

# Assessing Our Natural Resources

## Providing Vital Information for Our Nation's Future

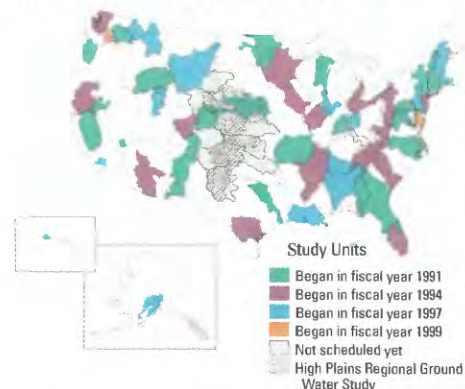
### Natural Resources - Our Nation's Treasures

Natural resources – water, minerals, coal, oil, gas, living things, and the land itself – are this Nation's treasures. To be effective stewards of these valuable resources, our Nation must constantly advance our scientific knowledge and understanding. Decision makers must know how natural resources may be affected by changes in the demand for or use of them, and what impact these changes may have on our economy, our environment, and our quality of life. **USGS natural resource assessment programs help ensure that our leaders have the information they need to make informed decisions about our natural resources, now and in the future.**

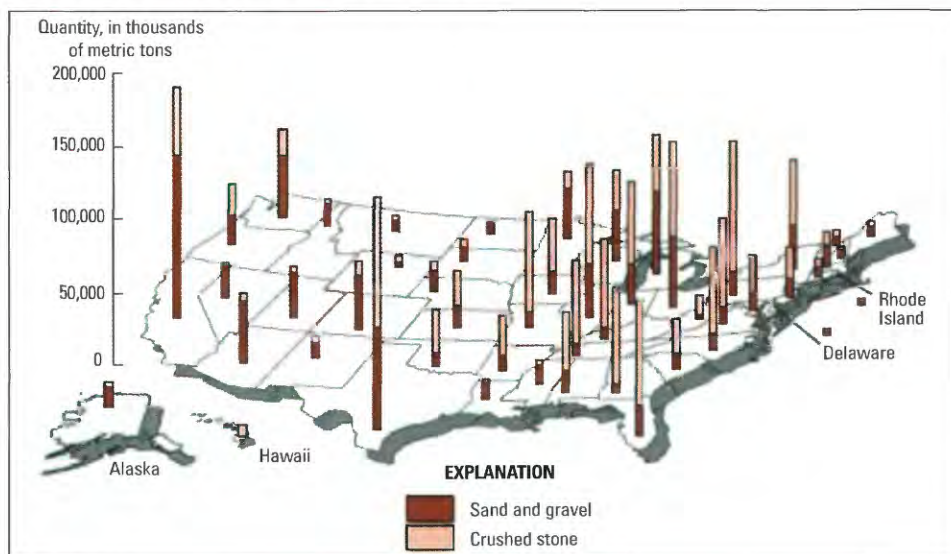
### USGS Natural Resource Assessment Programs

#### Water Resources

- National Water Quality Assessment (NAWQA) Program – Assesses the occurrence, distribution, and fate of chemical contaminants in water, bottom sediments, and the tissues of living things, to understand and monitor changes in the quality of our Nation's freshwater resources. **The NAWQA program provides a thorough understanding of the natural and human factors that affect U.S. rivers, lakes, and**



National Water Quality Assessment Program



Production of crushed stone and sand and gravel, by State.

**ground water.** To find more information on the Internet, go to [http://wwwrvares.er.usgs.gov/nawqa/nawqa\\_home.html](http://wwwrvares.er.usgs.gov/nawqa/nawqa_home.html).

