

THE U.S. DEPARTMENT OF THE INTERIOR

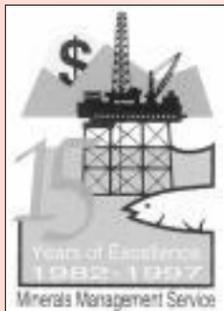
PEOPLE & LAND WATER

June 1997 Volume 4, Number 6



*Preserving
the Goose, 20*

*How Welfare To Work
Can Work, 4*



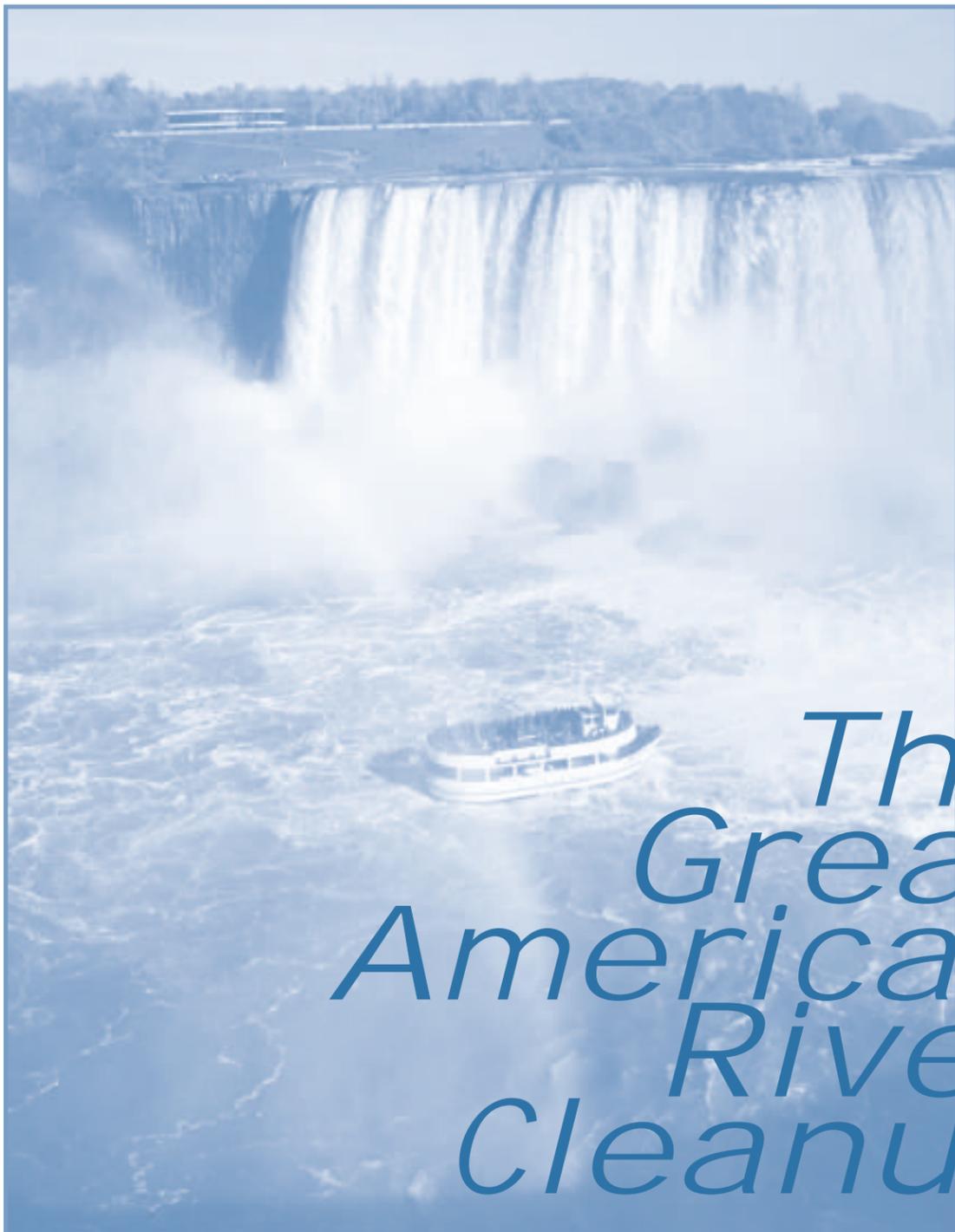
*MMS Marks 15th
Anniversary, 24*



*Alaska Land Pacts,
2 & 19*



*Earth Day
Every Day, 6*



The Great American River Cleanup

Majestic Niagara Falls, an icon of America's natural heritage, serves as our symbol of the on-going nationwide effort to clean up the nation's rivers and breathe new life into riverfront towns and cities. A new Cabinet-level initiative, the American Heritage Rivers program (pages 10-11), can help communities to revitalize their waterways. Our coverage also looks at the broadest national study to date of the correlation between contaminants and hormone levels in fish, and what that could mean for river wildlife. The findings (page 12) underscore community concern for cleaner rivers. Other articles describe Interior efforts to clean up acid mine drainage in Appalachian watersheds (page 13); fight whirling disease in the West's foremost trout streams (page 22); counter the spread of invasive weeds in riparian areas (pages 9, 21); and help Honduras save its threatened Río Platano Biosphere (pages 16-17).

THE INSIDE LINE

<i>Interior People</i>	2-3
<i>Around the Department</i>	4-5
<i>Working With America</i>	6-7
<i>Science and Stewardship</i>	8-9
<i>U.S. Geological Survey</i>	12-14
<i>Office of Surface Mining</i>	15
<i>Bureau of Indian Affairs</i>	18-19
<i>National Park Service</i>	20-21
<i>Fish and Wildlife Service</i>	22-23
<i>Minerals Management Service</i>	24-25
<i>Bureau of Reclamation</i>	26-27
<i>Bureau of Land Management</i>	28-29
<i>Office of Insular Affairs</i>	30
<i>Information Technology</i>	31
<i>Legislative Update</i>	32

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Utah attorney Pat Shea looks at issues like a scientist and emphasizes the economic consequences of decisions. He was nominated director of the Bureau of Land Management, 28.

Bureau Bound

Kathy Karpan's a coal miner's daughter and a "no nonsense administrator," as well as a Wyoming state leader, and former journalist. And she's been named to lead the Office of Surface Mining, 15.



The Death of Coral & The Life of Hawks Pages 8-9



Fish and Wildlife Service raptor specialist Craig Koppie, right, talks with Argentinean Ambassador Raúl Granillo Ocampo about Swainson's Hawks. Photo by Tami Heilemann, ISC



Historic Refuge Legislation Passes House, 32





NOTABLE QUOTABLES

BLMer Honored for Helping Group Hurt by Oklahoma City Bombing

Theresa Herrera, New Mexico State Office

Laura Stich, a Bureau of Land Management employee, was honored recently by the Federal Executive Board for her commitment to an organization that was almost devastated by the Oklahoma City bombing.



Laura Stich

The explosion at the Alfred P. Murrah Building killed or injured many members of the Oklahoma Inter-Agency Training Council—a group that acts as a clearing house for training programs for government employees. Reconvening the council's meetings was extremely painful for those remaining. However, the group resumed its work 18 months ago.

Stich, who is a support services assistant with BLM's New Mexico-Oklahoma Tulsa District Office, was sent to the Council's meetings to find free or low-cost training for BLM employees. Stich volunteered to be secretary of the newly reformed council.

Laura felt so strongly about this commitment that she drove 250 miles round-trip each month to keep the meetings running, taking the minutes and publicizing free or low cost training offered by other government agencies.

"Laura has been an outstanding employee who has been enthusiastic and willing to do what she can to help her co-workers and other agencies with needed training," said **Tulsa District Manager Jim Sims**. "We're proud of her accomplishments," Sims added.

Stich and another council member launched a similar inter-agency training council in the Tulsa area to provide the same opportunities for agencies located in northeastern Oklahoma. Because of her commitment, several agencies with larger budgets have offered training slots to the Oklahoma BLM employees at no cost.

As many government agencies face declining budgets and lack of funds to offer training to employees, Laura Stich has gone above and beyond her job of bringing free and low-cost training to the BLM Tulsa District employees as well as other government agencies.

MMS Center Honored

Cathy McNish

The Western Administrative Service Center of the Minerals Management Service has received Excellence in Government Awards from the Denver Federal Executive Board. Excellence Medallions went to **Todd Leneau**, of the Service Center's Procurement Branch, and to the Personnel Branch for excellent public service. **Jan Fletcher**, Service Center manager, was also presented a Special Recognition Award for extraordinary customer service.

"This is a win-win for the environment and a win-win for the Kenai Native Association shareholders. The association finally will get to develop its property with \$4.4 million in seed money and the Federal Government will get clear title to important land inside the Kenai National Wildlife Refuge, especially the 800-acre Stephanka Track—the crown jewel of the Kenai River Basin."

Deborah Williams, special assistant to Secretary Babbitt for Alaskan affairs, speaking of the signing of an agreement with the **Kenai Natives Association, Inc.**—an Alaskan Native urban corporation—that will protect valuable Kenai River habitat while also allowing the native association to develop its land that had been inside a national wildlife refuge.

The agreement, which uses about \$4.4 million in funds from the Exxon Valdez oil spill settlement, puts into force a land exchange authorized by Congress in the Omnibus Parks and Public Lands Management Act of 1996 and resolves a long-standing land management issue involving the Kenai National Wildlife Refuge. Story, page 19.



Deborah Williams
Assistant to the Secretary for Alaska

Coleman Named Superintendent of Washington's Rock Creek Park

Adrienne A. Coleman, a 17-year career employee with the National Park Service, has been named superintendent of Rock Creek Park in Washington, D.C. She is only the second woman to hold the job since 1965 when the park became independent.

"Adrienne has strong management skills and works well with community groups," said **Terry R. Carlstrom**, the acting director of the National Capital Regional in making the announcement. "She is very familiar with the issues confronting the park, and her personal knowledge of the community and fluency in Spanish will be extremely valuable in addressing these challenges."

Coleman, who became assistant superintendent of the park in March 1996, has been acting superintendent since the retirement of her predecessor, **William Shields**, in April of this year. During her tenure as assistant superintendent, Coleman led the team that developed a new General Management Plan for the park. As superintendent, she assumes management responsibility for the entire 2,800-acre park, including visitor services, maintenance, resource management, safety, concessions, and administration.

From 1983 until 1996, Coleman worked in the Management Consulting Division of the National Park Service, National Capital Region, becoming division chief in 1990. In that position, she

helped launch more than 200 partnership and interagency agreements designed to support park programs. She also administered more than \$2 million in grants to non-profit organizations in support of National Park Service programs and resource protection activities.

During this period, Coleman coordinated the Historically Black Colleges and Universities Program to improve internship and employment opportunities nationwide for students of those institutions. She also coordinated transition activities for two years prior to the establishment of the Mary McLeod Bethune National Historic Site, Washington, D.C., as a unit of the National Park System.

From 1980 until 1983, Coleman conducted research and analyses of operational components of the 600-member United States Park Police, a unit of the National Park Service headquartered in Washington, D.C. Her prior experience includes service with the National Capital Housing Authority of Washington, D.C., as public information officer and as an administrator in public housing, community development, and urban renewal programs.

Coleman studied sociology while attending Howard University from 1967-1969, and continued her studies at the University of Maryland to obtain a degree in business and management. She, her husband, and son reside in Rockville, Maryland.

Rock Creek Park

Rock Creek Park is one of the largest and oldest urban parks in the country. Established in 1890 under a military control board, it predates by nearly a half century the birth of the National Park Service as an agency under the Department. The system of "roadways and bridle paths...and footways for pedestrians" envisioned by its founders in Congress quickly became a reality and has been enjoyed ever since by generations of Washingtonians.

Today's Rock Creek Park, which became independent of the military control board and other national parks in 1965, has some 30 picnic areas, several playgrounds, 25 hard- and soft-surfaced tennis courts, a golf course, and many miles of nature trails, horse trails, and bike paths. The park, including its nature center, historic Pierce Mill and Carter-Baron Amphitheater, attracts nearly two million annually.

Watersheds



First of Its Kind Book

Marian Hansson, left, the first American Indian Fellow at the Smithsonian Institution, compiled a milestone publication on the Smithsonian's Kiowa collections. Wearing a blue Kiowa cloth dress, Hansson is shown with Georgette Palmer and Palmer's daughter at the American Indian Exposition in Anadarko, Oklahoma. Page 7.



Father of Big Bend Ranch

Bob Armstrong has become only the third individual to win the prestigious Conservation Lifetime Achievement Award from the Nature Conservancy of Texas, Page 25.

Colorado River Water for Mexico

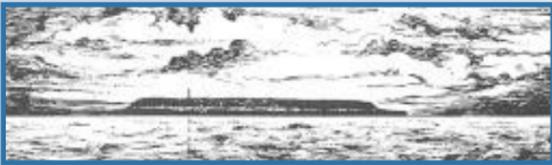
This year's high flows on the Colorado River will allow the United States to allocate an additional 200,000 acre-feet of water to Mexico, bringing that country's total delivery to 1.7 million acre-feet for 1997. Other topics at the Colorado River summit meeting with Mexican officials centered on sedimentation buildup at Morelos Dam and boundary issues caused by changes in the river channel. Page 26.

Balanced Budget Agreement



A proposal that would balance the federal budget—for the first time in a generation—would protect natural resource and heritage preservation programs at current levels for five years. Page 5.

OIA's Mystery Isle



A former pirates lair and scene of a murderous labor revolt, Navassa Island—a dry spec of land off the coast of Haiti in the Caribbean Sea—is placed under Interior's jurisdiction. Page 30.



Pulling Together in the War on Weeds

A coalition of public and private sector groups has developed the first nationwide integrated strategy to address a major national environmental and economic problem—the rapid spread of destructive non-native weeds that threatens native plant species and destroys fish and animal habitats. Page 21.

BLM Milwaukee Office Joins Educational Fishing

Jim Boylan, Milwaukee District Public Affairs

Participants in the annual **Fishing Has No Boundaries** event in Hayward, Wisconsin, display their catch after a pretty good day on the water. BLM, Eastern States, Milwaukee District employees participated in the tenth anniversary event on May 16-18. The program is an educational, non-profit, volunteer organization dedicated to opening up the great outdoors to disabled individuals throughout the world.

Gateway Staffers Honored

Several members of the Gateway National Recreation Area staff were honored by the New York Federal Executive Board during its recent public service recognition awards ceremony.

Kevin C. Buckley, the general superintendent, won the distinguished executive award; **Vernon Butler**, maintenance mechanic supervisor, and **Charles Pellicane**, director of planning and professional services, received the outstanding supervisor award; and **Mary Gibson Scott**, superintendent, **Jeanette Parker**, assistant superintendent, and the **Staten Island Unit** won the distinguished team award.

Buckley was recognized for his accomplishments as superintendent of the Statue of Liberty and Ellis Island and for his accomplishments since becoming general superintendent of Gateway National Recreation Area in 1990. Butler was recognized "for getting the job done, not only before schedule but generally at substantial cost savings to the government."

Pellicane's award results from "hard work, dedication, and initiative, and for community service." In addition to his full time supervisory role at Gateway, Pellicane and his wife Irene are actively involved in fund-raising for Korean orphans, supervise a church kitchen, and cook for the homeless on Long Island.

The Staten Island Unit was singled out for its technical, talent, and communication skills and flexibility as well as its creativity in the face of unforeseen circumstances which provided New York with its newest Park Service site, Fort Wadsworth.

The winners were selected from a Federal Executive Board panel of more than 100 nominees from all federal agencies in the New York area. The awards were presented by **James K. Kallstrom**, assistant director in charge of the Federal Bureau of Investigation at a ceremony aboard the *U.S.S. Intrepid* in Manhattan on May 7.



We'd Rather be.....FISHING!

Geoff Walsh, Eastern States Wildlife Biologist

Thirty youngsters from Washington, D.C.'s Miner Elementary School enjoyed a day filled with fishing and environmental fun in the sun during BLM Eastern States' **Kids Fishing Day 1997** at the Occoquan Regional Park in northern Virginia.

Kids Fishing Day, which Eastern States has sponsored since 1991, brought together volunteers from local community organizations, state, and federal governments to teach outdoor ethics and environmental responsibility to fourth and fifth grade youngsters from Miner Elementary—Eastern States' adopted school.

Organizers solicited support from area merchants such as Giant Food, Safeway, Shoppers Food Warehouse, Pepsi Cola, Coca-Cola, Bagel Gourmet, and Utz Quality Foods for refreshments for the kids and volunteers.

The Northern Virginia Regional Park Authority donated the use of the park and waived licensing and parking fees for participants. About 40 fishermen from Virginia Region I BASS (Bass Anglers and Sportsman Society) generously donated

their time and their boats to give the kids an on-the-water experience not readily available to children who live in the city.

Congressman Tom Davis from Virginia's 11th district, Park Authority Executive Director **Walter Mess**, BLM Deputy Director **Mat Millenbach**, and Eastern States Director **Pete Culp** kicked off the April 29 activities with brief welcomes and reminders to be safe and have fun!

The *Pathways to Fishing* educational seminar stations were strategically set up along the river's edge. The kids learned about water safety, the proper way to handle fish, and how to tie fishing knots. The site provided a great place for the kids to practice their casting skills before boarding boats for about two hours of fishing. Although some of the youngsters returned to dry land with nary a nibble, a few lucky first-time anglers proudly displayed their catches before releasing their fish back into the Occoquan River.

After lunch, activities included building blue bird houses for the park and viewing a red-tailed hawk provided by the National Zoo for special environmental events.

When President Clinton signed the welfare reform act last August 22, overhauling the nation's welfare system, he hoped the day would be remembered not for what it ended, but for what it began. "The bill restores America's basic bargain of providing opportunity and demanding responsibility in return," the President said.

A noble vision. An estimated two million welfare recipients will leave the rolls during the next four years, including about 700,000 heads-of-households. Ninety percent of them are single mothers, 42 percent have a high school education, while 16 percent have had some college instruction. But 70 percent had recent work experience before going on welfare. The President wants the Federal Government, as the nation's largest employer, to contribute to the greatest extent possible to this national effort.

But the devil, as they say, is in the details. How can the Federal Government, which is under continuing pressure to streamline operations and reduce employees, provide jobs for some of these workers?

Interior's Welfare-To-Work plan, which **Secretary Babbitt** submitted to the White House on April 9, sets a goal of 325 hires over the next four years, calling on managers to take additional measures within current staffing and budget levels to help heads of households move their families from welfare dependence to self-sufficiency. The target includes seasonal and temporary hires. The projected breakdown is 1997 - 50, 1998 -75, 1999 - 90, 2000 - 110.

Duty and Obligation

"I believe that helping America's most chronically impoverished people rise from welfare to the kind of work that builds pride is not simply an initiative," said Secretary Babbitt. "It is our duty and one of our oldest obligations."

Interior's initiative would build on existing hiring and training programs using existing budget authorizations. No new jobs would be created. Its goal is to recruit, train, and employ former welfare recipients while also keeping Interior's commitments to other hiring programs for minorities and the disadvantaged, as well as rehiring programs for employees who lost their jobs in recent lay-offs.

Right now, the Department works with state, local, and tribal welfare groups by operating 185 Indian schools, running twelve Job Corps centers, recruiting more than 7,500 seasonal workers nationwide each year and participating in such programs as the Youth Conservation Corps and the D.C. Summer Youth Program. Hiring programs include hundreds of field conservation projects in the Bureaus of Reclamation, Land Management, the Minerals Management Service, as well as interpretive educational projects in the National Park Service, the U.S. Fish and Wildlife Service, and the U.S. Geological Survey.

These efforts work. A recent summary of the Job Corps Work Experience Program conducted by the Fish and Wildlife Service in the Hadley, Atlanta, Portland, Albuquerque, and Minneapolis Regions, shows that out of 118 students who completed the program over the last five years, 39 are currently employed by the FWS, another 27 are employed by other federal agencies, and 17 returned to school for more training.

By working with tribes to enhance self-governance, education, economic opportunities, and the quality of life for their members, today more than 90 percent of current employees hired by the Bureau of Indian Affairs are Native Americans who work on or near the reservations. Further, the Department's tribal Adult and Bilingual Education programs have helped more than 10,000 Native Americans acquire basic literacy and other proficiencies toward the equivalent of secondary school certification.

But the Department's Welfare-to-Work plan would go further.

The plan encourages hiring into all types of positions and, to begin the effort, identifies eight work categories and the associated skills needed for them, such as clerical, laborer, maintenance worker, custodian, and teacher's aide. Major Department bureaus and offices are now in the process of developing their specific plans on how to reach out, hire, train, and retain Welfare-to-Work employees. More than 60 Interior work locations in 23 states and the District of Columbia have been initially identified as having the most potential for the hiring program.

The Local Level Emphasis

"The program cannot be implemented from Washington," said **Bob Stone**, project director for the National Performance Review. "It must be acted upon locally to take into account the different circumstances in every city and town in America." More than 85 percent of federal jobs are located outside the Washington Metropolitan Area, Stone explained.

Under Interior's proposal, field managers are being empowered and encouraged to work through the Federal Executive Boards and Federal Executive Associations. These boards and associations are in an excellent position to foster long-term collaboration with the local community on the initiative.

Interior field managers have been asked to take an active role in community meetings that bring together federal agencies and state and local welfare organizations to discuss how best to ensure the distribution of information on federal employment opportunities and the coordination of recruitment in their areas.

Information on the local Job Training & Partnership Act program is included in the meetings because the national program trains welfare recipients in more than 600 service delivery areas. The National Performance Review sends planning kits for the meetings.

Effective training is critical to the overall process if federal agencies are going to improve retention rates for welfare workers. "We must make sure that former welfare recipients have the support they



President Clinton



Vice President Gore

In signing the welfare reform act, President Clinton, described the Welfare-To-Work Program as "an historic chance to try to recreate the nation's social bargain with the poor. We're going to try to change the parameters of the debate. We're going to create a system of incentives which reinforce work and family and independence."

need to stay on the job," warns **Vice President Gore**, who will oversee this initiative during the next four years.

"Current studies show that more than 50 percent of welfare recipients entering the workforce for the first time lost their jobs within the first year. We need to design training and recruitment programs to help address this problem and encourage approaches, such as long term mentoring, that lead to long-term employment for former welfare recipients."

President Clinton has directed federal agencies to expand the use of the Worker-Trainee Program and other excepted service hiring authorities to address the recruitment and retention challenges. The program allows agencies to quickly and easily hire entry-level persons for up to three years, with the ability to convert the appointment to career status if the employee has performed satisfactorily. Though recently underutilized, the program allows agencies to bypass complex federal personnel hiring rules and procedures to bring people into the junior grades of the work force.

"To ensure employment success, we will provide the hired welfare recipients with sound orientation training and transition services," said Secretary Babbitt. "The plan directs transition training in social skills, workplace skills, employee assistance, as well as guidance to managers and supervisors about flexible hours, child care, and transportation subsidies."

The Department's Employees Assistant Program can also provide help for employees in adjusting to their workplace environments. Used properly, the program can help them work through issues that could cause problems for them. Additionally, the program can provide consultative services to managers, human resources personnel, and mentors and can be a valuable part of the training and orientation.

Welfare-To-Work employees may also be eligible for financial assistance that can help them stay on the job. Employees eligible for the Earned Income Tax Credit could receive tax credit money each month in their paychecks. And the Department can assist Welfare-to-Work employees in finding affordable child care through its referral program.

All of the training and support programs available to those hired under the Welfare-to-Work program also are available to other Department employees in need of similar support or assistance.



Bob Stone
NPR Project Director

W 2 W

Information

Several web sites on Welfare to Work programs are available: **The White House Welfare Reform Information Page** is at <http://www.whitehouse.gov/WH/Welfare>

The National Performance Review Welfare to Work Page is at <http://w2w.fed.gov>

The Office of Personnel Management listing of current federal job openings is at <http://www.usajobs.opm.gov>

The Department of Labor Welfare to Work Page is at <http://www.doleta.gov/ohrw2w>

For information on the Department's Welfare-To-Work Program or its Employee Assistant Program, contact **Vicki Gray** at (202) 208-6428.

Joint Effort Leads to Oil Company Settlement

An investigation conducted by the Department of the Interior's Office of Inspector General, supported by assistance from the Bureau of Land Management and the Minerals Management Service, led to a civil settlement in which Oryx Energy Company agreed to pay \$200,000 for allegedly defrauding MMS in the payment of royalties.

This investigation was predicated on information alleging that Oryx falsely reported to MMS its production of condensate on land leased from BLM in southeastern New Mexico and thereby avoided payment of royalties, which are based on production figures.

The OIG agent assigned to this matter—**Special Agent David Williams** of the Albuquerque Field Office—with the assistance of BLM and MMS personnel, reviewed oil production and purchasing records that verified the production and sale of more than \$40,000 in condensate. However, Oryx

reported to MMS that it had not produced any condensate and therefore was not liable for any royalties.

The results of this investigation were referred to the U.S. Attorney's Office, Civil Division, District of New Mexico, for action under the False Claims Act. This Act provides for a civil penalty of not more than \$10,000 per false claim and three times the amount of damages sustained by the government as a result of the false claim.

A settlement agreement was reached after the U.S. Attorney's Office notified Oryx of the Federal Government's intention to seek recovery under the act. In addition to the \$200,000 payment, a portion of which will be returned to MMS, Oryx agreed to file amended production reports with MMS.

This investigation is part of an OIG Underpayment of Royalties Initiative.

OIG Fraud Awareness Initiative

Beginning in late 1995, the Office of Inspector General made a commitment to more fully develop fraud awareness, prevention, detection, and suppression within the Department.

One way in which the OIG has sought to meet this challenge is through the development of an aggressive **Fraud Awareness** outreach initiative focused on informing Interior personnel of the importance of reporting suspected fraudulent activity related to their specific programs and educating them on how to recognize such activity. This proactive initiative has been implemented through presentations by OIG agents at Department offices throughout the United States.

The success of this initiative thus far is amply demonstrated by increased referrals to the OIG by Department employees and continuous requests from various bureaus within Interior to expand, even further, the reach of our **Fraud Awareness** initiative.

In addition to the increased referrals, convictions, and financial recoveries that undoubtedly will result from the OIG initiative, the initiative also serves to reinforce the shared commitment between the OIG and the Department to improve program operations through joint efforts with employees at all levels to identify and eliminate program weaknesses.

