

THE U.S. DEPARTMENT OF THE INTERIOR
**PEOPLE
 &
 LAND
 WATER**

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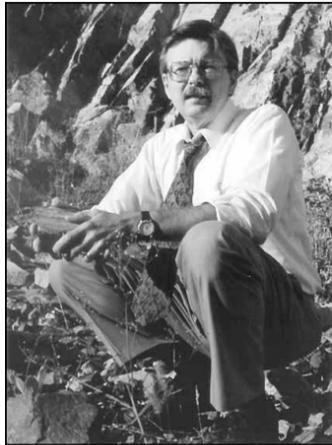
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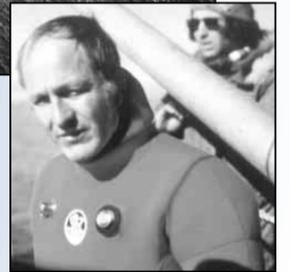
Working for a



Higher Purpose



Interior Scientists Serving America



When wildlife and plant species are saved, habitats preserved, and local economies bolstered, environmental science is truly socially relevant and serves the highest public purpose. That is a guiding principle for Interior scientists whose efforts are highlighted in this issue. To mark National Wildlife Refuge Week, the U.S. Geological Survey reports on research at several national refuges (12-13), while the Fish and Wildlife Service focuses on the crucial work of fish hatcheries to restore endangered and threatened species on the Colorado River (20-21), and the Minerals Management Service profiles several of its scientists and the important research they conduct for the nation (10-11, 28).



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Below, Katherine Wright and Jennifer Macomber did creative exhibit work during their internship with the Indian Arts and Crafts Board. 31



Eljay B. Bowron, a former director of the U.S. Secret Service, has been tapped for Inspector General of the Department. 5



NPS Director Robert Stanton and OSHA Assistant Secretary Charles Jeffress sign agreement to improve employee safety and health programs in the National Park System. At the table, on the left, is Reginald Barkley, of the International Brotherhood of Painters and Allied Trades; and on the right, Pete Ward, of the Police Association of the District of Columbia. Standing, from left, are Adrienne Coleman, superintendent of Rock Creek Park; John Berry, Interior assistant secretary for Policy, Management and Budget; Arnold Goldstein, superintendent of National Capital Parks-Central; and Katherine Higgins, deputy secretary of the Department of Labor. NPS photo by Rosa Wilson

TOWARD A SAFER NPS

Concerned about recent findings that showed an increase in accidents among park employees, the National Park Service, in an unprecedented move, asked the Occupational Safety and Health Administration (OSHA) for help to improve safety and health programs for NPS employees. OSHA has agreed to work with ten park sites, which will later serve as models for the entire national park system.

NPS Director **Robert Stanton** signed the agreement with **Charles Jeffress**, OSHA's assistant secretary, at a ceremony on the steps of the Thomas Jefferson Memorial in Washington, D.C. on Oct. 6. "We are confident that this agreement will result in a far safer working environment for our employees, better employee training, and a more focused safety and health program," Stanton said. "Central to our agreement with the NPS is the commitment to establish or improve the health and safety program at each site," Jeffress added. "The benefits will accrue to all Park Service employees."

Parks Named in NPS-OSHA Agreement

Cape Cod National Seashore, Maine; Fire Island National Seashore, New York; National Capital Parks-Central, District of Columbia; Rock Creek Park, District of Columbia; Cape Hatteras National Seashore, North Carolina; Isle Royale National Park, Michigan; Sleeping Bear Dunes National Lakeshore, Michigan; Padre Island National Seashore, Texas; Golden Gate National Recreation Area, California; and Yosemite National Park, California. These parks were selected on the basis of the high number of lost-time accidents, category of park, and geographic distribution. For more information, contact: **Dick Powell**, (303) 969-2643.

In recent years, the NPS has experienced the highest employee accident rates of all Interior Department bureaus. To address this problem, the NPS is exploring several new approaches to managing worksite safety and health. Key strategies include: complying with OSHA standards; addressing unsafe work practices, which accounts for about 90 percent of all employee accidents; using consultants to help to selected parks to help them develop and manage an effective and comprehensive safety program; managing workers' compensation cases, and helping employees who are temporarily disabled to return to work when they are physically able. The initiative also will investigate suspected cases of fraud and abuse of workers' compensation benefits, and provide safety and health training for managers, supervisors, and employees.

"We applaud Director Stanton and the National Park Service for taking this historic first step by entering into this unique partnership with OSHA," said **John Berry**, Interior's assistant secretary for Policy, Management and Budget. "And we applaud the Occupational Safety and Health Administration, a regulatory agency, for its own cultural change in agreeing to be part of a cooperative effort with the National Park Service, a regulated agency."

Deputy Secretary of Labor **Kathryn Higgins** stressed employee equity in her remarks. "The safety and health of federal workers is just as important as the safety and health of their counterparts in the private sector," she said. "The best ways to protect them is an effective safety and health program to find and fix hazards."

"It is also our intent that every NPS office and site eventually qualifies for OSHA's Voluntary Protection Program," said Stanton. "The criteria for this program is a prescription for safety excellence. We have already adopted that criteria as the basis of our Servicewide safety effort in our Risk Management Program."

Yellowstone works to correct safety hazards cited by OSHA, 18.

INTERIOR EMPLOYEES JOIN AIDS WALK



A few of the Interior employees who took part in the 12th Annual AIDS Walk-Washington gather at the National Mall for the start of the event. Photo by Deborah A. Bush

Department. This year the Interior team raised more than \$2,000 during the Washington walk, according to the unofficial early estimate. Because fund raising continues until the end of the month, organizers will provide the official total next month. If there are other Interior employees around the nation who participate in AIDS walks in their cities, please call **Jim Gasser**, (202) 219-7727, with information on your walk-fund raising efforts.

A team of Interior employees supported by thousand of dollars of contributions participated in the 12th Annual AIDS Walk-Washington on Oct. 4. The team was composed of employees and their family and friends from the Bureau of Indian Affairs, Bureau of Land Management, National Park Service, Office of Surface Mining, Fish and Wildlife Service, U. S. Geological Survey, Office of the Secretary, and the Interior National Business Center.

Before the walk began, **John Berry**, the assistant secretary for Policy, Management and Budget, congratulated team members for their support of this important effort and thanked them for showing that Interior employees care about the work that is accomplished by the Whitman Walker Clinic, the major recipient of the fund-raiser.

The 10 kilometer walk started at 2 p. m. and wound through the streets of the Capital before returning to the Mall. This team effort was organized by Interior GLOBE, a recognized employee organization of the

IRONMAN COMPETITION FULFILLS LIFE GOAL

Ron Bowman, who oversees automated personnel processes for the Department, recently accomplished a goal he had set himself more than a decade ago—competing in the ultimate sports challenge, the Ironman Triathlon World Championship.