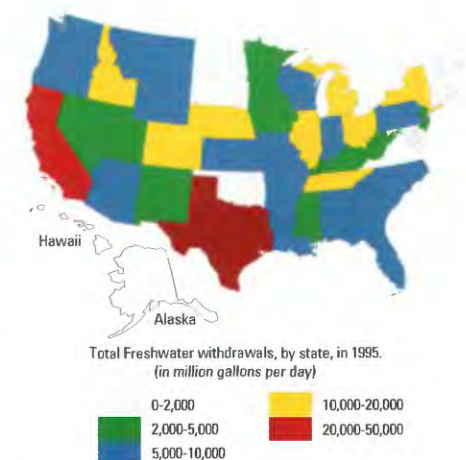
- National Water-Use Information Program – Compiles water-use data from hundreds of thousands of sites nationwide. It provides invaluable information concerning how our water is being used and how much of it is being used. **This information helps guide local and national water management policies, regulations, and conservation activities.** To find more information on the Internet, go to <http://water.usgs.gov/watuse/>.

#### Mineral Resources

- Mineral Resource Assessments – Provide information and analyses of the Nation's undiscovered metallic and industrial (sand and gravel and crushed stone) minerals. **The results of these studies are crucial to Federal, State, and local land-use managers in planning mineral resource development for the future and using reclamation practices that ensure environmental health.** To find more information on the Internet, go to <http://minerals.er.usgs.gov/>.

#### Energy Resources

- National Oil and Gas Assessment – Provides scientifically based estimates of untapped oil and gas deposits in the United States. **These estimates of future energy resources are used to help shape national energy policies, make wise decisions regarding Federal land use, and maintain a healthy domestic energy industry.** To find more information on the Internet, go to <http://energy.usgs.gov/projects.html>.





- **National Coal Resources Assessment** – Determines the location, quantity, and quality of coal beds and coal zones that will likely **provide the bulk of the Nation's coal-derived energy over the next quarter of a century and beyond.** To find more information on the Internet, go to <http://energy.usgs.gov/projects.html>.

- **World Energy Assessment** – Assesses global energy resources to enable U.S. leaders to maintain a current and objective knowledge of the world's remaining oil, gas, and coal reserves. **The United States currently imports about half of its yearly oil supply.** To find more information on the Internet, go to <http://energy.usgs.gov/projects.html>.

## Biological Resources

- **North American Breeding Bird Survey (BBS)** – Provides the BBS database, containing more than 30 years of annual records of breeding-bird counts over 3,500 survey routes across the continental United States and southern Canada. **The BBS provides a unique window into the population status of migratory and resident birds and can serve as an early warning system for declining species.** To find more information on the Internet, go to <http://www.mpl-pwrc.usgs.gov/bbs/bbs.html>.

- **Non-Indigenous Aquatic Species** – Supports effective prevention, detection, monitoring, and control strategies for the spread of invasive species such as the zebra mussel. Invasive species often disrupt ecological relationships in native plant and animal communities and can also have a significant economic impact.

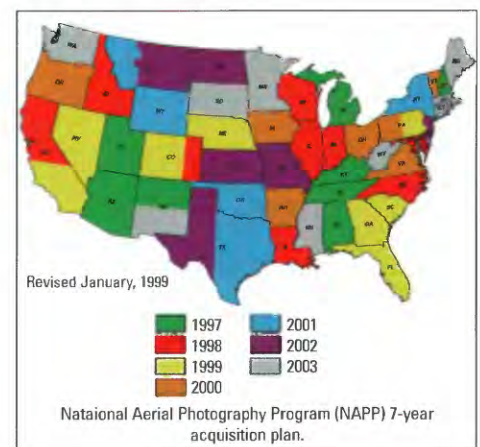
**For example, the zebra mussel has cost the Great Lakes power industry more than \$3 billion over the last decade.** To find more information on the Internet, go to <http://www.nfrcg.gov/nas/>.

- **Status and Trends of Biological Resources** – Provides a scientific assessment of the distribution, abundance, and health of the Nation's biological resources. **The assessment offers valuable insights into the current status of U.S. plants, animals, and ecosystems and points to both successes and failures in past management efforts.** To find more information on the Internet, go to <http://www.mpl-pwrc.usgs.gov/fjim/bst.htm>.

