the closure of facilities and termination of leases related to the minerals resource reduction.

Fixed Costs — Fixed cost increases for the USGS total $17.1 million and are fully funded.

SUMMARY OF BUREAU APPROPRIATIONS
(all dollar amounts in thousands)

Comparison of 2006 Request with 2005 Enacted:

	2005 Enacted		2006 Request		Change from 2005	
	FTE	Amount	FTE	Amount	FTE	Amount
Appropriations						
Surveys, Investigations, & Research	6,007	935,464	5,795	933,515	-212	-1,949
Permanents, Trust Funds, & Others						
Operations & Maintenance of Quarters	0	55	0	51	0	-4
Contributed Funds	0	750	0	750	0	0
Working Capital Fund	207	0	208	0	1	0
Subtotal, Permanents, Trust Funds, & Others	207	805	208	801	1	-4
Transfers & Reimbursables	2,736	0	2,821	0	85	0
TOTAL, U.S. GEOLOGICAL SURVEY	**8,950**	**936,269**	**8,824**	**934,316**	**-126**	**-1,953**

[1/] *The total for 2005 does not include $1.0 million for disaster supplemental.*

HIGHLIGHTS OF BUDGET CHANGES
By Appropriation Activity/Subactivity

APPROPRIATION: Surveys, Investigations, and Research

	2004 Actual	2005 Enacted	2006 Request	Change from 2005 Enacted
Mapping, Remote Sensing, & Geographic Investigations				
Cooperative Topographic Mapping	80,843	71,393	71,882	+489
Land Remote Sensing	33,678	32,730	52,396	+19,666
Geographic Analysis/Monitoring	15,238	14,628	15,175	+547
Subtotal, Mapping	129,759	118,751	139,453	+20,702
Geologic Hazards, Resource, & Processes				
Geologic Hazards Assessments	75,283	75,979	82,209	+6,230
Geologic Landscape/Coastal Assess.	78,351	76,253	77,228	+975
Geologic Resource Assessments	80,549	77,014	48,699	-28,315
Subtotal, Geologic Hazards	234,183	229,246	208,136	-21,110
Water Resources Investigations				
Hydrologic Monitor, Assess, & Rsch	145,297	142,454	140,401	-2,053
Cooperative Water Program	63,995	62,337	63,770	+1,433
Water Resources Rsch Act Program	6,422	6,409	0	-6,409
Subtotal, Water Resources	215,714	211,200	204,171	-7,029
Biological Research				
Biological Research/Monitoring	135,110	133,130	134,348	+1,218
Biological Info Mgmt/Delivery	24,662	23,999	24,149	+150
Cooperative Research Units	14,757	14,570	14,428	-142
Subtotal, Biological Research	174,529	171,699	172,925	+1,226

	2004 Actual	2005 Enacted	2006 Request	Change from 2005 Enacted
Enterprise Information				
Enterprise Info Security & Tech	0	22,714	25,237	+2,523
Enterprise Information Resources	0	16,989	17,153	+164
Fed. Geographic Data Coordination	0	4,670	5,377	+707
Subtotal, Enterprise Information	0	44,373	47,767	+3,394
Science Support	90,810	65,584	66,337	+753
Facilities	92,989	94,611	94,726	+115
TOTAL APPROPRIATION	937,984	935,464	933,515	-1,949

Highlights of Budget Changes

	Amount
Fixed Costs	[+17,055]

Mapping, Remote Sensing, and Geographic Investigations

Cooperative Topographic Mapping +489

A decrease (-$986) eliminates an unrequested earmark for flood mapping in North Carolina. Decreases are proposed for savings (-$85) from improved management of the USGS vehicle fleet and reduced travel and transportation. Fixed cost increases total $1,560.

Land Remote Sensing +19,666

The budget proposes an increase (+$12,000) to cover the shortfall in revenue due to the failure of the scan line corrector on board Landsat 7. The funding will enable the program to continue to provide critically needed Landsat products, despite the loss of product sales revenue on which the program depended. The budget also proposes an increase (+$7,450) to provide funding for the development of ground processing systems to receive, process, and archive data that will be delivered from the Landsat Data Continuity Mission, expected to be launched in 2009. Decreases are proposed for savings (-$43) from improved management of the USGS vehicle fleet and reduced travel and transportation. Fixed cost increases total $259.

