

2007 Budget Proposes USGS R&D Cuts

AAAS R&D Funding Update on R&D in the FY 2007 Interior Budget

(This analysis is a preview of the Dept. of the Interior section in the forthcoming *AAAS Report XXXI: Research and Development FY 2007*, a comprehensive look at the President's budget for R&D in FY 2007. This analysis contains revised AAAS estimates of Interior R&D, different from figures originally presented in the President's budget. More tables and continually updated supplemental materials on R&D in the FY 2007 budget can be found on the AAAS R&D Web site at <http://www.aaas.org/spp/rd>.)

Highlights

- **R&D in Interior's lead science agency, the U.S. Geological Survey (USGS), would fall \$27 million or 4.7 percent in the FY 2007 budget** (see Table II-16). As in previous requests, the cuts would be concentrated in USGS' mineral resources and water resources R&D.

- R&D in the Department of the Interior would fall 6.2 percent to \$595 million, keeping agency funding on a downward trend for the entire decade.

USGS R&D in the FY 2007 Budget

The Department of the Interior manages most of the publicly owned lands in the United States, from the national park system to Indian lands to publicly owned mines. R&D to support Interior's land management responsibilities would total \$595 million in the FY 2007 budget, a cut of \$40 million or 6.2 percent from 2006, mirroring proposed cuts in other environmental R&D agencies (see Table II-16).

The **U.S. Geological Survey (USGS)** is the primary sponsor of R&D in Interior. USGS is one of the leading federal sponsors of earth sciences research, along with the Department of Energy, the National Science Foundation, and the National Aeronautics and Space Administration. Within the earth sciences, USGS is particularly important in geological hazards research, including research on earthquakes and volcanoes. USGS is also a leading sponsor of water resources research and biological research. Nearly 90 percent of this research is conducted within Interior labs to address the science needs of Interior's other agencies. Because of these characteristics, USGS is left well out of the spotlight that shines on basic research in the physical sciences in the Bush Administration's American Competitiveness Initiative. While the ACI and FY 2007 budget propose substantial increases for key physical sciences research programs, the Bush Administration proposes \$950 million for the total USGS budget, a cut of \$20 million from 2006 (see Table II-16).

USGS R&D would make up most of the Interior portfolio, totaling \$532 million in the FY 2007 request for a cut of \$27 million or 4.7 percent (see Table II-16). Just over half of the USGS budget is devoted to R&D activities, with the remainder going for science support, data gathering and dissemination, facilities operations, mapping, and natural hazards reduction. **R&D funding would decline in three of the four USGS research divisions**, with only the National Mapping Division proposed to increase.

The Geologic and Mineral Resources Division would see its R&D funding cut \$18 million or 8.6 percent down to \$194 million, but as in past years this proposal is unlikely to make it through Congress. USGS proposes to cut the \$53 million mineral resources R&D program in half to just \$31 million, just as it has in the last several requests. But in past years, Congress has disagreed strongly with USGS' rationale that minerals research could be funded by the private sector, and has repeatedly reaffirmed the federal role in

minerals research with restored funding. The Division's slightly smaller program in energy resources would increase to \$26 million in order to perform oil shale assessments and gas hydrate research mandated by the Energy Policy Act of 2005. There would also be modest increases for the earthquakes hazards research portfolio. In another earth sciences-related division, Mapping and Geography R&D would increase \$6 million to \$46 million, primarily for R&D related to the Landsat 8 satellite scheduled for launch in 2010.