The 2.4-mile ocean swim, followed by a 112-mile bicycle ride, and then a 26.2-mile marathon run is held annually in Hawaii. "It was a long day," Bowman said of the Oct. 3 event. "The winds were stronger than expected—50 mile per hour headwinds, with crosswind gusts of 60. The temperature was 90 degrees, but rose to 105 on the asphalt in the lava fields. Even the pros had problems."

While not the way most people would enjoy Big Island, Bowman's experience in the toughest multi-sport event in the world had long been his dream. He was one of 25,000 triathletes who competed for admission and one of the 1,500 selected. To complete the race, each triathlete had to finish the grueling course within 17 hours. Neither the marathon nor the swim were Bowman's major concerns, but the 112-mile bike ride was. "Ninty degree heat and 50-mile-per-hour winds are not something you can train for," he explained.

Bowman, a graduate of the U.S. Naval Academy who joined Interior in 1993 after a 21-year Navy career, competes in four or five triathlete events each year. In the last 15 years, he has run 26 marathon races and 19 ultra-marathons, including three 100-mile events. "First, I started doing marathons in 1982 and after the tenth one, became interested in triathlons," he explained. "It was the natural next step—just a little bit

more of a challenge." To prepare for this year's event, Bowman each week swam five miles, biked 200, and ran 30-40. Weight training also was part of the regimen.

"I accepted long ago that, when you're training and exercising more than three times a week for 30 minutes each time, you're doing it for more than just fitness," said Bowman, who was born and raised in Farmington, New Mexico. "At that point, you're doing it for the mental satisfaction, the challenge of it, for the accomplishment, and as my wife says, because you're a little bit crazy." His wife, **Lynn Hopkins**, is a computer systems network manager at Interior.

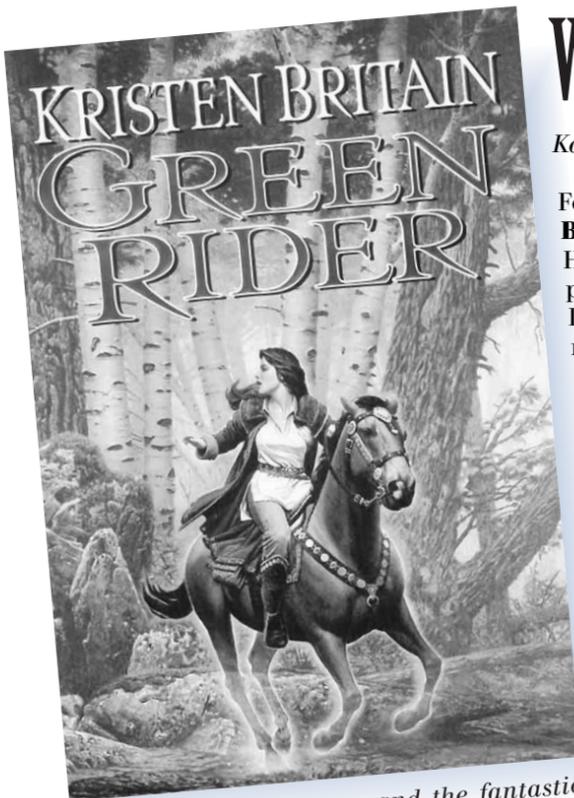
Bowman, who is 48 and suffers from chronic asthma, believes diligent preparation has been the key to his accomplishments. "I think it's important for everyone to have goals and to not be sidetracked or deterred while working toward those goals," he said. As a member of the Citizen Potawatomi Nation, he also accepts the responsibility of being a role model for aspiring Native Americans. "I take that responsibility very serious-ly,"



Ron Bowman crosses the finish line at the Ironman Triathlon World Championship. An emblem of his tribal affiliation can be seen on his left arm.



said Bowman, who entered the race in part "to show all the kids on the Indian reservations and kids with asthma that even a 'middle-of-the pack' guy can accomplish what he wants. And so can they," he said.



Women's History, Parks' Beauty Inspire Ranger's Novel

Karen Sweeny-Justice

For National Park Ranger **Kristen Britain**, fantasy has become reality. Her first novel, *Green Rider*, was published in hardcover in October by DAW Books. And it has been well received.

Critic Anne McCaffrey wrote that "*Green Rider* is a stunning first novel for what I hope will be a long career of storytelling and suspenseful intrigue." Marion Zimmer Bradley has compared the book to Tolkien's works—high praise indeed for a first-time novelist. But Britain hasn't let her writing interfere with her work in the Division of Interpretation at Acadia National Park.

A 1987 graduate of Ithaca College with a degree in Cinema and Photography, Britain's career with the National Park Service began by chance back in the late 1980s when her English class studied the writings of Elizabeth Cady Stanton. Intrigued with the history of women, Britain visited Women's Rights National Historic Park not far from her home in Skaneateles, New York.

Her introduction to NPS employment started with a volunteer position at Women's Rights. Next came a decade of seasonal appointments that included Clara Barton National Historic Site, Lowell NHP, Acadia, Women's Rights, Rocky Mountain NP, and Mammoth Cave NP. When a term appointment at Acadia was offered four years ago, Britain put down roots and began to devote more of her non-working hours to creating the fantasy land of Sacordia.

Reading *Green Rider*, one can almost picture the Maine woods and Britain's love of nature. "Some fantasy novels take the natural world for granted," she said, "but the natural setting is important to me." So, too, are strong female characters. Inspired by the stories of Elizabeth Cady Stanton, Clara Barton, and the mill girls of Lowell that she has interpreted for visitors over the years, Britain admits they may have influenced her to create Karigan G'ladheon, her strong lead character.



Kristin Britain

"And from the unity and *esprit de corps* of national park rangers," Britain said, "I may have attained some inspiration for the Green Riders, who are an elite corps of messengers." Karigan and the Green Riders aren't a one story tale. Britain is already at work on the sequel, *Mirror of the Moon*. "The premise of this one," she said, "is having to destroy great beauty for a greater good."

And are readers likely to find any national parks in Sacordia? "You never know what the future may bring," she admitted. "Within the setting of my fantasy world, you may recognize Acadia, and in the second book, Cape Cod. But as far as actual parks, the closest I get are protected forestlands."

Protecting lands the NPS oversees are just as important to Britain. In addition to presenting interpretive programs, she manages all of Acadia's interpretive publications. She was responsible for editing *Where in the World is Tuzigoot?*, an environmental education booklet, and has illustrated numerous other site bulletins and booklets, including a USDA brochure about the state of Maine's composting program. With a new home computer, she also has a website at <http://www.angelfire.com/ky/karigan>

"It is difficult to have two 'writing jobs,'" she said. "Sometimes I'd rather just take a hike, but I enjoy it nevertheless." After ten years as a seasonal employee, Britain resists looking too far into the future. "I hope to continue at Acadia," she said, and she's taking winter furloughs in stride. "I'll definitely benefit from some furlough time," she added. "I'm currently working on the sequel, and it's huge!"

