

USGS (Continued)

Using Watershed Ecosystem Studies Can Improve Natural Resources Management

Ray Herrmann

Since the 1920's, scientists have acknowledged the importance of long-term, ecosystem-level studies on watersheds. Initial research efforts evaluated the effects of vegetation changes on hydrology and the long-term structure and function of commercially important forest ecosystems. In the 1980s, the focus shifted to biogeochemical cycles and detecting changes in natural processes associated with watersheds.

This past February, a special symposium, entitled *Integrating Watershed Ecosystem Studies for Improved Natural Resource Management*, was presented by USGS researchers and cooperating universities at the annual meeting of the American Association for

the Advancement of Science. The symposium not only acknowledged the long history of watershed research but also suggested ways for improving natural resource management and policy development.

Examples of the benefits of long-term watershed research across the nation included studies of forested watersheds in the mountains of western Virginia that have proven useful in evaluating fish kills during storms and understanding the relatively transient effects of pest outbreaks.

On the Pacific coast, forest managers contrasted the responses of old-growth and managed young forests to nutrient and hydrologic cycles. In Tennessee and North Carolina, the responses of diverse forested ecosystems to the effects of harvesting, air pollution and fertilization are being monitored and modeled.

Many of the studies suggested that the same processes identified in small watersheds also can affect water quality in large basins.

Current results from these studies have also led to the development of a watershed ecosystem approach that incorporates multi-disciplinary methods and enhances the ability of researchers to study complex land and water use problems.

The conceptual model helps distinguish and quantify the effects of natural and human-made disturbances on watershed systems, including the impacts of air and water pollution, exotic species invasions, and climate change. A unique long-term database, developed from these studies, is available to scientists and resource managers for use in the assessment of ecosystem-level impacts.

100 MILLION PIECES

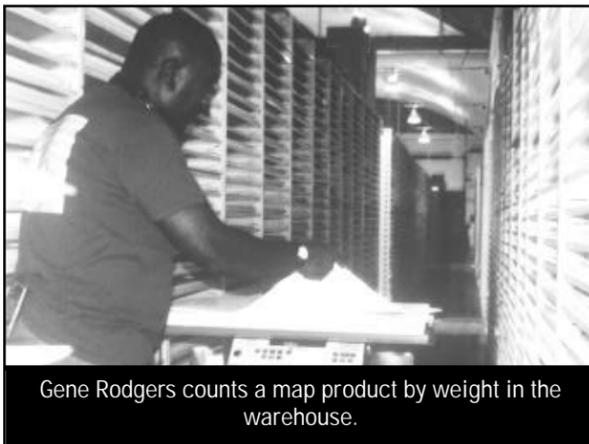
Improving USGS Inventory Management

Daniel Cavanaugh

The USGS manages about 130,000 different products including maps, books, CD-ROMs, general interest publications and fact sheets. Until recently these 130,000 titles contained more than 100 million individual pieces. Most of these items are distributed from the USGS warehouse facility in Denver, Colorado.

In addition to USGS products, the warehouse distributes some products for the Bureau of Land Management, National Imagery Management Agency (formerly Defense Mapping Agency), U.S. Forest Service, and the Tennessee Valley Authority.

The USGS also maintains a sales network of regional offices at some government facilities throughout the country and has partnerships with 2,800 private companies. Since November 1995, the USGS has been working hard to develop a customer-driven approach to information and product delivery. The focus has been on improving its inventory management program throughout the network of information outlets, the warehouse distribution facility and production centers.



Gene Rodgers counts a map product by weight in the warehouse.

In 1993 the warehouse and distribution network were selected to be a part of the National Performance Review. Based on the results of that review, the Inventory Assessment and Management project was formed to streamline inventory management processes, implement better business practices, and improve customer service. In November of 1995, a USGS team was formed to accurately inventory of all products and define optimal stock levels.



Rosanne Boes scans a bar code on a map product in the warehouse.

