

## EPA R&D Funding Falls Again in 2007 Proposal

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

(This analysis is a preview of the EPA 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 EPA 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

- **The Environmental Protection Agency's (EPA) R&D budget would be a proposed \$557 million in FY 2007 (see Table II-17), a \$43 million or 7.1 percent cut after a similar cut in 2006.** Although most of the reduction would be from the proposed elimination of 2006 congressional earmarks, funding for most EPA research areas would decline, with the major exception of homeland security R&D.

- **EPA's overall budget would fall \$310 million or 4.1 percent to \$7.3 billion, again after a similar cut in 2006. The Bush Administration proposes to dramatically reduce State and Tribal Assistance Grants funding by 11 percent down to \$2.8 billion.**

- **EPA's R&D funding would fall to the lowest level in two decades (since 1987) in real terms.**

#### EPA R&D in the FY 2007 Budget

The Environmental Protection Agency (EPA), the primary regulatory agency for the U.S. environment, funds a broad portfolio of R&D to meet the science and technology needs of its regulatory and enforcement responsibilities. Mirroring trends in the overall EPA budget, the FY 2007 request would cut EPA's R&D funding by \$43 million or 7.1 percent to \$557 million in 2007 following a similarly sized cut in the final 2006 budget (see Table II-17). Most of the cut would be from the elimination of \$33 million in congressionally earmarked 2006 projects from the 2007 request, but the remaining \$10 million cut would be distributed across the broad EPA R&D portfolio, with only clean air and homeland security research slated to receive increases.

EPA's R&D is managed by its Office of Research and Development (ORD), which funds both R&D at EPA laboratories around the country and external R&D, mostly at universities. Nearly all of EPA's R&D comes from the Science and Technology (S&T) budget account, which would total \$788 million in 2007, an increase of 8.0 percent. R&D makes up most but not all of the S&T account. Subtracting non-R&D items such as critical infrastructure protection, operating overhead costs, and clean air standards and certification activities leaves an R&D portfolio of \$528 million from S&T, down 7.1 percent. R&D would fall even as the overall budget increases because funding for non-R&D activities would increase dramatically from a transfer in operating costs from the Environmental Programs and Management (EPM) account to S&T. ORD also receives R&D funding from the Superfund program (down \$3 million to \$30 million) for hazardous wastes research, and small amounts of funding from other EPA accounts.

Congressional earmarks account for much of the decline in the most recent two years for EPA's R&D portfolio. Congressionally designated R&D projects totaled \$74 million in 2005; appropriators showed some restraint in 2006 in providing only \$33 million for earmarks, while the 2007 request continues the standard agency practice of deleting earmarks from the budget request. But because total R&D funding

would decline \$10 million more than the \$74 million earmarks reduction over two years, most core EPA R&D programs would receive slight increases in 2006, but cuts in 2007. Clean air research would fall \$6 million down to \$95 million after an increase in 2006; within the portfolio, global change research would be \$17 million (down \$1 million for the second year in a row). Human health and ecosystems research, the largest part of the ORD portfolio, would fall \$10 million to \$238 million, with an increase in the computational toxicology program offset by cuts in other areas such as endocrine disruptor research and human health risk assessment. Within this portfolio, there would be a nearly one-third reduction in funding for fellowships down to \$8 million, which would discontinue support for up to 37 fellows receiving EPA support for their studies in environmental fields.

Homeland security related R&D, however, would continue to be a growth area in the portfolio, rising from \$23 million to \$30 million this year and up to \$38 million in 2007. Some of this effort is devoted to protecting drinking water supplies against terrorist attack through vulnerability assessments and a laboratory network for surveillance. This portfolio also funds EPA’s National Homeland Security Research Center (NHSRC) to conduct R&D on a wide variety of terrorist threats that may have an impact on the natural environment, such as radiation, drinking water contamination, and the environmental impacts of cleanup technologies after a terrorist attack. Another area proposed for an increase is clean water research, up \$10 million to \$106 million for drinking water and water quality research.