Combined Federal Campaign

It All Comes Back to You !

Campaign Chairperson
Cynthia Quaterman, Director MMS

Campaign Managers
Tami Heilemann & Marian Baker, ISC

October 20 - December 1, 1998



Around the Department: Creating Diversity

Few workplace issues are more controversial or critical to employee morale than preventing sexual harassment.

As increasing numbers of women have entered the workforce in the last several decades, the problem was initially considered an opposite sex issue—men harassing women. However, as more women reached supervisory positions, occasional cases of female harassment of male employees surfaced. More recently, as gay and lesbian employees gained protection under federal law, sexual harassment has also become a same sex problem.

Today, harassment is one of the most prevalent issues raised in Equal Employment Opportunity complaints in the Department. And sexual harassment complaints, filed by women and men alleging offensive behavior by opposite sex and same sex employees, make up a large percentage of that total.

The Department will not tolerate sexual harassment. Everyone who works at Interior has a responsibility to help maintain a work environment that is free from sexual harassment. All employees are subject to this policy and violations can be punished by a range of sanctions, from written warnings to dismissal. This policy applies equally to harassment of and by gay and lesbian employees.

To help employees better understand what constitutes sexual harassment under federal law and Department policy and what they can do about it, **E. Melodee Stith**, the director of the Office for Equal Opportunity, recently issued a memorandum that clarifies the issues, the sanctions, and the procedures involved. The following explanations are from that memo.

Recognizing Sexual Harassment

Squeezing a worker's shoulders or putting a hand around his or her waist . . . Telling off-color jokes . . . Decorating an office with sexy pictures, including pin-ups of scantily-clad individuals . . . Puckering lips suggestively or making an obscene sign with fingers or hands.

Any of these actions may constitute sexual harassment or discrimination. Comments of a sexual nature also can be harassment. Terms of endearment, for example, such as calling a co-worker 'honey,' 'dear,' 'sweetheart,' or a similar expression can be construed as harassment. Questionable compliments, such as 'Nice legs!' or 'You look hot in that outfit!', can make individuals feel uncomfortable or worse. Even if the person who received the 'compliment' is not disturbed by it, others may be.

The effect of the word or expression on a person is the primary issue rather than the intent of the user. Even if the person 'means nothing to you' or you have 'used the term for years,' you should be aware that such expressions are inappropriate. These examples are not all inclusive. Determining what constitutes sexual harassment depends upon the specific facts and the context in which the conduct occurs. Sexual harassment may take many forms—subtle and indirect, or blatant and overt.

For example, it may be conduct toward an individual of the opposite sex or the same sex; it may occur between peers or individuals in a hierarchical relationship; it may be aimed at coercing an individual to participate in an unwanted sexual relationship; or it may have the effect of causing an individual to change behavior or work performance; or it may consist of repeating actions or may even arise from a single incident, if it is sufficiently egregious.

The Equal Employment Opportunity Commission defines sexual harassment as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature when: *Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment; Submission to or rejection of such conduct by an individual is used as the basis for employment decisions affecting such individual; or Such conduct has the purpose or effect of unreasonably interfering with an individual's work performance by creating an intimidating, hostile, or sexually offensive work environment. (Title 29, Code of Federal Regulations Part 1604.11 (a).)*

Where the behavior occurs also is important. Sexual harassment is prohibited in any location that can be reasonably regarded as an extension of the workplace, such as any customer location, an off-site social business function, or any other non-Interior facility where Department business is being conducted and discussed.

What to do About it

If you believe you are being sexually harassed by an Interior employee and the offensive behavior is a minor problem, consider using an informal method of resolving it. Only use this method if you feel it will permanently stop the offensive behavior without reprisal and you think the offender should be given a chance to change.

If the offensive behavior that you believe is sexual harassment is serious, unacceptable, or repeated—especially after telling the offender to stop—consider filing a formal complaint with your bureau's Equal Opportunity Officer. Serious behavior may include asking for sexual favors in return for a good performance appraisal. You may also file a formal complaint concerning sexual harassment or discrimination at any of the following offices: Secretary of the Interior; Director, Office for Equal Opportunity, Office of the Secretary; or any Bureau Director.

Preventing Sexual Harassment



The Office for Equal Opportunity is sponsoring training on how to prevent sexual harassment in the workplace. All employees of the Office of the Secretary are required to attend the day-long workshops. The training includes the regulations, laws, and leading cases on sexual harassment as well as the responsibilities of managers, supervisors, and employees regarding the handling of sexual harassment issues and complaints. For information, contact **Jody Underwood**, Office for Equal Opportunity, (202) 208-5693.

Left, E. Melodee Stith is the director of the Office of Equal Employment Opportunity in the Office of the Secretary.

If you are the offending person, stop the behavior immediately! If you feel you may have sexually harassed someone, take immediate action to rectify the situation. Apologize. Ask another person or supervisor for advice and have them accompany you to talk to the recipient, or intervene on your behalf. Discuss with the recipient how you can communicate more effectively.

If a formal complaint has been filed against you, seek legal counsel or assistance to understand your rights. Avoid any appearance of reprisal whether direct or indirect.

Seek help from someone that can assist you in getting on track, such as clergy or family. Take responsibility to see that sexual harassment is stopped and that there is no reprisal.

If you are approached by a friend or co-worker who feels he or she has been discriminated against or sexually harassed, take action. Encourage the recipient to approach the offending person directly or use other informal resolution. Offer to accompany the recipient to the offending person, the bureau EEO Officer; or a senior manager to file a formal complaint. Take responsibility to see that sexual harassment is stopped and that there is no reprisal.

If you are a supervisor and you observe or are approached about discrimination or sexual harassment, take action. Advise the person who was offended of his or her right to seek help through the bureau EEO Officer. Advise the offending person to stop immediately. Act promptly and take corrective action if you supervise the offending individual.

Warn all parties immediately against behavior which may look like direct or indirect reprisal. Take responsibility to see that sexual harassment is stopped and that there is no reprisal.

Sanctions, Confidentiality, Reprisals

Reports of sexual harassment are taken seriously and will be dealt with promptly. The specific action taken in any particular case depends on the nature and gravity of the conduct, and may include intervention, mediation, investigation, and disciplinary processes. Individuals who are found to have violated the Department's sexual harassment prohibitions may be subject to discipline, ranging from a written warning up to and including discharge or other appropriate sanction. Where sexual harassment is found to have occurred, bureau managers will act to stop the harassment, prevent its recurrence, and discipline those responsible, where appropriate.