The Balanced Budget Agreement, Public Health, and the Environment



Secretary Babbitt joins a Washington, D.C. area scouting group during a C & O Canal hike to raise public awareness of the need for natural heritage preservation. Photo by Tami Heiliemann.

The Administration's agreement with congressional leaders to balance the budget—for the first time in a generation—protects critical national investments like environmental protection, natural heritage preservation, education, and public health.

"The agreement preserves our commitment to our natural heritage," **Secretary Babbitt** said. "Our efforts at restoration and protection of our national parks, wildlife refuges, and public lands will continue. The efforts we have moved forward over the last four years, such as voluntary conservation agreements to protect threatened wildlife, will continue. Our responsibilities to Native American people also are safeguarded under this agreement—one that I am very proud to support."

The budget function that includes most environment and natural resource programs, Function 300, is protected under the agreement at the level of the President's fiscal year 1998 budget request for the next five years. In addition, the agreement specifically protects the following priority programs:

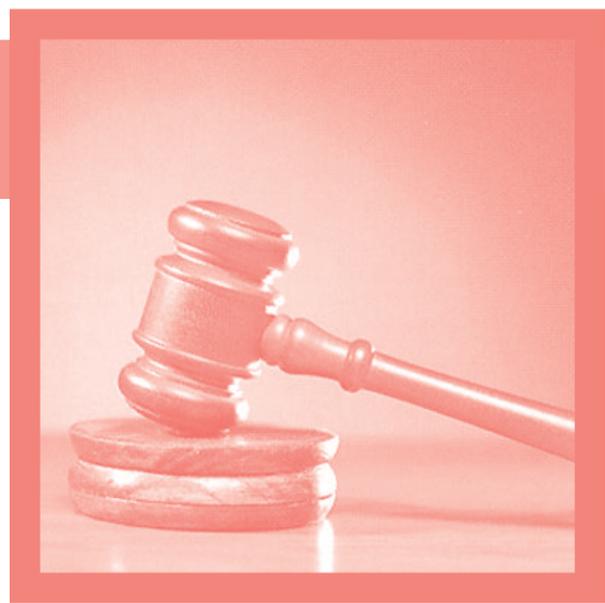
National Parks. The Administration has made national parks a national priority again, and the agreement provides for the President's request for

specifically protects the largest portions of the Everglades restoration program at the National Park Service and the Army Corps of Engineers, for a total of \$238 million in 1998. This increase will implement the President's Everglades program—the most ambitious environmental restoration ever—that was signed into law last year.

Land Acquisition. The agreement provides for \$700 million over five years for the Land and Water Conservation Fund.

Toxic Waste Cleanups. The agreement sets aside the money for the President's request for the Superfund program, which proposes to clean up 500 additional sites by the end of the year 2000—a 50 percent increase to \$2.1 billion for 1998. The agreement notes that there remain policy differences that must be worked out.

The agreement also provides for \$1 billion in new mandatory spending over five years for Superfund sites where parties have little or no ability to pay for the cleanup. The Clinton Administration cleaned up 274 sites in its first term—compared to only 155 cleaned up by previous administrations in 12 years—but ten million children under the age of 12 still live within four miles of a toxic waste dump.



MMS Teams Up With Smithsonian at Jamboree

This year's National Scout Jamboree will, for the first time, feature a combined exhibit by the Minerals Management Service and the Smithsonian Institution.

The exhibit for the scouts will focus on the MMS/Smithsonian partnership in biological research which helps to conserve and protect a marine environment in which natural gas and oil are being developed.

The scouts will be able to sort through and identify plankton, fossiliferous, and macrofaunal samples (starfish, clams, etc.) from the Gulf of Mexico with dissecting and compound microscopes.

The Jamboree, a quadrennial event, will be held at Fort A.P. Hill, near Fredericksburg, Virginia, from July 28 through August 5. An estimated 40,000 scouts will attend and 20,000 of them are expected to participate in the conservation program, which is sponsored by federal, state, and private groups. Several Interior agencies are participating in the Jamboree's conservation program.

Brownfields Cleanup and Redevelopment. Congressional leaders will seek to include in the tax legislation the President's legislative proposal for Brownfields—contaminated urban areas that are abandoned. The initiative includes a \$2 million tax incentive to help communities clean up and redevelop contaminated areas—protecting public health and creating jobs. The agreement also boosts funding by \$50 million in 1998 to provide grants to communities for site assessment and development planning and to leverage state, local, and private funds to foster redevelopment. This money is included in the Superfund account.

EPA Enforcement and Public Health Safeguards: The agreement provides for the President's request for the EPA operating program, a 9 percent increase to \$3.4 billion in 1998. This account funds better EPA enforcement, including more resources to train state and local officials to enforce environmental laws. It also provides for new standards to ensure safe drinking water and guard against pesticides in food. New efforts to expand community right-to-know programs will provide people information about toxic threats to their families.





At left, the pink blossoms of tulip trees in Rawlins Park frame the E Street entrance to the Main Interior Building. The blossoms were a backdrop this year for a multi-agency Earth Day event attended by hundreds of Interior employees. Photo by Stephanie Hanna, Office of Communications. Below, Deputy Secretary John Garamendi reiterates



Interior's commitment to the partnership school principals Gloria Henderson, at center, of Stevens Elementary, and Miguel Ley, at right, of Ross Elementary. Above and below are Interior displays at the Earth Day event in Rawlins Park. Photos by Mark Hall

EARTH DAY

EVERY DAY

Ken Naser, Environmental Policy and Compliance

Secretary Babbitt and Chicago Mayor Richard Daley joined the River Rats. Deputy Secretary John Garamendi led a mass demonstration in the nation's capital. And thousands of Interior workers around the nation helped organize an array of earth science and environmental awareness events to celebrate Earth Day 1997.

In the Windy City, Secretary Babbitt and Mayor Daley took part in a clean up project on April 22 along the Chicago River with an inner city youth organization known as the River Rats, and a group of Americorps volunteers. Babbitt honored the young volunteers with a special award for outstanding conservation work.

"Witness a local miracle," he said, "what was practically a dump [in the Bridgeport section of the city] is becoming a park. Through strong environmental laws and the daily acts of environmental heroism like those of the River Rats, our air is cleaner, our river is cleaner, and our urban children are growing up in better places." The River Rats are building a greenway along the Chicago River near its confluence with the Illinois & Michigan Canal. The group is led by Jose Lopez and the Chicago Youth Centers Fellowship House.

Deputy Secretary Garamendi represented the Department at a multi-agency recognition of Earth Day in Rawlins Park, next to the Main Interior Building in Washington, D.C. The clouds broke and the rain stopped long enough for the Department employees and representatives to join the General Services Administration and the Office of Personnel Management in celebrating the 27th Earth Day.

The outdoor venue really lent itself to the twelve displays and exhibits that represented Interior, depicting not only the diverse missions of its bureaus, but also the multitude of ways that we work to keep the Earth healthy. Exhibits on clean streams, recycling in the National Parks, waterfowl and wetlands, Earth sciences, law enforcement, science centers, and reclamation efforts stretched from one end of the park to the other.

Garamendi spoke to the crowd about how the various efforts of the Department are demonstrations of how we "Celebrate Earth Day Every Day." To the principals of the Department's partnership schools, Ross Elementary and Stevens Elementary, the Deputy Secretary recommitted the Department to working with the schools and presented teacher instructional aids on subjects such as earth sciences, volcanoes, and mapping.

The day in the park was complete with ice cream and other refreshments provided by the three agencies' employee recreation associations. The Department's efforts at the rally were coordinated by the Office of Environmental Policy and Compliance, which helped to organize the Rawlins Park event.

Other Earth Day 97 efforts of the U. S. Geological Survey, Minerals Management Service, and Bureau of Reclamation are recounted on pages 14, 24, and 26 respectively.



A Marriage Made for the Earth

Lars Johnson, Jackson District, Bureau of Land Management

Students from Piney Woods Country Life School in Rankin County, Mississippi, are discovering how trees reduce air and noise pollution, save energy by canopy cover, reduce erosion, and improve our quality of life. As part of a Bureau of Land Management-co-sponsored program, the students are learning the value of trees to urban environments while building a database of information by locating, identifying, measuring, and assessing campus trees.



With help from the BLM's Jackson District staff and other private partners, the Piney Woods youngsters are learning about the latest in computer technology from industry partners, including Theresa Foster of the Mississippi Automated Resource Information System. Foster is teaching students how to use the state-of-the-art Geographic Positioning System to collect data for downloading onto the Piney Woods computers. She is also teaching them to use Geographic Information System technology to prepare landscape maps and other maps of the campus.

Bob Schoolar from BLM's Jackson District is also sharing his Geographic Information System expertise and has developed several interesting maps for the Piney Woods area. Another local industry representative, David Thompson, an urban forestry expert from Thompson Environmental Design, has taught several classes on the subject at Piney Woods. He has also conducted field work with the students for data collection.

Additionally, Leonard Paulding, another industry partner, presented a special workshop for six Piney Woods teachers on the capabilities of the Geographic Information System ARCVIEW software—a program that is enabling the students to present campus trees in mapped format and to query and manipulate their data to learn about their environment.

The program's final product will be an Urban Tree Inventory and Master Tree Plan for the 85-acre Piney Woods Campus with associated data and maps to help ensure healthy trees and future urban tree maintenance at Piney Woods School. The long term benefits include ongoing instruction in urban forestry and computer technology in the school curriculum.

This program is funded by an Urban and Community Forestry Assistance Grant from the Mississippi Forestry Commission. Partners in the program include the Jackson District BLM, Mississippi Automated Resource Information System, Thompson Environmental Design, and the U.S. Forest Service.

Rediscovering the Kiowa Collections

Marian Kaulaity Hansson's interest in American Indian cultures began as a child, listening with wonder to her family's stories of Kiowa history and traditions. But neither she nor her family could have known at the time how valuable her lifelong study of the Kiowa people would become.

Hansson was born in Lawton, Oklahoma, at the Kiowa Indian Hospital. Her parents and grandparents, who were fluent speakers of their native language, bequeathed that gift to Hansson, whose first language was Kiowa. By tribal tradition, her grandfather—**James Two Hatchet**—bestowed her Kiowa name, *Spottedwings*. The name belonged to her maternal great-grandmother who was a respected medicine woman.

Through personal contact with many Kiowa elders, Hansson patiently gathered knowledge and information about her Kiowa heritage. As her grandparents explained tribal dance customs, clothing styles, decorations, and colors, Hansson's interest in Kiowa life and traditions expanded to embrace all North American Indian cultures. After attending public schools in Fort Cobb, Oklahoma, she went on to higher education, ultimately obtaining a master's degree in Anthropology at the University of Oklahoma.

Along the way, Hansson received extensive traditional artistic training from her talented mother, **Christine Kaulaity**, and developed a keen interest and expertise in the craft techniques of the Kiowa people. During independent study as a student at the University of Science and Arts in Oklahoma, Hansson interviewed and photographed Kiowa elders who related stories and legends in their native tongue. Her knowledge and ability with the Kiowa language allowed her to translate this vital information into English.

And then, almost as if it had been ordained, an opportunity came along that allowed her to focus all of her studies, training, knowledge, interest, and love of Kiowa culture on a major project at the Smithsonian Institution. For six years, from 1985 to January 1992, Hansson served as the first American Indian Fellow at the Smithsonian Institution and principal investigator on an initiative that compiled all of the collected information and artifacts at the Smithsonian concerning the Kiowa people.

Hansson's research work, entitled *A Guide to the Kiowa Collections at the Smithsonian Institution*, was published February 27 by the Smithsonian Contributions to Anthropology, Number 40. Intended as a guide for researchers, this 444-page publication, which includes numerous historical photographs, is the first of its kind about a specific tribe and a model that can be employed in similar projects for other tribes nationwide.

During this intense research and educational experience, Hansson worked alone each day from 8 a.m. to 5 p.m., delving into every facet of the Smithsonian collections, including the archives, storage, art galleries, fieldnotes, manuscripts, and material culture items—artwork, clothing, ceremonial items.

Hansson's fluency in Kiowa enabled her to add important information to the field notes of **James Mooney**, who conducted the first extensive research among the Kiowa for the Smithsonian's Bureau of American Ethnology. Mooney's work from 1891 to 1918 is one of the largest and most comprehensive documentations about an Indian people in the United States. His handwritten notes included Kiowa words that were not understood by others. With her extensive knowledge of Kiowa genealogy, Hansson also was able to name unidentified Kiowa leaders in historical photographs.

When Mooney made contact with the Kiowa, they were among the last of the original Indian civilizations of the southern plains maintaining their culture and traditional ways. The painted heraldry of many Kiowa leaders especially interested Mooney. Specific designs belonged to a person or family. Tipi and shield designs of chiefs and medicine men could not be copied or used by others, because of the sacred and ceremonial meaning to the owners.

The Kiowa had six recognized divisions or sub-tribes, each having its own chief, subordinate to the head of the tribe. The rights to use these designs are passed on or inherited by certain family members. This heraldry was displayed in full only once a year when the six Kiowa political divisions reunited for their annual sundance, forming the complete camp circle.



The Kiowa kept pictographic calendar histories of events. The record above—the *Onco* calendar—covers 37 months from August 1889 to July 1892.

At times, Hansson's Kiowa research revisited her family's history. On her maternal grandfather's side, Hansson's great great grandfather, medicine man **Taybodal**, a tribal historian and respected elder, had related the history, legends, and cultural practices of the Kiowas to James Mooney.

Taybodal described the earliest historic knowledge of the Kiowa as living near the Yellowstone area and Missouri Rivers, in a region of great cold and deep snow. The Kiowa then had no horses and used dogs and the



Below, at left, Marian Hansson wears a traditional white buckskin Kiowa dress with intricate bead work and family heraldry at the American Indian Exposition in Anadarko, Oklahoma, in 1996. At right, Hansson, wearing a skirt and vest she designed with hand-painted traditional Kiowa artwork, visits with a Comanche friend in Washington, D.C.

On her father's side of the family (**Rickey Kaulaity**), Hansson's great grandfather was **Chief Red Tipi** of the Elk division. This political division took the lead in war ceremonials. Red Tipi's sons were Kaulaity, Bointy, Tsoodle, Ahhaitty, and White Bear. Her paternal grandmother was also a medicine woman and keeper of the buffalo medicine.

At Interior, Hansson is the curator of museum property for the Bureau of Indian Affairs, providing accountability and management for the Department's collection of Native American and Alaskan Native artwork and artifacts—more than 21,000 items. But of equal importance, she notes, the work allows her to continually apply her expertise in documenting the history and types of materials used in Native American artwork and craft items.

Kiowa Artists

In 1918, a select group of young Kiowa was given formal art instruction through the auspices of a mentor, **Mrs. Susan Peters**, who later would be instrumental in seeing the same group enrolled at the University of Oklahoma School of Art.

This group, which included **Spencer Asah, Stephen Mopope, Jack Hokeah, James Auchiah, and Monroe Tsatoke**, became known as the Five Kiowa Artists. They



Above, a section of a mural painted by Kiowa artist James Auchiah. The full mural adorns a wall of the Main Interior Building cafeteria.

were the first Native American artist to receive international recognition for their work. The influence of this group on succeeding generations of Indian artists, not only among the Kiowa, but also among their

fellow southern plains' tribesmen, has been of inestimable importance. Two Kiowa artist, **James Auchiah** and **Steve Mopope**, painted murals on Department of the Interior walls, under a government commission.

The Early History of the Kiowa People

travels for travel. A nomadic and adventurous people, the Kiowa traveled out onto the plains, where they acquired horses which revolutionized their lifestyle. On the plains, they came to know the Cheyenne, Arapaho, and Dakota tribes.

The horse was the medium of exchange in economic transactions. A man's wealth was reckoned in terms of the number of horses he owned. The Kiowa became one of the wealthiest tribes on the southern plains, according to a report of the

Commissioner of Indian Affairs. In 1869, the Kiowa—with about 1,500 people—had 6,000 horses.

Material wealth was important but closely linked to social rank and status. Noble personality traits and virtues were socially recognized and respected, and the highest honors were given to those who distinguished themselves in warfare. Ambitious warriors advanced socially by acquiring the necessary wealth with which to demonstrate generosity—distributing these riches among family and tribe.

Coral Death

Human Influence or Nature's Way?

Ellen Prager, Gene Shinn, Barbara Lidz, and Robert Halley
U.S. Geological Survey, Coastal and Marine Program, St. Petersburg, Florida

Coral reefs are one of the most diverse, productive, and economically significant habitats on Earth, and around the world they are changing.

Some of this change is the result of natural variability, and some reflects human influences. Recognizing the distinction between man-made impacts and natural variability in reefs can be a difficult task, but the distinction is crucial to our understanding of reefs and our ability to protect reef environments.

In tropical regions throughout the world, the deleterious effects of specific human activities are clear. Boat groundings and anchoring, dynamiting and the use of cyanide for fishing, and removal of coral for sale in souvenir shops have direct and obvious impacts.

Overfishing of herbivorous fish or the direct release of sewage into clear, nutrient-poor waters can promote rapid and destructive algae or sponge growth and possibly coral disease. High levels of silt from agricultural runoff or the release of pesticide-containing waters has also been shown to kill corals.

While these influences are clear, there is another class of reef decline in which the distinction between human and natural effects is not as easily discerned. Throughout the 400-million-year history of coral reefs, sea-level rise and storms (including *El Nino* events—the warming of ocean currents in the eastern Pacific which affects weather patterns throughout the region) have modified and altered coral growth.

Geologists have identified numerous sites where reefs flourished in the past, but many of these reefs are now dead or buried. Examples exist in the deep and shallow waters off the Florida Keys. Similar reefs once grew more than 50 miles off the west coast of Florida, an area now recognized as the Florida Middle Grounds. These reefs were growing some 2,000 to 10,000 years ago, when human influences on the sea were minimal. If we examine the rate of sea-level rise and typical coral growth rates, all of these reefs should have been able to keep pace with sea-level rise. So why did these reefs stop growing?

The Crowded World of Coral Reefs

Today, reefs show signs of decline even in remote areas throughout the world, making one wonder whether reef decline is a product of natural processes or instead reflects the global spread of human activities. Space on coral reefs is extremely limited. Therefore, some scientists believe that periodic disturbance is a necessary and natural part of sustaining a reef's high diversity. Storm waves commonly break corals and open new space, allowing for renewed colonization and increased competition.

In the Florida Keys, the last major storm event occurred in 1965. USGS research has indicated that before 1965, large storms hit the area every six or seven years. What effect has the last 33 years without a major storm had on Florida's reef system? In 1983 a Caribbean-wide plague killed approximately 95 percent of all the spiny sea urchins, *Diadema antillarum*, a natural grazer of algae growing on reef surfaces. Before that time, the *Diadema* population was extremely dense. Was this die-off a natural response to an excessive population?

How has the removal of the sea urchin population affected the composition of Caribbean reefs? Over the last decade, several diseases have infected corals world-wide—white-band disease, black-band disease, a spotty white pox disease, and a fungal infection on sea fans.

These diseases are believed to be the result of a coral pathogen or bacteria, but where it originates and why it strikes remains a mystery. One hypothesis is that these diseases have always been present in the ocean, but corals only become vulnerable to attack when already stressed by some other factor, such as pollution.



Above, coral bleaching occurs when the coral expels the color-giving, symbiotic algae from within its tissues. In this photograph, half of the coral head appears a healthy brown color and half is bleached white.

At right, USGS scientists drill a core from an individual coral head to examine a reef's growth history and investigate both human and natural impacts.



Are coral diseases a symptom of stress due to human intervention in the sea, or are they a natural phenomenon which is only now being recognized as longer time records become available and more reefs are being carefully scrutinized?

Human or Naturally-Induced Death

Coral bleaching is another phenomenon recognized world-wide. Bleaching occurs when corals expel the color-giving symbiotic algae living within their tissues. Bleaching has been shown to occur as a result of increased temperatures or ultraviolet (UV) radiation.

Has periodic and sporadic bleaching always occurred, or is it now more prevalent because we are beginning to see the widespread and intensified impacts of human population growth? Or is the perceived increase simply the result of more people looking more closely at the water than ever before? Scientists throughout the world are attempting to answer these questions through research.

At the USGS, scientists are using various techniques to study reef history and to differentiate human from natural impacts. Cores have been collected from large reefs to examine the reef's composition, age, growth, and geologic history.

Geochemical techniques are utilized to examine temperature variations, sea-level rise, and storm history. Monitoring wells have been emplaced to investigate the infiltration and content of sewage nutrients and pollutants in groundwaters beneath reefs.

A comprehensive survey and mapping of sand composition in the Keys suggests that study of the sediments may provide a means to assess and predict reef vitality. New studies have been proposed to examine the impacts of atmospheric dust, turbid coastal waters, and sediments on reefs. And other investigators continue to study sites of past reef growth and search for explanations for their demise.

A continuing USGS priority is to increase our scientific understanding of the critical interplay between the natural environment and human intervention. Further research is clearly needed to better differentiate man-made from natural impacts and variability in coral reefs. However,

given what we already know, it is possible to protect reefs and hope they flourish while we search for more answers.

The establishment of the **Florida Keys National Marine Sanctuary** and development of a management plan are an attempt to aggressively protect coral reefs from those activities that we know are harmful. Without such efforts, loss of coral reefs in Florida and around the world will cause devastating changes in the health of the physical environment that sustains life on Earth and the economic well-being of Earth's population.



Ship groundings, such as the one shown here in the Florida Keys, do extensive and permanent damage to the reef framework.

Coral reefs are built by tiny coral polyps—simple animals that work together in huge colonies. The polyps are mostly soft stomach surrounded by a hard limestone skeleton. When the animals die their skeletons—by the billions—add new layers of limestone to the reefs over the centuries. Coral reefs grow in tropical waters where the temperature is more than 70 degrees Fahrenheit year-round. They are found in more than 100 countries.



Saving Swainson's Hawk

Patricia Fisher

A wildlife puzzle involving a precipitous decline in the number of Swainson's hawks returning to the United States each spring was solved recently. During special ceremonies at the Embassy of Argentina in Washington, D.C., the U.S. Fish and Wildlife Service recognized the exemplary on-the-ground effort by Argentinean wildlife agencies in helping to save the hawks.

In recent years, biologists knew the number of Swainson's hawks breeding in some areas of North America was plummeting but they couldn't determine why because no one knew exactly where the birds wintered. During the past three years, U.S. wildlife biologists fitted a number of birds with miniature satellite transmitters. They followed the hawks' flight and located the wintering grounds in the Pampas region of central Argentina.

Researchers discovered thousands of Swainson's hawks dying from the misuse of the pesticide monocrotophos to control grasshopper devastation in Argentinean alfalfa fields. The birds were literally falling from the trees as they roosted during the night. During the winter of 1995-1996, wildlife biologists estimated 20,000 hawks died from ingesting grasshoppers that had been sprayed with the pesticide. Grasshoppers are one of the birds' favorite foods.

Recognizing that quick action was necessary to stem this loss, the Service facilitated a partnership made up of several Argentinean wildlife agencies, the academic community, the private sector, and other concerned organizations, including the prominent

chemical manufacturer Ciba-Geigy, a producer of monocrotophos.

The partners launched an intense effort to educate farmers and provide them with alternatives to monocrotophos, which is not registered for use on either grasshoppers or alfalfa. As the result of this cooperation, only 24 hawk deaths were reported this winter. Through its International Affairs Office, the Service provided Argentinean counterparts nearly \$150,000 to help fund activities such as the education campaign, surveys to monitor die-offs, and training in detection of pesticides.

"Migratory birds don't recognize borders," said **Acting Service Director John Rogers**. "This makes it important to look beyond our own backyards and be good neighbors saving wildlife."

Rogers recognized the special partnership between the United States and Argentina as he honored the Argentinean wildlife agencies whose grassroots work with the agricultural community was so crucial to the operation's success. At the May 8 ceremony, he presented Special Commendation awards to the *Instituto Nacional de*



The Swainson's hawk is an impressive brown and tawny bird about 24 inches long, with a 54-inch wingspan. These birds of prey are long-distance migrants, flying more than 6,000 miles between their breeding grounds in the western North American prairies and grasslands and their wintering grounds in Argentina's grasslands. They have voracious appetites for insects and small mammals and are often found near agricultural fields.



Tecnología Agropecuaria, Servicio Nacional de Sanidad y Calidad Agroalimentaria, and the Secretaría de Recursos Naturales y Desarrollo Sustentable. Ambassador Raúl Granillo Ocampo accepted the awards on behalf of the three agencies.

"This year marks the 35th anniversary of the publication of Rachel Carson's *Silent Spring* in which she warned that the continued use of pesticides would doom migratory birds," said Rogers. "The episode of the Swainson's hawks puts us on notice that we must continue to be vigilant and take quick action when birds are threatened by pesticides."

The International Affairs Office implements the Western Hemisphere Program, a regional initiative that develops and strengthens the capacity of Latin American and Caribbean nations to manage and conserve biological diversity for the benefit of local communities. The program supports projects related to human resource development, information exchange, and environmental education.



Students from Belmont Elementary School in Woodbridge, Virginia, and the *Escuela Argentina de Washington* also participated in the May 8 event celebrating the successful multi-national effort. Fourth-, fifth-, and sixth-graders from each school took part in a Swainson's hawk poster contest to reflect the theme, "Good Neighbors Saving Wildlife." Acting Director John Rogers presented special certificates to the top three winners from each school. The first-place artists exchanged their posters, which will be exhibited at the two schools. "The children said it all with their great designs," said Rogers. Ambassador Raúl Granillo Ocampo is at far right in photo on left. Photos by Tami Heileman, ISC



Beetle Mania Sweeps Great Lakes Region

Larry Dean

Just as the rush to the music stores for the Beatles Anthology collection has subsided, natural resource agencies are getting lined up for yet another beetles release, also from Europe.

These are beetles of the insect variety, however, bred by staff at Cornell University in a project funded by the Fish and Wildlife Service's Federal Aid program. And these insects hold the key to controlling the spread of purple loosestrife (*Lythrum salicaria*).