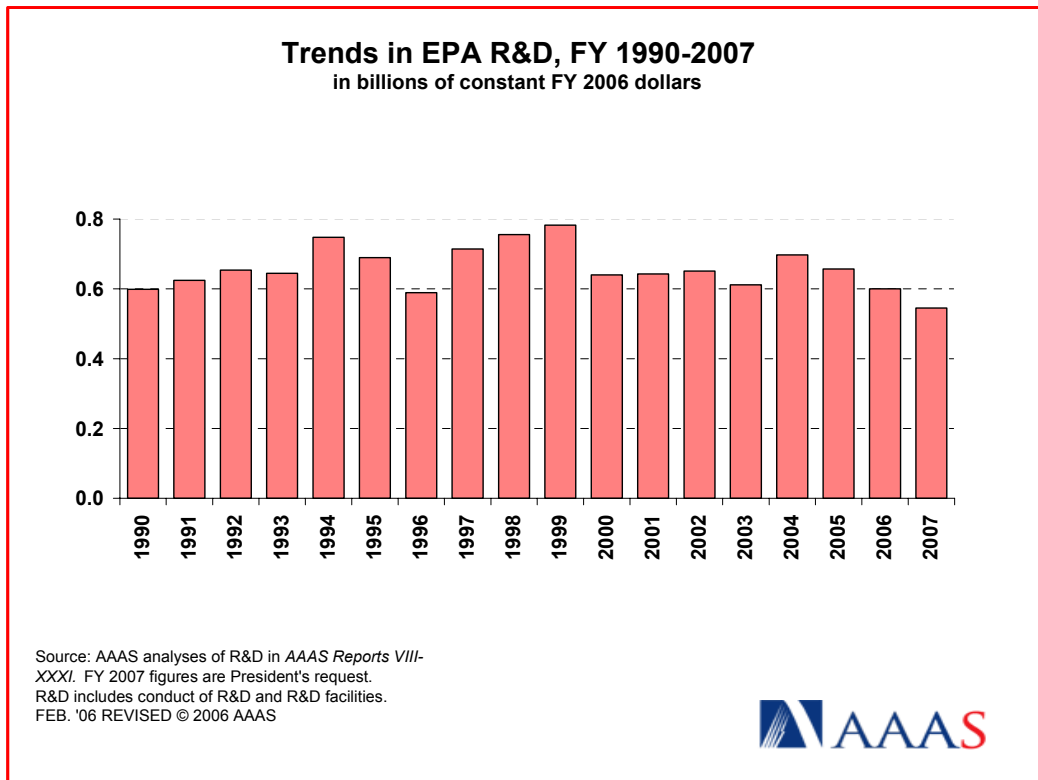


Figure 1. (click on the image for PDF)

EPA’s S&T investments are a small part of the overall EPA portfolio, and are designed to support EPA’s regulatory and enforcement missions. EPA’s total budget would fall from \$7.6 billion down to \$7.3 billion, a reduction of 4.1 percent after a similar cut in 2006 (see Table II-17). EPA would steeply reduce funding for the State and Tribal Assistance Grants (STG) program by 11 percent down to \$2.8 billion. Most of this money goes to state, local, and tribal governments to fund environmental projects, primarily projects to preserve clean drinking water, and much of the requested cut is due to the elimination of congressional earmarks. The Environmental Programs and Management (EPM) account that funds most of EPA’s regulatory work would also fall, by \$38 million to \$2.3 billion, but most of the cut is due to a transfer of

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funding to the S&T account as well as the proposed elimination of earmarks, resulting in a slight increase for like programs.

### **Outlook and Impacts for the EPA Budget**

EPA's basic and applied research support (excluding development and R&D facilities) comprises the large majority (80 percent) of EPA's R&D. The largest part of EPA's research is in the life sciences (primarily biology and environmental biology), with significant support for the environmental sciences and engineering as well. Although EPA is the major environmental regulatory agency in the federal government, many other agencies have environmental responsibilities related to research, resource stewardship, and economic management of the environment, so EPA is a relatively small funding source for environmental R&D. In the environmental sciences, EPA accounts for only 4 percent of total federal support, while in the life sciences EPA funds less than 1 percent.