## Land Resources

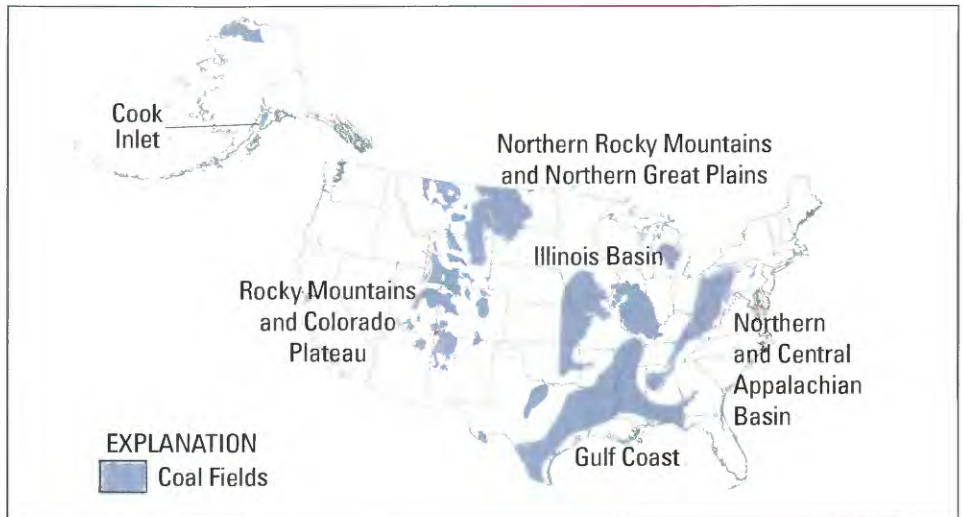
- **National Aerial Photography Program (NAPP)** – Provides an aerial photographic archive of the 48 contiguous States for

use by various government agencies and programs. **Periodic aerial photography can document changes in the patterns of vegetation and land use.** To find more information on the Internet, go to [http://mcmweb.er.usgs.gov/status/napp\\_stat.html](http://mcmweb.er.usgs.gov/status/napp_stat.html).

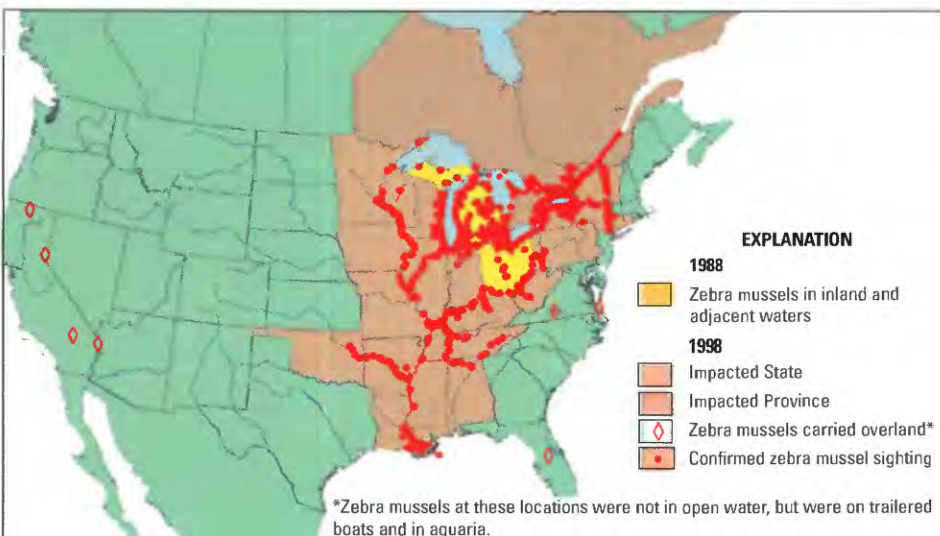


- **The Advanced Very High Resolution Radiometer (AVHRR)** – The satellite-borne AVHRR instrument **helps scientists, managers and policy makers understand changes occurring in forest, grassland and tundra ecosystems.** To find more information on the Internet, go to <http://mapping.usgs.gov/mac/isb/pubs/factsheets/fs20796.html#Plains>.

For more information on Natural Resource Programs at the USGS, please visit our Web sites at <http://www.usgs.gov/> and <http://www.usgs.gov/themes/resource.html>.



Coal fields of the United States.



States with zebra mussels in inland and adjacent water, 1988 and 1998.