Loosestrife plants are hardy perennials originating in Europe and Asia with a beautiful purple flowerhead. The plant forms dense stands in a wide range of wetland and lakeshore habitats, replacing native plants, degrading food, shelter, and nesting sites for wildlife. There are no current chemical or mechanical means to provide long-term control against the spread of loosestrife, but insects from Europe—leaf- and flower-eating beetles and root-feeding weevils—are natural predators capable of minimizing the number of plants. However, these insects are not native to North America.

Research into this form of biological control, begun at Cornell University in the mid-1980s and in 1992, led to the introduction of four species of European insects in North America. The insects were tested on various plants, including farm crops, to make sure they would not attack beneficial plants and therefore become nuisances themselves. Research indicated the insects would starve rather than eat anything other than loosestrife and the project moved on to the breeding and placement phases.

The Service's Great Lakes-Big Rivers region was part of the first release of these insects, with about \$300,000 from the Service's Federal Aid program going toward this effort. The program has been so successful that refuges such as Sherburne, Horicon, Shiawassee, and the Upper Mississippi River MacGregor and Winona Districts have taken on propagation of these insects for future releases as needed on Service lands. The grant sources for the initial production came from a combination of Federal Aid and North American Wetlands Conservation Act monies.

Jim Mattson, purple loosestrife coordinator for the region, pointed out, "The goal of this biological

control effort is not elimination of purple loosestrife, but rather keeping the plants at a manageable level. If all of the plants are gone, the insects won't have the food they need to survive and any reintroduction of loosestrife would rekindle the problem of the plants spreading uncontrolled."

Mattson also noted that purple loosestrife has a 175-year head start and would be difficult to eliminate totally. However, distributing the European insects shows clear signs of success at reducing populations of healthy plants. A minimum of 500 to 1,000 insects are normally released per site. This often results in visibly defoliated loosestrife plants after the first year and a combination of large reductions in the plant mass and the rebounding of native plant species by the second year.

To date, about 25,000 insects have been released on Service lands in the Great Lakes-Big Rivers Region. An additional one million are anticipated for release this year throughout North America. Purple loosestrife is found in 49 states and Canada.

Interior has helped to develop a national strategy to fight the war on non-native invasive plants, page 21.



December Deadline For Community Nominations

Communities interested in winning a first-round designation as an American Heritage River must submit nominations by early December.

An interagency committee will review the nominations before making its recommendations. President Clinton will designate the first ten American Heritage Rivers by year's end. The program's principles and criteria were developed through an interagency team convened by the White House Council on Environmental Quality. Federal agencies hosted a series of 12 meetings across the country in April and May that enabled the interagency team to discuss the proposal with local community representatives and private sector leaders and learn of their needs. On May 19, the draft American Heritage Rivers initiative was published in the Federal Register to gather more public comment by mid-August. After that, the Cabinet will review the comments and prepare final recommendations for the President.

Because of its majestic waterfalls, the Niagara River, which flows through part of New York State, has become one of the better known rivers in the nation, drawing millions of visitors annually.

American Heritage Rivers

Roger Stephenson, National Park Service

Great rivers define America.

They helped to build the nation, linking communities through transportation and commerce, providing critical natural resources for development, enriching cultures and aesthetic appreciation, while creating unique American ways of life.

The continent's first inhabitants developed thriving agricultural civilizations along the major waterways. The rivers and estuaries of the eastern seaboard—from the Hudson and Delaware to the Savannah and James—nourished the first European settlements. The fledgling USA was a union of river communities before it was a continental nation.

The majestic Mississippi and its tributaries—from the Missouri and Ohio in the north to the Arkansas, Tennessee, and Red Rivers in the south, opened the interior of the continent, linking the vast American heartland from the Great Lakes to the Gulf of Mexico. And the awe-inspiring watercourses of the West, from the mighty Columbia to the rugged Colorado, continue to provide the region's life blood for development.

Yet, as important as these rivers were to America's past, they are equally vital to the nation's future. Recognizing their continuing commercial and cultural significance, many American communities are working with government and private groups to revitalize their river corridors.

The Mississippi River, the greatest of America's waterways, has served not only as a vital commercial artery for the nation's heartland but also as an inspiration for American artists. While Samuel Clemens (Mark Twain) may be the best known writer influenced by the river, thousands of others, including poets, songwriters, painters, and photographers have heard its siren song. The Mississippi's heritage, often associated with the paddle-wheel riverboat, continues to be a valuable regional resource, generating tourism and recreational opportunities for local communities.



"From the Pine River in Michigan to the Blackstone River in New England, community groups are cleaning up their rivers and breathing new life into their towns," said **Secretary Babbitt**, who has met with coalitions working to protect more than 70 waterfronts around the nation.

"These meetings not only highlighted the successful interaction of local and federal programs, but also demonstrated the tremendous potential to integrate those programs and spread these ideas across the country."

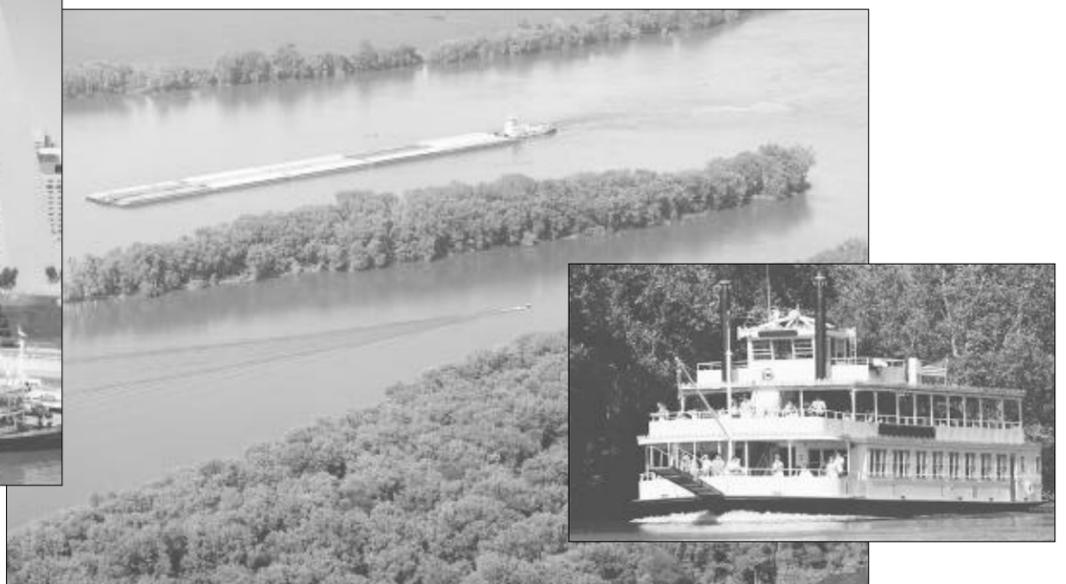
To help these communities restore the legacy of their rivers, **President Clinton** has launched a Cabinet-level initiative to refocus and redirect federal programs, grants, and technical assistance to provide special support to local groups that are working to improve stretches of America's heritage waterways.

First announced in his State of the Union Address earlier this year, the American Heritage Rivers initiative aims to recognize the ambitious efforts that many river communities are making to revitalize their surroundings, create a healthy environment, and protect their historical and cultural heritage.

"This initiative is intended to support community plans—including environmental and public health protection, recreation, and job creation," said Secretary Babbitt. "To accomplish this, the Administration will better coordinate federal environmental and cultural programs with the communities along the rivers, and provide these groups better access to existing federal resources."

The partnership will be created from the community up—through local, state, tribal, and federal governments—rather than from the top down, Babbitt explained. "It is not a land grab for rivers. On the contrary, it is an effort to increase community stewardship of rivers, not to increase federal management around rivers," he emphasized.

"This program is not about more regulation. It is about more effective action. It redirects federal resources toward communities that are striving to preserve their cultural heritage. This initiative does not alter state, local, or federal laws," Babbitt said. "Our experience has been that greater community involvement and careful consideration of a community's needs can mean that federal agencies make different—and better—decisions."



The projects that will be undertaken will be funded under existing budgets through smarter utilization of existing resources. The program is an organizational tool to make a broad array of dozens of existing federal programs more effective. Each project will be different. Depending on a specific community's proposal, it may be appropriate to fund activities within clean water projects, or under habitat restoration partnerships, or possibly under humanities grants.

What Does It Mean To Be Designated?

American Heritage River designations will recognize outstanding community-based efforts to ensure the vitality and place of the river in community life for future generations.

In Denver this could mean developing parks along a river. In Mesa and Phoenix, Arizona, it might mean enhanced recreation in the river. In Cleveland, it could encourage riverside commercial development that will revitalize the surrounding community. In Chicago, it might give urban youths the opportunity to teach others about their river—opening the door for those students to become scientists and environmental professionals.

The President will designate rivers where communities have demonstrated, through a one-stop application process, that local partnerships are in place to protect distinctive qualities of their river and surroundings.

To qualify for the American Heritage Rivers program, sponsoring communities or organizations must demonstrate broad community support for a revitalization plan that includes a commitment of non-federal resources; local and regional partnership agreements; strategies that lead to action; and an ability to achieve measurable results. The nominations should include information on the importance of the river to the culture, history, economic development, public health, and environmental quality, as well as the way of the life of the locality.

Designated rivers will receive special recognition from President Clinton. Each American Heritage River will serve as a model of the most innovative, economically successful, and ecologically sustainable approaches to river restoration and protection for communities across the United States.

Designated communities will receive focused support in the form of programs and enhanced services, including a "river navigator"—a federal employee who will work with and alongside the community to provide access to the federal agencies and simplify program delivery. The programs that would be involved would depend on the community's specific needs.

Each community also will receive a commitment from federal agencies to act as "Good Neighbors"—to formally and thoroughly consider the effects of their actions on American Heritage Rivers in making decisions that affect communities.

During the first year, federal agencies not only will focus on improving service and program delivery to the designated river communities, but also will improve information access and service delivery to all river communities. There will be an emphasis on establishing stronger intra- and interagency communications systems and incentives for field staff to rely more on partnerships with other federal agencies.

Implications for Interior Agencies

Taking advantage of designated American Heritage Rivers as reinvention laboratories, federal agencies can examine new ways in which to coordinate people and resources to assist all river communities in their river restoration and community revitalization efforts.

Interior agencies have historically helped local efforts to restore and revitalize river communities, and this work will continue. But the Interior employees who will be coordinating the Department's participation in the new initiative expect to be especially busy this summer.

That's what the National Park Service's **Chris Brown**, of the Rivers, Trails, and Conservation Assistance program, anticipates as he and others active in the interagency venture inform and educate Interior employees, and promote those Interior programs that can best serve river communities.

Brown represents Interior on the interagency panel charged with blending the environmental, historic preservation, and economic development programs which exist in the federal government and can be tapped to benefit river communities.

The initiative also offers important benefits to Interior agencies, Brown points out. "The initiative will encourage businesses and other nongovernmental partners to engage in restoration efforts, and in so doing will introduce government workers to innovative, non-traditional solutions that can extend an agency's ability to serve the public."

"Front-line employees will learn about programs and services available not only from other federal departments, but from corporations, and local institutions as well," Brown explains. "Federal employees active with an American Heritage River will be able to learn from and take advantage of new-found expertise, and in turn become more informed providers of services to the American public."

As part of the initiative, the National Park Service is compiling what may be the first (and largest) river restoration publication of its kind—a nationwide, interagency directory of specialists from participating federal agencies, including the Departments of Interior, Agriculture, Commerce, Defense, Energy, Justice, and Housing and Urban Development, the Environmental Protection Agency, Advisory Council on Historic Preservation, Army Corps of Engineers, and the National Endowment for the Humanities. The directory will be a valuable toolbox for river communities.

Interior field staff also participated in a 2-hour video orientation to the initiative. The briefing originated in Washington, D.C., on June 17, and was made available to dozens of downlink sites across the country. (Call **Jennifer Pitt** at (202) 565-1185 for more information.)

These men and women will serve as important local contacts whether a community chooses to compete for a designation, or decides simply to seek information and guidance. The field staff will be listed in a resource packet mailed out in late June to more than 40,000 individuals and organizations with an interest in river restoration.

Roger Stephenson is a special assistant for communications to the director of the National Park Service.



Internet Communication Services and Interior Bureau Contacts

The American Heritage Rivers Home Page is located at <http://www.epa.gov/OWOW/heritage/rivers.html>. It will provide links to all participating federal agencies. An American Heritage Rivers Riverfront Internet Page will present a broad array of goods and services from which to choose. This electronic tool kit will be customer-driven, so that users can easily scan the tools available and quickly find and obtain those that best fit their community's interests. The information is intended to provide hands-on, step-by-step help to communities that are just beginning to protect historic structures, define cultural landscapes along the river, or restore and revitalize their rivers.

Interior employees interested in learning more about the American Heritage River Initiative may do so by calling **Karen Hobbs** of The Council for Environmental Quality/American Heritage Rivers at (202) 395-7417, or by calling their agency contact listed below:

Chris Brown, National Park Service-Rivers, Trails, and Conservation Programs, at (202) 565-1200; **Jennifer Pitt**, NPS-RTCA, at (202) 565 1185 and **Kevin Foster**, at (202) 343-5969; **Steve Blanchard**, U.S. Geological Survey, at (703) 648-5033; **Craig Czarnecki**, U.S. Fish and Wildlife Service, at (703) 358-1718; **Fred Fox**, OSM, at (202) 208-2567; **Jim Handlon**, Bureau of Reclamation, at (202) 208-6252; **Gary Marsh**, Bureau of Land Management, at (202) 452-7795.



Gordon Eaton, Director
Kathleen Gohn, Bureau Editor



Contaminants Affect Hormone Levels in Fish Across the Country

Study Finds Cause for Concern

Levels of fish sex hormones—estrogen and testosterone—may be affected by contaminants in some U.S. streams, according to a recent USGS report. These hormones, which are produced by the endocrine system, regulate important physiological functions, including sexual development and reproductive ability. The national reconnaissance study that produced the report is the broadest investigation to date of the potential for endocrine disruption in fish.

“The finding of a correlation between hormone levels and contaminant levels in fish from such diverse locations is both a cause for concern and a call for further investigation,” said **Dr. Gordon Eaton**, USGS director. “With its extensive water quality and new biological research capabilities, the USGS has a unique responsibility to provide critical resource information such as this to policymakers across the government and in the private sector.”

The study did not assess whether the apparent disruptions in endocrine systems have adversely affected fish. “Since altered sex hormones may cause reproductive impairment, we need to follow

up this reconnaissance study with detailed assessments of fish reproduction at selected sites,” said **Steve Goodbred**, USGS research scientist and senior author of the report.

More than 600 common carp were collected and analyzed from 25 streams in 13 States and the District of Columbia. The selected streams drain areas with a wide range of land uses and different degrees of contamination. Results of the study indicate significant differences in sex hormones and vitellogenin, an estrogen-controlled protein necessary for egg development in fish and birds. Although some of these differences probably result from natural variability, correlations between contaminants and the levels of sex hormones in carp indicate that some of the site-to-site differences were associated with certain contaminants.

It is not yet possible to pinpoint which specific contaminants or factors may be related to the significant differences noted among the hormones. The groups of contaminants that were significantly correlated with hormones were pesticides in water, phenol compounds in streambed sediments, and organochlorine compounds in biological tissue.

The study was a collaborative effort among the National Biological Service (now the Biological

Resources Division of the USGS), the USGS, and the University of Florida’s Biotechnologies for the Ecological, Evolutionary, and Conservation Sciences Program. Most of the sites sampled are established water-quality sites of the National Water Quality Assessment program, a major USGS initiative responsible for assessing the levels and distribution of contaminants in the nation’s water resources.

The report is entitled *Reconnaissance of 17 β -estradiol, 11-ketotestosterone, vitellogenin, and gonad histopathology in common carp of United States streams: Potential for contaminant-induced endocrine disruption*. It was authored by Steven L. Goodbred, Robert J. Gilliom, Timothy S. Gross, Nancy P. Denslow, Wade B. Bryant, and Trenton R. Schoeb (USGS Open-File Report 96-627). The report is available for inspection on the World Wide Web at <http://water.wr.usgs.gov>.

Assessing the Red River’s Historic Flood

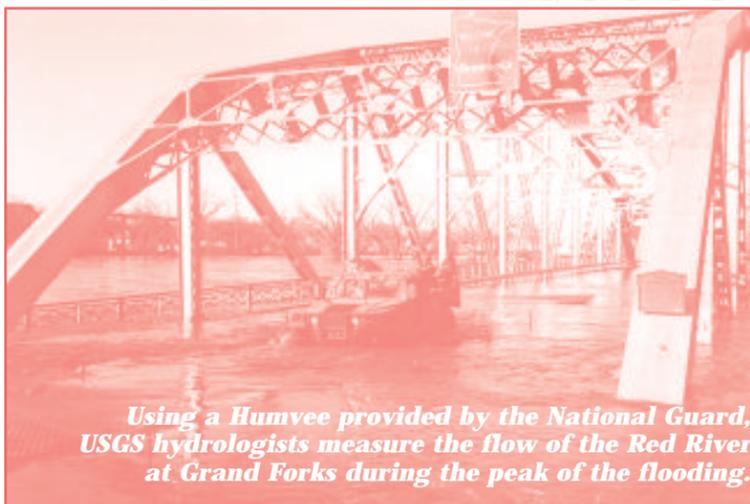
As North Dakota’s Red River receded after record spring flooding, USGS specialists began studying the flood’s effects on river structures and water quality, and collecting streamflow information to refine flood forecasting models.

The April-May flooding in North Dakota far exceeded previous floods in 1950, 1969, 1978, 1979 and 1996. On April 17, flow of the Red River of the North at Grand Forks, North Dakota, broke a 100-year-old record of 85,000 cubic feet per second (cfs) or 55 billion gallons per day (bgd) that was set in 1897. The river continued to rise until it crested about 54 feet at Grand Forks on April 21, exceeding the maximum flood level recorded in 1897 by about four feet; the maximum flow was 112,000 cfs (72 bgd).

As the floodwaters receded, the USGS, in cooperation with several state agencies, began making additional measurements to assess the flood’s overall impact. In the aftermath of a flood, USGS crews monitor the flow of the affected river to build a comprehensive profile of the flood, to track evidence of scour at bridges, which can be severely eroded and destabilized during floods, and to sample water quality to determine the presence and movement of toxic chemicals and sediments as the result of the flooding.

Discharge measurements are essential to developing flood-forecasting models and helping to understand the nature of a particular flood. In addition, streamflow discharge data collected by the USGS are the basis for the design of dams, bridges, water-treatment and waste-water treatment plans, and the formulation of environmental regulations.

While river stage—the height of the river during a flood—is an important piece of the flood picture for the public, river discharge is more commonly



Using a Humvee provided by the National Guard, USGS hydrologists measure the flow of the Red River at Grand Forks during the peak of the flooding.

used for technical design and scientific study. Many engineering structures (flood-control reservoirs, for example) are designed to pass, treat, or hold a volume of water for a specific period of time. In these cases, the discharge is the primary design variable and the piece of information that is most highly valued.

In addition, in order to use streamflow data, scientists must often transfer data collected at one site to other locations along a river course or to nearby rivers where data are not available. For most purposes, discharge data provide the most transferable information. Discharge at one site is often directly related to discharge at other sites on the same or nearby rivers, but river stages at different sites are rarely correlated as easily and usually are of limited value beyond the immediate vicinity at which they are collected.

Nationwide, 1997 has already been a year of extensive flooding. Since January 1, more than 175 USGS streamflow-gaging stations have been

seriously damaged or destroyed by major floods in California and Nevada, the Pacific Northwest, the Ohio River Valley, and North Dakota. The USGS worked quickly to replace and repair stations and to keep the information flowing from this network.

Through its network of 7,000 streamflow-gaging stations, which are cooperatively funded by more than 700 federal, state, and local agencies, the USGS provides vital information to the agencies responsible for flood warnings and river forecasts. Under this program, which has operated since 1887, the USGS collects streamflow information needed by federal, state and local agencies for planning and operating water-resources projects and for watershed management, in addition to flood warnings.

In recent years, the network has changed considerably with the advent and widespread use of real-time streamflow data. More than 60 percent of the stations in the network use satellite radio transmitters to broadcast data 24 hours a day directly to cooperators like the National Weather Service, who in turn use the information to provide river forecasts and flood warnings. The number of stations equipped with data-collection platforms, which provide for the real-time data, has more than doubled in the past ten years, even though the overall number of gages is decreasing.

General access to the real-time data is available through the World Wide Web on the Internet. Those in need of information on the height and flow of a river—from flood forecasters to fly fishers—can access state-by-state information through the USGS main home page at: <http://www.usgs.gov/>. By clicking on the word “water” and then accessing “real-time streamflow,” users can click on the state for which they need information and then the individual river where gaging stations are located.

Helping Restore Appalachia's Damaged Streams

In partnerships with other federal agencies such as the Office of Surface Mining (OSM), states, academia, industry, and local interest groups, the Biological Resources Division of the USGS is helping to restore acid-damaged streams in the Appalachian coal region. BRD is helping to reduce recovery costs and improve aquatic resources by developing new technologies to treat the acidity and by producing new information on biological effects to assist management.

Appalachian streams provide unique recreational opportunities for an expanding urban and suburban population. However, many of these streams also suffer from the degradation created by the extraction of another important Appalachian natural resource—coal.

More than 8,000 miles of streams in the Appalachian coal region have been affected by acid mine drainage (AMD). In Pennsylvania alone the 3,200 miles of stream degraded by AMD create an estimated annual loss of \$67 million in revenue associated with sport fishing.

Additional miles of streams have been acidified by the byproduct of burning coal—the emissions form acidic deposition that is transported in the atmosphere, traveling long distances to affect even remote streams. In Pennsylvania, for example, it is estimated that more than 1,800 miles of trout streams are influenced by this form of acidity. New cost-effective treatments are needed to restore stream water quality degraded specifically by AMD. One such tool has been designed and is being developed by the USGS Leetown Science Center in cooperation with the Freshwater Institute, Shepherdstown, West Virginia. The equipment was demonstrated during a recent visit by OSM's Acting Director Kathrine Henry.

"The pulsed-bed design of this new equipment uses carbon dioxide to improve dissolution of granular limestone, increasing alkalinity and reducing acidity in the treated water," explained Barnaby Watten, a scientist at the Leetown Center. "This technology also prevents metal coating of the limestone materials used for treatment." Limestone is a natural buffering agent, but it often becomes covered by the iron that precipitates during the

treatment reaction, in a process called "armoring."

Preliminary trials of the equipment have been very promising. At the National Park Service's Friendship Hill Historic Site in Pennsylvania, the treatment of an AMD stream on the property raised the pH of the water from 2.6 to 7.3, well within the range of a biologically healthy stream. Additional field tests, supported by a USGS State Partnership grant, are currently underway at the state-operated Toby Creek AMD treatment plant near Kersey, Pennsylvania.

A patent application has been submitted and the next steps in the process include further field tests and the use of cooperative research and development agreements to assist in the technology transfer.

Related biological studies are examining the behavioral effects on fish exposed to acute increases in dissolved carbon dioxide and determining the health of wild fish after stream treatment. Bill Krise at Leetown Science Center's Research and Development Laboratory in Wellsboro, Pennsylvania, and colleagues at Pennsylvania State University are concurrently conducting this research.

The toxicity of AMD effluent on fish and aquatic invertebrates and the effects of manganese, one of the metal precipitates, is also being investigated. Additionally, cooperators at Cornell University are developing a computer program that will simulate performance of the equipment and assist in field applications.

The Leetown Science Center has worked since 1985 to develop and demonstrate treatment technologies for Appalachian highland streams damaged by acid deposition. "Working with the West Virginia Department of Natural Resources, a rotary drum treatment system was tested on Dogway Fork and application of this technology has contributed to



Barnaby Watten, left, BRD scientist, explains the new AMD treatment technology being developed at USGS Leetown Science Center to Kathrine Henry, far right, acting director of the Office of Surface Mining, during a recent demonstration. From left, are Watten, Fred Fox (OSM), Vermell Davis (OSM—with back to camera), Hardy Pearce (BRD), and Kathrine Henry.

the restoration of approximately 25 miles of the Cranberry River," said R. Kent Schreiber, the research manager at the Leetown Center.

The restoration effort has provided additional fishing opportunities that add an estimated \$2 million annually to the revenues of the State of West Virginia. This technology, as well as the cooperative effort to test direct application of limestone sands to the stream bed, is now being used on other streams with measurable success. "One of our goals in building these cooperative projects," said Center Director Bill Palmisano, "is to demonstrate the effectiveness of partnerships and a shared vision to improve our resource management."

By participation in Appalachian Clean Stream Initiative, Eastern Mine Drainage Federal Consortium, and Mid-Atlantic Highlands Coordinating Council, the USGS has joined with more than 40 government and citizen groups to ensure this technological and biological information is widely distributed.

Geologic Division Targets AMD

Several projects within the USGS's Geologic Division are focussed on aspects of acid mine drainage in the Appalachian basin. AMD associated with mineral deposits is also a significant problem in the region. For both coal deposits and mineral deposits, the culprits are the same: pyrite (iron sulfide) and other heavy-metal sulfide minerals that weather to produce acidic, heavy-metal laden waters.

The primary objective of the first project is to develop the ability to predict locations that are prone to acid mine drainage and other potentially hazardous impacts of surface coal mining.

Current methods of sampling coal-bearing rocks to determine potential acid production in mining and reclamation are nonrepeatable and subjective, making prediction, mitigation, and treatment difficult.



Acid mine drainage destroys vegetation and impacts downstream areas miles from the pollution source.

This project is developing methods to use geophysical logging tools to chemically characterize the rock layers to predict the acid-producing and -neutralizing potential of the rocks.

The second project is determining the role of bacteria in the detection and treatment of acid mine drainage. Natural precipitates of iron compounds can easily be confused with AMD from active and abandoned coal mines. Bacteria that produce AMD create yellowish precipitates, in contrast to those producing reddish precipitates where neutral ground water discharges. This project has used remote sensing techniques to

discriminate between these two different kinds of precipitates, in cooperation with federal and state agencies tasked with environmental protection from AMD.

In cooperation with the National Park Service, industry, and other stakeholders, the Geologic Division is investigating the geochemical controls on acid mine drainage associated with massive sulfide deposits—deposits that are as much as 50 percent pyrite and heavy-metal sulfides. Historically, massive sulfide deposits have been valued for their sulfur content, and more recently, for the copper, lead, zinc, gold, and silver they

contain. Changing economic conditions have resulted in the abandonment of many of these mines.