Roughly 47 percent of EPA's R&D is performed in the agency's own laboratories, while about 10 percent is performed by industrial firms. Nearly a third of EPA's R&D is performed by colleges and universities, a share that has been growing in recent years as EPA has attempted to expand its links with academia through its Science to Achieve Results (STAR) program. The remainder is performed by nonprofit institutions and state and local governments.

Although physical sciences research would be a high priority in the FY 2007 budget, environmental research would share the fate of other domestic programs in tight budgetary conditions. In inflation-adjusted dollars, **EPA R&D would fall to the lowest funding level in two decades (since 1987) if the FY 2007 budget becomes final.** EPA's R&D support has been declining slowly for the past few years after steady growth in the late 1990s (see Figure 1). EPA R&D fell in FY 2000, and has eroded in inflation-adjusted dollars since then except for a one-time boost in FY 2004 for homeland security-related R&D.

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 EPA will be one of the agencies slated to sacrifice. Although key physical sciences research agencies would see their R&D budgets increase in 2008 and beyond, funding for EPA's S&T account is projected to fall in 2008, 2009, and 2010 before rebounding slightly in 2011. After adjusting for inflation, EPA R&D could fall a further 16 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 EPA research programs, leaving most EPA research 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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Table II-17. Environmental Protection Agency R&amp;D

**Table II-17.** R&D in the Environmental Protection Agency  
(budget authority in millions of dollars)

	FY 2005 Actual	FY 2006 Estimate	FY 2007 Budget	Change FY 06-07 Amount Percent	
<b>EPA R&amp;D by account:</b>					
Science and Technology <sup>1</sup>	599	568	<b>528</b>	-40	-7.1%
<i>Congressional Projects</i>	74	33	<b>0</b>	-33	-100.0%
<i>Clean Air</i>	97	102	<b>95</b>	-6	-6.3%
<i>Clean Water</i>	93	96	<b>106</b>	10	10.2%
<i>Human Health &amp; Ecosystems</i>	242	238	<b>228</b>	-10	-4.0%
<i>Land Protection</i>	10	12	<b>11</b>	-1	-9.1%
<i>Sustainability</i>	42	31	<b>24</b>	-7	-23.3%
<i>Pesticides and Toxics</i>	28	30	<b>26</b>	-4	-13.6%
<i>Homeland Security</i>	23	30	<b>38</b>	8	26.3%
<i>BA adjustment</i>	-11	-3	<b>0</b>	4	-101.7%
Superfund	39	30	<b>28</b>	-3	-8.3%
Leaking Undergrd. Storage Tanks	1	1	<b>1</b>	0	0.0%
Oil Spill Response	1	1	<b>1</b>	0	0.0%
Environmental Progs. and Mngmt.	2	0	<b>0</b>	0	--
<b>Total EPA R&amp;D</b>	641	600	<b>557</b>	-43	-7.1%
<b>EPA Budget (Includes R&amp;D components above):</b>					
Science and Technology <sup>1</sup>	743	730	<b>788</b>	58	8.0%
Environmental Progs. and Mngmt.	2,299	2,345	<b>2,307</b>	-38	-1.6%
Superfund	1,247	1,231	<b>1,259</b>	28	2.3%
State and Tribal Assistance Grants	3,575	3,148	<b>2,797</b>	-350	-11.1%
Buildings and Facilities	42	40	<b>40</b>	0	0.5%
Leaking Undergrd. Storage Tanks	69	80	<b>73</b>	-7	-9.0%
Oil Spill Response	16	16	<b>17</b>	1	5.6%
Inspector General	38	37	<b>35</b>	-2	-4.9%
<b>Total EPA Appropriations</b>	8,029	7,625	<b>7,315</b>	-310	-4.1%

Source: OMB data for R&D for FY 2007, agency budget justification, information from agency budget office, and *Budget of the United States Government FY 2007*.

Discretionary budget authority only. Excludes mandatory spending and offsets.

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

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<sup>1</sup> Excludes transfers from Superfund (see Superfund line).

**Please see Chapter 13 for a discussion of EPA R&D.**