Confidentiality is important. The bureau Equal Opportunity Officers and others who carry out this policy will respect the confidentiality and privacy of individuals reporting or accused of sexual harassment to the extent reasonably possible. Situations where confidentiality cannot be maintained include circumstances when the complaint is filed formally, when we are required by law to disclose information (such as in response to legal process), and when disclosure is required because the Department's interest in protecting the rights of others outweighs its confidentiality interest.

Every employee has a right to report sexual harassment without fear of reprisal. Reprisal occurs if someone threatens an employee or his or her career because the employee filed a complaint or discussed an issue with a supervisor, the EEO Officer, or other officials in the agency. It is unlawful to retaliate against an employee for filing a complaint of sexual harassment or for cooperating in an investigation of a complaint.

Acts of reprisal against an individual should be reported immediately. Interior will not tolerate reprisal against an individual who in good faith reports or provides information in an investigation about behavior that may violate this policy. Intentionally providing false information, however, may be grounds for discipline. Employees may bring allegations of sexual harassment immediately to the attention of the local, regional, or bureau EEO Officer and/or full-time EEO counselor for priority consideration.

The EEO professional must immediately meet to discuss the alleged incident with the employee and then bring the matter to the immediate attention of the highest appropriate management official at the site where the incident arose. The manager will order an immediate, expedited inquiry into the facts of the incident. On receipt of the inquiry report, the senior manager shall take immediate corrective action, if warranted, including appropriate disciplinary action.

MOBIL SETTLES ROYALTY CLAIM FOR \$45 MILLION

Mobil Oil Corporation has paid \$45 million to resolve claims that it underpaid the Federal Government royalties for oil produced on federal and Indian land in California, the Rocky Mountains, and the Gulf of Mexico. The terms were contained in an agreement reached with the Department of Justice and representatives of two tribes.

The settlement was handled by the U.S. Attorney's Office in Beaumont, Texas, and the Department of Justice Civil Division. Interior's Office of Inspector General provided investigative assistance and the Minerals Management Service helped the investigation with lease and audit information.

The settlement resolves allegations that Mobil systematically underreported the value of oil it produced on federal and Indian land, according to an Aug. 27 statement by the Department of Justice. The Federal Government alleged that the company underreported the value of oil it produced on land in California from Jan. 1, 1980 to Dec. 31, 1997, and elsewhere from Jan. 1, 1988 to Dec. 31, 1997, with the result that Mobil paid less royalties than the company owed.

Federal leases, which are administered by the Minerals Management Service, require oil companies to report the amount and value of oil produced on federal and Indian leases each month. Mobil pays royalties based on the value of the oil it reports, subject to audit.

The settlement was also signed by representatives of the Navajo Nation and the Jicarilla Apache tribe. The complaint was originally filed against Mobil by a group of former oil company employees, called 'relators,' on behalf of the United States

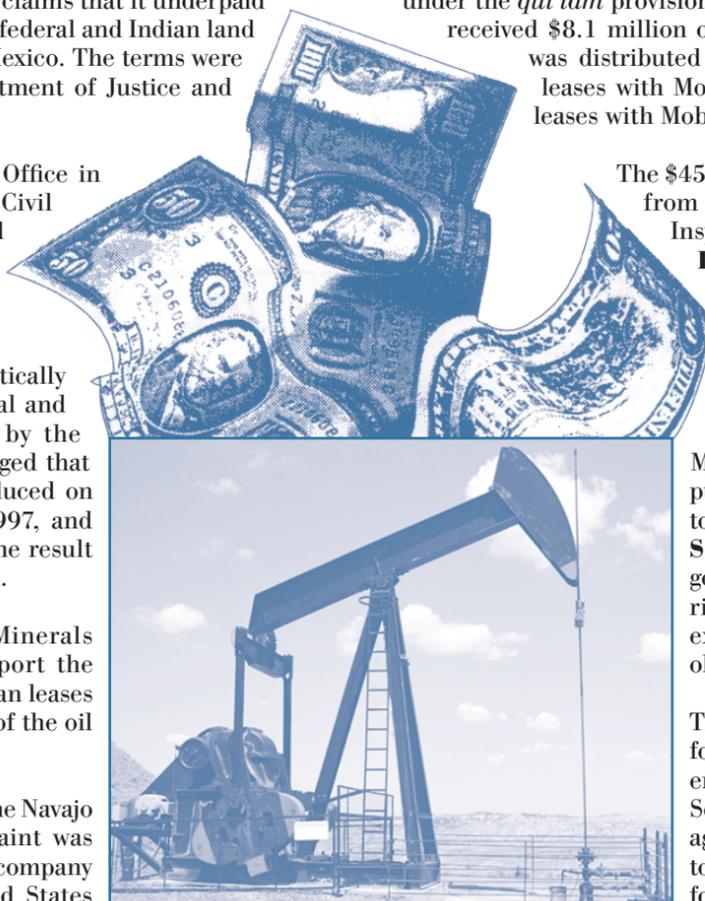
under the *qui tam* provisions of the False Claims Act. Of the \$45 million, the relators received \$8.1 million of the settlement proceeds. The remaining \$36.9 million was distributed among the United States Government, tribes that have leases with Mobil, and states in which the Federal Government has oil leases with Mobil.

The \$45 million settlement is one of the largest recoveries to result from an Office of Inspector general investigation since the Inspector General Act was passed 20 years ago. Special Agent **Lee Roark** of the Office of Inspector General's Western Division Office, Lakewood, Colorado, was the case agent. The Special Agent-in-Charge of the Western Division Office is **James Duncan**.

Secretary Hails Settlement

Mobil's settlement is a major step toward protecting the public interest and setting the record straight for the need to pay royalties based on the true market value of crude oil, **Secretary Babbitt** said. "This is money that state governments, Native American tribes, and all Americans are rightfully due for their mineral resources. Companies extracting oil from public and Indian lands have an obligation to pay royalties based on fair market value."

The settlement underscores the immediate need to move forward with publishing revised crude oil regulations to ensure the proper valuation of crude oil for the future, the Secretary said, noting that the Department has been working aggressively to get revised regulations in place to reflect today's market and to ensure the correct royalty value is paid for oil produced on these lands.



Bowron Tapped for Inspector General

Eljay B. Bowron, a former director of the U.S. Secret Service with 22 years of experience in criminal investigation, will be nominated by President Clinton to be the next Inspector General of the Department of the Interior.



Eljay B. Bowron

"I am exceptionally pleased with the President's intention to nominate Eljay Bowron," Secretary Babbitt said on Sept. 21. "Mr. Bowron will bring a unique breadth of knowledge and an impressive array of management and fiscal investigative skills that will serve the Department and the American people well."