The goals of the research effort are to provide a better understanding of the environmental signatures of these deposits to aid land-use planners and industry in their decision making process, and to improve our theoretical understanding of the environmental processes that affect these deposits to aid reclamation efforts.

At the Cabin Branch Pyrite Mine, now within the National Park Service's Prince William Forest Park, Virginia, the discovery of more economic sources of sulfur caused the closure and abandonment of the mine. The National Park Service recently reclaimed the site. The USGS is cooperating to evaluate the success of the reclamation by assessing the current ground- and surface-water quality.

In the Great Smoky Mountains National Park of North Carolina and Tennessee, the USGS is cooperating with the National Park Service to investigate the geochemical controls on water quality associated with the abandoned Fontana and Hazel Creek mines in the southern part of the park.

Preliminary results indicate that watersheds draining regionally extensive, pyrite-bearing country rocks in the park produce natural acid "rock" drainage that represents a greater load of acid and heavy metals than the comparatively insignificant drainage issuing from the abandoned mines, which locally have greater acid and heavy-metal concentrations. Ironically, the Great Smoky Mountains ecosystem has been adapting to the natural acid rock drainage for millions of years.

AMD Interest Group:
Additional information is available through the Internet Newsletter of the USGS Mine Drainage Interest Group at <http://water.wr.usgs.gov/mine/>



Pettinger Honored for Remote Sensing Work

The Alan Gordon Memorial Award was presented to USGS scientist **Lawrence R. Pettinger** by the American Society for Photogrammetry and Remote Sensing during the Society's annual convention in Seattle, Washington. The award was given in recognition of Larry's career accomplishments in remote sensing research, remote sensing program coordination, operational remote sensing applications, and technology transfer of remote sensing.

Larry Pettinger, left, receives the Alan Gordon Memorial Award from Dr. Tina Cary, president of the American Society for Photogrammetry and Remote Sensing.

The purpose of the award, which was presented on April 9, is to encourage and commend individuals who contribute significant achievements in remote sensing and photographic interpretation.

Our \$400 Billion Minerals Industry

The United States' output of mineral-based materials contributed nearly \$400 billion to the nation's economy in 1996, according to a new USGS report. *Mineral Commodity Summaries 1997* is the latest government publication to provide detailed information on 1996 events, trends, and issues in the domestic and international minerals industries.

The report summarizes minerals industry trends according to continent and mineral type and also provides an outlook for domestic minerals growth for 1997. It also provides statistics on the major world production of nearly 90 mineral commodities supported by cooperative information exchange partnerships with more than 60 countries.

According to Mineral Commodity Summaries 1997:

The value of U.S. raw nonfuel minerals production remained at \$38 billion in 1996. The value of domestic minerals production has increased in 30 of the past 36 years. The top three states were Arizona (\$3.5 billion), Nevada (\$3.2 billion) and California (\$2.8 billion). Delaware ranked 50th (\$11 million).

Total U.S. international trade in raw minerals and processed materials of mineral origin was valued at \$88 billion in 1996. Imports of processed mineral materials were valued at an estimated \$49 billion, and exports were valued at an estimated \$33 billion. Imports of metal ores and concentrates and raw industrial minerals increased 8 percent to \$2.6 billion. Exports of raw minerals increased slightly to \$3.1 billion.

The outlook for the domestic minerals industry in 1997 will depend largely on the demands for metals by the automobile industry and for industrial minerals by the building and highway construction sectors. These industries are significant consumers of steel, aluminum, copper, glass, cement, crushed stone, and sand and gravel.

On the international scene, global mineral priorities were focused on gold, nickel, steel, aluminum, cobalt, and base metals. Demand for industrial/construction minerals was fueled by economic growth in Asia and Latin America.

The report is available for purchase from the Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. The stock number is 024-004-02443-7; the price is \$16 inside the United States and \$20 if ordering from outside the nation. Individual two-page summaries are available through MINES FaxBack (703) 648-4999 and are on the World Wide Web at <http://minerals.er.usgs.gov/minerals>.

USGS Scientists Help Students Study AMD

Fourth graders at Kingwood Elementary School (Preston County, West Virginia) were treated to an acid mine drainage Earth Day activity by a bevy of earth scientists. The group included USGS scientists, **Eleanora Robbins** and **Melvin Mathes**, a USGS volunteer, **Cindy Warren**, and colleagues from USDA-Natural Resources Conservation Service, **Brooke Levy**, West Virginia State Soil Conservation District, **Jill Hauser**, and Monongahela Soil and Water Conservation District, **Mary Lebnick**.

The Cheat River Watershed Association also provided membership cards for each student. Teacher **Linda Newcome** had the students primed with water samples they collected from their wells, creeks, ponds, and the Cheat River.

Lacking fish in many rivers, Preston County is one of the places in West Virginia most highly affected by abandoned coal mines. Some samples were very acid indeed (pH 2.5—more acid than vinegar). Water from the drinking fountain and toilet were also tested for acidity (and hilarity), along with cola and non-cola soda pop, which are more acid than the streams in Preston County.

All the local data were transferred to a large map of the county. The activity was covered by reporters from a local newspaper and TV station. The following day, a parent sent in a note reporting that her son had shifted his career goal to becoming a scientist and saving mankind.



Students at Kingwood Elementary listen to USGS scientist Eleanora Robbins. In right foreground is Jill Hauser. Photo by Mary Lebnick



Teacher Linda Newcome and her 4th-grade students at Kingwood Elementary School in West Virginia. Photo by Mary Lebnick

Where Has All Their Water Gone?

USGS Maps an Answer

Since 1978, there has been intense political and legal controversy in southeastern Arizona over the effects of ground-water withdrawal by the Fort Huachuca Army base and the neighboring town of Sierra Vista on the nearly San Pedro Riparian Refuge.

The Upper San Pedro River basin hosts a remarkably diverse range of wildlife, some of it endangered. At the Ramsey Canyon Nature Conservancy Reserve, for instance, at least 15 different species of hummingbirds have been identified. In 1978 a Riparian Refuge was established along the San Pedro River, whose drainage basin extends into northern Mexico.

There are only a few wells in the area, so the extent and character of the water table are not well known. This lack of hard data was fundamental to the

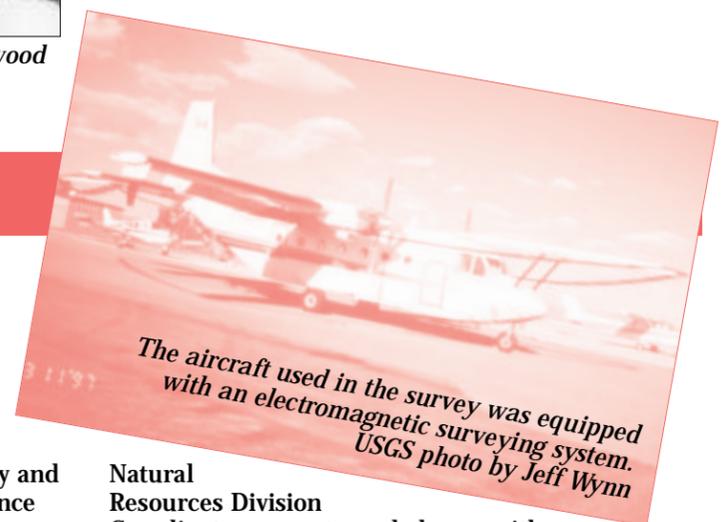
disagreements. Recently, USGS geophysicist **Jeff Wynn** extended earlier geophysical studies by supervising an airborne electromagnetic survey to characterize the ground-water hydrology of the Upper San Pedro drainage around the Army base.

The survey area included several active gunnery and artillery ranges, a busy unmanned reconnaissance aircraft test range, and a Drug Enforcement Agency-tethered drug-interdiction dirigible (called an Aerostat). Support from and coordination with local military authorities was excellent.

Jeff and his colleagues are still developing the software needed to fully interpret the new electromagnetic survey data, but the initial conductivity-vs-depth profiles examined go a long way toward explaining how the geology affects the aquifer in this region. The Army Environmental and

Natural Resources Division Coordinator was extremely happy with the results, because for the first time the entire water table has been continuously mapped.

The coordinator can now see, among other things, structures in the basin that both channel and block the aquifer in different places. Further analysis of this new data set should show the relationship (if any) between Upper San Pedro aquifer being tapped by the Fort Huachuca well-field and the surface water flow in the San Pedro Riparian Refuge.



The aircraft used in the survey was equipped with an electromagnetic surveying system. USGS photo by Jeff Wynn

Office of Surface Mining and Reclamation



Kathrine L. Henry, Acting Director
Jerry Childress, Bureau Editor

Kathy Karpan of Wyoming Nominated OSM Director

Calling her a "no nonsense administrator," **Secretary Babbitt** praised the selection of Wyoming state leader **Kathy Karpan** as the next director of the Office of Surface Mining Reclamation and Enforcement. President Clinton announced his intention to nominate Karpan on May 6. She must be confirmed by the Senate.

"Kathy Karpan has the background, experience, integrity, and impressive professional qualifications that are needed to help protect America's natural resources and carry out the vigorous program at OSM," Babbitt said.

Karpan was elected in 1986 and reelected in 1990 to serve as Wyoming's secretary of state, the second highest office after governor. Prior to that she spent two years on the Wyoming attorney general's staff and two years (1984-86) as director of Wyoming's Department of Health and Social Services, one of the largest agencies in the state government.

Karpan currently serves as the manager of Karpan & White Law Offices, and president of the Karpan & White Corporate Services. Her other work experience includes serving as deputy director of the Office of Congressional Relations and later as legal counsel in the Economic Development Administration, U.S. Department of Commerce (1978-81), during the **Carter Administration**.

She spent six years on the staff of U.S. Representative **Teno Roncalio**, as press secretary and later as chief of staff. Karpan also worked as a journalist for newspapers in Cody and Cheyenne, Wyoming, and for the Canberra Times in Canberra, Australia.

A native of Rock Springs, Wyoming, and the daughter of a coal miner, Karpan earned both a bachelor's degree in journalism and a master's degree in American Studies from the University of Wyoming, and a J.D. from the University of Oregon.



Kathy Karpan, a Wyoming state leader, attorney, experienced government administrator—and daughter of a coal miner—has been nominated by President Clinton to lead the Office of Surface Mining and Reclamation.

Upon confirmation by the Senate, Karpan will become the 13th director of the 20-year old Office of Surface Mining Reclamation and Enforcement. The OSM Director has policy and administrative responsibility for developing and enforcing mining regulations under the Surface Mining Control and Reclamation Act. The agency operates with an annual budget of \$271 million and a work force of 670 employees nationwide.



OSM EEO Specialist Diane Wood joins New Mexico State University vice president Averett Tombes, and WRCC Director Rick Seibel in signing a cooperative agreement to provide funding for Hispanic students to develop geographic information system coverages and scientific research relating to reclamation of surface coal mines in New Mexico, Kentucky and Tennessee. Support for this and similar initiatives is part of an OSM plan to increase educational and employment opportunities for Hispanic and other minority students.

Citizen Awards Program

OSM is establishing a program of Citizen Awards to recognize outstanding contributions by coalfield citizens and grassroots organizations to the implementation of the Surface Mining Control and Reclamation Act.

OSM Acting Director **Kathrine L. Henry** said nominations from the public are being sought in two categories: Regional Awards, and Partnership Awards. OSM also will present a Director's Award recognizing an individual's lifetime contributions.

"Citizen participation is at the heart of the surface mining program," Henry said. The surface mining law would not have come into being without the sustained efforts of coalfield citizens crusading to end the environmental abuses of the past and shift the country to new ways of mining coal with built-in safeguards for people and the environment.

"Once the surface mining law was passed, it created many avenues for citizens to get involved," Henry said. Thus individual citizens have a statutory role in practically every phase of the surface mining program.

"At the 20-year mark, it is only fitting for those whose contributions have meant the most to receive public recognition for their efforts on behalf of safeguarding the coalfield environment and protecting people's homes and farms from potentially damaging effects of coal mining.

Nominations should give the name, address, and telephone number of the individual being recommended for a Citizen Award, plus organizational affiliation, if any. The most important part of the nomination is a brief description (two to three pages) of the nominee's work on behalf of the implementation of the Act's programs and activities. Awards will be presented August 3, 1997, in connection with the Act's 20th anniversary observances. Completed nominations should be sent to the nearest Coordinating Center:

Appalachian Regional Coordinating Center, Office of Surface Mining, 3 Parkway Center, Pittsburgh, PA 15220, FAX (412) 937-2903; Mid-Continent Regional Coordinating Center, Office of Surface Mining, Alton Federal Building, 501 Belle Street, Alton, IL 62002, FAX (618) 463-6470; Western Regional Coordinating Center, Office of Surface Mining, 1999 Broadway, Suite 3320, Denver, CO 80202-5733, FAX (303) 672-5622.



Kathrine L. Henry
OSM Acting Director

Excellence in Government Award to Shirley Lahr of OSM's Denver Center



Shirley Lahr

Shirley L. Lahr of OSM's

Western Regional Coordinating Center in Denver, Colorado, has been named runner-up for Outstanding Equal Opportunity and Special Emphasis Program Coordinator as part of the 35th Annual Excellence in Government Awards Program, sponsored by the Denver Executive Board.

Beginning in January 1996, Lahr coordinated the Center's initiative for sponsoring minority candidates in the Department's Summer Intern Program. Her efforts aided summer interns in becoming familiar with mining and reclamation on Indian tribal lands, while also learning about the regulatory process that

governs those activities, in addition to exploring government employment possibilities.

During fiscal year 1997, Lahr assumed responsibility in OSM offices nationwide for ensuring the agency's compliance with laws and regulations for federally conducted programs and activities to ensure accessibility for persons with disabilities.

OSM officials said that Lahr's initiative both in the federal workplace and in implementing programs with states and tribes will have permanent benefits in making the federal/state/tribal workforce more diverse, and will result in a quality workforce with more cultural awareness.

In Honduras, Interior works to save an ancient homeland and Central America's greatest natural treasure.

Eric A. Greenquist

Last December the United Nations' World Heritage Committee added the Río Plátano Biosphere Reserve—Central America's most pristine natural area—to its "red list" of World Heritage in Danger.

The largest protected area in Honduras and part of the largest rain forest in Central America, the reserve joined 21 other listed world sites where the legacy of the earth and its peoples is most in danger of being lost. At Río Plátano, squatters and developers had cut and burned almost one-tenth of the 1,297,000-acre reserve. The land grab had erupted into violence, driving indigenous villagers from their ancient homelands.

The UN action did not surprise the Interior team that, for more than a year, has worked to help protect the reserve. Latin America, with more than one-half of the world's remaining tropical forests, has the highest rate of deforestation in the developing world. Working under the Partnership for Biodiversity, a three-year program funded by the Agency for International Development, Interior is helping to fight this rampant deforestation—the most environmentally destructive force in the Western Hemisphere.

Hunger drives much of the invasion. "The food situation in Honduras is critical," says **Osmín Padilla** of the Honduran Ministry of Health. At least 1.2 million Hondurans suffer from life-threatening malnutrition. Sixty percent of Hondurans—5.7 million persons—eat what they can find to subsist.

In spite of the destruction, the reserve remains an important cache of biodiversity. Nine-tenths of the reserve are intact, not yet having experienced the deforestation and human population growth that have damaged the region. Conservation International calls the reserve part of the most critical two percent of the earth's land surface.

In keeping with its designations as a Biosphere Reserve and World Heritage Site, the area includes the homelands of four ethnic groups: the Miskito, Garifuna, Tawahka-Sumu, and Pech. These peoples number fewer than 16,000 persons in the reserve and subsist on small gardens, hunting, and fishing.

No one knows how many villagers the outsiders have displaced. But as intruders push villagers

from the land, and as villagers turn to outsiders for employment, traditional activities in the reserve give way to economically transient—and more destructive—land uses. In addition to commercial logging, squatters and developers use the land for intensive farming and livestock grazing, while miners contaminate the Patuca and Plátano rivers, sickening villagers. Indigenous residents cut mahogany for foreign furniture-makers, and work for miners and foreign fishing companies.

In September 1995 the Forestry Administration of Honduras, which is responsible for protecting the reserve, joined Interior, the Agency for International Development, and Peace Corps in the Partnership for Biodiversity. Because biodiversity conservation is closely tied to the fates of indigenous peoples, the Partnership chose as its leader MOPAWI—a nonprofit organization that helps villages in the region. All Interior specialists work for the Partnership intermittently, in addition to their normal workloads.

Environmentally Friendly Businesses

"The Río Plátano is a special place," says **Edgardo Bodden**, a Miskito villager in Raistá. "But people need work to live.... Jobs like lobster fishing and wood cutting are destructive and unstable.... We need local businesses that are not so destructive."

In 1995 MOPAWI and Peace Corps volunteer **Robert Gallardo** began a butterfly farm in Raistá on the north coast of the reserve. Villagers worked 4,700 hours to cultivate plants that wild butterflies seek for egg-laying. Several zoos in North America and Europe exhibit live butterflies; one zoo had promised to buy all the pupae the farm could produce. In the village of fewer than ninety persons, most of whom subsisted on small gardens and periodic jobs, this arrangement had seemed ideal.

surrounding rain forest. Those butterflies had been worth more than \$600: cash needed by the village. And the farm's second crop would be ready in only fifteen days.

Faced with disheartened villagers, MOPAWI alerted Interior. Within hours **Geneva Chong**, a botanist with the U.S. Geological Survey, and **Loren Cabe**, an economist with the Bureau of Land Management, found a new buyer and worked out terms for sale. Since then Geneva and Loren have found more buyers, made the farm more conservation-

Threatened

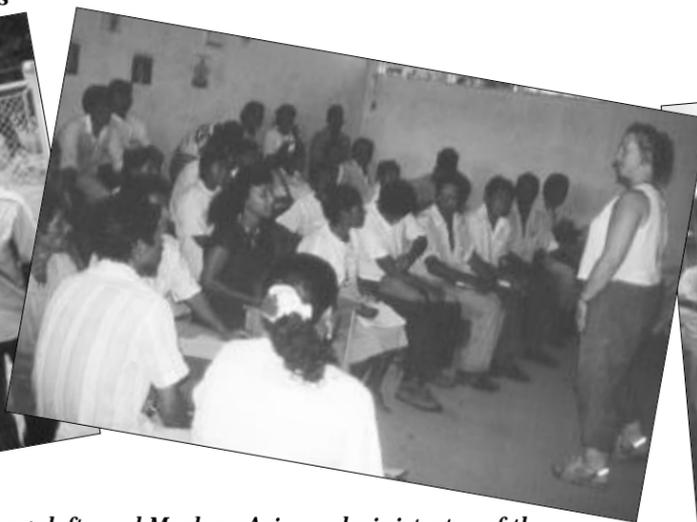
The Río Plátano Biosphere Reserve



The Río Plátano Biosphere Reserve and is a typical Miskito family home. In the heavy rains, all travel is by boat. Photo by Arden Anderson. (right and at left, or)



Last year, however, on the eve of the farm's first shipment, the zoo canceled its order. Suddenly without a buyer, villagers watched hundreds of butterflies emerge from their cocoons and flutter away into the



At top left, Geneva Chong, left, and Marlene Arias, administrator of the Raistá butterfly farm, prepare to capture live butterflies in a remote part of the reserve as part of a biological evaluation of the farm's potential. Photo by Eric Greenquist. Above, Arden Anderson, in the center of the group, leads Miskito and Pech villagers in Las Marías in one of the activities he used to help explain concepts of biodiversity conservation. Photo by Lisa Myers. At right, Lisa Myers leads a lesson in biodiversity values and conservation for Pech and Miskito villagers in Las Marías. Photo by Arden Anderson. At far right, from left, Arden Anderson, Loren Cabe, Lisa Myers, Tony Pardinás, and Eric Greenquist arrive in Palacios to begin work. Photo by Geneva Chong

d Legacy

osphere Reserve



oriented and helped solve a variety of biological and financial problems. To date the farm has sold pupae worth \$5,480 and its operation is far more stable.

Arden Anderson of the Bureau of Land Management and **Lisa Myers** of the National Park Service help the 380 villagers of Las Mariás, a Pech and Miskito community

in the heart of the reserve. As many as 280 tourists visit Las Mariás annually. Villagers see opportunities for service businesses. According to **Martín Aerrera**, president of the local ecotourism committee, as many as eighty villagers eventually could benefit from tourism.

Last September Arden and Lisa began a series of workshops to teach villagers about the needs of tourists for lodging, transportation, trails and guides. Working with village carpenters, Fish and Wildlife Service architect **Tony Pardinás** designed a village meeting house and structures to improve drinking water. The village asked for these designs, in part to develop ecotourism, and provided the materials and labor to build them. Interior provided tools and additional materials that villagers could not get locally. Villagers completed the meeting house and water pumps last month.

A key to developing local businesses is the ability of locals to operate them independently of outsiders. Loren Cabe helps Peace Corps volunteer **Paul Dickey** develop training programs for villagers, many of whom only recently learned about money.

Community-Based Conservation

Because the Forestry Administration of Honduras has no staff in the reserve, conservation efforts must rely on villagers. The indigenous peoples see the need for local controls. In a region where villagers hunt all wild animals for food, **Mariano Pagooda** of Las Mariás says, "I see scarlet macaws along the trails. I know tourists want to see scarlet macaws but if I don't shoot them someone else will."

According to **Dr. Gustavo Cruz** of the University of Honduras, indigenous peoples have caused local declines in populations of iguana, turtles, tapir, and other wildlife. **Oswaldo Munguía** of MOPAWI reports shortages near some villages of mahogany, cedar, ceiba (used for canoes) and tunu (used for clothing and handicrafts).



Above left, a Pech woman weaves a bag out of the bark of a majao tree.

The Partnership helps ensure that traditional handicrafts are done in a sustainable manner and provide needed income to villagers. Photo by Eric Greenquist. Above, Edgardo Bodden, a Miskito villager, arranges pupae ready for shipment to zoos and collectors. At right, Richard Enriquez, right, and Benjamin Morales, president of the indigenous organization RAYAKA, discuss local needs for organizational strengthening as they wait for a boat at Sacapesca. Richard used many such informal meetings to gain a more diverse sense of local ideas and concerns. Photo by Eric Greenquist



"Education will help villagers understand the long term effects of their actions," says **Lisa Myers**, who leads Interior efforts in environmental education. Lisa works with Peace Corps volunteers and teachers to develop course outlines for children and adults.

With education providing the motivation, **Richard Enriquez** of the Fish and Wildlife Service focuses on organizational and planning skills. "Many local grass-roots organizations need help conducting meetings, defining goals, developing strategies, and motivating village members," says Richard who has helped North American tribes develop conservation plans. Lisa and Richard teach the basic skills villagers need to manage local resources.

An example of community-based management is in Plaplaya, on the coast of the reserve, where villagers are restoring marine turtle populations. Until recently, the national fisheries administration of Honduras did all such work and only on Honduras' southern coast. In 1995, however, MOPAWI and the Joy Foundation paid Garifuna villagers in Plaplaya small stipends to protect the nests of loggerhead and leatherback turtles. That year, villagers saved 43 nests from poachers and released 1,007 baby turtles to the sea.

MOPAWI and fisheries administration biologists, helped by Peace Corps volunteer **Jocelyn Peskin**, continued this project in 1996 under a food-for-work program. "Villagers are motivated as much by a desire to protect turtles as by the food they receive," says **David Bowman**, a Fish and Wildlife Service biologist who helps train local villagers and works to expand this project to other communities. "People remember when nesting turtles were common," explains **Adalberto Padilla** of MOPAWI. "Now they search many nights just to find one." School children enthusiastically support the project, helping to release the baby turtles and scolding their parents for taking turtle eggs.

This project, however, is not sustainable. Neither MOPAWI nor the national fisheries administration of Honduras has the funds to maintain it. Interior, therefore, proposed a unique solution: If Honduras' fisheries administration agrees to establish a program of marine turtle conservation along the north coast within ten years, Interior will find donors to help fund it during the first decade. The fisheries administration is working to develop a strategic plan and budget to begin the program this year. Meanwhile, the Partnership continues the food-for-work program in Plaplaya.

Controlling Illegal Activities

The Honduras government needs a permanent presence in the reserve to monitor and control illegal activities. Under the Partnership, the Forestry Administration of Honduras agreed to staff two offices this year. The German Government will fund these offices and Interior will help the Forestry Administration begin conservation actions with village organizations.

Another need is to legalize the boundaries of the reserve. A 1992 Presidential Agreement expanded the reserve to 2,013,000 acres, but Honduras' National Congress never approved the new boundaries. With Partnership assistance, Forestry Administration officials drafted the needed legislation, which they expect their Congress to enact this year.

Perhaps the Partnership's biggest potential coup however, is a proposal by **Rigoberto Sandoval Corea**, the general manager of the Forestry Administration, to organize land uses within the reserve. As part of this process, Sandoval offered to grant 40-year use rights to indigenous villages. The Partnership helped to design this unprecedented offer. If completed, this would give villagers their first legal means to evict outsiders from their traditional lands.

Under the Partnership for Biodiversity, Interior is helping to lay the foundations of future efforts by villagers, government agencies, and organizations. While Interior will touch few communities, it will help to leave a legacy of improved cooperation and trained persons. During its first year, Interior has helped in many ways.

Donaldo Allen of the indigenous organization RAYAKA compares Interior's work with the past promises of help from other groups. "You are the last to arrive," he says, "but the first to begin."

Eric Greenquist is the district wildlife biologist for the Bureau of Land Management in Eugene, Oregon, and the Honduras project manager for Interior's Office of International Affairs. He can be reached at (541) 683-6114; Fax: (541) 683-6981; Email: egreenqu@or.blm.gov

Bureau of Indian Affairs



Ada E. Deer, Assistant Secretary
Ralph Gonzales, Bureau Editor

At right, Rob Baracker, the director of the BIA's Albuquerque Area Office discusses the need for increased communication between federal managers of programs for Native Americans and tribal leaders from the region.



San Carlos Apaches Sign Water Pact with Phelps Dodge

After marathon negotiation sessions, the **San Carlos Apache Tribe** reached a favorable settlement with Phelps Dodge Corporation over use of the Tribe's water and the ownership of a pumping station and pipeline located on reservation land.

