USGS
science for a changing world

Science for America

For FY 2008, the President proposes the following increases to support science activities for the U.S. Geological Survey and the Department of the Interior. The total budget is $975.0 million for the U.S. Geological Survey (USGS) in Fiscal Year 2008.

Healthy Lands

In the Green River Basin of Wyoming, requirements for energy development and recreation face increasing competition with the needs of species, habitat, and long-term conservation goals. Sagebrush habitat, which supports significant numbers of plants and animals, including species that are candidates for federal listing under the Endangered Species Act or are already listed as threatened or endangered, is of particular concern to DOI and the USGS. The proposed $5 million increase will build on existing USGS studies to examine the environmental impacts of natural events and land-use change. USGS scientists are beginning a project to model at a landscape scale the relationships among sagebrush habitats and wildlife species located in this habitat. This project will provide the foundation to begin understanding the cumulative effects of energy extraction and habitat loss on the health of species such as sage grouse. The USGS will incorporate data from this project into an information management system that will be available to BLM, FWS, and other land and resource managers, providing them with the tools they need to evaluate management options and make sound decisions that protect landscapes and species while ensuring that energy resources are available for the Nation.

More information on the Department of the Interior's Healthy Lands Initiative is available at www.wlci.gov. Information about USGS research in Wyoming is available at http://biology.usgs.gov/cro/ScienceInYourState/Wyoming/WY-brd.htm

Healthy Coasts and Oceans

More and more people are moving to the Nation's coasts, placing increasing demands on coastal and near-shore environments. The President's Ocean Action Plan provides a total of $3 million for the USGS to begin addressing two key components of the Plan in partnership with other Federal, regional, State, and local partners. A proposed increase of $1.5 million will enable the Coastal and Marine Geology program to begin work on forecasting the response of coastal ecosystems to extreme events, such as coastal hurricanes, floods, and landslides, as well as human influences. The USGS will be refining observational networks and developing forecast models to help decision makers prepare for extreme weather events, natural disasters, and human influences on coastal environments. Understanding how nutrients, pathogens, and other contaminants move through coastal watersheds is also essential to healthy coastal communities and ecosystems. To improve this understanding, the budget includes an increase of $1.5 million in the Hydrologic Networks and Analysis program, to begin implementing an interagency National Water Quality Monitoring Network that will address and integrate watershed, coastal waters, and ocean monitoring.

More information on USGS coastal and marine research and monitoring is available at http://marine.usgs.gov/

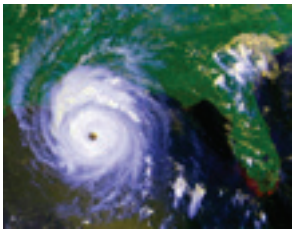
Tracking the Flow

Information on the quantity and timing of the streamflow in the Nation's rivers is a vital asset that safeguards lives and property and helps to ensure adequate water resources for a healthy environment and economy. The USGS operates and maintains about 7,400 streamgages that provide long-term, accurate, and unbiased information to meet the needs of many diverse users. The streamgages are funded in partnership with 800 cooperating agencies. USGS flood hazard experts work closely with local, State, and Federal partners to reduce the toll of flood disasters across the Nation. USGS streamflow information is crucial to the success of the National Weather Service's flood forecasting service. The proposed budget increases funding for USGS streamgaging by $1.4 million over the FY 2007 request. The additional funds will provide the USGS with needed flexibility to continue operating gages at high-priority sites identified as "Federal interest" streamgages in the NSIP plan and restart some streamgages that have been shut down in recent years due to the loss of partner funding. The funding requested for FY 2008 will help to ease the impact of funding pressures among the network's partner agencies nationwide. In addition, the funds will provide resources for technological investments that will make the entire

network more cost-efficient in the long term. These investments include procurement or development of improved software for data collection and data processing, and new instruments that are more reliable or make the data collection process more efficient and safer for the technicians who go into the field to make measurements during floods.

More information on the National Streamflow Information Program is available online at http://water.usgs.gov/nsip/

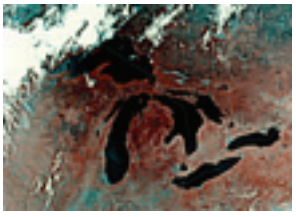
Safer Communities



The FY 2008 request includes an increase of $250,000, which builds on the increases requested in the FY 2007 for the Multihazards Demonstration Project and will continue to enhance our hazards research and monitoring efforts. $100,000 will be used to deploy three additional streamgages to fill critical gaps in real-time coverage in Southern California. These streamgages will have the ability to transmit data in real time via satellite telemetry for use in flood, landslide and debris-flow forecasts and warning. The increase also includes $150,000 to enhance storm-surge monitoring, in order to provide the National Weather Service and emergency managers with visualization of storm surge, so they can more effectively respond during a hurricane.

More information on USGS hazards research and monitoring is available online at http://www.usgs.gov/hazards/

Keeping an Eye on a Changing World



For 35 years, Landsat satellites have provided the Nation's decision makers and the public with high quality images of the entire Earth's land surface. These images are vital in assessing natural disasters; supporting agricultural analyses; studying global climate and land use changes; and providing data for national security, economic, and other scientific applications. The FY 2008 budget includes funds to ensure continued availability of Earth observation data to government, academic, commercial, and international users. The budget continues to provide for the operations and maintenance of Landsats 5 and 7.

In addition, the FY 2008 budget provides $24 million for the Landsat Data Continuity Mission (LDCM) to develop the ground data processing and flight operations systems in preparation for the next Landsat satellite, scheduled for launch in 2011. The USGS and National Aeronautics and Space Administration are working in partnership to produce an integrated Landsat ground and space system. LDCM will ensure that the United States maintains its global technological and scientific leadership in land imaging operations and preserves the Nation's commitment to continuous observation and analysis of our dynamic planet.

More information about Landsat Data Continuity Mission is available at http://landsat7.usgs.gov/index.php

Continuing the Legacy at Patuxent

The year 2007 marks the 100th anniversary of Rachel Carson's birth. Most of her research was done at the Patuxent Wildlife Research Center, at that time part of the Fish and Wildlife Service. This nationally recognized center for research on endangered whooping cranes and other biological issues began operation in 1936, but it is aging—most buildings onsite are more than 60 years old. Despite maintenance efforts, the water and electrical utilities are at the end of their usable lifespan. Other problems include inadequate staff quarters and unsafe office and lab conditions. To complicate the renovations further, repairs must not interfere with the highly specific requirements to meet the continuing needs of wildlife research at the Center. The proposed increase of $4.7 million will be used to begin work on water, sewer, and electrical utilities. The antiquated water and sewer lines will be replaced with systems connected to local public utility systems, and improvements to the electrical utility infrastructure will ensure uninterrupted power supply to all facility buildings, equipment, and essential systems. Making improvements to the facilities where Carson worked to understand the impacts of pesticides on the environment is a good way to celebrate her legacy.

More information on the Patuxent Wildlife Research Center is available at http://www.pwrc.usgs.gov/.

More information on the USGS FY 2008 budget request is available from the USGS home page at www.usgs.gov .