The project embarked on the monumental task of physically counting every item in stock. An innovative counting method that involves weighing stacks of items provided 99.9 percent accuracy. Demand was determined by looking at past sales history, the potential for future sales, the potential for future emergencies, and production capacity.

By using these criteria, the USGS developed a target stock level for every product in USGS's inventory. After the stock level was set, it did not take long to learn that we had far too many of some slow-moving products and not enough of the faster sellers. Scientific products with large excess stocks have been offered to numerous libraries and federal and state agencies.

To date, the Inventory Assessment and Management project has assessed more than 50,000 product titles, while donating and-or recycling more than 30 million individual items. Along with this huge stock reduction, we have reduced the number of out-of-stock items to less than three percent of all orders received, thus increasing customer services. Customer response cards from 1995-1996 identified out-of-stock items as one of the top reasons for dissatisfaction with obtaining products from USGS. Satisfying customers requires successfully and consistently managing inventory.

Plans for 1997 include completing the assessment of all remaining products, removing all excess stock from the warehouse, fully implementing more bar coding technology, and continuous improvements of all processes throughout the inventory management life cycle.

Donating Excess Products

Janis Wilson

The American Association of State Geologists has indicated that the state geological surveys would be interested in receiving excess thematic maps from the USGS. **Lee Allison** of the Utah State Geological Survey and **Don Hull** of the Oregon Department of Geology and Mineral Industries have been identified as the points of contact for coordinating the distribution of these products.

We have already worked with **Don Haney** and the Kentucky Geological Survey on the four-sheet Kentucky Geologic Map and the one-sheet Special Sesquicentennial Edition of the Kentucky Geologic Map. In December, the Kentucky Geological Survey received five skids of these maps for a total of 23,250 copies.

The USGS is currently ready to coordinate distribution of excess thematic maps for the

States of New Mexico, Nevada, Alaska, Kentucky, Arizona, and Colorado. Working with the American Association of State Geologists, the USGS will provide the states with title and quantity information. Initial distribution with those states should be completed by the end of April. Distribution to all other states will be completed by the end of August.

In addition to working with the Association, we have replaced damaged products in the USGS libraries, and donated more than 12,000 copies of the Indian Lands maps to the Bureau of Indian Affairs.

Several skids of excess thematic maps are staged in the USGS Denver warehouse for shipment to a good home.



Office of Surface Mining and Reclamation



Katherine L. Henry, Acting Director
Peter M. DuFore, Bureau Editor

Field Office Directors Appointed



Andrew R. Gilmore

The appointments of three new field office directors was recently announced by **Brent T. Wahlquist**, regional director of OSM's Mid-Continent Regional Coordinating Center.

Arthur W. Abbs will be taking charge as director of the Birmingham, Alabama, field office which handles OSM's activities in the coal regions of Alabama and Mississippi. His appointment becomes effective May 25. Abbs is presently chief of the Division of Regulatory Support at OSM headquarters in Washington, D.C.

He began his federal government career in 1966 with the Bureau of Outdoor Recreation-

Heritage Conservation and Recreation Service before joining OSM in July 1978 as a State Program Specialist. Abbs was also OSM's Abandoned Mined Land Administrator, Regulatory Program Administrator, and served in a temporary appointment as Director of the Albuquerque Field Office. He holds a Bachelor of Science Degree in forestry from Iowa State University, and attended graduate school at the University of Michigan.

Andrew R. Gilmore, currently the acting director

of the Birmingham office will become director of the Indianapolis, Indiana office, supervising the coal regions of Indiana and Illinois, effective May 25. Gilmore began his federal career in 1978 at OSM's District Office in Evansville, Indiana, and also worked in Terre Haute, and Indianapolis, before transferring to Birmingham in October 1985. Before joining OSM, he was employed by the State of Illinois Department of Mines and Minerals. He holds a Bachelor of Science Degree in forestry from the University of Illinois at Champaign-Urbana.