The terms require Phelps Dodge employees to vacate the San Carlos Apache Reservation and abandon the pump station, pipeline, and a disputed right-of-way on reservation land by July 23. Interior's Bureau of Reclamation will operate the pump station and pipeline for an interim period of up to 18 months, providing water to Phelps Dodge for operation of its Morenci copper mine. Phelps Dodge will pay the tribe \$25,000 per month for use of reservation lands and all costs of Reclamation's interim operations so that no costs from the settlement are borne by U.S. taxpayers.

When the Bureau of Reclamation has had appropriate time to train members of the Tribe to maintain and operate the pump station and pipeline, Phelps Dodge will surrender its interest in all facilities and electrical transmission lines on reservation lands and no longer divert water from the Black River into the pipeline system or pump groundwater adjacent to reservation lands.

Instead, the San Carlos Apache will lease about 14,000 acre feet of water to Phelps Dodge that will result in payments to the tribe of about \$1 million per year in charges for the water and distribution system. Phelps Dodge also will provide an initial \$5 million cash payment for the lease and will pay all costs associated with the operation, maintenance, and replacement of the pump station and pipeline facilities from which the mine benefits.

The tribe will also agree under the settlement to dismiss a damage claim recently brought against Phelps Dodge in Tribal Court, while reserving the right to seek legal recourse for past damages against Phelps Dodge in federal court if necessary in the future. The tribe has asked that most of the income derived from the settlement and the lease to be held in trust for members of the tribe.

In addition, the agreement makes possible the full implementation of the 1992 San Carlos Settlement Act, under which the tribe will receive a \$41 million trust fund and the right to market significant amounts of water. The 1992 legislation would have expired at the end of June had the new agreement not been reached.

"This landmark settlement has resolved decades of dispute and avoided lengthy, contentious, court battles," said **Secretary Babbitt** in announcing the agreement on May 21. "All the parties are winners and are to be commended for having stuck it out through hundreds of hours of difficult and contentious negotiations. The intense negotiations were mediated by **David Hayes**, recently appointed council to Secretary Babbitt. Haynes was credited with working "extraordinarily hard" to attain the settlement.



David Hayes

of the Pueblo of Laguna, agreed, saying "A great need exists to pursue relationships with other federal agencies besides the BIA." "The roundtable is an element of the Albuquerque Area BIA's strategic plan

Albuquerque Office Launches Federal Network Initiative

The BIA's Albuquerque Area Office recently helped tribal leaders in the area bring some of their major concerns with U.S. Government programs—especially their desire for meaningful consultation—to top administrators of federal agencies. The effort launched a network-building initiative that can provide tribal leaders with greater access to federal programs targeted for Native Americans.

The milestone conference at the Indian Pueblo Cultural Center in Albuquerque, New Mexico, brought together 20 of the 25 area tribal leaders and senior representatives of eighteen federal agencies—a first in terms of the diversity of federal agencies. Meetings between several tribes and a single federal agency had been more common in the area.

The catalyst for the get-together was the Government Performance and Results Act, which requires that federal agencies produce a strategic plan to guide their future direction. In developing the plan, agencies are required to consider the views and suggestions of groups and organizations potentially affected by the strategy.

Since Albuquerque Area Office leaders knew that all federal departments and bureaus were following the same guidelines, they decided to issue an invitation to several agencies to give them an opportunity to present their strategic plans to their tribal stakeholders.

Interior representatives at the March 13 roundtable included: **John Cook**, regional director, National Park Service; **Lynn Starnes**, deputy regional director, U.S. Fish & Wildlife Service; **Chris Kenny**, director, Native American Affairs, Bureau of Reclamation; and **Rob Baracker**, the director of BIA's Albuquerque Area Office.

Participants from other federal agencies were: **John Kelly**, the U.S. Attorney for the District of New Mexico; **Leon McCowan**, regional director, Department of Health & Human Services; **David W. Gray**, director, Office of External Affairs, U. S. Environmental Protection Agency; and **W. John Arthur, III**, assistant manager, Office of Environment, U.S. Department of Energy.

The federal representatives outlined their agencies' strategic plans and discussed how those plans proposed to include the tribes and their concerns. Representatives of area tribes then offered comments and suggestions on what the federal agencies presented. Among other benefits, the exchange revealed that while federal agencies have difficulty understanding tribal needs and desires, many tribes have problems understanding the budgetary and planning processes of non-BIA federal agencies.

Tribal leaders felt the initial roundtable was useful and a consensus was reached that additional meetings will be held on a yearly basis.

"Meaningful consultation with tribes in an active role in intra-government activities is essential to true government-to-government relations," said **Elmer Torres**, governor of the Pueblo of San Ildefonso.

Roland Johnson, governor of the Pueblo of Laguna, agreed, saying "A great need exists to pursue relationships with other federal agencies besides the BIA." "The roundtable is an element of the Albuquerque Area BIA's strategic plan



Commissioner Eluid Martinez of the Bureau of Reclamation discusses his agency's programs and activities that serve American Indian communities.

to increase communication between the federal government and its tribal stakeholders,' said **Rob Baracker**, BIA's area director. "It gathers federal agencies that have Indian programs on an annual basis to share plans and report performance."

For non-Interior agencies, the conference was an excellent opportunity to establish contacts with the area tribes. Conversely, area tribal leaders were able to make contacts with key managers of federal agencies. And at a time of shrinking federal budgets, the roundtable also created opportunities to pool federal resources to better serve the needs of the tribes.

Building a Network

During the roundtable, the BIA's Albuquerque Area Office staff hosted a luncheon and prepared directories of the federal participants to help foster increased personal contacts and maintain a federal-tribal network that can benefit Indian communities.

After the morning session, the Albuquerque staff hosted a luncheon in the area office's conference room. The speaker was the Honorable **John Kelly**, United States Attorney, District of New Mexico. That afternoon the participants were free to tour the various branches of the office, which had set up both static and interactive displays for the interested parties.

The federal speakers at the roundtable were photographed and these images were digitally scanned. The representatives' names, addresses, and telephone numbers were added and these directories were available to anyone who wanted to contact a federal participant. While the pictures will help participants to remember who was who, they also show that the government isn't full of faceless, uncaring agencies. Written copies of the federal agencies' proposed strategic plans also were distributed to the tribal participants.

Land Pacts Benefit Alaskan Natives, Conservation

Kenai Natives Association

The Department signed an agreement with the **Kenai Natives Association, Inc.**—an Alaskan Native urban corporation—that will protect valuable Kenai River habitat while also allowing the native association to develop its land that had been inside a national wildlife refuge.

The agreement, which uses about \$4.4 million in funds from the Exxon Valdez oil spill settlement, puts into force a land exchange and purchase authorized by Congress in the Omnibus Parks and Public Lands Management Act of 1996 and resolves a long-standing land management issue involving the Kenai National Wildlife Refuge.

Under the exchange, the Kenai Native Association will sell about 3,254 acres of wildlife habitat and the rights to select these lands inside the Kenai National Wildlife Refuge to the U.S. Fish and Wildlife Service. The parcels include the 803-acre Stephanka Track of prime Kenai River property and about 2,000 acres in the Moose River watershed. The Stephanka Track will be nominated for the National Register of Historic Places to protect its important archaeological and cultural values. In exchange, the association will receive \$4 million from the Exxon Valdez settlement fund and the balance from three federal trustee agencies.

To provide the Kenai Native Association, which has 560 shareholders, with additional opportunities for economic development, Interior will amend the boundary of the Kenai National Wildlife Refuge to exclude about 15,500 acres of association-owned land and to remove development restrictions—imposed by the Alaskan Native Claims Settlement Act—from this land. The association also will receive a five-acre refuge headquarters site in old town Kenai and important subsurface rights, with the exception of coal, oil, and gas rights, beneath its retained land.

To compensate for the refuge's lost acreage, the exchange legislation authorizes the creation of a 37,000-acre Special Management Area on Lake Totodoten in the Alaskan interior. The area—located next to the Kanuti National Wildlife Refuge, northwest of Fairbanks—is on land owned by the Bureau of Land Management and will be managed for fish and wildlife conservation while remaining open to subsistence hunting and fishing.

"This is a great day for Alaskan Natives, wildlife, the Kenai River, and the Bureau of Land Management," said **Secretary Babbitt** in announcing the agreement on May 13. "I commend **Chairman Don Young** and **Congressman George Miller** for their successful work to pass this important bipartisan legislation. This agreement will both protect fish and wildlife habitat on the Kenai River and provide Alaskan Natives with significant new opportunities for economic development on the Kenai Peninsula."

"The legislation will allow the Kenai Natives Association greater flexibility to use our lands and will provide additional lands and important subsurface interests and the necessary funding to promote the economic development of the association's resources, while still respecting and preserving our heritage," said **Diana Zirul**, president of the association.

The agreement was reached in partnership with the State of Alaska, with the support of **Governor Tony Knowles**. "Protecting the Kenai River is important to all Alaskans," Knowles said.

"This is one of a series of gains to protect the Kenai River. A partnership of federal, state, and local governments, along with the Kenai Natives Association, sport fishing groups, commercial fishing groups, business, and private landowners has come together, and, by putting the river first, we all benefit."



The English Bay Corporation Pact

In one of the largest purchases of private lands for inclusion in the National Park System in the last ten years, the Interior Department signed an agreement with the **English Bay Corporation**—an Alaska Native group—to purchase about 32,537 acres of corporation land. The properties, bought with funds from the Exxon Valdez oil spill settlements, are located in the Kenai Fjords National Park and the Alaska Maritime National Wildlife Refuge.

The prime coastal lands and fjords to be acquired include important habitat for a range of species injured by the 1989 Exxon Valdez oil spill, including pink salmon, sea otter, harlequin duck, black oystercatchers, pigeon guillemots, and marbled murrelet. The lands also provide significant opportunities for tourism and recreation.

Secretary Babbitt called the May 19 pact "a tremendous conservation achievement that would provide permanent protection of these lands, through an outstanding partnership with the Alaska Native shareholders, the City of Seward, and the State of Alaska. At the same time, the English Bay Corporation will be able to use these funds to create a brighter future for its shareholders."

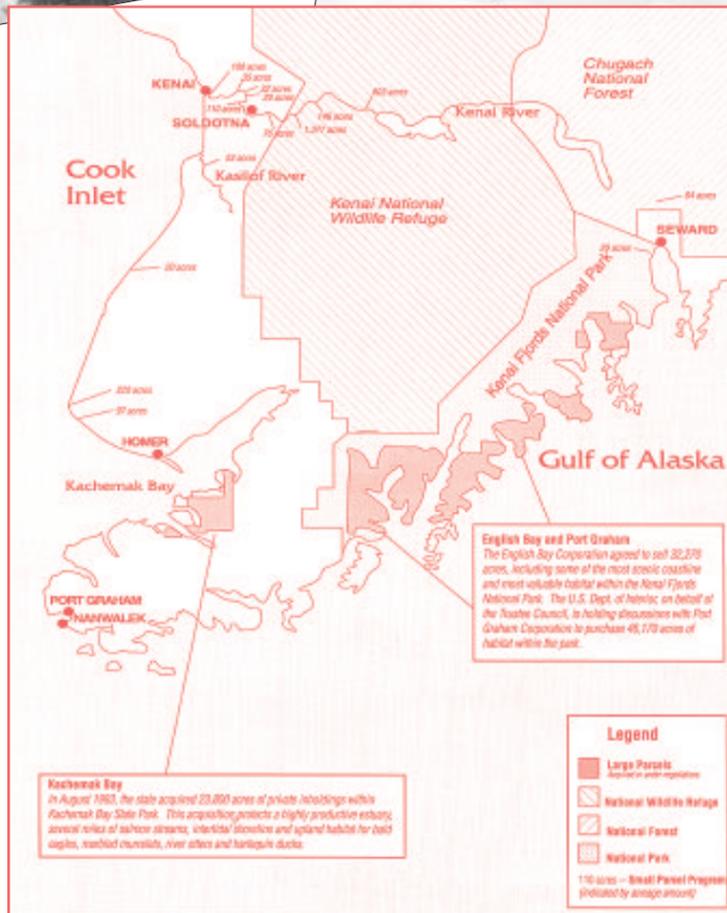
Under the terms of the \$15.37 million purchase, the U.S. Government would acquire 32,537 acres of land, including 30,257 acres within the boundary of Kenai Fjords National Park and 2,280 acres in the Alaska Maritime National Wildlife Refuge. The corporation's shareholders would retain certain subsistence hunting and fishing rights on a portion of the lands in the park that are closest to the village of Nanwalek (the shareholders' associated village that was formerly known as English Bay) and furthest from the City of Seward. The corporation, established under the Alaska Native Claims Settlement Act, retains 43,000 acres of land outside the national park near Nanwalek, located southwest of Homer on the Kenai Peninsula.

"Our lands must provide for our people forever," said **Donald D. Emmal**, president of English Bay Corporation. "We will place our proceeds in a trust fund so we can ensure the financial security of our children. An archeological fund will help preserve our culture." The corporation has set aside \$500,000 from the proceeds to study cultural resources on the lands to be sold.

"This agreement, when combined with other efforts by Governor **Tony Knowles**, highlights the partnerships and comprehensive approach taken recently to protect the truly spectacular scenery and wildlife resources of the Kenai Peninsula," said **Molly McCammon**, Executive Director of the Exxon Valdez Oil Spill Trustee Council.

The Exxon Valdez Oil Spill Trustee Council is providing \$14.1 million from the civil settlement with the Exxon Corporation for the purchase. The council, which consists of three trustee representatives from the Federal Government and three from state government, administers the \$900 million joint federal-state settlement fund from the oil spill.

The \$1.25 million balance will come from the three federal trustee departments - Interior, Agriculture-Forest Service, and Commerce-National Oceanic and Atmospheric Agency—out of the \$50 million oil spill criminal settlement that is administered by the Clinton Administration.



Molly McCammon
Executive Director
Exxon Valdez Oil Spill
Trustee Council





Denis P. Galvin,
Acting Bureau Director
Ricardo Lewis, Bureau Editor

Below, Brig. Gen. Robert S. Onge, commandant of cadets at West Point, and Joseph T. Avery, superintendent of Park Service Manhattan Sites in New York City, enjoy the parade in honor of the centennial of Grant's Tomb. NPS Photo by Kevin Daly. At right is the national memorial to Ulysses S. Grant. The Tombs of General and Mrs. Grant are here. NPS Photo by Richard Frear



Manhattan Sites Honor Grant

Grant High School bands from Ohio and Oregon, the marching band and a battalion of cadets from the United States Military Academy, and the King's Point Merchant Marine Academy marching band, as well as the horse mounted units of the United States Park Police and Gateway National Recreation Area's Sandy Hook Unit.

Other marchers included members of the Grant family, active military personnel, veterans organizations, Civil War re-enactors in period costume from throughout the eastern seaboard, New York City Mayor Rudolph Giuliani, members of the Congress, Deputy Regional Director Chrysandra Walter, and Park Service superintendents from the North East region and elsewhere.

The solemn commemoration ceremony which followed, included placing of official wreaths at the memorial by Congressman Jerrold Nadler; Ms Walter and Superintendent Avery; and by Brigadier General Robert S. Onge, commandant of cadets at the United States Military Academy, representing President William Clinton. Taps and a 21-gun salute by West Point cadets ended the ceremony.

Refurbishing was completed in the spring of 1997 at a cost of more than \$1.8 million.

Garrison Gold for Glacier

Glacier National Park, Montana, has received the regional 1996 Garrison Gold Award for the most distinguished education program in the NPS Intermountain Region, which has 86 park sites ranging from Montana to Texas.

Three innovative education efforts were cited in the award: *Native American Speaks*, which features Blackfeet, Salish, and Kootenai tribal members; *Work-House*, a heritage education curriculum presenting a view of natural resources from both the Native American and scientific viewpoint; and the park's World Wide Web page, which received first place honors this year from the National Association for Interpretation in the Interpretive Media category.

Presenting the award, Intermountain Regional Director John Cook noted that "*Work-House* has been especially helpful in reaching out to children on nearby tribal lands...." Public Affairs Contacts: Amy Vanderbilt (406) 888-7906; Elaine Sevy (202) 208-6844.

Migratory Birds Have Their Day

Rocky Mountain National Park, Colorado, marked International Migratory Bird Day (May 10) with a bird walk and special evening program on the *Plight of Neotropical Birds*. Dick Coe, a seasonal naturalist at the park, served as the Colorado State Coordinator for the event again this year. The park also will undertake a third summer season of research, funded in part by grants from Canon USA, to study the productivity survivorship of migratory birds in the park's elk winter range.

The theme of this year's nationwide observance of International Migratory Bird Day was *Join the Flock...Be Part of the Solution*. The event celebrated the spring migration and return of millions of birds to their nest areas in North America and sought to teach citizens how they can play a vital role in stopping the decline of some bird populations. Many of this country's 800 migratory bird species are still in peril because of the loss of habitat and misuse of common pesticides. Populations of some species are declining by as much as two to four percent each year. For information on migratory bird program activities at Rocky Mountain National Park or in the State of Colorado, contact Dick Coe at the park at (970) 586-1336 or (970) 586-4518.

Aloha and Mahalo

Rangers at Kalaupapa National Historical Park, Hawaii, recently made an amazing discovery—a monk seal with a newborn pup on one of the park's white sand beaches. Monk seals are a critically endangered species, with only 1,200 estimated worldwide. The pup is strong and healthy, according to park wildlife biologist Rick Potts. The community of Kalaupapa has taken great pride in this arrival and is assisting the park in protecting the beach area where the monk seal and her pup are located. This is the first recorded monk seal birth for the park and the only such birth known to have occurred in the Hawaiian Islands this year. Only two pups were recorded in the state of Hawaii last year. Public Affairs Contact: Cindy Daly (202) 208-4993.

Manny Strumpf

Several thousand spectators lined the streets of New York's upper Manhattan to help the National Park Service commemorate the 175th anniversary of the birth of General Ulysses S. Grant and the centennial of the General Grant National Memorial, better known as Grant's Tomb.

The spectators who sat on folding chairs, occupied portable bleachers, and stood at curbside along Riverside Drive overlooking the Hudson River witnessed precision military, school, and Park Service marching units, enjoyed Civil War re-enactors in authentic period uniforms and heard stirring marches. About 2,000 marchers took part in the mile-long parade.

"It was a special occasion for one other reason," said Joseph T. Avery, superintendent of National Park Service Manhattan Sites which oversees the Grant Memorial. "The day also enabled the Park Service to unveil the completely refurbished and repaired memorial for which planning had begun several years before the event."

Avery noted that the April 27 parade and ceremony were the largest Park Service public event in Manhattan since the dedication of Ellis Island in September of 1990. The parade, which preceded a formal centennial ceremony, included Ulysses S.

The National Register of Historic Places

The Galloping Goose

For its importance in transportation, the Rio Grande Southern Railroad, Motor Number 7, has been listed in the National Register of Historic Places. The vehicle is an outstanding example of the innovative "Galloping Goose" cars—gasoline powered motor cars which operated on the tracks of the Rio Grande Southern Railroad in Colorado from the Depression until 1952.

The cars were created in 1929 as cost cutting measures to save the Rio Grande Southern Railroad. The Galloping Goose cars traveled over the 162.6 mile railroad from Durango to Ridgeway in Colorado's San Juan Mountains. Each car was operated by one man and produced revenue at low expense. The body and chassis were built from a 4-door 1926 Pierce-Arrow Model 33.

Galloping Goose Number 7 retains almost all of its original design that remained at the end of its active service. The car is operational, although undergoing restoration to the tourist period (1950-51) by Volunteer Project Leader Bill Gould and other volunteers. Goose No.7 was listed in the National Register on February 28.



Texas Bauhaus

The 1941 Chester and Loraine Nagel House, an early example of International Style residential design, was listed in the National Register of Historic Places on April 17. Architect Chester Emil Nagel's design for the Austin, Texas, residence successfully disseminated the Bauhaus aesthetic, while taking into account the factors of use, climate, and locally available materials. The two-story, 1400 square-foot house is a long, thin block oriented east-west for solar tracking and wind direction.

After World War II, the rising popularity Nagel received in the national press for this house, dubbed the "Texas Hillside House," led to an invitation for Nagel to teach at Harvard University with Walter Adolph Gropius, the German-born American architect who founded the Bauhaus school of design. The style was known for its adaptation of science and technology to art, and for experimental use of metal and glass in buildings. The Nagel house is at 3215 Churchill Drive.

FDR Memorial Joins Presidential Monuments

The nation's newest memorial was conveyed to the United States in a May 2 dedication at which **President Clinton** gave the Address of Dedication. The FDR Memorial takes its place of honor next to the Washington Monument, Lincoln Memorial, and Thomas Jefferson Memorial as the fourth monument to an American president on the National Mall in the monumental core of the nation's Capital.

The FDR Memorial Commission—the congressionally-chartered public corporation that sponsored the project—formally conveyed the 7.5-acre memorial during the ceremony. The commission is co-chaired by **Senators Mark Hatfield and Daniel Inouye**. Participants also included **Vice President Al Gore, David B. Roosevelt** (Margriet Roosevelt's grandson), **Princess Margriet** of the Netherlands and opera singer **Denyce Graves. Mike Wallace**, of the CBS television network, served as Master of Ceremonies.

FDR Memorial designer **Lawrence Halprin** of San Francisco was present at the dedication along with artist/sculptors **Leonard Basin, Neil Estern, Robert Graham, Tom Hardy, George Segal**, and master stonemason **John Benson**.

Entrusted to the care of the Department of the Interior, National Park Service, the memorial becomes the 375th unit of the National Park System. The memorial is built at the precise point designated for such a monument by the originators of the 1901 McMillan Plan. It is anchored at both ends of the plan by the Jefferson and Lincoln Memorials. The FDR Memorial is located along the famous Cherry Tree Walk and focused on the Washington Monument across the waters of the Tidal Basin.



Visiting hours at the memorial are from 8 a.m. to midnight daily, including holidays. Entrance is free to the public. National Park Service rangers, operating from a small contact station at the entrance, will be on duty to serve visitors and interpret the memorial. The entrance is located adjacent to the intersection of Ohio Drive and West Basin Drive, S.W.

Public parking for some 247 vehicles, including 14 handicapped-accessible spaces, was constructed before work on the memorial began in 1994. Additional spaces, located in Lots A, B, and C under the 14th Street Bridge, off Ohio Drive, S.W., in East Potomac Park, replaced parking along the portion of West Basin Drive which was eliminated when the memorial was built. A bus parking lane, also added during the construction, has space for 18 buses. West Basin Drive has parking for persons with disabilities near the entrance to the memorial. First-time visitors are advised to allow 30 to 45 minutes to fully experience the memorial. For an in-depth look at America's newest national memorial, visit the FDR Memorial homepage on the internet at <http://www.nps.gov/fdrm/index2.htm>.



Above left, President Clinton cuts a ceremonial ribbon officially opening the FDR Memorial as First Lady Hillary Rodham Clinton and Vice President Al Gore applaud.

Above, the memorial's center piece is the statue of FDR and his dog, Fala. At right, a sculpture depicts a Great Depression-era American listening to a Fireside Chat radio broadcast by President Roosevelt. Photos for NPS by David Barna



National Strategy For the War on Weeds

The rapid spread of destructive non-native plants has become a major environmental and economic problem that threatens native plants, alters natural landscapes, and destroys fish and animal habitats.

Experts estimate that these invasive plants already infest more than 100 million acres of America's croplands, forests, parks, preserves, wilderness areas, wildlife refuges, and urban spaces, and continue to increase by 8 to 20 percent annually.

The National Park Service alone spends

\$2.5 million annually to battle what has been termed the "Silent Green Invasion." Another \$80 million is needed by the Park Service to manage and halt the spread of these weeds, which now infest more than 7 million acres of parkland.

To combat this growing problem, the Invasive Weed Awareness Coalition—a public and private sector initiative—recently announced a national strategy. The three-part plan, entitled *Pulling Together—National Strategy for Invasive Plant Management*, sets goals for control and protection against alien plants, focusing on effective prevention, control, and restoration. The strategy also incorporates three main themes—research, education, and partnership—to help in the control of alien plants.

The Coalition, which includes plant scientists, conservation organization, farmers, ranchers, state and national agencies, and private industries, developed the strategy with information and suggestions from numerous federal, local, and state agencies and groups that are affected by invasive plants.

"Invasive plants are a serious threat to the health and productivity of our public lands and

waterways," said **Deputy Secretary John Garamendi** in announcing the plan with **Deputy Secretary of Agriculture Richard Rominger**. Garamendi noted that the effort will require the cooperation of private landowners, federal land managers, as well as state and local governments. "Anything less than a national approach involving all affected landowners and concerned citizens will do little to control the current rate of infestation."

Data that reveals the impact of invasive plants in the United States compiled by the Federal Interagency Committee for the Management of Noxious and Exotic Weeds will be published in a factbook. Scheduled for distribution later this year, the book will contain useful information broken down state-by-state for use with the national strategy.

Copies of the national strategy can be found on the Internet at: <http://bluegoose.arw.r9.fws.gov/ficmnewfiles/NatlweedStrategytoc.html>. Program Contact: **Gary Johnston** (202) 208-5886; Public Affairs Contact: **Cindy Daly** (202) 208-4993.

European beetles help to control purple loosestrife, Page 9.



Deputy Secretary John Garamendi

Weed Warriors Take the Field

Noxious weeds on public lands in the West are estimated to be spreading at an alarming rate of 2,300 to 4,600 acres per day. That's an area approximately twice the size of Rhode Island that is invaded each year. But never fear, the Weed Warriors are on the way!

Volunteers this summer at **Dinosaur National Monument**, Colorado, will remove weeds along the canyons of the scenic Yampa and Green Rivers. Severe infestations of extremely aggressive weeds, such as tamarisk, perennial pepperweed, and Russian Knapweed, threaten to destroy the natural habitat for the park's native plant and animal species.

Park staff and volunteers also will work on native plant restoration projects and

educational materials and programs designed to improve understanding of the threat to park resources from these weeds.

The Dinosaur National Monument project is one of 14 projects chosen nationwide for the 1997 **Expedition Into the Parks** conservation program, funded by a \$1 million contribution from Canon U.S.A., Inc., through the National Park Foundation. Funded through Canon's Clean Earth Campaign, Expedition Into the Parks has benefited 32 national parks since its inception in 1995. Public Affairs Contact: **Cindy Daly** (202) 208-4993; Program Contact: **Tamara Naumann**, Park Botanist, (970) 374-3000.