Geographic Analysis and Monitoring +547

The budget proposes an increase (+$250) to develop methods to ensure that science better informs decisionmaking, especially with respect to western water issues. Decreases are proposed for savings (-$28) from improved management of the USGS vehicle fleet and reduced travel and transportation. Fixed cost increases total $325.

Geologic Hazards, Resources, and Processes

Geologic Hazard Assessments +6,230

The budget proposes an increase (+$864) for equipment purchases and deployment costs to expand modernization of the volcano monitoring network at the most threatening volcanoes within the United States and its territories, in particular Mount Saint Helens and other Cascades volcanoes, the Aleutian Islands, and the Commonwealth of the Northern Mariana Islands. The budget also proposes an increase (+$4,416) to provide resources for operation and maintenance of seismic monitoring equipment to support development of a global tsunami warning system. A decrease is proposed for savings (-$126) from reduced travel and transportation. Fixed cost increases total $1,076.

Geologic Landscape and Coastal Processes +975

The budget proposes a decrease (-$247) to reduce efforts on an unrequested earmark for studies of the impact of African dust on U.S. ecosystems. The budget also proposes a decrease (-$1,248) that will bring to completion a study of coastal erosion in South Carolina. The budget proposes an increase (+$1,000) to conduct research that will provide geologic and geospatial information for assessments of regional tsunami hazard potential. The budget proposes an increase (+$912)

Amount

to expand USGS interdisciplinary studies to provide the science needed for habitat restoration in the Puget Sound nearshore ecosystem. Decreases are proposed for savings (-$192) from improved management of the USGS vehicle fleet and reduced travel and transportation. The budget includes a technical adjustment (-$437) to consolidate the funding for Science on the DOI Landscape into a single budget line item for more effective management of funds that respond to continuously changing priorities. Fixed cost increases total $1,187.

Geologic Resource Assessments -28,315

To provide resources for implementation of higher priority projects in other areas of the Department and the USGS, the budget proposes a decrease (-$28,478) for the Mineral Resources program that will discontinue or reduce 38 lower priority projects related to basic geologic, geochemical, geophysical, and mineral deposit data for the Nation; global mineral resource assessments of critical mineral commodities; research on aggregates and industrial minerals; research on inorganic toxins; and the Mineral Resources External Research Grant program. The reduction will also terminate data collection and analysis for 100 mineral commodities in 180 countries outside the U.S. The budget also proposes decreases of unrequested earmarks for Federal support for preservation of cores, samples, maps, and descriptive materials documenting the discovery and nature of Alaska's mineral and energy resources (-$98); and partnerships with Alaska State and academic organizations to collect basic geologic, geochemical, and geophysical data to encourage economic development in Alaska (-$1,134). The budget also proposes a decrease (-$500) to significantly reduce USGS research on the sources and potential geologic sequestration options for carbon dioxide, a greenhouse gas emitted during fossil fuel combustion. The budget proposes an increase (+$500) to begin a three-year investigation of the nature and extent of geothermal systems in the western United States capable of producing electrical power. A decrease is proposed for savings (-$164) from reduced travel and transportation. The budget includes a technical adjustment (-$25) to consolidate the funding for Science on the DOI Landscape into a single budget line item for more effective management of funds that respond to continuously changing priorities. Fixed cost increases total $1,584.