Also on May 25, **Michael C. Wolfrom** will take charge of the agency's field office in Tulsa, Oklahoma. He is currently a regulatory program specialist for OSM's mid-continent region in Alton, Illinois. His new duties will oversee the agency's activities in the coal regions of Oklahoma, Texas, Louisiana, and Arkansas.

Wolfrom began his federal government career in 1978 at OSM's Offices in Kansas City, Missouri, and worked there in a progression of positions including district program manager, supervisory regulatory program specialist, and acting field office director, until moving to Alton in August 1995. Before joining OSM, he was employed by Consolidated Coal Company in Cadiz, Division of Reclamation, as an inspection officer. He holds a Bachelor of Arts Degree in geography from Wright State University in Dayton, Ohio.

OSM benefits greatly from the professional knowledge and managerial experience of these administrators, Wahlquist said, adding, "their appointment will ensure the customers and employees of the Birmingham, Indianapolis, and Tulsa Field Offices the continuing strong, dependable leadership they have come to rely upon."

And the Nominees Are...

OSM is seeking nominations for the 20th Anniversary Excellence in Surface Coal Mining and Reclamation Awards program.

"I am extremely pleased to announce that OSM is once again sponsoring a reclamation awards program," said OSM Acting Director **Kathrine L. Henry**. "The awards will be especially significant this year as we prepare to celebrate the twentieth anniversary of the Surface Mining Control and Reclamation Act on August 3, 1997," Henry noted. OSM is resuming the awards after budget constraints forced it to forgo the program in 1996. The awards began in 1986.

Since the passage of the surface mining law, land reclamation in the United States has become a built-in component of surface coal mining, Henry said. In fact, successfully reclaimed land quickly begins to resemble its natural surroundings, with little about its finished appearance to suggest that it was even mined. The better a coal mine is reclaimed, the less there is to see.

OSM started the annual program to give well-earned public recognition to those responsible for the nation's most outstanding achievements in environmentally sound surface mining and land reclamation, Henry said. The awards also encourage more operators to strive for positive recognition by exceeding basic reclamation requirements. OSM will present four awards this year:

National Awards: Presented to coal mining companies for achieving the most exemplary mining and

reclamation in the county. The award recognizes on-the-ground achievement of the goals of the surface mining law.

Directors Award: A special award to a coal mining company from the OSM director for outstanding achievement in a specific area of reclamation. The award will recognize special dedication and commitment that results in reclamation and post-mining land use benefiting a local community.

Best-of-the-Best Award: One operation will be selected from the National Award winners to recognize specific individuals (mine manager, reclamation specialist, state inspector, etc.) who were directly responsible for the outstanding accomplishment.

Reclamation Hall of Fame Award: A 20th anniversary award will be presented to one or more mining operations that won a previous national award. The one-time award will recognize the most outstanding past winners after the stand-out project has stood the test of time.

Nominations are due to the state regulatory authorities, or the OSM field office in non-primacy states by April 15 of this year. The best entries for both National Awards and the Director's Award will be forwarded to appropriate OSM field offices by May 1. Winners will be announced and awards presented on August 3. Information is available by Internet via the World Wide Web on OSM's homepage at: <http://www.osmre.gov> OSM's 24-hour Fax-on-Demand service also has the information at (202) 219-1703.



Katherine Henry

OSM's 1996 Annual Report is First in Electronic Format

OSM's Fiscal Year 1996 Annual Report has been released on computer CD-ROM and is available via Internet on the World Wide Web. It also is available as a conventionally printed document.

The 53-page report, which describes OSM operations for the period October 1, 1995, through September 30, 1996 combines OSM's Annual Report to Congress with the agency's Annual Financial Report. This marks the third year OSM has combined the two reports to provide customers a better understanding of the agency's operations, and the first year OSM has issued the report electronically.

The report also describes the first steps toward including the requirements of the Government Performance and Results Act in the OSM annual report. OSM's 1997 report will be organized by business lines, and will be designed to meet all three of the statutory reporting requirements.