Water resources R&D would fall \$11 million or 8.9 percent to \$115 million, but Congress is likely to reject these cuts as it has for past proposed cuts. USGS puts forward its perennial proposal to eliminate federal funding for the water resources research institutes for a savings of \$6 million in 2007, but Congress has rejected similar proposals in past years and has preserved the federal role in these cooperatively funded institutes. The Cooperative Water Program would decline slightly to \$62 million. This program supports the collection of basic hydrologic data, studies of specific water-resources problems, and hydrologic research through USGS partnerships with state governments and other entities. Funding for the **Toxic Substances Hydrology Program** would fall to \$13 million; the program is a collaborative effort of USGS scientists, university and private-sector researchers, and state, local, and other federal agency scientists to conduct long-term research on water resource contamination in surface and groundwater environments. There would be a slight increase for the **National Water Quality Assessment Program (NAWQA)** to \$63 million; NAWQA is charged with monitoring the nation's water quality, and its data are used by the Environmental Protection Agency (EPA) and many state regulatory agencies. The remaining water portfolio would mostly stay flat, although some funding would be shifted from R&D activities to the mostly non-R&D streamgage network.

USGS biological research programs would fall \$6 million to \$173 million because of the proposed elimination of 2006 earmarks. Within the remaining portfolio, there would be flat funding for most areas. In 2006, emergency funding of \$3.7 million was provided for USGS to initiate an avian flu research program; the program would continue in 2007 with \$3.2 million in funding, a slight reduction because the 2006 funds include one-time purchases of equipment.

Other Interior Agencies

Although USGS is the primary science agency in Interior, four other Interior bureaus also fund R&D (see Table II-16). These include funds for minerals and mining research in the Minerals and Management Service (MMS), wildfire prevention research in the Bureau of Land Management (BLM), water resources research in the Bureau of Reclamation, and R&D for the Florida Everglades restoration and other park-related projects in the National Park Service. R&D in all these bureaus would fall in the FY 2007 request, primarily from the proposed elimination of 2006 congressional earmarks.

Impacts of the FY 2007 Interior Budget

Although physical sciences research would be a high priority in the FY 2007 budget, environmental research funding would decline along with other domestic programs. **The FY 2007 cut to Interior R&D would mark the sixth year out of the last seven that Interior R&D funding has lost ground to inflation** (see Figure 1), and would leave the department more than 25 percent below the funding levels at the beginning of this decade. Interior R&D has declined sharply since FY 1994, primarily because of the elimination of the Bureau of Mines in FY 1996 and the merging of the former National Biological Service into USGS in the mid-1990s. After a large increase in FY 2000, Interior R&D has been mostly flat since then, resulting in steady losses after adjusting for inflation.

Interior support for research has followed trends in Interior R&D, because nearly all of Interior's R&D portfolio is research with only a small amount for development. A third of Interior's research goes to the life sciences, primarily from the Biological Research Division. Life sciences research increased with the creation of the National Biological Service in the early 1990s, but budget cuts in subsequent years have eroded support. Two-thirds of Interior research goes to the environmental sciences, primarily in earth-related fields such as geology. Interior support for environmental sciences research has declined steadily as

the USGS budget has lost purchasing power. Interior used to be a significant supporter of engineering research, but this support was almost entirely eliminated with the closure of the Bureau of Mines.