Water Resources Investigations

Hydrologic Monitoring, Assessments, and Research -2,053

The budget proposes an increase (+$400) to begin a broad, multi-State assessment of ground-water depletion. The proposed decreases in Toxic Substances Hydrology will end an unrequested earmarked study of the Roubidoux Aquifer (-$1,460) and a lower priority project that addresses petroleum-related contamination (-$227). The proposed decrease in Hydrologic Research and Development will end several unrequested earmarks: a study at Berkeley Pit Lake (-$195), a study of ground-water in the Potomac River Basin (-$296); a study with the States of Washington and Oregon of the Rathdrum Prairie/Spokane Valley aquifer system (-$493); some work underway in the Chesapeake Bay program (-$247); a fish mortality study in Hood Canal, Washington (-$345); and USGS participation in the interagency San Pedro Partnership (-$247). The budget proposes decreases to reduce expanded water-quality monitoring for mercury and other substances in Lake Champlain (-$291), to reduce expanded monitoring of water resources in Hawaii (-$437), and to stop the collection of hydrologic data to establish base lines to detect future changes in surface-water quality related to extraction of coalbed methane in the Tongue River watershed of Montana (-$877). Decreases are proposed for savings (-$557) from improved management of the USGS vehicle fleet and reduced travel and transportation. The budget includes a technical adjustment (-$366) to consolidate the funding for Science on the DOI Landscape into a single budget line item for more effective management of funds that respond to continuously changing priorities. Fixed cost increases total $3,585.

Cooperative Water Program +1,433

Decreases are proposed for savings (-$278) from improved management of the USGS vehicle fleet and reduced travel and transportation. Fixed cost increases total $1,711.

Water Resources Research Act Program -6,409

The proposed decrease (-$6,409) eliminates USGS funding for each of the 54 State Water Resources Research Institutes that have been generally successful in generating non-Federal sources of funding and should be able to support themselves.

	Amount
Biological Research	
Biological Research and Monitoring	+1,218
Proposed increases include funding for ecological systems mapping (+$250), for the Great Lakes Deepwater Fisheries Program (+$252), to provide support for the Science on Interior's Landscape initiative (+$750), to support biological and geological research for better decisionmaking in the Glen Canyon Dam Adaptive Management Program (+$750), and to support the development of innovative control methodologies for invasive plants (+$300). Decreases (-$4,057) are proposed for unrequested earmarks for lower priority studies for Mark Twain National Forest, pallid sturgeon, diamondback terrapins, the grizzly bear population in Montana, the ground-water supply at Leetown Science Center, fishery genetics research in the Northeast and Mid-Atlantic regions, manatees, the Delaware River Basin, and a portion of a general program increase. Decreases are proposed for savings (-$420) from improved management of the USGS vehicle fleet and reduced travel and transportation. The budget includes a technical adjustment (+$828) to consolidate the funding for Science on the DOI Landscape into a single budget line item for more effective management of funds that respond to continuously changing priorities. Fixed cost increases total $2,565.	
Biological Information Management and Delivery	+150
A decrease is proposed for savings (-$67) from reduced travel and transportation. Fixed cost increases total $217.	
Cooperative Research Units	-142
The budget proposes decreases to eliminate funds for the Nebraska Cooperative Research Unit (-$395) and a portion of an unrequested general program increase (-$55). Decreases are proposed for savings (-$35) from improved management of the USGS vehicle fleet and reduced travel and transportation. Fixed cost increases total $343.	
Enterprise Information	
Enterprise Information Security and Technology	+2,523
Proposed increases to the budget include funding to ensure the certification and accreditation of information system security (+$1,059) and to support the Department-wide implementation of the Enterprise Services Network (+$1,235). A decrease is proposed for savings (-$27) from reduced travel and transportation. Fixed cost increases total $256.	
Enterprise Information Resources	+164
A decrease is proposed for savings (-$21) from reduced travel and transportation. Fixed cost increases total $185.	
Federal Geographic Data Coordination	+707
The budget proposes an increase (+$680) for disaster management. A decrease is proposed for savings (-$7) from reduced travel and transportation. Fixed cost increases total $34.	
Science Support	+753
The proposed budget provides an increase (+$371) for e-government initiatives. The USGS will spend $405 within base on competitive sourcing studies. A decrease is proposed for savings (-$200) from reduced travel and transportation. Fixed cost increases total $582.	
Facilities	+115
The budget proposes a decrease (-$1,471) to reduce expenditures for facilities commensurate with FTE reductions anticipated as a result of significant program reductions elsewhere in the budget. Fixed cost increases total $1,586.	