HYDROLOGY

USGS Braces for Severe Budget Cuts

When the Department of the Interior (DOI) unveiled its budget request last month, the news was gloomy for the U.S. Geological Survey (USGS): The low-profile agency is slated for a 7.9% cut in fiscal year 2002, which starts on 1 October. It's a victim of DOI's scramble to reduce its overall budget by 3.7% while boosting big-ticket items such as repairs to Bureau of Indian Affairs schools promised during the election campaign. Hardest hit within the USGS is the water resources division, which provides a wealth of data that underlie research and regulation.

High and dry? All of the USGS's toxic-hydrology research would be shut down under the proposed budget, unless co-funders can be found.

The proposed cuts have shocked state water-quality agencies, civil engineers, and other groups that use USGS research. "We're extremely concerned about this," says Erik Olson of the Natural Resources Defense Council, an environmental organization based in New York City. "It would make it almost impossible for the federal government to have a meaningful understanding of water quality in the United States."

DOI says it doesn't intend to eliminate or scale back these programs; it just wants users to help pay for the data. The trouble is that cost-sharing arrangements haven't been set up yet, and USGS officials warn that cutting the budget in the meantime will shut down research, eliminate at least 506 jobs, and create logistical problems that will ultimately raise costs. Congress began picking over the budget request in detail this week; USGS scientists are hoping that several well-placed supporters in the appropriation subcommittees will come to the rescue, but the outlook is uncertain.

Facing the biggest cut—a 71% drop to $4 million—is the Toxic Substances Hydrology Program. All its research would be shut down. Since 1982, this program has studied how contaminants move and break down over years in heavily instrumented aquifers and throughout watersheds. "This is expensive [research], and it requires a lot of high-level scientific expertise," says Bruce Rittman, a civil engineer at Northwestern University in Evanston, Illinois, who chaired a National Research Council review on in situ bioremediation. "The USGS really has been the most thorough and successful at putting these programs together." Rittman adds that the USGS has examined only a fraction of contamination settings so far.

Another hard-hit program is the National Water Quality Assessment (NAWQA). Its funding would drop by 30% to $45 million. The program has been running for 10 years as a long-term evaluation of different kinds of watersheds and aquifers. "It's the only program we have that really begins to assess the status and look at trends in the nation's water quality," says George Hallberg, a hydrogeologist with The Cadmus Group in Waltham, Massachusetts, who chairs a National Academy of Sciences review committee on NAWQA.

The cuts could force the USGS to prune NAWQA from 42 sites to 24, which would mean that some environmental settings would not be studied at all. "You reach a point of diminishing returns," Hallberg says. "You just can't keep reducing the size and call it a national program." The program had originally intended to include 60 sites, but those plans were scaled back in previous budgets.

DOI hopes to soften the cuts by having USGS share costs with users of its data. Observers point to several potential problems with that plan. One is that states and regulatory agencies would bring their own research agendas to the table. USGS scientists fear that might balkanize what is supposed to be a program with national standards. Moreover, cost-sharing projects often last only a few years—not long enough to spot trends in water quality.

Some observers also worry that Environmental Protection Agency (EPA) funding of USGS research might taint the results. "The risk is that users may view the information as less credible because it comes from an agency that has a political rather than a scientific agenda," says David Blockstein of the National Council for Science and the Environment in Washington, D.C. Those concerns could be moot, as EPA and other agencies may be unable to pay for USGS basic research. EPA's own R&D budget, for example, is slated for a 6.8% cut.

Congressional staffers say they don't know what will happen in the appropriations subcommittees, because they don't yet know how much maneuvering room they will have. That will become clearer in the next month, when the committees learn how much money they can spread among the agencies. Many fingers are crossed that it will be enough to prevent USGS water resources research from drying up.

–ERIK STOKSTAD

UNIVERSITIES

Princeton Picks Biologist Tilghman as President

Princeton University named Shirley Tilghman its president on 5 May, making her the first woman to hold that post and the first prominent genome leader to head a major university. Tilghman will take the helm in June, succeeding Harold Shapiro, who announced last fall that he was ready to step down after 13 years.

Tilghman, 54, is known for her research on "imprinting"—the subtle chemistry by which mammalian cells suppress genes from one parent while allowing other genes to be expressed. But she's also valued as a clear-headed policy adviser and teacher. "Shirley is capable of sorting through complex issues and coming up with the ideal solution—just what you want in a university president," says Francis Collins, director of the U.S. National Human Genome Research

Breeze in the ivy. Biologist Shirley Tilghman will be Princeton's first woman president.

CREDITS: (TOP TO BOTTOM) USGS; DENISE APPLEWHITE/PRINCETON UNIVERSITY