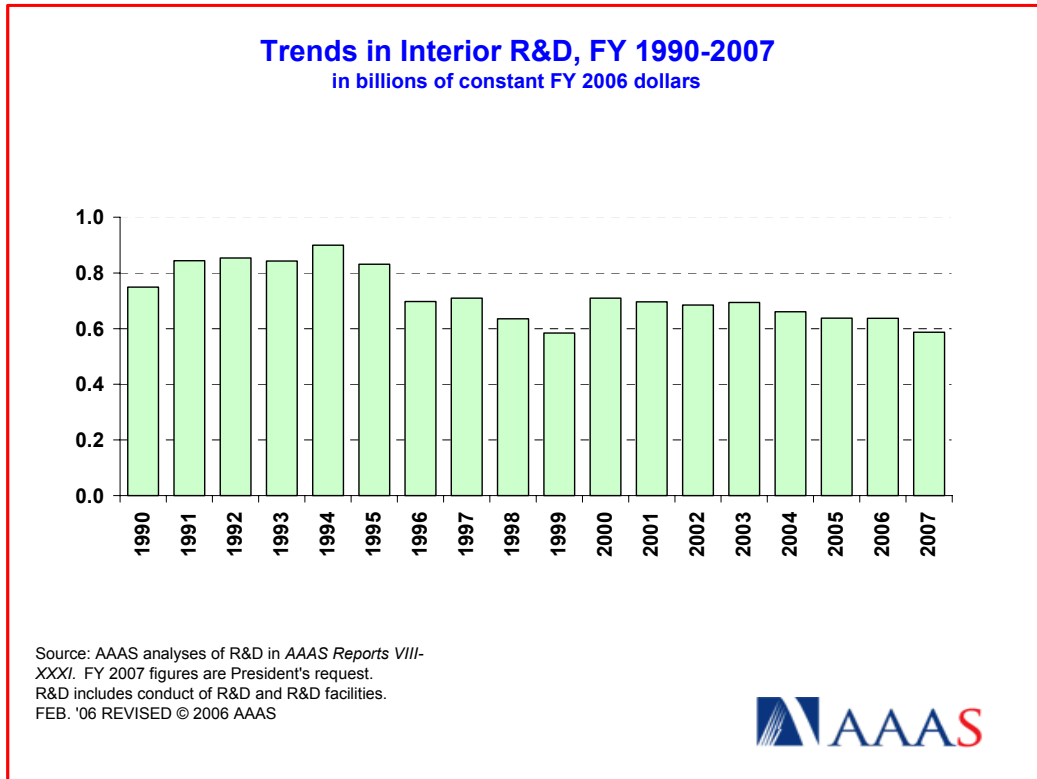


Figure 1. (click on the image for PDF)

Looking to the future, the Bush Administration's outyear budget projections show that in the push to reduce the budget deficit in half over the next few years, USGS will be one of the agencies to sacrifice. Although key physical sciences research agencies would see their R&D budgets increase in 2008 and beyond, the USGS budget is projected to fall in 2008, 2009, and 2010 before rebounding slightly in 2011. After adjusting for inflation, USGS R&D would fall 16.5 percent over the next five years. While Congress will try its best to boost the 2007 request when it begins the FY 2007 appropriations process in late spring, congressional add-ons may end up going to earmarked projects rather than to boost core USGS research programs, leaving most USGS programs on a downward path with further cuts to come.

(More materials on R&D in the FY 2007 budget, historical data and charts, and more information on AAAS Report XXXI: Research and Development FY 2007, can be found on the AAAS R&D Web site at <http://www.aaas.org/spp/rd>.)

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AAAS R&D Budget and Policy Program
1200 New York Avenue, NW
Washington, DC 20005
(202) 326-6607
AAAS R&D Web site: <http://www.aaas.org/spp/rd>



Table II-16. Department of the Interior R&D

Table II-16. R&D in the Department of the Interior
(budget authority in millions of dollars)

	FY 2005 Actual	FY 2006 Estimate	FY 2007 Budget	Change FY 06-07	
				Amount	Percent
U.S. Geological Survey (USGS)					
National Mapping, Geography	36	40	46	6	15.4%
Geologic & Mineral Resources	210	212	194	-18	-8.6%
Water Resources	126	126	115	-11	-8.9%
Biological Research	172	179	173	-6	-3.3%
Enterprise Information	1	1	4	3	180.2%
Total USGS R&D	<u>546</u>	<u>559</u>	<u>532</u>	-27	-4.7%
<i>USGS Non-R&D Items</i>	<u>402</u>	<u>412</u>	<u>419</u>	7	1.6%
<i>Total USGS Budget</i>	<u>949</u>	<u>971</u>	<u>951</u>	-20	-2.0%
Minerals Management Service	30	28	28	0	0.0%
National Park Service	18	19	14	-5	-26.3%
Bureau of Reclamation	15	16	9	-7	-43.8%
Bureau of Land Management	12	13	12	-1	-7.7%
Total Interior R&D	<u>621</u>	<u>635</u>	<u>595</u>	-40	-6.2%

Source: OMB data for R&D for FY 2007 and agency supporting documents.

All figures are rounded to the nearest million. Changes calculated from unrounded figures.

Please see Chapter 13 for a discussion of the Interior budget.

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