Bowron, 47, currently serves as assistant comptroller general in the Office of Special Investigations of the General Accounting Office, a position he has held since October 1997. He also served as the deputy inspector general of the Social Security Administration.

Bowron was director of the Secret Service from 1993 to 1997. Under his leadership, the Service initiated a series of security improvements at the White House. He joined the Service in 1974 as a special agent based in Chicago and held special agent positions and assignments in Miami, Houston, Atlanta, and Washington, D.C.

He began his law enforcement career as an officer with the Detroit Police Department. Bowron received a bachelor of science degree in criminal justice from Michigan State University in 1973. In 1988, he attended George Washington University's School of Government and Business Administration Contemporary Executive Development Program. Bowron and his wife, Sandra, have one son, Brandon. They reside in Northern Virginia.

IG HOTLINE GOES ONLINE

File Edit View Go Bookmarks Options Directory Window Help

Address: <http://www.oig.doi.gov>

The Office of Inspector General Hotline has entered cyberspace with the creation of a website that will make it possible for the public to file complaints of waste, fraud, and abuse on the Internet. Working with electronic data processing specialists from the OIG's Technical Services Division, Hotline Coordinator **Wedonna L. Morris** has designed a webpage that will provide customers unlimited access and the opportunity to register their complaints 24 hours a day, seven days a week.

Hotline complaints can be made online by accessing the OIG website at www.oig.doi.gov and clicking on Hotline. This accesses a form on which complaints can be directly recorded. Allegations reported to the Hotline website should be as specific as possible and include the name of the affected bureau or Department program, the location in which the incident took place (including city and state), the name of the individual alleged to have committed the impropriety, and as much specific information as possible about the allegation of waste, fraud, or abuse.

The OIG's Technical Services Division designed the Hotline website so that the e-mail address of the sender does not appear on complaints received by the Hotline Coordinator. Therefore, it is possible to make a complaint anonymously if one wishes to do so.

Using the Internet as a tool, the OIG hopes to make it possible to reach more people and process complaints effectively and efficiently. The Hotline's toll-free telephone number, 1 (800) 424-5081 or (202) 208-5300 in the District of Columbia; 9-011-671-472-7279 in the Northern Pacific will continue to function to provide the maximum number of options for contacting the Office of the Inspector General.



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WINGS, a women's focus group, seeks to enhance the professional, emotional, and personal growth of employees through training, mentoring, workshops, and networking. Made up of National Park Service women under the auspices of the Federal Women's Program, the group provides an alternative to the traditional strategies and methods used to help employees overcome obstacles that may arise in their personal lives.

The initiative is for women employees who feel that they have no clear direction where to seek advice and counsel on career and family-related issues, according to **Sheila**



At left, WINGS members include, from left, Tawana Jackson, Sylvia Wood, Diane A. Gee, Sheila L. Smith, Audrey S. White, Dyra A. Monroe, Jackie L. Baum, Cathy Nichols, and Angela M. Scarborough. Above, a WINGS-sponsored tour of the White House assembles in front of the Main Interior Building. Photos by Rosa Wilson, NPS

L. Smith, the group's founder and chairperson. In conjunction with the Interior Department Recreation Association, WINGS also sponsors social outings and is planning seminars and workshops for the Fall and Winter. The topics will address concerns expressed via the group's website. For information, call Sheila L. Smith at (202) 565-1033.

Resource Advisory Councils Carry on Western Partnership

In his 1992 book, *Where the Bluebird Sings to the Lemonade Springs*, Pulitzer Prize winning author **Wallace Stegner** wrote, "perhaps within a generation or two, the people of the American West will work out some sort of compromise between what must be done to earn a living and what must be done to restore health to the earth, air, and water."

Secretary Babbitt recognized the formidable nature of achieving this compromise when he became Secretary of the Interior in 1993. He knew progress could occur only if the federal government works in partnership with state and local governments as well as local individuals who use and care about public lands. And there is no better example of collaborative decision-making than the Resource Advisory Councils (RACs) that the Secretary established three years ago.

And that partnership continues with the Secretary's appointment of a new group of RAC members, whose role is to advise the Bureau of Land Management on the use of public lands. "These citizen councils are proving that cooperation and consensus-based decisions are good for the public, good for state and federal government, and good for the public lands," Babbitt said.

The original 24 RACs in 14 Western states, each with 10 to 15 members, were selected by Secretary Babbitt in conjunction with state governors and BLM state directors. The RACs give citizen stakeholders—ranchers, recreationalists, environmentalists, miners, Native Americans, academicians, representatives of state and local governments, and others—an opportunity to reach consensus on public land issues of local concern.

The 1976 Federal Land Policy and Management Act granted the BLM authority to establish citizen advisory boards for public input into the land management decision-making process. In addition, BLM's 1995 cooperative relations and grazing administration regulations provided an additional framework for establishing RACs.

The councils have succeeded in bringing diverse, and often competing, interests to the negotiating table to deal with issues of common concern. Their most significant achievement thus far has been their work on the development of rangeland management standards and guidelines. The standards are measurable criteria to ensure rangeland health, while the guidelines are management practices used to achieve rangeland health. They were approved for eight states in 1997. The standards and guidelines developed by the Colorado RACs impressed Vice President Gore so much that he presented his prestigious Hammer Award to the group.

The RACs are now focusing on other land management and resource issues. At the recent appointment of the new RAC members, BLM Director Pat Shea said, "I'm delighted that the councils are now turning their talents to help BLM forge a long-term vision for the public lands on a variety of issues."

The members will join their councils to focus on issues such as: recreation guidelines, the Southwest Strategy, Interior Columbia Basin Ecosystem Management Project, wild and scenic river management, National Conservation Area designation, wildland fire management, land exchange proposals, watershed improvement, noxious weed management, and applying standards and guidelines to other resource values. Over the upcoming months, RACs will be holding meetings across the West, and all of them are open to the public. For additional RAC information, contact **Karen Slater** at (202) 452-0358 or **Melanie Wilson**, (202) 452-0377.



Secretary Babbitt and BLM Director Pat Shea, at left, discuss the work RACs have done and will undertake in the future. At right is Bob Armstrong, the assistant secretary for Land and Minerals Management. Martha Hahn, BLM's Idaho state director who moderated the teleconference, is second from left.

1998 RESOURCE ADVISORY COUNCIL APPOINTEES

CALIFORNIA—*Central California Resource Advisory Council*: Carl F. Twisselman II, William N. Center, Ellen Anne Cypher, Susana C. Mata; *Northeastern California Resource Advisory Council*: John E. Hanson, Jr., Dan Heinz, Wesley Ernest Finley, Jr., Nancy J. Huffman, Gerald M. Nordstrom; *Northwestern California Resource Advisory Council*: James Warren Cooksley, John R. Reginato, Diane Fairchild Beck, Cynthia Ann (Blake) Williamson.