The President's Garden

The President's Garden, an exhibit capturing the magic and beauty of 200 years in the life of a living garden, will be displayed at the White House Visitor Center through September 2. Many historic events and informational gatherings occurred in the garden. More than 60 black and white and color photographs, paintings, and illustrations from past and present capture these events. Live floral and plant displays compliment the exhibit, including a seedling cultivated and grown from the famous Andrew Jackson Magnolia. Accompanying the exhibit is a 30 minute video *Upon These Grounds: Exploring the White House Garden*.

The exhibit, which opened on April 9, was organized by the White House Historical Association, the White House Curator's Office and the Superintendent of Grounds for the White House in cooperation with the National Park Service. Program Contact: **Tom Payton** (202) 208-1631 or 1 (800) 717-1450; Public Affairs: **Jacqui Handly** (202) 208-4989.



John G. Rogers, Acting Director
Janet L. Miller, Bureau Editor

Some of America's foremost trout streams have been hard hit by whirling disease, but research has been stepped up to address the problem.

Research Stepped Up In Fight Against Trout Whirling Disease

Judy Maule

An intensive cooperative effort to fight whirling disease—a potentially lethal infection that is devastating trout populations in some of America's most renowned streams—will tap the talents of 34 research teams this year, adding new insights to the growing store of knowledge being developed to address this problem.

The decline of wild trout populations is especially critical in the Rocky Mountain West. In recent years, whirling disease has been associated with an estimated 90 percent decline in Montana's upper Madison River wild rainbow trout population, as well as losses in Colorado's South Platte, Gunnison, and Colorado Rivers.

This year's scientific teams will be working in field and laboratory studies to identify better methods for diagnosing whirling disease, collecting samples, and determining fish susceptibilities. The research will also investigate the genetics and ecology of the parasite and its worm host, factors that influence infection (fish age, size, water temperature, and dose), and containment and decontamination procedures.

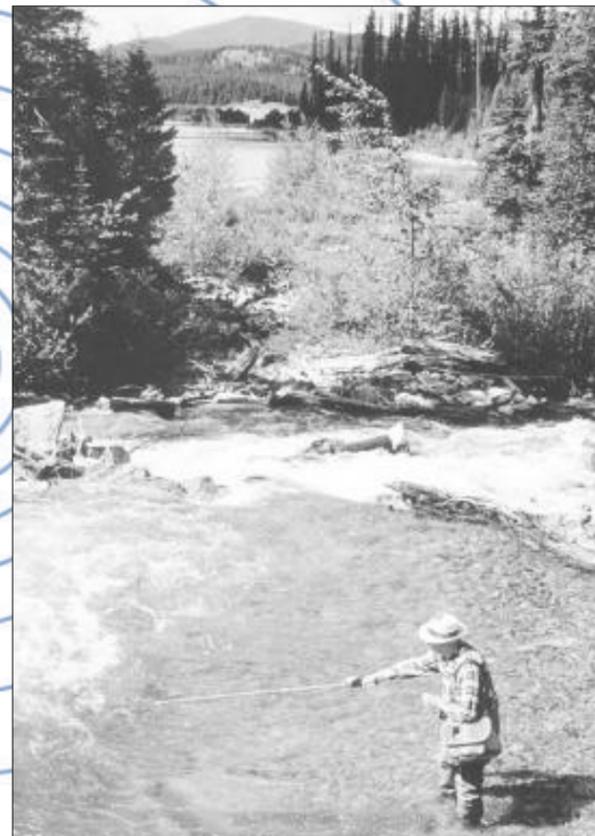
In addition, the teams will look into sources of parasite transmission, distribution of the parasite in wild stocks, risk assessment methods, and strategies to increase public awareness about whirling disease.

The latest findings on the impact of whirling disease on trout were presented to 120 fish scientists, managers, and policymakers March 6-8

in Logan, Utah, at a symposium co-sponsored by the U.S. Fish and Wildlife Service, the Whirling Disease Foundation, Trout Unlimited, and the Federation of Flyfishers, and others. Thirty papers shed new light on the geographic distribution of the disease, new diagnostic techniques, sensitivities of different fish strains to the disease, and the interactions of the parasite (*Myxobolus cerebralis*) with its fish and worm (*Tubifex tubifex*) hosts.

While a breakthrough has not yet been made to find a solution for dealing with the disease, scientists attending the symposium agreed on several key pieces of the puzzle: 1) the age of fish, dose of infection, and temperature are factors affecting the degree of infection; 2) many trout species and strains are susceptible to whirling disease but research is needed to determine the least susceptible; and 3) non-lethal methods for diagnosing whirling disease need to be developed.

Whirling disease is caused by a microscopic parasite. The spores of *Myxobolus cerebralis*, released when infected fish die, are ingested by *Tubifex* worms, which live in mud. Inside the worm, the parasite takes on a new form, becoming capable of infecting young salmonids, especially rainbow trout, before their cartilage hardens to bone. *Myxobolus cerebralis* gets into the cartilage near a fish's organ of equilibrium and multiplies very rapidly, sometimes into the millions, pressuring the organ and causing the victim to swim erratically, losing its ability to forage or escape predators.



The whirling disease parasite has been detected in at least 22 states: Alabama, California, Colorado, Connecticut, Idaho, Maryland, Massachusetts, Michigan, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, Ohio, Oregon, Pennsylvania, Utah, Virginia, Washington, West Virginia, and Wyoming.

The 1998 whirling disease symposium is scheduled for February 19-21 in Fort Collins, Colorado. For further information about the symposium, contact the Whirling Disease Foundation, a non-profit organization (P.O. Box 327, Bozeman, MT 59771-0327; E-mail: whirling@mcn.net) whose mission is to raise funds for whirling disease research. Symposium proceedings from the Logan meeting are available for \$8 from the Foundation.

NPS Awards

Vicki Boatwright

U.S. Fish and Wildlife Service employees **Gerald J. Vits** and **James P. Oland** are recent recipients of Vice President Al Gore's National Performance Review Hammer Award. The award, named after an infamous \$600 hammer purchased by the government in the 1980s, recognizes individuals and organizations for instituting measures to cut red tape and eliminate government waste.

Vits and Oland were part of a multi-agency team made up of employees from the General Services Administration, the U.S. Navy, the Commonwealth of Puerto Rico, the Fish and Wildlife Service, and the National Park Service that successfully disposed of several large parcels of surplus federal land while resolving some long-standing squatter issues and protecting the habitats of several endangered species, including the leatherback sea turtle.

Vits, a realty team leader employed in the Service's regional office in Atlanta, and Oland, an ecological services field supervisor based in Boquerón, Puerto Rico, helped GSA representatives with on-site field visits and provided valuable information about the environmentally sensitive lands proposed for disposition.

The awards, consisting of a framed hammer with a handwritten message from the Vice President and a signed certificate, were presented to Vits and Oland along with other project participants at an April 11 ceremony in Washington, D.C.

National Fishing Week Lures Youth

Judith Maule

More than 500 Washington-area youngsters spent a day fishing on the Mall to kick off National Fishing Week, June 2-8, a nationwide celebration in which an estimated 500,000 Americans participated in thousands of community events that highlight the fun of fishing and foster stewardship of aquatic resources.

On June 2, school children from Virginia, Maryland, and District of Columbia schools tried their luck fishing in a 7-acre lake at Constitution Gardens near the Vietnam Veterans Memorial in Washington, DC. The lake was stocked with channel catfish from the Fish and Wildlife Service's Orangeburg National Fish Hatchery in South Carolina. Bass and bluegills were previously stocked in the lake's shallow waters.

The National Fishing Week kickoff is hosted annually by several Federal agencies, including the Fish and Wildlife Service, National Park Service, Bureau of Land Management, USDA Forest Service, and National Marine Fisheries Service, as well as the District of Columbia Department of Fisheries, the American Sportfishing Association, and industry and conservation groups. These organizations and community partners also sponsor thousands of fishing week events across the Nation during National Fishing Week to celebrate the sport of fishing.

The children began by learning about fish biology and habitat, fishing safety and ethics, and angling techniques from specialists from the sponsoring organizations. Sponsors used the award-winning Hooked On Fishing-Not On Drugs program during

this instruction, which culminates with the children's pledge to abstain from drug use. Especially designed for inner-city children and their families, Hooked On Fishing presents fishing as a healthy hobby, promotes interpersonal skills that encourage a drug-free lifestyle, and emphasizes fishing as a sport entire families can enjoy.

Other highlights of the day included casting demonstrations by world-class anglers **Gwenn Perkins**, director of women's outdoor programs at Orvis; and **Steve Pennaz**, host of ESPN's North American Outdoors and editor of *North American Fisherman* magazine, and entertainment from colorful country crooner and avid angler Fishbone Fred and his band from Boca Raton, re Florida.



Photo by Rosa Wilson, NPS

After lunch, provided by Guest Services, Inc., the children participated in a brief ceremony held by the kickoff sponsors, then spent the rest of the afternoon fishing with rods and reels they got to keep for future outings.

Established a decade ago, National Fishing Week is celebrated the first Monday through the following Sunday in June. About 2,500 National Fishing Week events are held annually with an estimated half-million participants nationwide.

Amy Midgett, Firefighter

Tom Crews

Firefighter **Amy Midgett**, a 6-year veteran of the Alligator River National Wildlife Refuge (Manteo, North Carolina) fire crew, has seen a lot of changes in the fire program since it started in 1991.

The year she was hired, the only pieces of equipment available for firefighting were basic hand tools, chain saws, and a truck with a slip-on pumper. At that time, the North Carolina Forest Service was the primary initial attack fire responder and the refuge fire crew was used mostly as a back-up hand crew for mop-up and containment.

Today, Midgett is a member of a well-trained initial attack team capable of fielding a unit of flextracked fire tractors with plows, portable bridge, heavy bulldozer, and fire engines. She and other members of the Alligator River Refuge staff have worked hard to make the needed changes in the evolution of the fire program at the refuge. Midgett also serves on fire crews in the western United States and other parts of the East.

With high-hazard fuels being the norm for Alligator River and the neighboring refuges, a well-trained and -equipped fire crew is a must for maintaining safety. Refuge lands in Eastern North Carolina have

a history of huge fires that burn tens of thousands of acres. These blazes can occur at almost any time of year.

The area's high fire potential and extremely wet soils pose a unique fire problem requiring specialized equipment (such as the low-ground-pressure flextracked fire tractor being operated by Midgett) and well-trained firefighters. It also takes teamwork and close coordination of resources to effectively and safely conduct wildfire suppression operations.

Although the Service is now the initial attack responder on refuge fires, the North Carolina Forest Service is still the Service's primary fire cooperater in Eastern North Carolina. The two agencies maintain very close ties by training together and coordinating activities before and during the peak fire seasons.

Midgett's primary job on the fire crew is as engine boss and assistant crew leader. However, like many of the crew, she has been cross-trained to operate fire tractors in the event of an emergency. Midgett is as comfortable behind the steering levers of a fire



tractor as with using a pulaski (a chopping and digging tool) or chain saw.

According to **Mike Bryant**, the manager of Alligator River National Wildlife Refuge, Midgett's experience and hardworking attitude greatly benefit the fire program, especially as it expands to include more and more acres of prescribed burning each year. The Alligator River fire crew will take a primary role in an aggressive 20,000-acre prescribed burning goal for refuges in Eastern North Carolina in 1998.

Tom Crews is the Fire Management Officer at Alligator River National Wildlife Refuge in Manteo, North Carolina.

Pact with Army Improves Habitat on Former Base

Georgia Parham

Bird songs are replacing the sound of exploding ordnance at Jefferson Proving Ground, a 55,000-acre Army installation in southern Indiana closed in 1995 under the Base Realignment and Closure Act. Under an agreement recently forged between the Army and the U.S. Fish and Wildlife Service, Service experts will help the Army assess and manage the base's impressive array of fish and wildlife resources.

"Jefferson Proving Ground has served a key role in preserving democracy and the freedoms we so richly enjoy," said **Major General John Longhouser**, Commanding General, U.S. Army Test and Evaluation Command. "It is time to begin the process of converting this real estate to more peaceful purposes. This agreement provides the opportunity for an enhanced level of ecosystem-based management and study while the Army and the Service address long-term natural resource management."

"This agreement represents a one-of-a-kind opportunity to conserve and manage some of the Midwest's finest forest and grassland habitats," added **John Blankenship**, assistant regional director for the Fish and Wildlife Service. "I commend the Army for its vision in recognizing the value of the resources within the borders of Jefferson Proving Ground."

Under the agreement, the Service will be responsible for evaluating the status of fish,

wildlife, and habitats on about 51,000 acres of the base during the next three years. This portion of the installation, used as a firing range while the base was active, is not well-suited for commercial or other uses because of an estimated 1.5 million rounds of unexploded ordnance.

Funding for the Service's activities will be provided by the Army, which retains ownership of this portion of Jefferson Proving Ground. Part of this area is still used by the Air National Guard for training exercises. The remaining 4,000 acres, at the southern end of the base, is being converted to other private and commercial uses. Public use of

From Bombs To Birds

the firing range is limited due to the danger posed by the unexploded ordnance. However, the Army, the Service, and the Indiana Department of Natural Resources are discussing options for possible future use by recreational users.

Jefferson Proving Ground is considered by wildlife managers to contain an extraordinary diversity of wildlife and habitats. The Army regularly used controlled fires to reduce the chance of wildfires touched off by exploding ordnance. These periodic burns mimicked the natural processes that create and maintain prairies. Thus, Jefferson Proving Ground, while not a native prairie, contains exceptionally productive grasslands that support a wide diversity of prairie-dependent birds and other wildlife.

The disappearance of native prairies throughout the country is prompting alarming declines in many grassland-dependent species. Some of these species, many of which are in decline around the country, have found a haven at Jefferson Proving Ground and are beginning to thrive.

One example is the Henslow's sparrow, considered endangered by the State of Indiana and a migratory bird of concern nationally. Jefferson Proving Ground, with 5,000 acres of grasslands in several tracts, supports one of the four largest known populations of Henslow's sparrows, with more than 900 pairs counted during the 1996 breeding season.

Jefferson Proving Ground also contains one of the largest unfragmented blocks of mature forest in the lower Midwest. Such forested areas are increasingly hard to find in this heavily agricultural region, although they provide vital habitat for many wildlife species, including those considered endangered. Jefferson Proving Ground's forests provide summer habitat for the Federally endangered Indiana bat. In addition, the Indiana Department of Natural Resources has released the state-endangered river otter along waterways within Jefferson Proving Ground.

The Service will manage the base's forests and grasslands, develop a plan for Indiana bats and other endangered species, manage and enhance aquatic habitats, and promote public understanding and awareness of the area's natural resources.

Atlanta Celebrates Earth Day



Wildlife Inspector Debbie Bossie shows visitors samples of confiscated endangered and threatened species parts and products while explaining the importance of wildlife laws. Photo by J. Sebo, ZooAtlanta

Evelyn Nelson

From Zoo Atlanta's Flamingo Plaza, **Atlanta Mayor Bill Campbell** declared April 22, 1997, Earth Day in Atlanta, Georgia, and presented a copy of the city's signed proclamation to Acting Fish and Wildlife Service Southeast **Regional Director Sam Hamilton** and Zoo **Director Dr. Terry Maple**. Using the theme Planet Earth—The Time Is Now, government agencies and private conservation organizations gathered at the zoo to participate in the day-long expo highlighting the importance of conserving Earth's resources.

More than 2,000 schoolchildren toured the colorful displays promoting the message that natural resources conservation is everyone's responsibility. **Speaker of the House Newt Gingrich** led a group of third-graders on a tour of the exhibits. Zoo officials reported the highest Earth Day attendance in five years.

The U.S. Department of Agriculture's Forest Service used the occasion to introduce its recreated **Woody Owl** character. The zoo's distance learning program focused on the history of conservation in America, including the first Earth Day celebration. There were wildlife shows and games focusing on refuges and migration. At the Service's exhibit of confiscated endangered and threatened species parts and products, a wildlife inspector taught the public about wildlife protection laws.

Among the Federal and state agencies, corporations, and private conservation organizations participating in the event were The Georgia Conservancy, Georgia Department of Natural Resources, the National Park Service, Environmental Protection Agency, USDA Forest Service, The Nature Conservancy, Save the Manatee Club, Urban Resources Partnership, Georgia-Pacific Corporation, the U.S. Army Forces Command and the U.S. Department of Energy. The event was co-sponsored by the Fish and Wildlife Service and ZooAtlanta.

Minerals Management Service



Cynthia Quarterman, Director
Rolando Gächter, Bureau Editor

Outreach Can Be Fun

Earth Fest volunteers enjoyed the fun and sun at New Orleans Audubon Zoo while educating the public about the MMS. Gulf Region office employees **Wanda Kraemer, Jay Ceramic, Kenneth Colwart, Albert Naquin, Lance Belanger, Debra Andrews, Elizabeth Peuler, Sandra Pavlas, Michael Saucier,**



Troy Trosclair, right, production engineer with the Houma District and Earth Fest volunteer, points out species of mammals found in the Gulf of Mexico

Darrell Griffin, Bradley Hunter, Janice Todesco, Troy Trosclair, Kewen Huang, Karen Misconish, student volunteer **Nicole Lorraine,** and **Caryl Fagot,** who coordinated the effort, gave up their weekend to help celebrate the New Orleans version of Earth Day last month along with a record crowd of almost 30,000 visitors.

Staffers handed out *Whales and Dolphins of the Gulf of Mexico* mini-posters, bags, and brochures. They also debuted the hands-on *Drilling for Oil* game. In a simulated activity, kids and adults alike tried to find the oil deposit below the surface of the ocean floor. The participants were both enthusiastic and determined and kept coming back to play again and again. They also played the zoo sponsored Earth Quest game by answering MMS's question about the kinds of marine life found beneath a platform. Staffers used the exhibit's colorful underwater photos to illustrate actual examples of life around a platform. This is the fifth year the Gulf Region office has joined with other federal, state, and local agencies, businesses and community groups in the celebration. The office is grateful to all those who gave their time to make this exhibit the a success.

Meanwhile, on the Internet

The MMS Pacific Region showcased its Santa Barbara Channel- Santa Maria Basin Circulation Study through an online exhibit at the Agriculture and Living Sciences Career Day in Ventura, California. With help from the Information Superhighway, students and their teachers saw real-time oceanographic data while oceanographers discussed how they analyze and use real-time wind and current data to promote environmental safety in federal waters along California. The event was Coordinated by the University of California Cooperative Extension of Ventura County, to promote awareness of the agricultural, natural resources, and environmental sciences, and their related industries.

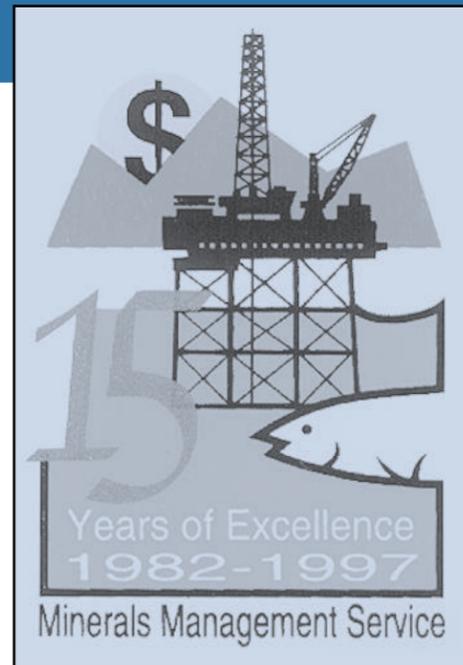
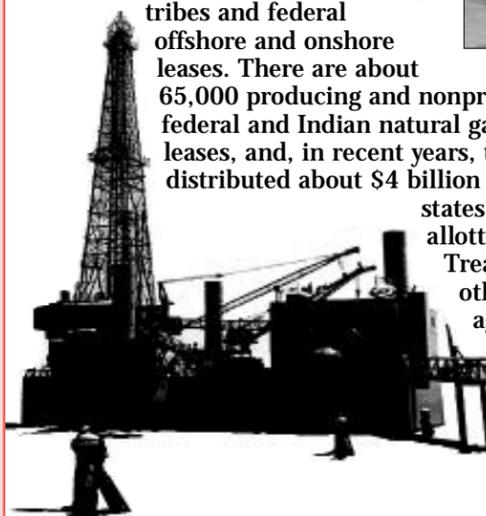
In addition, the Pacific Region's Office of Environmental Evaluation highlighted the MMS Environmental Studies Program at the 6th annual Oxnard High School EarthBound Exhibition. MMS environmental scientists spoke to students about active studies being conducted along the California coast and how these studies will help MMS manage the Pacific Outer Continental Shelf.

MMS MARKS 15TH YEAR

"The hallmark of this agency has been its ability to evolve in response to changing economic and business climates," MMS Director **Cynthia Quarterman** said in her keynote speech at the Offshore Technology Conference. "During its first 15 years, MMS's Royalty Management Program has matured from a collection agency into a world-class financial manager, and the Offshore Minerals Management Program, once purely process-driven, has grown into a dynamic resource manager."

This year's 15th anniversary of the founding of MMS coincides with the 50th anniversary of offshore development and during her participation at the Offshore Technology Conference, held in Houston from May 5-8, the director reflected on the bureau's milestone by reviewing some of its major accomplishments and outlining its plans for the future.

"MMS has forged a record of achievements, and expects to become the best mineral resource manager," Quarterman said. The Royalty Management Program administers revenues for nearly 20,000 individual allottees and 34 mineral-producing tribes and federal offshore and onshore leases. There are about 65,000 producing and nonproducing federal and Indian natural gas and oil leases, and, in recent years, the program distributed about \$4 billion annually to states, tribes, allottees, the U.S. Treasury, and other federal agencies.



Other areas where the Royalty Management Program has shown excellence and efficiency are in forming network links to states and tribes, implementing the Federal Oil and Gas Royalty Simplification and Fairness Act, and developing alternate dispute resolution techniques. The

program also revised its policies to simplify reporting and payments and speed the flow of revenue to bureau customers.

With near-record production of offshore natural gas and rising production of offshore oil, revenue is increasing. Over the past several years, the Offshore Minerals Management Program has moved to a more focused leasing program with an emphasis on the safe and environmentally sound development of about 6,500 leases and has redirected critical resources to respond to the unique requirements among the Alaska, Gulf of Mexico, and Pacific regions.



"We look forward to the next 15 years as we work to understand and evaluate new technological issues, economic risks, and, especially, environmental concerns," Quarterman added. "I am personally very excited about the opportunities and challenges that face both the offshore oil and gas industry and MMS regulators. We look forward to continuing our work with industry representatives. We have been a tough, but fair regulator over the years."

Energy Center Debuts

MMS Assistant to the director, **Dr. Robert W. (Bob) Middleton**, participated in the grand opening ceremony for Galveston's new Offshore Energy Center. After serving as a movable offshore drilling unit for almost 30 years, the Ocean Star began its service as the Center this past April. The former drilling unit is now permanently berthed at Pier 19 in Galveston, Texas.



Members of the Galveston Chamber of Commerce with Bob Middleton, third from left, and Dillard Hammett, second from left, a member of the Center's Board of Directors. Photo by Mieko Mahi of Mieko Photography and Video

At the rechristening of the Ocean Star, Middleton cited the rich potential of the offshore oil and gas industry to provide jobs and energy for our nation. Middleton said the Energy Center would be both a major new attraction for Galveston and a means to educate the public about the safe and environmentally sound development of offshore energy resources. Other dignitaries, including **Congressman Nick Lampson** (Texas), agreed with Middleton's comments.

At the Center, visitors can experience the full range of day-to-day activities—offshore drilling and production, marine transportation, environmental protection, construction, pipelining—through videos, equipment exhibits, and interactive displays. Among the exhibits is the MMS Interactive video entitled *Future Choice*. The MMS is also proud to have provided the OEC with the photos for use throughout the museum, and to have the agency seal displayed as an in-kind donor. It is open to the public daily from 10 a.m. to 5 p.m.

Recognizing a Lifetime of Western Conservation



Assistant Secretary Bob Armstrong recently received The Nature Conservancy of Texas Lifetime Achievement Award.

The Nature Conservancy of Texas has presented its Conservation Lifetime Achievement Award to **Bob Armstrong**, Interior's assistant secretary for Land and Minerals Management. The honor took place at the Conservancy's 1997 Conservation Awards Luncheon in Austin.

Armstrong, only the third individual to win the prestigious award, joins distinguished company. Previous winners of the private, non-profit group's award include former First Lady **Lady Bird Johnson** and former Texas **Congressman J.J. Jake Pickle**.

The Nature Conservancy of Texas has been presenting its Conservation Lifetime Achievement Award since 1993 to individuals and corporate citizens whose leadership sets an outstanding example in environmental conservation and who

have demonstrated a lifelong commitment to protecting and preserving our natural heritage. The award also honors those who appreciate the integral role the environment plays in Texas' economic vitality and quality of life.

For the past 20 years, Armstrong has worked to encourage protection of critically important sites in Texas by both public and private organizations. The acknowledged "Father of Big Bend Ranch," Armstrong earned his moniker while serving as commissioner of Texas' General Land Office. In that position, he championed the acquisition of land now known as the Big Bend Ranch State Natural Area. In doing so, he repeatedly butted heads with the Texas legislature and various special interests. Finally, in 1988, the State of Texas secured an initial 216,000 acres of land for \$8.8 million and has enlarged the park to 287,000 acres since then.

We at MMS congratulate Bob for his achievements.

MMS' Employees Enjoy a Day in the Sun

Stephen Shaffer

More than 300 Washington area MMS employees recently celebrated the first annual MMS Employee Appreciation Day at Northern Virginia's Algonkian Regional Park.

MMS employees were treated to a barbecue lunch and enjoyed the opportunity to recognize some of their colleagues' outstanding accomplishments in teamwork and innovation during the awards ceremony. Director Cynthia Quarterman and MMS Employee Association spokesperson **Dora Hardy** promised the headquarters' celebration would be an annual event.

With hundreds of flying frisbees, MMS employees participated in many events such as golf, fishing, horseshoes, and volleyball. More than 70 people completed the one-mile fun run and walk. More than a dozen teams competed in the MMS Team Olympiad which consisted of the dreaded three-legged race, the always wet-water balloon relay, and the ever dangerous wagon-pull race. However, the most challenging and controversial event by far was the tug-of-war.

