

National Council for Science and the Environment

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Testimony of the NATIONAL COUNCIL FOR SCIENCE AND THE ENVIRONMENT Craig M. Schiffries, Ph.D., Senior Scientist

Regarding the U.S. GEOLOGICAL SURVEY and ENVIRONMENTAL PROTECTION AGENCY FY 2007 Budget Request

To the
UNITES STATES SENATE
Committee on Appropriations
Subcommittee on Interior and Related Agencies
April 28, 2006

Summary

The National Council for Science and the Environment (NCSE) urges Congress to appropriate \$1.2 billion for the U.S. Geological Survey (USGS) in FY 2007. NCSE recommends a minimum funding level of \$900 million for the Environmental Protection Agency's (EPA) Science and Technology account, including at least \$150 million for the Science to Achieve Results (STAR) research grants program and \$20 million for the STAR graduate fellowship program, as well as \$10 million for the Office of Environmental Education.

The National Council for Science and the Environment is dedicated to *improving the scientific basis for environmental decisionmaking*. We are supported by over 500 organizations, including universities, scientific societies, government associations, businesses and chambers of commerce, and environmental and other civic organizations. NCSE promotes science and its essential role in decisionmaking but does not take positions on environmental issues themselves.

U.S. Geological Survey

The vital importance of the U.S. Geological Survey in protecting public safety has been brought home by a series of devastating natural disasters over the past several years. Investments in the USGS pay enormous dividends by reducing risks from earthquakes, tsunamis, floods, hurricanes, landslides, wildfires, and volcanic eruptions. The USGS plays a pivotal role in preventing natural hazards from becoming natural disasters. Likewise, the USGS helps provide a scientific basis for managing critical natural resources – from energy to wildlife to water resources.

As a founding member and co-chair of the USGS Coalition, NCSE joins with nearly 70 other organizations in recommending an appropriation of \$1.2 billion for the USGS in FY 2007. This increase would enable the USGS to restore the science cuts proposed in the budget request, accelerate the timetable for deployment of critical projects (*e.g.*, Advanced National Seismic System, National Map, and National Streamflow Information Program), and launch new science initiatives that would begin to reverse the cumulative effects of the long-term funding shortfall that has left the USGS budget stagnant for the past decade.

The President's budget request would cut funding for the USGS by \$20.6 million or 2.1 percent to \$944.8 million. In real dollars, the USGS budget would fall to its lowest level since 1996, when the National Biological Service was integrated into the USGS. The FY 2007 request would add \$40.1 million in new programs and fixed costs, which would be offset by redirecting \$50.7 million from "lower priority" activities and eliminating \$10.0 million in earmarked funds, according to USGS budget documents.

Funding is requested for a multi-hazards pilot initiative, development of Landsat 8, increased energy research, and regular testing for avian influenza in wild birds as part of an expanding detection effort. These and other USGS initiatives deserve the support of Congress.

Two proposed large program cuts are of special concern to NCSE. First, \$22.0 million would be cut from the Mineral Resources program, a devastating 42 percent decrease in funding. Second, the entire \$6.4 million budget for the Water Resources Research Institutes, which are located in all 50 states, would be eliminated. These and other proposed budget cuts would adversely affect the ability of the USGS to achieve its mission. We encourage Congress to restore the cuts, but this funding should not come at the expense of other high priority programs in the USGS.

The USGS Mineral Resources program is an essential source of objective guidance and unbiased research on our mineral resources that helps guide economic development of natural resources and protection of the environment. This guidance and research is important to reduce the environmental impacts of mining and to maintain the growing value of processed materials from mineral resources that accounted for \$478 billion in the U.S. economy in 2005, an increase of 8 percent over the previous year. The proposed cuts in the Minerals program would terminate multidisciplinary research that has important implications for public health (such as studies on mercury, arsenic and other inorganic toxins), environmental protection, infrastructure, economic development, and national security.

The Water Resources Research Institutes have been highly successful in developing cooperative programs that leverage federal investments with funds from other sources. The proposal to eliminate all funding for this partnership is inconsistent with guidance from the House Appropriations Committee: "The Administration has placed a high priority on cooperative programs that leverage funds from State and local governments as well as private entities. The Committee believes that Bureaus that are successful in implementing these policies should be rewarded and not penalized" (H.Rpt. 108-542).

The request includes an increase of \$20.7 million for non-discretionary "fixed cost" increases (such as salaries and rent), of which \$15.2 million are budgeted and \$5.5 million are "absorbed." The cumulative effect of absorbing fixed cost increases over many years has had a disproportionate impact on core USGS programs which cannot absorb cuts without affecting scientific research and monitoring activities. Without full funding of fixed cost increases, the USGS may be forced to curtail ongoing activities, hindering or preventing the delivery of data needed by resource managers and emergency planners. This would increase our vulnerability to disasters and increase the costs of recovery.

In addition to restoring the proposed program cuts, we encourage Congress to provide additional increases that would enable the USGS to meet the tremendous need for science in support of decisionmaking. More investment is needed to strengthen USGS partnerships, improve monitoring networks, produce high-quality digital geospatial data and deliver the best possible

science to address societally important problems. The USGS has a national mission that addresses the needs of all citizens through natural hazards monitoring, drinking water studies, biological and geological resource assessments, and other activities.

