Program Decreases

Initiative Component	FY 2001 Program Change $(000)	Page Reference
Mapping Data Collection & Integration	-4,631	80
Geographic Research & Applications	-100	80
Volcano Hazards	-250	81
Coastal & Marine Geology	-500	81
Mineral Resources	-3,200	81
Energy Resources	-2,509	81
Toxic Substances Hydrology	-1,740	82
Hydrologic Research & Development	-2,454	82
Hydrologic Networks & Analysis	-2,791	82
Biological Research & Monitoring	-3,992	83
Total	22,167	

National Mapping Program
Program Decrease Statement

Mapping Data Collection and Integration (-$4.631 million):

Geospatial Data Production (-$2.631 million): The proposed decrease would reduce the number of digital orthophoto quads (DOQs), digital elevation data (DEMs), digital hydrography data (DLGs and National Hydrography Dataset), and revised topographic maps produced within the National Mapping Program by USGS and/or its partners. Taken alone, this decrease will reduce the amount of funds used to match funds from cooperators. However, the reduction in geospatial data produced with base funding will be offset by the cost-shared data produced with the proposed increases for Community/Federal Information Partnerships.

High-Performance Computing and Communication (-$2.0 million): The decrease would reduce the amount of funding provided for high-performance computing and communication, a $3.0 million pilot completed in FY 1999 that delivers natural science data to a consortium of academic institutions in Ohio. This funding is being refocused for an expansion of USGS information delivery through the Accessible Data Transfer initiative (see the Program Change section for more details). The remaining funds ($1.0 million) will support operation and maintenance of the project with the OhioView Consortium.

Geographic Research and Applications:

Hyperspectral Remote Sensing (**-$0.1 million):** The proposed decrease eliminates funding for hyperspectral remote sensing.

Geologic Hazards, Resources, and Processes
Program Decrease Statement

Volcano Hazards Program (-$0.25 million): The proposed reduction reflects savings from not extending a cooperative agreement with the University of Hawaii to support monitoring and research activities of the Hawaiian Volcano Observatory.

Coastal and Marine Geology Program (-$0.5 million): The proposed reduction results from completion of a pilot project using the Light Distance and Ranging (LIDAR) technology to evaluate and monitor habitat of Chinook Salmon and Summer Chum Salmon.

Mineral Resources Program (-$3.2 million): The proposed reduction will end a 3-year-old effort that has improved access to mineral information in Alaska (the major objectives of this effort will have been achieved by the end of FY 2000), and studies that have improved information about gold deposits in the Great Basin in Nevada.

Energy Resources Program (-$2.509 million): The proposed reduction will phase out several economic and environmental studies. By the end of FY 2000, preliminary maps related to these studies will be produced showing the regional distribution and severity of acid mine discharge and mine pool blow outs in the central Appalachians. This decrease will also eliminate funding for the Coal Availability/Recoverability Studies collaborative project with the State Geological Surveys.

Water Resources Investigations
Program Decrease Statement

Toxic Substances Hydrology Program -$1.74 million: The decrease is based on completion of research characterizing subsurface contamination from crude oil and related petroleum hydrocarbons in Bemidji, Minnesota, and completion of a research project on the processes that affect the migration of contamination in fractured-rock terrains. The decrease also reflects the discontinuation or reduction of lower priority projects, including research to identify the processes controlling the exposure of aquatic organisms to pesticides and the resulting ecological effects in the San Francisco Bay-Estuary, and a study to determine whether a range of new "emerging" water contaminants (including human and veterinary antibiotics, prescription and non-prescription drugs, industrial and household chemicals, and hormones) enter natural waters.

Hydrologic Research and Development -$2.454 million: Part of the decrease is attributable to completed research projects, and the remainder reflects a reduction in ongoing but lower priority work on:

- the mobility and degradation of nutrients;
- the effect of human activities on selected watersheds;
- water and contaminant transport through fractured rock;
- "emerging" contaminants that have recently been identified in water resources;
- how microorganisms alter the chemistry and productivity of aquatic environments and potable water supplies.

Hydrologic Networks and Analysis -$2.791 million: This reduction eliminates most of the appropriated funding for the Climate Variability and Change portion of the Global Change Hydrology Program; however, a project to measure and analyze glacier growth and shirinkage would continue. Also, the Hydrologic Research and Development Program would continue to fund some global change research related to biogeochemical budgets and carbon sequestration. The reduction eliminates support for several studies that were begun in FY 2000, including studies of ground water on the island of Molokai, Hawaii, a hydrologic study of Noyes Slough in the area of Fairbanks, Alaska, and a study of ground water in southern Maryland.

Biological Research
Program Decrease Statement

Biological Research and Monitoring (-$3.812 million): Although USGS efforts will continue in the following science topics and subtopics, the individual projects listed are coming to an end in FY 2000 or being curtailed.

Ecosystems (-$0.9 million):
- Wetland projects that address restoration techniques and stress
- Fire ecology projects on fuels and fire frequencies.
- Research on the role of oil and gas platforms on reef fish ecology.
- Ecological process and global change studies.

Wildlife (-$0.7 million):
- Waterfowl, marine mammals and predators studies.

Contaminants (-$0.4 million):
- Abandoned mine lands, metal toxicity studies, and population impacts in large rivers and streams.
- Smelter studies at Coeur d'Alene Basin in Idaho.

Fisheries and Aquatic Systems (-$0.5 million):
- Atlantic salmon biology, Great Lakes fisheries, and upper Mississippi habitat studies.

Endangered and At Risk Species (-$0.5 million):
- West Indian manatee, black-footed ferret, and native Hawaiian birds.

Application of Science Information to Management (-$0.1 million):
- Restoration ecology and adaptive management studies

Status and Trends (-$0.7 million):
- Monitoring activities on fishes in the Great Lakes region, boreal land birds in Alaska, and vegetation and animal communities in western National Parks.
- Methods development for monitoring Federal lands.

Yukon River Chum Salmon Program (-$0.180 million): In FY 2000, the USGS expanded its research on Yukon River salmon to compare fecundity, spawning, hatching survival, and survival of downstream emigrants among tributaries. The USGS proposes to eliminate funding for this project in FY 2001.