COLORADO—*Front Range Resource Advisory Council*: James W. Coleman, Fred Rasmussen, Leslie E. Wildesen, Keith L. McNew, Charles W. Warner. *Southwest Resource Advisory Council*: Christine Johnston, Richard Ellis, Art Goodtimes, James Michael Olguin; *Northwest Resource Advisory Council*: Michael H. Gibson, John George Raftopoulos, Geoff Blakeslee, Toni Hutcheson Moore, Shane Kenneth Henry, William M. Lake.

IDAHO—*Upper Snake Resource Advisory Council*: Joseph E. Tugaw, Susan Patla, Steven L. Thorson, Carter R. Mackley, Carol A. Butler Reid; *Lower Snake Resource Advisory Council*: Martin Collyer Davies, Harry Soulen, Russell W. Heughins, William S. Platts, Ted Howard; *Upper Columbia/Salmon Clearwater Resource Advisory Council*: R. Michael Bowman, Merle J. (Ben) O'Neal, Richard Rabe, James Merrell Peek, Thomas Arthur Townsend.

MONTANA—*Butte Resource Advisory Council*: Martha Ann Montgomery, Douglas R. Abelin, Greg Schildwacher, Cedron Jones, Douglas Newton Rand, Henry (Hank) L. Goetz, Daniel E. Lucas, Mel William Montgomery. *Lewistown Resource Advisory Council*: Eugene E. (Ed) Stoots, Jr., Hugo Tureck, Arlo Skari, Michael W. Aderhold, Darryl Seeley; *Miles City Resource Advisory Council*: Larry Pilster, Franklin (Ken) Deaver, Janice Kallevig, Dwayne Andrews, Ernie Robinson.

NORTH & SOUTH DAKOTA—*Dakotas Resource Advisory Council*: Carol Koerner, Larry James Nelson, Joseph A. Satrom, Curtis Johnson.

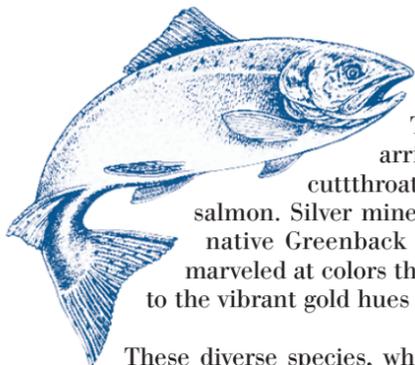
NEVADA—*Mohave-Southern Great Basin Resource Advisory Council*: Marta Agee, Rey Flake, Susan Selby, John E. Hiatt, Mike Wickersham, Stan Smith, Stephen Mellington; *Sierra Front-Northwestern Great Basin Resource Advisory Council*: Jerry Hepworth, Carolyn Dufferrena, Robert Raymond Kautz, Tina Nappe, Susie Askew, Gary Vineyard, Jacques Etchegoyhen, Gerry Emm; *Northeastern Great Basin Resource Advisory Council*: Deloyd Satterthwaite, Robert Edwards, Bob McGinty, Mark S. McGuire, Larry Barngrover, Patsy Sue Tomera.

OREGON/WASHINGTON—*Eastern Washington Resource Advisory Council*: David K. Billingsley, Frederick W. Ebel, Laura Smith, Donald E. Walter, Cynthia Jo Talbott Roche; *John Day/Snake Resource Advisory Council*: Craig Boone Lacy, Shirley Pierce Muse, Mae Jeanett Henning, Michael Ernest Hayward, Michael J. Farrow; *Southeast Oregon Resource Advisory Council*: John Monfore, Robert R. Kindschy, Linda Reed-Jerofke, Jane Helen O'Keeffe, Lillian Maynard.

UTAH—*Utah Resource Advisory Council*: M. Berwyn Knight, Barry Saunders, Gary Lewis, Beverly Evans, William (Bill) Thompson.

► Appointments to Alaska, Arizona, and New Mexico RACs are planned for winter, 1998, and summer, 1999.

BLM WORKS TO SAVE NATIVE AMERICAN SACRED SITE, 26



RESTORING HISTORIC WESTERN GAME FISH

The first pioneer settlers in Nevada assumed they had arrived at the coast when they caught 50 pound Lahontan cutthroat trout in Pyramid Lake and mistook them for Pacific salmon. Silver miners outside Leadville, Colorado caught and ate 1,000 native Greenback cutthroat trout over a single weekend. Pioneers marveled at colors that ranged from the spawning reds of Idaho's sockeye to the vibrant gold hues of California's golden trout—the official state fish.

These diverse species, whose populations historically were an ecological and economic cornerstone of Western communities, also shared a common fate over the past century: sharp decline brought on by a combination of overharvesting, loss of habitat to dams, diversions, and cattle grazing, the introduction of non-native species, and pollution from mining, industry, and agriculture.

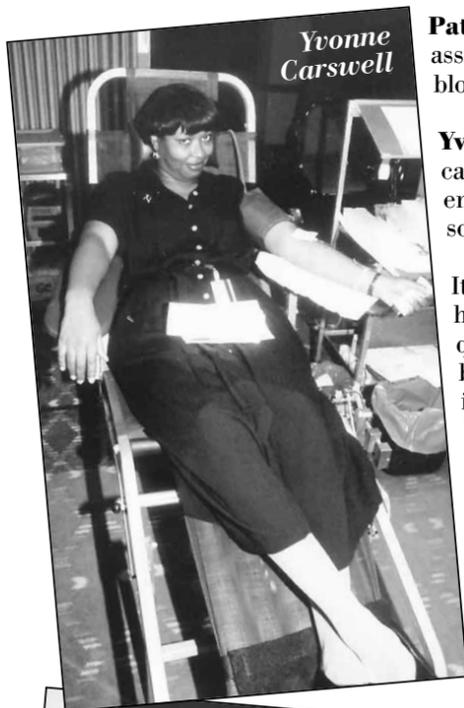
But many of the natives are on their way back, thanks to efforts of a small army of concerned citizens and wildlife agencies, foundations, and groups. Bring Back the Natives, a national effort to support and coordinate this movement, aims to replenish wild and native fish stocks, spur rural economic growth, reduce flood and fire damage,

and steer rare and declining trout and salmon species off or away from the Endangered Species list. The campaign combines pilot restoration efforts under a clear, unified national plan, and doubled funds available for it.

Under *Bring Back the Natives*, Secretary Babbitt and Agriculture Secretary Dan Glickman have released more than \$5 million in new federal and private grants for more than 44 innovative projects that will directly replenish aquatic habitat for native fish species in 14 states. Ultimately, the drive will restore habitat on 283,000 miles of streams and 6.5 million acres of lakes within 462 million acres, or 70 percent of all federal lands. The objective is to restore 183 rare fish species, bringing them back to their historic range.