With spirits running high, the teams have already begun to organize and plan for next year's Employee Appreciation Day. "It was fun seeing all the folks let their hair down and have a good time," a participant observed. An MMS manager was heard warning another group that her team would take top honors next year.

"It was a great day to show our appreciation and give back to our hard-working MMS employees," said Director Quarterman. "It truly was a wonderful time to laugh and get to know each other better," she added. The week of May 5th was officially designated as National Federal Employee Recognition and Appreciation week.

MMS' Western Administrative Service Center Employees Honored, Page 2.



In the tug-of-war competition, at top, the Information Technology Division team pulls to victory. Team anchor Gig Kocher helps team mates Kevin Spaner, Judy Mork, and Margaret Wiese. Above, Leasing Division-Team LD includes, front row left to right, Kim Coffman, Stephen Shaffer, Ralph Ainger, Alice Drew. Back row left to right, Jan Arbegast, Kent Dirlam, Jane Roberts, Dan Henry, Renee Orr, Margaret Clark, Bill Quinn, Karen Smith-Monds, and Rasa Kregzdys. At right, Intermar's Joanne McCammon helps prepare the barbecue lunch for more than 400 of her fellow MMS employees.

Weaver H. McCracken Offshore Pioneer

Bill King

When you think of a pioneer from the Smoky Mountains of Haywood County, North Carolina, you probably think of a buckskin-clad mountain man with a coonskin cap and flintlock rifle. But **Weaver McCracken** is a different breed—a pioneer of offshore oil discovery in the Gulf of Mexico.

"It was back in '48, not long after the end of World War II," McCracken recalled. "Chevron, then the Standard Oil Company of California, set three platforms in the Bay Marchand Area in open water about a mile offshore. The workers were quartered in a war surplus LST (tank landing ship), anchored adjacent to the active platform. Those, who like me, have spent time on a World War II vintage LST know what floating palaces they are," said McCracken.

On shore, in East Texas and Louisiana, salt domes had historically been good places to strike oil. So Chevron drilled into a deposit of pinch out sands butting against a salt dome offshore. The first well, drilled from the A Platform, came up dry.

McCracken, a geologist, served as Chevron's watcher on the B Platform, reviewing the work of Noble Drilling Company, the contractor on the *Offshore Pioneer* project. "It was a fairly ticklish business since drilling through the cap rock and porous sand layers and into the salt beneath would contaminate the drill muds and make the well tricky to control," McCracken said. "At about 4,000 feet the 'mud loggers' noticed the first indications of oil-bearing sediments. They brought up the core of rock and material through which the well had been drilled." Core analysis verified that well B had struck the first commercial quantity of offshore oil in the Gulf of Mexico.

The Bay Marchand Field has gone on to produce more than half a billion barrels of oil. From there, exploration soon pushed farther offshore into

federal waters which are now managed by the Department's Mineral's Management Service.

Since 1948, the Gulf of Mexico as a whole has produced more than 13 billion barrels of oil and well over 100 trillion cubic feet of natural gas. The market value of that product exceeds \$325 billion and has generated more than \$90 billion for the U.S. Treasury. Gulf offshore oil and gas activities are enjoying a resurgence of activity as technology in the form of 3-D (dimensional) seismic survey techniques and innovative platform designs for deep water have uncovered new opportunities for extracting the oil and now highly-valuable, clean-burning natural gas lying beneath the Gulf's waters.

Some people think country boys don't get much education, but Mr. McCracken spent two years at Western Carolina University then finished his bachelors degree at the University of Alabama. It was 1942 and the Navy grabbed him for four years of service. After his discharge, he took a master's degree at the University of Texas.

Bureau of Reclamation



Eluid Martinez, Commissioner
Carrie C. Kemper, Bureau Editor

Director for Human Resources Margaret Sibley, left, and Commissioner Martinez congratulate Reclamation-wide winners Donna Hirning and Jennifer Handy. BOR photo by Mark Volkoff, Mid Pacific Region. Below, the members of the Reclamation Secretarial Advisory Council gather for a group portrait. BOR photo by Mark Volkoff, Mid-Pacific Region



Top Secretarial, Support Staffers Honored at Awards Conference

Diane Buzzard, Mid-Pacific Region

Donna Hirning from the Great Plains Regional Office in Billings, Montana, is Reclamation Secretary of the Year for 1996, and **Jennifer Handy**, from the Flaming Gorge Field Division of the Upper Colorado Region, is the bureau's Clerical Support Staff of the Year for 1996. Commissioner Martinez presented each winner with a framed, personalized, lithograph print of his artwork entitled Cibolo (buffalo in Spanish), which is considered a sign of good luck in southwestern Indian culture.

The overall winners were selected from a group of nominees representing Reclamations' major regional offices. The 1996 regional secretaries and clerks of the year are, respectively: Washington—**Tammy Wentland** and **Aretha Young**, and **Ajamu Patterson**; Denver—**Sharon Hebenstreit** and **Jennifer Alder**; Pacific Northwest Region—**Paula Hanson** and **Evelyn Pope**; Mid-Pacific Region—**Beth Briley** and **Diane Beveridge**; Upper Colorado Region—**Carol Sharp** and **Jennifer Handy**; Lower Colorado Region—**Connie Kircher** and **Shelia Arnold**; Great Plains Region—**Donna Hirning** and **Lois Garwood**.

Commissioner Martinez honored Reclamation's 1996 Secretary and Clerical Support Staff of the Year on

May 13 during the 5th Annual Reclamation Secretarial Advisory Council meeting in Sacramento, California. Nominees in both categories are selected annually from the seven Local Secretarial Advisory Councils throughout Reclamation (Washington, Denver, Boise, Sacramento, Billings, Salt Lake City, and Boulder City). The overall winners are then honored at an annual Awards Luncheon sponsored by the Advisory Council host location.

The Local Secretarial Advisory Councils and the Awards Program were established by the Administrative Support Career Management Program, which Reclamation approved in February 1992. The program was written by Reclamation executive secretaries who saw an opportunity to set forth a vision for the professional development of secretaries and support staff who play a key role in the success of Reclamation's mission.

The membership of the Reclamation Secretarial Advisory Council is made up of the seven executive leadership secretaries (to the commissioner, director of the Reclamation Service Center, and the five regional directors) and the seven Local Secretarial Advisory Council chairpersons. The Pacific Northwest Region will host next year's May meeting.



Colorado River Issues Top The Agenda at Mexico City Summit

Discussion at this year's Colorado River summit meeting between U.S. and Mexican officials centered on the river's water quality, sedimentation buildup at Morelos Dam, land issues that have arisen between the two countries due to changes in the alignment of the river channel, and allocation of additional river water as a result of the current high flows.

Commissioner Eluid Martinez traveled to Mexico City for the summit, where he met with **Commissioner John Bernal**, U.S. Section of the International Boundary and Water Commission, **Commissioner J. Arturo Herrera Solis**, Mexican Section of the Commission, and Director **General Guillermo Guerrero Villalobos** of the Mexican National Water Commission.

The Mexican Foreign Relations Ministry and the International Boundary and Water Commission of the State Department sponsored the late February meeting. Mexico and U.S. representatives agreed to several important points during the meeting.

Commissioner Martinez announced his intention to certify to Commissioner Bernal that there was a surplus of water in the river system this spring. Under the terms of the Treaty of 1944 with Mexico, this action began the process of delivering an additional allocation of 200,000 acre-feet of water to Mexico for 1997, bringing that country's total delivery to 1.7 million acre-feet for this year.

Both countries agreed to improve their sharing of water quality data, especially salinity level data on the river. They also agreed that Mexico and the U.S. would work to establish a system that can provide better real-time sharing of all water quality data currently available.

On the border rectification issue, caused by the natural changes in the river channel alignment, both countries agreed to expand data collection of the border situation, using updated aerial photography, global positioning systems, and geographic information systems, to aid in making any final decisions about changes to the border.

They also agreed to evaluate sediment removal options for the large build-up of siltation above Morelos Dam during the 1993 Gila River flooding. While the 1997 high flood releases will likely aid in removing the silt in the short run, long-term solutions need further technical study, which both countries have agreed to pursue.



Polk Middle School and Rio Grande High School Wild Friends gather with Commissioner Martinez, back row, and Albuquerque Mayor Martin Chavez, middle row, to show off their T-shirts and commendations.

Victoria Fox, Albuquerque

The Land of Enchantment is known for its incredible blue sky, billowy clouds, mystical landscape, and the rivers that slice through it. It's a land steeped in history, culture and tradition. A land of wild beauty and rich resources. And a proud heritage for New Mexico's **Wild Friends** who are dedicated to protecting their environment.

Wild Friends are made up of 400 schoolchildren who are sponsored by the Center for Wildlife Law at the University of New Mexico. During the 1996-97 school year, students

from Albuquerque's Polk Middle and Rio Grande High schools worked diligently to draft an anti-poaching bill which passed the New Mexico legislature and was signed into law by **Governor Gary Johnson**. The bill increased civil penalties, fines, and term of imprisonment for repeat poaching offenders.

During Earth Day 97 festivities, 20 Wild Friends donned their new blue and white Reclamation T-shirts and accepted certificates of appreciation and well-deserved personal recognition from fellow New Mexican **Commissioner Eluid Martinez**.

Earth Day in The Land of Enchantment

Innovations in Government Awards

Making Federal Agencies More Accessible

What if you couldn't make a phone call, attend a meeting, enjoy the outdoors, or on a more basic level, use a public restroom? These simple actions are taken for granted every day by most individuals; however, for about 49 million Americans, these are life's daily challenges.

A longstanding issue for federal and state government is providing Americans with disabilities access to our nation's public lands, facilities, and services. The legislation governing accessibility is confusing, complicated, and routinely misinterpreted, resulting in paperwork nightmares that don't work on the real problem.

The premise from which the Accessibility Data Management System, or ADMS, was developed is to provide a consolidated and standardized approach to managing accessibility. ADMS has automated a complex paper process which make the business of creating accessible opportunities much simpler.

The program was initiated in Reclamation's Pacific Northwest Region and was later established as the automated information management system in support of the Department's civil rights compliance and enforcement. Currently, ADMS serves seven agencies including Reclamation, Bureau of Land Management, U.S. Fish and Wildlife Service, Office of Surface Mining, U.S. Geological Survey, and the Office for Equal Opportunity. The program also operates as a pilot project with the National Park Service.

ADMS is such a well-received, innovative, and publicly useful program that on April 30 the Ford Foundation and the John F. Kennedy School of Government at Harvard University named it as a semifinalist for the 1997 Innovations in American Government Awards. The award recognizes programs and policies that represent original, effective, and resourceful government efforts. ADMS was selected from the initial pool of 1,540 nominees.

In late summer, the field of 99 semifinalists will be narrowed to 25 finalists. The National Selection Committee on Innovations in American Government will then select ten winning programs in October, each of which will receive a \$100,000 award from the Ford Foundation.

"This nomination is a great honor," said **Karen Megorden**, ADMS program manager. "We have worked very hard to develop a uniform management tool for accessibility. Everybody wins with ADMS because it helps citizens with disabilities to locate accessible facilities and services, and it helps facility managers to effectively comply with the law."

In 1995, Reclamation's reinvention efforts were recognized by the Innovations in American Government Awards program. It was one of 15 finalists that received \$100,000, which was used to establish a reinvention lab and host three reinvention conferences throughout the West.



The ADMS Team includes, from left, Technician Ann Gomeza, Program Manager Karen Megorden, Accessibility Specialist Alice Norman, and Technical Coordinator Curtis Kron. BOR Photo by Dave Walsh

BOR-BIA Water Project Helps Montana Town

Jeff Lucero, Great Plains Regional Office

For many years the residents of Frazer, Montana, a small town on the Fort Peck Indian Reservation, have endured very poor drinking water. Most residents borrowed water from their neighbors or hauled drinking water from distant reservation communities. That recently changed when Reclamation and the tribe celebrated the installation of a new water treatment system.



Ft. Peck Tribal Chairman Caleb Shields, left, and Great Plains Regional Director Neil Stessman, standing in front of the detention tank, dedicate the new water system at Frazer.

At the dedication ceremony, Ft. Peck Tribal Chairman **Caleb Shields** explained how the treatment plant would bring an urgently needed improvement to the quality of the community water supply which serves 130 homes, a high school, and eight businesses.

The project got underway in 1996 when representatives from Reclamation, the Indian Health Service, and the Fort Peck Tribes met and agreed that an interim water treatment system was needed to increase the quality of potable water delivered to the community by reducing iron and manganese concentrations from the groundwater supply to meet the secondary maximum contaminant level.

To minimize costs, each entity agreed to a certain task—Reclamation supplied the treatment equipment, the Indian Health Service constructed the building to house the equipment, the Bureau of Indian Affairs assisted in equipment transportation from Denver, Colorado, to Frazer, Montana, and the Ft. Peck Tribes provided labor and will be

responsible for treatment plant operation and maintenance.

Reclamation's search for low-cost technology resulted in the acquisition of two storage tanks acquired from the Navy Battalion Construction Center in Gulfport, Mississippi. The 1969 vintage systems—still new—were intended for use in Vietnam, but were never shipped overseas. Through this cost-saving partnership effort, the Frazer community now has a state-of-the-art interim treatment system.

"The Frazer community water treatment plant is an excellent example of the responsibility Reclamation takes very seriously of operating within a government-to-government relationship with the Ft. Peck Tribes," said Great Plains Regional Director **Neil Stessman** at the April 10 dedication ceremony.

The coordination of decisions and work tasks on the treatment plant were made with tribal representatives in the highest spirit of cooperation. Only through open and direct communications with the tribes was the achievement of treating the community water supply accomplished.

Ground Water Festival Excites Young Minds

Judy O Sullivan, Great Plains Region

The 9th Annual Children's Groundwater Festival in Grand Island, Nebraska, focused on student leadership and stewardship in protecting groundwater with the theme, *Groundwater is the Fountain of Our Youth*. Reclamation's Nebraska-Kansas Area Office was one of the four major co-sponsors who helped stage the event.

Students from fourth through sixth grades are targeted for the event, and more than 3,000 students from 70 schools in 60 Nebraska communities participated this year. "We feel that at that age children are old enough to understand and yet young enough to make a difference in their attitudes," said **Susan Seacrest**, Groundwater Foundation president.

Assistant Secretary Beneke, second from right, her daughter Laura, and Groundwater Foundation President Susan Seacrest, at right, observe the wetland-groundwater connection demonstrated by Reclamation employees Mike Delvaux and Judy O Sullivan.

The March 25 festival, however, was a hit with more than just the children. "I've heard wonderful things about the festival," said **Patricia Beneke**, assistant secretary for Water and Science. "My expectations have been more than met. I'm really impressed by the excitement and enthusiasm shown by the kids."

Other festival guests included Nebraska's **Governor Ben Nelson**, representatives from the United Nations Environmental Programme in New York, National Children's Theater for the Environment from Washington, D.C., and the return of the Smithsonian National Museum of American History.



The Groundwater Festival also began sending its own signals from its very inception. By spreading the word on water education it has become a catalyst for other festivals around the world. The Groundwater Foundation estimates that more than 200 water festivals are now being held in 43 other states as well as Mexico, the United Kingdom, and Canada.

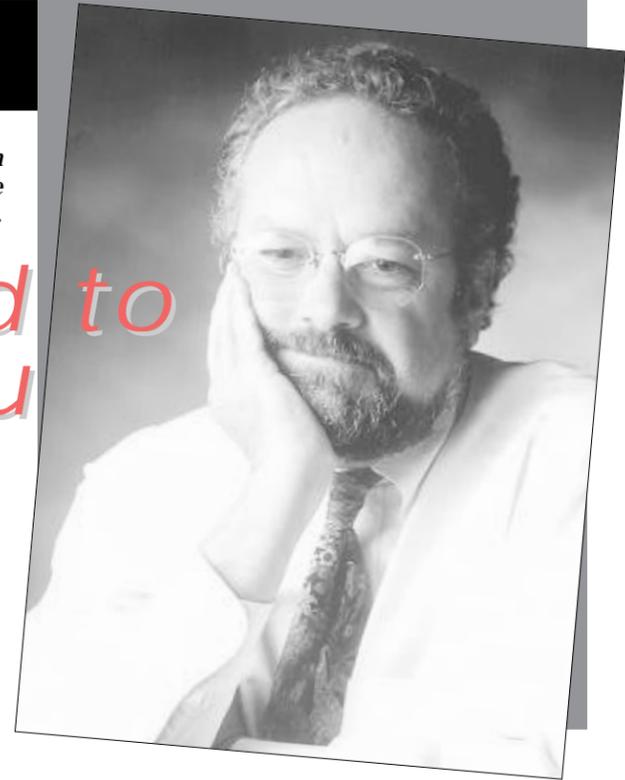
Bureau of Land Management



Sylvia Baca, Interim Director
Jeff Krauss, Acting Bureau Editor

Utah lawyer, educator, and businessman
Pat Shea has been nominated to head the
Bureau of Land Management as its next director.

Shea Named to Lead Bureau



President Clinton has selected **Patrick A. Shea** of Utah to be the next director of the Bureau of Land Management. Shea, 49, is a prominent Salt Lake City lawyer, educator, and businessman.

Secretary Babbitt praised the President's choice of Shea, who awaits confirmation by the U.S. Senate. "Pat Shea's unique blend of legal and management skills, coupled with his love of America's outdoors, will serve him well in this very challenging position," Babbitt said. "I have no doubt that he will work to ensure that our mandate of responsible stewardship is carried out clearly and with vision."

Upon his confirmation by the Senate, Shea will become the 15th director of the BLM, which celebrated its 50th anniversary in 1996. The director has policy and administrative responsibility for 265 million acres of surface land and 570 million acres of mineral estate. The Bureau has an annual budget of more than \$1 billion and a workforce of about 9,000 employees.

Along with practicing law in Salt Lake City and the District of Columbia, Shea is an adjunct professor of Political Science at Brigham Young University's law school. In December 1996, he was appointed by President Clinton to serve on the White House Commission on Aviation Safety and Security. Prior to his private law practice, Shea served as general counsel and assistant secretary for Standard Communications, Inc., in Salt Lake City from 1985 to 1993. He also worked in the District of Columbia as counsel to the U.S. Senate Foreign Relations Committee from 1979 to 1980.

Shea is president of City Creek Canyon Park, a natural history park in downtown Salt Lake City. He is a trustee of the Nature Conservancy's Utah chapter and serves on the Catholic Community Services Board. He also served on the Board of Advisors for the Wharton School of Business' Global Competition Center. Over the past 10 years, Shea has served as chair of the Salt Lake City Airport Authority, as a director of the University of Utah's Natural History Museum, and as a member of the Board of Visitors for BYU's Law School.

A native of Salt Lake City, Shea earned his law degree from Harvard University in 1975, was a Rhodes Scholar from 1970-72, and received a master's degree from Oxford University in 1972. He earned his bachelor's degree from Stanford University in 1970. Shea resides in Salt Lake City with his wife Debbie, and his two sons, Michael and Paul.

Hard Rock Mining Regs In Revision

The BLM held a series of public meetings in May in connection with its effort to revise regulations that govern hardrock mining activities on BLM-managed public lands. The meetings were held in Golden, Colorado; Spokane, Washington; Fairbanks, Alaska; Phoenix, Arizona; Reno, Nevada; Washington, D.C.; Helena, Montana; San Francisco, California; and Salt Lake City, Utah.

The well-attended 'scoping' meetings provided valuable public input to a BLM task force that is working to update the Bureau's Section 3809 regulations. The effort aims to ensure better protection for public lands affected by hardrock mining activities.

BLM Acting Director Sylvia Baca created the task force in response to a directive from Secretary

Babbitt. The task force is addressing several issues, including the use of the best available technologies to prevent unnecessary or undue degradation of the public lands; performance standards for carrying out mining and reclamation activities; and ways to improve coordination between the BLM and state regulatory programs. The task force is headed by **Bob Anderson**, the BLM's deputy assistant director for Minerals, Realty, and Resource Protection.

The BLM expects to publish its proposed revised regulations for public review and comment by April 1998. The Bureau expects to publish final regulations in the Federal Register by March 1999.

Montana Miner a Model Steward

Ann Boucher, Montana State Office

Can placer mining really be environmentally friendly? Judging from the success of **Steve Ryan**, a placer miner in the Garnet Resource Area of northwestern Montana, the answer is a definite yes.

Ryan has mined gold on BLM land for three years, and through meticulous planning, has caused minimal physical disturbance. He has installed sediment fences to protect surrounding areas and streams from receiving increased sediment from his excavation area, and his ore-washing facility is designed to prevent waste water from entering a nearby stream. Ryan does reclamation work concurrently with mining to keep surface disturbance to a minimum, as well as reclaims areas that were abandoned by previous miners.

Montana State Director Larry Hamilton presents Steve Ryan with a plaque in recognition of Ryan's selection as an outstanding steward of public lands.



Steve Ryan's mining methods and obvious care for the public lands have been held up as an example for small mining operations across the West. Montana State Director **Larry Hamilton** presented Ryan with an award March 28 in Missoula, naming him an "outstanding steward of public lands" and commending him "for maintaining an exemplary environmental record in a placer gold mining operation." In addition, **Acting Director Sylvia Baca** presented Ryan with a Health of the Land Award during the Solid Minerals Conference held in Reno in June.

The Horses of Pryor Mountain



Ann Boucher, Montana State Office

They have distinctive blood lines, come in all colors, and have found their way into the hearts of many. They thrive in the Pryor Mountains until their numbers grow too large for the range—and that is where the disagreements arise.

The horses that live on the Pryor Mountain Horse Range about 50 miles south of Billings, Montana, are a well-known and much-loved bunch. Among the many people who are intensely interested in the well-being of the horses and the Pryor Mountains, however, there are many opinions on how to manage them. How many is too many for their range? Should some of the horses be culled? Who decides? These are some of the issues that prompted **Linda Coates-Markle**, Montana/Dakotas BLM wild horse specialist, to organize the Pryor Mountain Resource Management Forum held recently in Billings.

On the first day of the forum (May 7), researchers presented detailed project results and research recommendations. Participants consisted of agency, organizational, and special interest group representatives who have indicated active concern about management of the Pryor Mountain Wild Horse Range. In the May 8 open session members of the public heard condensed versions of these research efforts, as well as agency concerns and management recommendations. This session offered the opportunity for public discussion.

The two-day forum offered a unique opportunity for individuals to network with researchers and agencies involved in wild horse issues. It also provided a rare opportunity for information exchange and consensus-building for future efforts. Coates-Markle was pleased with the participation and outcome of the forum. The discussions will continue at a follow-up meeting planned for July to discuss the Pryor Mountain gather scheduled for this fall.

BLM California Taps State Grants

Frank Andrews

In this era of tight money and reduced budgets, BLM has improvised ways of successful cooperative planning. The Green Sticker Program in California, begun in 1971, is an example. The program is a tax imposed by the State of California on motorcycles, off-road vehicles, and snowmobiles. A portion of this revenue is set aside each year and can be obtained by applying for a grant through the state's Resources Agency. In fiscal year 1996, available grants totaled \$6.3 million. In fiscal year 1998, this amount could reach \$9 million.

Operations-maintenance grants are the largest and include funds for off-road vehicle opportunities, maintaining roads, signage, maps, information dispersal, and visitor services. Acquisition grants are available for purchasing additional recreational properties.

As a result of the grants, **Tim Smith**, a recreational supervisor, and others in the BLM California State Office have an outstanding rapport with employees of the Resource Agency in the State of California. This public relations creativity has benefited BLM, the State of California, and visitors to BLM sites. Most states provide money for recreational opportunities.

Computer Science Collegians Visit BLM

Steven P. Shafran

Some thought the visit would open doors in the future, while others said they learned things that would help them when they enter the workforce. Several felt the experience would be an important factor in deciding whether to work in the public or private sector.

"When I saw some of the technical projects and jobs that they were lining up, it let me know that there would be future employment opportunities," said a participant. "My experience in Denver was exciting mainly because of the prepared professionals that made our stay a great adventure," another remarked.

Those were the reactions of members of the Computer Science Association of the University of Arkansas-Pine Bluff, whose annual spring trip visited Interior agencies in Denver, Colorado, from April 14-20. The goal of the trip was to learn about the application of computer technology in the workplace, while promoting career and professional development.

The host activities were coordinated by the BLM's Denver Office of the Special Assistant to the Deputy Director. The 20 students and two staff members visited the BLM's

Right, students from the Computer Science Association of the University of Arkansas-Pine Bluff gather in front of the BLM Denver Federal Center Service Building for a photo. Steven P. Shafran, BLM's Tour Coordinator, is at far left. Below, Leroy Laney, standing, and Brenda Bohannon demonstrate new technology at BLM's National IRM Learning Center.

Information Resources Management National Center and Geographic Information Systems Division, the Fish and Wildlife Service, the Bureau of Reclamation, the National Park Service, the US Geological Survey, the BLM Colorado State Office, and the U.S. Forest Service.

Each stop included a tour of the information system area, demonstrations of software and systems applications, seminars on agency operations, discussions of professional development, and career opportunities in the agency. In addition, the Denver office of the Black Chamber of Commerce provided a tour of the only African-American-owned television broadcasting company.

Students and faculty discussed a range of topics with federal employees, including students' preparation for careers in government, the contrasts between the government and private sector work environment, and the benefits



and opportunities of each sector. The visits also established new ties and strengthened old ones between the agencies and the university—links that can help in the recruitment of Pine Bluff graduates.

Several students were afforded on-the-spot interviews for both student employment and permanent jobs. BLM's National Center for Information Resources Management offered two

applicants positions. In addition, the possibility of a summer exchange for Computer Science faculty was discussed. Overall the students were very grateful for this opportunity and excited about the knowledge they gained and the technology they saw and touched.

The partnership between BLM and Historically Black Colleges and Universities has been exceptionally fruitful, providing mutual benefits and helping each partner accomplish a part of its mission and objectives.

Stephen P. Shafran is a program management analyst with the Office of Special National Projects and Initiatives in Denver, Colorado.



Participants at the opening ceremony of the Martin's Cove interpretive trail move along the designated walking trail at the historic site.