OSM Acting Director Henry said presenting the 1996 annual report in printed and electronic formats makes it more widely accessible to the general public. "The 1996 Annual Report is an example of a new direction for OSM," Henry said. "Electronic publishing expands the types of information that can be presented and makes information about implementation of the Surface Mining Law and about OSM operations available to a larger audience."

The CD-ROM included with the printed report contains a short video public service announcement on the dangers of abandoned mines, a citizens' introduction to OSM's Appalachian Clean Streams Initiative, and a short video program titled A Page In Time that describes how OSM implements the Surface Mining Control and Reclamation Act.

Included in the report is information about activities carried out under several parts of the Reclamation Act, including: Title IV, abandoned mine reclamation; Title V, control of the environmental impacts of surface mining; and Title VII, administrative and miscellaneous provisions.

Henry noted that the 1996 Annual Report contains updates to tabular data found in OSM annual reports since 1988. "This facilitates comparison of statistics from year to year," she said. Henry said that improvements in the 1996 report include a new reporting period for inspection data (part of a transition to fiscal-year reporting), plus statistics in both metric and conventional (English) units.

Finance and accounting information, which is presented in a format similar to traditional corporate annual reports, is contained in the financial review section. "The Inspector General's audit statement, which gives OSM a 'clean' audit opinion of its financial reporting for 1996, is included at the end of the financial section," Henry added. "This marks the fifth year in a row OSM received a 'clean audit'."

Copies of the annual report will be distributed to the public upon request. Contact: Office of Communications, Office of Surface Mining, 1951 Constitution Avenue N.W., Washington, D.C. 20240, Telephone (202) 208-2719, Fax (202) 501 0549, E-mail getinfo@osmre.gov The report is also available in Adobe Acrobat PDF format at OSM's web site, <http://www.osmre.gov>





Americ Wilderness

Grand Staircase-Escalante National Monument

"Sometimes progress is measured in mastering frontiers, but sometimes we must measure progress in protecting frontiers for our children and all children to come... Today the Grand Staircase-Escalante National Monument becomes a great pillar in our bridge to tomorrow."

*President Bill Clinton
September 18, 1996*

The Grand Staircase-Escalante National Monument is a dramatic, red-rock landscape that is rich in natural and human history. Extending across 1.7 million acres of public lands managed by the Bureau of Land Management, the monument represents a unique combination of archeological, paleontological, geological, and biological resources. These strikingly beautiful and scientifically important lands are divided into three distinct regions—the Canyons of the Escalante, the Kaiparowits Plateau, and the Grand Staircase.



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Natural and Cultural Heritage

The Monument's vast and austere landscape embraces a spectacular array of scientific and historic resources. It deserves a geological treasure of clearly exposed stratigraphy and structures that offer an understanding of the processes that formed the earth. World-class paleontological sites, including those found in the Shwep and Kaiparowits formations, contain one of the best records of Cretaceous terrestrial life in the world.

Hundreds of Native American cultural sites include rock art panels, occupation sites, campsites and granaries, and many undocumented sites for future study and appreciation. Relict vegetative areas such as the grasslands atop No Mans Mesa have evolved unaltered by man since the Pleistocene era. Wildlife habitat sustains mountain quail, marten, bear, and desert bighorn sheep, as well as 200 species of birds, including the bald eagle and peregrine falcons.

Along the Hole-in-the-Rock Trail, the Old Paria townsite, and other historic places, visitors can see how nature shaped man's endeavors in the American West, where distance and aridity have been pitted against our dreams and courage.

Sustaining Our Western Heritage

The proclamation establishing the Monument offers a vision for the future. It directs the BLM not only to protect the land, but also to allow, within the proper conservation context, a number of traditional uses that will help keep people on the land and pass on our Western heritage. "Under the proclamation, families will be able to use the canyon as they always have—the land will remain open for multiple uses, including hunting, fishing, camping, and grazing," President Clinton said.