The U.S. Fish & Wildlife Service, Bureau of Land Management, National Park Service, and Bureau of Reclamation work with the USDA Forest Service and National Fish and Wildlife Foundation, and Trout Unlimited, among many groups, on the multi-year project. This group teams up with ranchers, land managers, state officials, wildlife stewards, and tribal leaders on the restoration project. The campaign promotes focused cooperation between government agencies, and sets up a way to build partnerships with the private sector, from mining companies to timber corporations.

Giving at the Office . . . to Save Lives Across the Region



Pat Shea, the director of the Bureau of Reclamation, can always find the time. "There are many priorities associated with my job, but when I have the opportunity to help someone by donating blood, I don't hesitate to make time in my busy schedule."

Yvonne Carswell, who works in Tim Vigosky's office, knows how critical her donation can be because both of her parents received blood transfusions during medical emergencies. "With the shortage of blood in the nation's capital, I just think it's something everyone should do," she said.

It's also one of the simplest ways to help people in real need, noted **John Leshy**, who heads the Solicitor's Office. "I can't think of any single act an individual can do so quickly and easily, with such enormous benefit to another person, than donating blood," he said. "People who need blood products are by definition hurting—often in crisis—and it's a good feeling to know that a few minutes of my time with only a little discomfort can make such a positive difference to someone else."

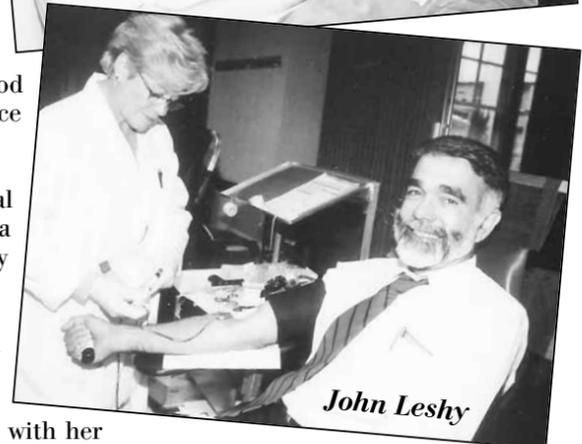
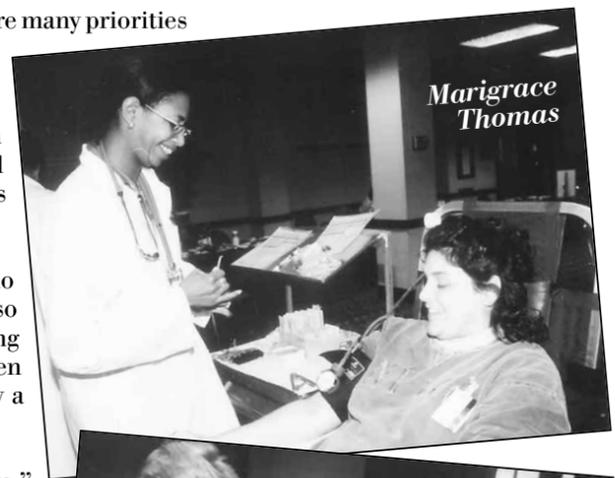
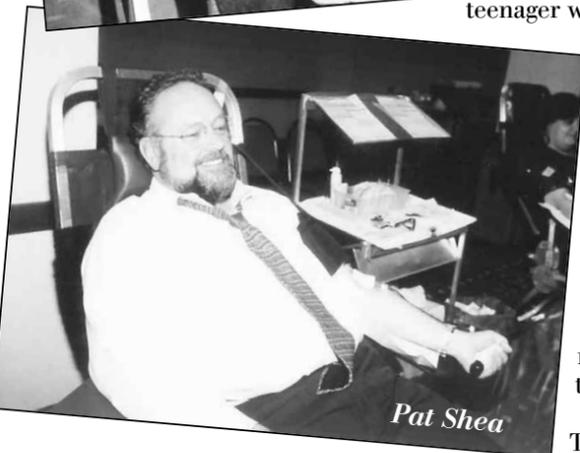
"Time being so precious, it is often difficult to find time to reach out and help others," said **Marigrace Thomas**, a recent donor who works for the Solicitor. "Donating blood at work satisfies an important need in our community and allows us to make a difference in someone's life."

Those who receive blood donated by Interior employees span the spectrum of critical need. Washington area Interior employees, for example, help the Northern Virginia teenager with a rare auto immune disease. She must receive a transfusion of a very specialized blood product every three weeks, just to stay alive.

A Maryland toddler born with multiple congenital heart defects received dozens of blood transfusions as well as donated tissue when she underwent surgery several times. Because of the generosity of Interior and other blood donors in the area, the child is alive, well, and home with her family. Even Americans overseas are helped. Blood donations from Interior employees were included in the 100 pints of type O+ blood sent to Kenya on the day the American embassy there was bombed.

The blood drives at the Main Interior Building in Washington, D.C. are held by the Greater Chesapeake and Potomac Region of the American Red Cross Blood Services. The regional office is part of a network of 38 Red Cross Blood Centers across the nation that provide safe, reliable, and economical blood components and services. These vital services are only possible due to continued support of blood donors.

The Chesapeake and Potomac is the third largest Red Cross region, serving 7.2 million people in more than 80 hospitals in Greater Washington, Suburban and Southern Maryland, Northern Virginia, Greater Baltimore, and South Central Pennsylvania.



The region provided more than 700,000 blood products in the last fiscal year. It also participates in nationwide programs for bone marrow registry, apheresis collections (platelets and plasma), a rare donor registry, autologous (self), and donations that can be directed to a specific individual in need.

In fiscal year 1998, 17 percent of the local center's donations came from government employees. By contrast, in 1996, 19.4 percent of donations were from government workers, and in 1997 the figure was 18.3 percent. Downsizing of the Federal Government has had an effect, but officials believe that these levels can be increased by placing more emphasis on donor education and motivation through an effective recruitment network.

The next blood drives at the Main Interior Building are scheduled for November 19 of this year and January 18, 1999. For information contact **Marlene Groder** at <marlene_groder@ios.doi.gov> For information on the Red Cross blood programs, contact **Vicki Thomas** at <thomasv@crossnet.org> Interior employees at offices across the nation should check with their local office and Red Cross coordinators for upcoming blood drives.

WILD RIVERS RUN THROUGH THEM

River communities around the nation marked a milestone in the rebirth of their waterways this month—the 30th anniversary of the Wild and Scenic Rivers Act. With hikes, festivals, river clean-ups, and symposia, towns and cities along the nation's designated wild and scenic rivers celebrated what is widely regarded as one of the most important pieces of legislation ever passed to protect rivers.