From 1996 to 2006, total federal funding for research and development has risen by 55 percent from \$87 billion to \$134 billion in constant dollars. By contrast, real funding for the USGS has been nearly flat after adjusting for inflation. Even this flat funding for the USGS reflects congressional restoration of proposed budget cuts.

We encourage Congress to provide the USGS with a budget that will allow for the growth necessary to address emerging needs for science. After years of stagnant funding and absorption of uncontrollable cost increases, the USGS has a large and growing backlog of monitoring and science needs.

The National Council for Science and the Environment urges Congress to appropriate \$1.2 billion for the USGS in FY 2007. This investment will help the USGS improve monitoring networks, strengthen partnerships, produce high-quality data, and deliver impartial science that serves the needs of the nation.

Environmental Protection Agency

In order to fulfill its mission, the U.S. Environmental Protection Agency (EPA) needs increased investments in both its intramural and extramural science programs. The National Council for Science and the Environment (NCSE) urges Congress to appropriate a minimum of \$700 million for EPA's Office of Research and Development (bringing it back to FY 2004 levels), including at least \$150 million for EPA's Science to Achieve Results (STAR) research grants program and \$20 million for EPA's STAR graduate fellowship program. We recommend a total of \$900 million for EPA's Science and Technology account. NCSE also urges Congress to restore full funding for the Office of Environmental Education at a level of at least \$10 million.

EPA's research and development portfolio has stagnated while the complexity of environmental challenges continues to grow. In real dollar terms, EPA's funding of science has been nearly unchanged for more than two decades. Under the FY 2007 budget request, funding for EPA's R&D portfolio would fall to its lowest level since 1987.

EPA's strategic plan calls for science-based decisionmaking, but the agency will be unable to achieve this goal if its capacity to conduct science is not improved. According to its strategic plan, "EPA has identified reliance on sound science and credible data among the guiding principles we will follow to fulfill our mission to protect human health and the environment." EPA needs to reverse the decline in its capacity to conduct science in order to fulfill its mission.

Under the President's FY 2007 budget, EPA's total budget would decline by \$310 million or 4.1 percent to \$7.3 billion, after a similar cut in FY 2006. EPA's R&D portfolio would be cut by \$43 million or 7.1 percent to \$557 million, after a similar cut in FY 2006. Funding for most EPA research areas would decline. If EPA's FY 2007 budget proposal is enacted, funding for the Office of Research and Development would be \$90 million or 14 percent below its peak funding level of \$646.5 million in FY 2004.

EPA created the extramural Science to Achieve Results (STAR) program as part of a set of reforms to EPA science proposed by the National Academy of Sciences in the 1990s. The STAR research grants program expands the scientific expertise available to EPA by awarding

competitive grants to universities and independent institutions in order to investigate scientific questions of particular relevance to the agency's mission.

The EPA's STAR program has been widely praised. The National Academies issued a laudatory report, *The Measure of STAR*, which concludes that the program supports excellent science that is directly relevant to the agency's mission. It says, "The STAR program should continue to be an important part of EPA's research program." According to the report, the STAR program has "yielded significant new findings and knowledge critical for regulatory decision making." The report says, "The program has established and maintains a high degree of scientific excellence." It also concludes, "The STAR program funds important research that is not conducted or funded by other agencies. The STAR program has also made commendable efforts to leverage funds through establishment of research partnerships with other agencies and organizations."

The EPA STAR research program compares favorably with programs at other science agencies. According to the National Academies report, "The STAR program has developed a grant-award process that compares favorably with and in some ways exceeds that in place at other agencies that have extramural research programs, such as the National Science Foundation and the National Institute of Environmental Health Sciences."

Funding for the STAR program has been cut repeatedly over the past several years. The FY 2007 request for the STAR research grants program is \$65.3 million, which is 38 percent below the FY 2004 request of \$104.7 million and 24 percent below the FY 2004 enacted level. NCSE proposes that the STAR research budget be increased to \$150 million, which would allow expansion of areas and scientists supported and would send a signal that Congress is serious about science for environmental decisionmaking.

EPA created the STAR graduate fellowship program to ensure a strong supply of future environmental scientists and engineers. It is the *only* federal program aimed specifically at students pursuing advanced degrees in environmental sciences. According to the National Academies, "The STAR fellowship program is a valuable mechanism for enabling a continuing supply of graduate students in environmental sciences and engineering to help build a stronger scientific foundation for the nation's environmental research and management efforts."

For the fifth consecutive year, the President's budget request has proposed deep cuts in the STAR graduate fellowship program. Congress restored full funding in each previous year. The FY 2007 budget request would cut funding by 26 percent in FY 2007. The current level of funding is insufficient to allow all students whose applications are rated as excellent to receive fellowships and it is insufficient to meet national needs for a scientifically trained workforce. NCSE recommends doubling the funding for STAR fellowships to \$20 million, which can be accomplished without any decrease in the quality of the awardees.

The FY 2007 budget request proposes no funding for the EPA Office of Environmental Education. NCSE strongly encourages Congress to restore full funding of at least \$10 million to support the congressionally mandated programs administered by this office. These programs provide national leadership for environmental education at the local, state, national and international levels, encourage careers related to the environment, and leverage non-federal investment in environmental education and training programs.