Martin's Cove Trail Opened

The Rawlins District Office in Wyoming officially opened the Martin's Cove interpretive trail on May 3. The event celebrated the fifth annual National Trails Day and the Sesquicentennial (150 years) of the Mormon Pioneer Trail. Speakers at the event included Wyoming State Director **Alan Pierson**, Rawlins District Manager **Kurt Kotter**, and **John Creer**, who represented the Church of Jesus Christ of Latter-day Saints (LDS).

Martin's Cove, located in the Sweetwater Rocks of central Wyoming, is enrolled on the National Register of Historic Places. The cove is the site of the worst disaster in the history

of the 19th century settlement of the western United States. Approximately 500 members of the Martin's Handcart Company took shelter in the cove after being besieged for several days by an early winter storm in 1856. The Mormon emigrants were short of provisions and supplies and were suffering from hunger, exhaustion, and hypothermia.

A rescue party from Salt Lake City reached the company at Horse Creek, a few miles northeast of Independence Rock, and helped it reach the shelter of the rocks. The company spent a week in the cove while it waited out the storm. About 145 members of the company died along the trail or in the cove during its journey to the Salt Lake valley.

The trail project is a result of the LDS church's purchase of the historic Hub and Spoke Ranch, established by **Tom Sun** in 1872. While Martin's Cove is on BLM-administered public land, it was bordered on two sides by the Sun's private land and by the Sweetwater Rocks on the other two sides, and the public had limited access to the site. The church purchased the ranch in order to provide public access to the cove. As a result of the newly acquired access, the BLM expects tens of thousands of people to visit the site in celebration of this year's trail sesquicentennial.

To lessen impacts to the site, the BLM and LDS church cooperated in the construction of a walking trail to and around Martin's Cove. The trail begins near the church's Martin's Cove Visitors' Center, loops around the margins of the cove, and then crosses the Sweetwater River on its way back to the center. The length of the trail is about 4.5 miles. Handcarts are available at the center for those wishing to reenact part of the Martin Company's experience on the trail. Several signs which interpret the emigrants hardships are located along the walking trail.

During their remarks, Pierson, Kotter, and Creer thanked the many volunteers from all over Wyoming who contributed almost 7,000 hours to the project. BLM employee and cowboy poet **Mick Kaser** presented a poem about the Martin Company that he'd written for the event.

BLM, Mine Operators Join Forces

BLM firefighters weren't surprised when last year's wet spring erupted into a record-breaking fire season across northern Nevada.

But at the huge gold mines in the area, the reality of 32 separate fires burning simultaneously on the public lands in the Winnemucca District and insufficient resources to fight them came as a complete shock. After all, none of the mines had even been in existence the last time there was a bad fire season.

Although the mines have resources that even the best-equipped fire departments dream about—such as huge bulldozers, 13,000 gallon water trucks, and employees in full safety garb—they lacked the firefighting training and communication with agency incident commanders to put those resources to effective use. Concerns about liability and reclamation responsibility combined with a lack of appreciation for the work that exhausted firefighters had already performed before the Nevada fires broke out fueled resentment.

While the fires last year caught everybody by surprise, that won't happen again. On May 6, in Winnemucca, Nevada, a diverse group of miners, firefighters, and agency personnel gathered to hammer out a unique and unprecedented agreement which ensures cooperation between the mines, the BLM, and other resource agencies on

future fires. The goal, as Nevada Mining Association President **Paul Scheidig** put it, is "to protect both ours and yours."

The participants have a new understanding of the capabilities and concerns of those "on the other side of the fence." Even more importantly, from now on, mines will be provided with fire training, radio frequencies will be shared, and mine personnel and equipment will be incorporated into the Incident Command structure on any fires which occur near the mines.

Both miners and agency personnel will be aware of the shared resources available to them and the constraints regarding their use in hazardous situations and environmentally sensitive areas.



BLM firefighters battle some of last year's record wildfires in the West.

BLM's Laura Stitch Honored, Page 2



Allen P. Stayman, Director
David S. North, Bureau Editor

OIA Has New (Unwatered) Turf

No people, very little land, and no fresh water.

That's a pretty accurate description of Navassa, which lies about thirty miles off the coast of Haiti. The currently uninhabited island is not new to the United States, which has claimed it continuously since 1857. But it is new to the Office of Insular Affairs.

Navassa has had a checkered past. In the early days it was a pirates' hideout, but given the lack of potable water, they did not stay there very long. Haitian fishermen have been known to dry their catch there, and Haiti still lays claim to the islet.

The United States acquired Navassa through the operations of 19th Century's Guano Act, which said that an American entrepreneur wanting to mine solidified bird droppings from an otherwise uninhabited, unclaimed island could do so, and that the U.S. Government would claim islands that were, in fact, mined for this once highly-valued fertilizer.

Navassa was so mined, for decades, under the grimmest of working conditions; once, the Americans lured into this desolate island carried out the ultimate industrial action—they murdered their bosses.

OIA is currently working out the regulations for visiting the island, which is 100 percent controlled by Interior. Several individuals as well as groups have expressed interest in visiting the island. There are no harbors, and no beaches.

If you want to land on the island—which no OIA staffer has yet done—you have to bring your vessel up to one of the island's cliffs and clamber up a rope ladder of unknown vintage. There are some ruins of the old mining camp and the now-deactivated Coast Guard lighthouse, but there is no other place to take shelter.

The draft regulations for visitors are based on those used by the U.S. Fish and Wildlife Service for its Pacific islets. The underlying notions are dual:

- 1) OIA wants to make sure that only the physically hardy and well-prepared attempt a visit; and
- 2) the agency wants to make sure that the current ecosystem is not damaged by the introduction of exotic plants and wildlife.

OIA contact is **Joseph McDermott** at (202) 208-6816.



OIA Web Site

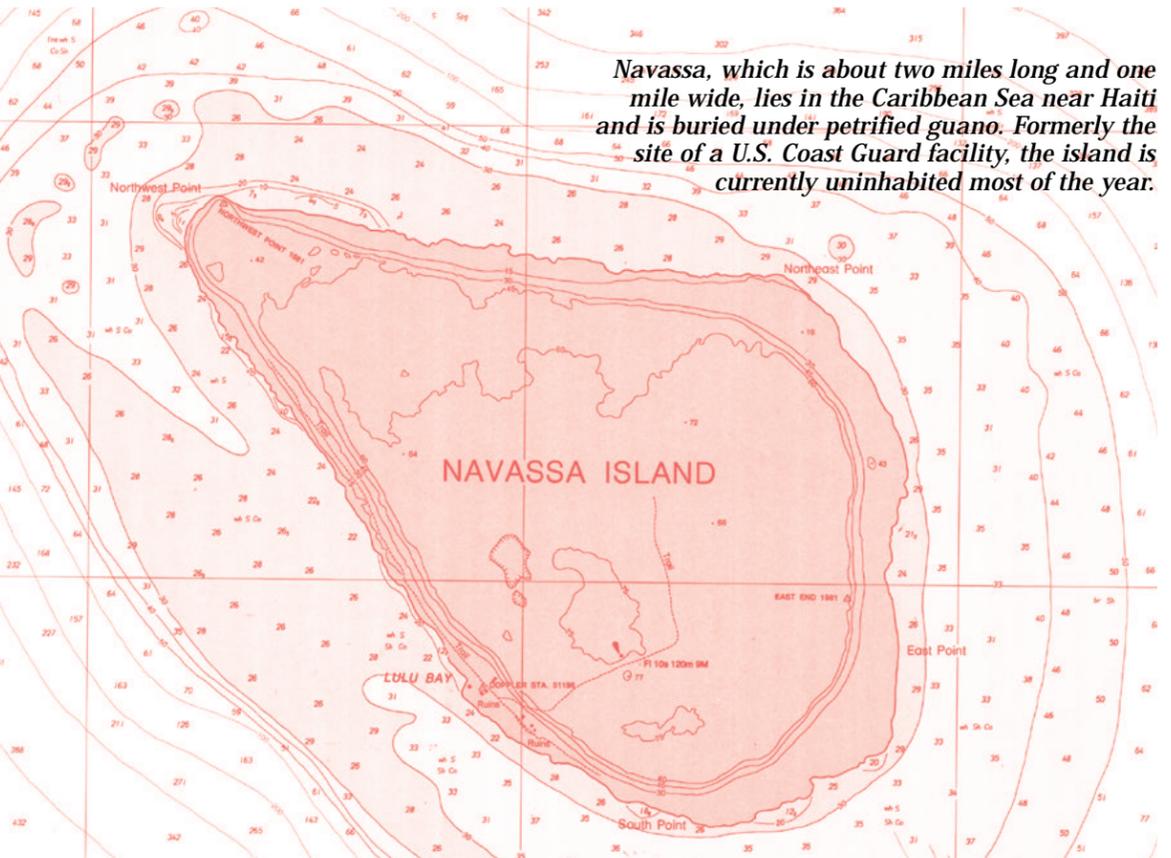
Internet users can secure a great deal of information on the United States insular areas and the freely associated states by calling up the Office of Insular Affairs' new home page on the internet.

The address is WWW.DOI.GOV/OIA/INDEX.HTML

Currently at this site are the full text of the OIA's annual publication *A Report on the State of the Islands*, complete with tables and reports on various governmental programs; economic and demographic statistics are also included.

The site also includes factsheets on American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, the U.S. Virgin Islands, and other insular areas as well as on the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau. Other data will be provided later, as the site expands. OIA contact is **Nancy Boone Fanning** at (202) 208-6816.

Navassa, which is about two miles long and one mile wide, lies in the Caribbean Sea near Haiti and is buried under petrified guano. Formerly the site of a U.S. Coast Guard facility, the island is currently uninhabited most of the year.



Territories Bill Reported Out of Senate

The Senate Energy and Natural Resources Committee voted out S.210, an Omnibus Territories Bill on May 21. The measure would provide for greater access by the Government of Guam to excess U.S. lands on the island, and would authorize or make modifications to a series of programs of interest to the insular areas.

With regard to several thousand acres of U.S. military lands on Guam that have a wildlife refuge overlay and may become excess in the future, a 180-day process would be established whereby Guam and the U.S. Fish and Wildlife Service would attempt to agree on terms of the transfer to Guam.

If there is agreement, the transfer to Guam would take place. If there is no agreement, the land would be transferred to the federal General Services Administration, awaiting congressional action.

Other sections of the bill provide for:

The extension by five years of a program providing foodstuffs to the residents of the

four atolls in the Marshalls that were affected by the U.S. nuclear weapons testing program;

The retention of the powers of the Governors of Guam and the Virgin Islands while on official travel;

The division of the land grant university in Micronesia into three institutions, one in each freely associated state (FAS);

Giving the territories and the State of Hawaii the responsibility for reporting on the impact of immigrants from the freely associated states to the U.S. territories and Hawaii;

Extending federal housing eligibility to FAS citizens on Guam, as long as all U.S. citizens have been served; and

Creating Commissions on the economic futures of American Samoa and of the U.S. Virgin Islands.



Northern Mariana Islands Labor Immigration Bill Introduced

Congressman George Miller of California, the ranking member on the House Resources Committee, has introduced a bill that would provide additional labor standards and immigration protections in the Commonwealth of the Northern Mariana Islands.

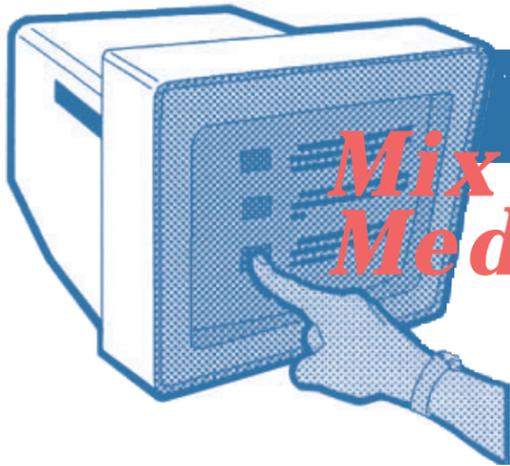
The measure, which has 25 co-sponsors, calls for immediate federal control of immigration and thus the use of laws and regulations used by the Immigration and Naturalization Service, rather than those of the Commonwealth. A second provision would provide that only garments made by manufacturers abiding by the new federal minimum wage could use the "Made in the USA" label.

Under the bill, the minimum wage in the islands, (now \$2.90 for garments and construction, and \$3.05 for other industries) would, on enactment, go to \$3.55 an hour. On January 1, 1998, it would increase by 50 cents an hour, and every six months a 50 cent-an-

hour increase would be repeated until the federal minimum wage was equaled. Currently, the Northern Marianas legislature sets the local minimum wage.

The federal wage (now \$4.75 an hour) does not apply in the Northern Marianas because of a special exemption the islanders negotiated in their political status agreement with the United States. The islands had been administered by the United States as a United Nations trusteeship before the Northern Marianas electorate opted for a U.S. commonwealth status. Nationally, the federal minimum wage is scheduled to go to \$5.15 an hour on September 1 of this year.

In a related development, the May issue of *Readers' Digest*, one of the most widely distributed and read publications in the United States, featured an article on alleged labor abuses in the Northern Marianas' garment industry. OIA contact is **Steve Sander** at (202) 208-4754.



Mix & Match Media Magic

This is the third and final installment in a series on the use of interactive multimedia for training, education, and outreach programs.

The most important factor in accomplishing your intended purpose for an interactive multimedia program is how all of the elements—containing all of the information that you want to impart—are put together, laid out, interrelated, and presented. That's the role of program authoring, and that's where Interior's AudioVisual Center can help most.

An interactive program is not like a movie or a video. People using an interactive program have to be motivated to peruse it; they have to be engaged in it. It has to be informative, of course; but it also has to be interesting; it has to pull people in; it has to be easy to navigate—rational, logical, intuitive.

And it has to look good. It can't simply contain all the information you want to have in it; that information has to be arranged attractively and interrelated in ways that users quickly understand or discern and want to pursue. That's done through a combination of authoring and design.

If you are contemplating an interactive program, there are a few things that will clarify whether such a program is appropriate for you and, if it is, help speed the process. The first step, of course, is to define clearly the purpose or objective of the program. It's best if you can do this in a brief, simple sentence, e.g., "Management programs at certain National Parks clearly show how plant and animal species are protected and preserved throughout the nation."

The second step is to specify the intended primary audience. For you that may be the public, for instance, or high school students. Or it could be professionals in a selected field, or agency personnel, or any of a number of other groups. But you should clearly target a specific audience.

Third—and this may require consultation with our communication experts—determine whether a traditional linear presentation, such as a video, or an interactive program would provide the desired information to accomplish your objective in the most effective manner for your audience.

Once You've Decided on Interactive Media

Then, if you decide that an interactive program is the way to go, some preliminary judgment about the level of interactivity to be involved should be made: How many parts of the program should be inter-connected? How much freedom of exploration through the program do you think is desirable?

A general outline of the program's desired content—the information you want to make available—is the next step. Then an initial determination should be made regarding the media elements that should probably be included in the program for maximum impact elements, e.g., text, graphics, photographs, video clips, and narration. With all of that out of the way, a valuable next step is to find out what media elements may already be available for the program.

Much of the above can be done with the help of the AudioVisual Center, and we will work closely with you through the production of your program. With the information you provide, we will draw up a production schedule and—using your outline and estimation of the desired level of interactivity—provide an outline of the program's presentation. Together with you, we can then determine the preferred method of delivery, e.g., a hard drive in a kiosk or CD-ROM discs for wide distribution. With an understanding of the extent and complexity of the program—and the media elements to be included—we will then select the authoring software to organize the program.

Authoring software consists of programs that do basically two things: they interrelate and synchronize media elements for an interactive multimedia presentation, and they provide ways for users of the presentation to navigate through it. They let users call up, refer to, or branch out to any of the subjects or elements of the presentation in a way that seems most natural, helpful, or enjoyable for them—or in some other way best for them.

Authoring programs are generally text-based, object-based, or time-line-based, with most today being object-based. In these programs, icons representing objects (elements of the presentation, such as text segments or video clips) are selected by the author and interrelated in various ways to other icons by simply connecting the icons, using the computer mouse.

This may sound simple enough, but one secret to success in interactive programming is recognizing the ways that users may want to move from one topic to another and to make provision for this. And the author must remember to keep in mind the need to make certain that information is presented in a meaningful way for the targeted audience.



If you have information that you need to convey and you're wondering whether an interactive multimedia program is the way to go, contact the Department's AudioVisual Center. We'll work through the question with you. Call **Liz Shugrue** at (303) 236-2001; fax to (303)

Computers and Your Vision

Visual discomfort is the most frequent health complaint reported by computer users. However, there is no scientific evidence that using a computer can damage the eyes.

Based on available scientific evidence, the American Academy of Ophthalmology considers video display terminals to be safe for normal use and to present no hazard to the eye. There is no convincing experimental or epidemiological evidence that exposure to video display terminals results in cataracts or any other organic damage to the eye. The National Research Council and the American Medical Association came to the same conclusion.

Using a computer, however, can sometimes cause eyestrain, including such temporary symptoms as burning, itching, fatigue, aching, dryness, soreness, watering, redness, headaches, and blurred vision.

People who spend four or more hours a day at a computer and people over the age of forty are more likely to experience these symptoms. Here are some generally recommended suggestions for preventing eyestrain:

The top of the monitor should be at, or slightly below, eye level. The distance from the eyes to the display screen should be approximately 18 to 30 inches.

Rest your eyes by occasionally looking away from the display screen to focus on distant objects. Avoid prolonged, concentrated work at the computer. Take frequent breaks or do alternative work throughout the day that does not require the use of a computer.

Uncorrected, or improperly corrected, vision is a major cause of eyestrain. You should have regular eye examinations, and be sure to mention that you use a computer.

Adjust the monitor for brightness and contrast to suit your viewing preference. Clean the display screen and your eyeglasses (if you wear them) regularly.

Avoid glare by placing the display screen at a right angle to windows. Tilting the screen slightly downward may also be helpful. A glare-reduction filter (screen) should be used only as a last resort because it can degrade the quality of the screen image.

Pulling the Media Elements Together

The author must also assure that if a user gets into a presentation topic in a way that might be confusing or unhelpful, he or she has an easy and logical way to get back quickly to a part of the program that is more understandable or useful.

With authoring of the presentation underway, we do whatever is necessary to obtain all of the media elements that will be used in the program. These elements could include any of the media—video, text, graphics, narration, sound bites, sound effects, music, 3D objects, animation—and they may be created by the Center or be obtained from libraries or stock houses. For your program, you may already have information that will speed up this process.

The design of the program, the way it looks on screen, is important, too. Regardless of the complexity of the program, it should look inviting and logically laid out to users, and that look should be consistent throughout. This should make navigating through the program more comfortable for users and should help them know where they are in it. If you have suggestions or requirements for program design, we will incorporate those in the program.

Once authoring has properly interrelated all of the elements and incorporated the selected design, a proof of the final program is made to make certain that all the elements are properly included and that the program works as you want it to. This proof will ordinarily be a CD-ROM, but it could be some other format.

Changes that are necessary in the program can still be made. When a proof is approved, the program is transferred to its final delivery format. If that format is CD-ROM, a glass master is made and copies struck from that—much as LP records used to be made. Then, the program is ready for delivery.

Through *Scene Three*, the Center's contract media producer, we have the capability to make informative and easily navigable interactive multimedia programs, whether simple or complex. That capability includes not only the two most advanced interactive multimedia authoring programs—Director and Authorware—but personnel whose specialty is authoring interactive multimedia programs.

These personnel are supported by on-staff and on-call experts in every medium that can be involved in the programs—writing, graphics, 2D animation, 3D modeling, 3D animation, film, video, and sound (narration, effects, and music composition and performing). The combination of all of this expertise provides a great deal of assurance that the interactive multimedia programs will be entertaining as well as informative, logical as well as comprehensive, and easy to navigate, even if they are complex.

Legislative Update

H.R. 1420 Defines Compatible Public Uses for Wildlife Refuges

Janet Tennyson

On June 3, the House of Representatives overwhelmingly approved far-reaching legislation that, for the first time, clearly defines the mission and priority public uses of the 92-million acre National Wildlife Refuge System, the nation's only federal lands specifically dedicated to wildlife conservation. H.R. 1420, the National Wildlife Refuge System Improvement Act of 1997 passed by a vote of 407 to 1. The measure now goes to the Senate for action.

The bill, sponsored by **Congressman Don Young**, chairman of the House Committee on Resources, was supported by **Secretary Babbitt** who hailed its "strong and singular conservation mission" for the refuge system and provisions defining compatible wildlife-dependent recreation on refuges as legitimate and appropriate public uses.

The legislation defines compatible wildlife-dependent recreation as, "... a legitimate and appropriate general public use of the [refuge] system." It establishes hunting, fishing, wildlife observation, photography, environmental education, and interpretation as priority public uses to receive enhanced consideration over others. The legislation states that these uses should be facilitated when compatible but does not mandate these activities.

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People Land & Water
Mail Stop 6013
1849 C Street, N.W.
Phone: (202) 208-7291
Fax: (202) 208-5133
Net: PLW@ios.doi.gov



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"The sportsmen wanted legislative recognition of their role in the refuge system," Secretary Babbitt said in an interview with the Anchorage Daily News. "They've had an enormous one, but they've never had a formal legislative acknowledgment, and they've been getting uneasy as they hear some environmentalists say refuges are not a place for hunting and fishing. They were looking for some security."

(Of the 509 units in the National Wildlife Refuge System, 283 allow hunting and 276 allow fishing.)

"Environmentalists wanted formal recognition that the refuges' raison d'être was the protection of wildlife, and that whatever recreation was permitted in the sanctuaries must be compatible with that primary goal," said Jim Waltman, a wildlife specialist with the Wilderness Society in Washington, D.C.

These uses also were defined as priority public uses in Executive Order 12996—Management and General Public Use of the National Wildlife Refuge System—signed by President Clinton in March 1996. Other key provisions of H.R. 1420 that mirror the Executive Order include the refuge system mission statement, and a requirement that the biological integrity, diversity, and environmental health of the refuge system be maintained.

The new legislation also includes provisions requiring that all new public uses and any renewal of existing uses comply with a public involvement process spelled out in the bill. It also mandates public involvement in the development of refuge management plans. The plans must identify the purposes of each refuge, data on wildlife populations, archaeological and cultural values, suitable visitor facilities, any problems that affect wildlife and actions to remedy them, and opportunities for compatible wildlife-dependent recreation.

H.R. 1420, which has been described as "a rare display of bipartisan cooperation on major environmental legislation," culminates intense negotiations to develop legislation that would address the varying concerns of refuge users and interest groups, including hunting and fishing organizations, in management and public use of the refuge system.

The bill was introduced in the House on April 23. The Committee on Resources voted unanimously April 30 to approve the bill for consideration by the full House.

The negotiations involved **Congressmen Young** (Alaska), **John Dingell** (Michigan), **Jim Saxton** (New Jersey), and **George Miller** (California); and representatives of the National Audubon Society, Wildlife Management Institute, International Association of Fish and Wildlife Agencies, and Wildlife Legislative Fund of America.

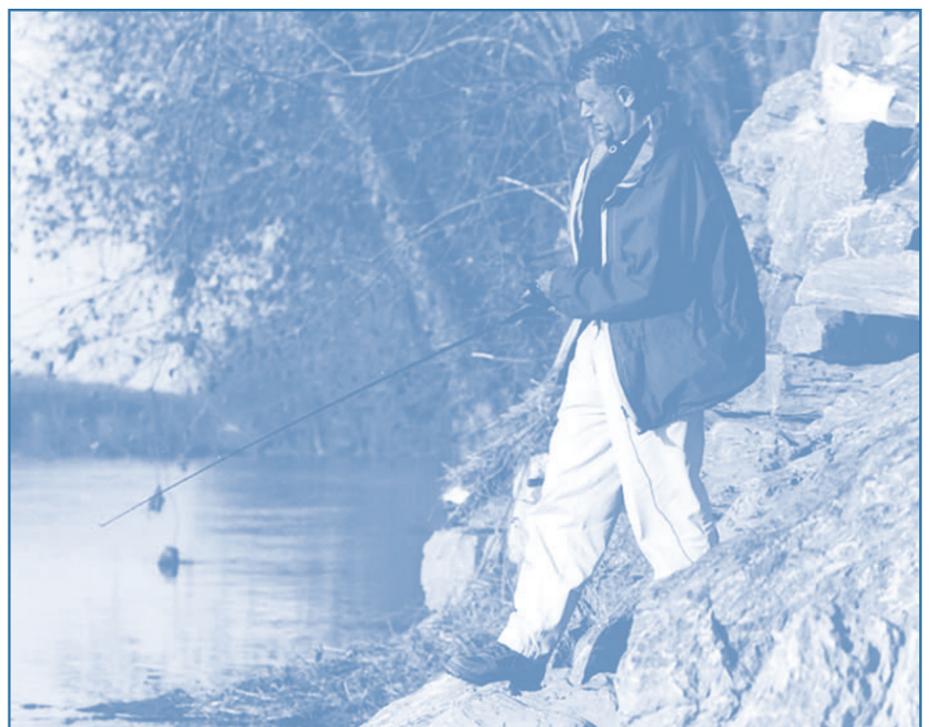
"I sincerely hope that this bipartisan approach to problem-solving can be a model for resolving other natural resource issues which may otherwise divide us," Secretary Babbitt concluded in the letter to Congressman Young.

"This legislation represents an historic moment for the U.S. Fish and Wildlife Service by reinforcing the National Wildlife Refuge System's long-standing commitment to

wildlife conservation," said **Acting Service Director John Rogers**. "And this conservation mission goes hand-in-hand with the outdoor pursuits refuge visitors enjoy. When we do our wildlife conservation job well, plenty of opportunities for wildlife-dependent recreation result."

The only previous legislation defining the 94-year old refuge system came in 1966 with passage of the National Wildlife Refuge System Administration Act, which H.R. 1420 amends. This law provided that all of the individual refuges become the National Wildlife Refuge System and established a compatibility standard for permitting public uses of individual refuges.

However, the 1966 law lacked a unifying purpose or mission for the refuge system and a specific process by which compatibility determinations should be made. H.R. 1420 is designed to address these issues and provide the refuge system with an "Organic Act" to govern its management and use into the next century.



Secretary Babbitt enjoys fishing along a Northern Virginia stream.
Photo by Tami Heilemann, ISC