"Rivers have always been the bloodlines of our nation, main arteries of our social, economic and natural life," Secretary Babbitt said in a ceremony on New Hampshire's Lamphrey River. "But by the mid-1960s, many were sclerotic, clogged, and polluted to the point where we had forgotten their vital role in our national character and natural health."

The act helped to develop greater public recognition that restoring local waterways is deeply bound up not only with the protection of wildlife and water quality but also with a community's connection to its natural landscape and heritage. The program is now a key part of the nation-wide effort to protect America's heritage, allowing appropriate economic uses of the rivers, including recreational and tourism opportunities, while protecting threatened species and providing dependable supplies of clean water for local use.

The act protects river segments that contain remarkable scenic, recreational, geologic, fish and wildlife, historic, and cultural resources. To date, 155 river segments in 36 states have been designated as National Wild and Scenic Rivers, totaling almost 11,000 miles of waterways. These protected rivers range from the mighty Missouri to the Charley River in Alaska, to the Bluestone River in West Virginia, and the Lumber River in North Carolina—the newest member.

Building enduring partnerships among local communities, state agencies, landowners, river users, and tribal governments has been a key to that success. Federal partners include the National Park Service, Bureau of Land Management, Fish and Wildlife Service, U.S. Army Corps of Engineers, Environmental Protection Agency, and the USDA Forest Service and Natural Resources Conservation Service. States play an important role by administering rivers designated by the Federal Government but operated through state authorities.

The NPS carries out feasibility studies for those rivers and river segments requested for study by Congress or state governors, offers technical assistance to river partners, and operates 20 river segments as units of the National Park System. For more information about the Wild and Scenic River System, contact **John Haubert** at (202) 208-4290 or **Chris Brown** at (202) 565-1175.

NORTH CAROLINA'S LUMBER RIVER

The Lumber River in North Carolina is the newest partner. Eighty-one miles of the habitat and species-rich waterway is now a state and locally managed component of the National Wild and Scenic Rivers System. The Lumber is the fourth river in the state to receive the status of national designation, joining the New River, Horse Pasture River, and a portion of the Chattooga River, which extends to South Carolina and Georgia.

The Lumber designation covers two reaches of the river: The upper extends from State Route 1412/1203 to the Scotland-Robeson County lines, at the end of the Maxton Airport Swamp (22 miles); and the lower begins at Back Swamp and runs through the town of Fair Bluff and the city of Lumberton, to the North Carolina and South Carolina border (59 miles).

"I congratulate the state of North Carolina, the city of Lumberton, and the town of Fair Bluff in their successful efforts to protect and responsibly manage this magnificent and natural resource," Secretary Babbitt said in making the Sept. 28 announcement. "We look forward to working with the state to help preserve the river's outstanding character in perpetuity."

In 1989, the Lumber River was added to the North Carolina Natural and Scenic Rivers System because of its abundant and wide variety of outstanding resources. Among those are endangered species such as the bald eagle, red-cockaded woodpecker, and American alligator; remarkable scenic beauty; outstanding canoeing and fishing opportunities; highly productive fish habitats; and large numbers of rare, threatened, or endangered plant species.

North Carolina Governor **James Hunt** petitioned the Interior Secretary in April of 1996 for 115 miles of the Lumber to be included in the system. In its review of the application and environmental analysis (required by the National Environmental Policy Act), the National Park Service found that 81 miles of the river met the criteria for designation.

LAMPREY LADDER

DURHAM, New Hampshire—The U.S. Fish and Wildlife Service will fund most of the cost of constructing a fish ladder at Wiswall Dam here to open up 43 miles of Lamprey River habitat. The project will allow passage of fish to spawning grounds, which is crucial to the restoration of runs of river herring, American shad, American eel, and striped bass. The planners hope to begin construction next fall and complete it in 2001. The cost would be about \$600,000, with \$500,000 coming from the Fish and Wildlife Service.

Solving the Amphibian Mystery

Deformities, Population Declines Signal Environmental Distress

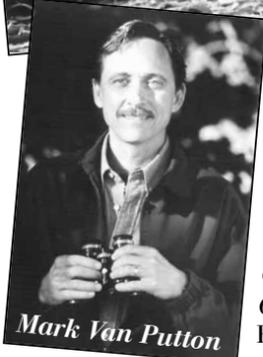


Interior has joined forces with several federal agencies, the National Wildlife Federation, and a popular environmental TV program to find out what is causing the alarming declines in amphibian populations across the nation. In recent years the unexplained die-offs and rising rates of deformities in frogs, toads, and salamanders has become a major concern. Scientists are studying a variety of possible causes but so far are unable to identify and specific causes.

“When these ancient and hardy creatures are in trouble, it’s very likely that a host of others are not far behind,” Secretary Babbitt said in announcing the initiative. “In seeking a healthy habitat for these amphibians, we are giving hope for the future of other species, including our own.”

The real questions are why this is happening now and why it’s occurring in so many different places around the world, Babbitt said. “When we consider that these creatures have been on earth for 350 million years, it is shocking to think of a world without them. We must act quickly, first to understand the problems, and then to try to solve them.”

As part of the new strategy, the Department hosted the first meeting of a new federal Task Force on Amphibian Decline and Deformities (TADD) on Sept. 22. The group was formed after Secretary Babbitt met with other cabinet secretaries and high-ranking officials in the Federal Government to outline the severity of amphibian problems. They made a commitment to an interagency approach, to share ongoing research expertise, and to expand monitoring and coordinate activities. The goal is to seek solutions through a better understanding of the scope of the problem.



Secretary Babbitt and Mark Van Putten, the president of the National Wildlife Federation, launch a nation-wide initiative to help determine the cause of amphibian die-offs.

Putten, president of the National Wildlife Federation. “Our goal in this partnership is to educate citizen naturalists about the plight of amphibians and equip them to help find the answers.” The problem isn’t just about frogs, Van Putten explained. “By unlocking this secret, we are looking out for ourselves and the whole living community that we’re part of.”

The Frog Force partnership will offer students and families a number of tools to help them monitor frog populations by sight and sound and identify deformities. Via the Internet, the public can enter data on local amphibian populations in a central database and share information from other sites. At a kick-off at Kenilworth Aquatic Gardens in Washington, D.C., students were shown how to use Interior’s new Internet site <Frogweb.gov> to enter data they collected from nearby frog ponds. The site also provides current information on the Frog Force, amphibians in general, recent data about declines and deformities, and links to other amphibian sites.

The National Wildlife Federation will provide new classroom instructional materials and frog identification cards through their Animal Tracks program. New information will be included in the foundation’s Backyard Wildlife Habitat and Schoolyard Habitat programs, encouraging people to build frog ponds and reduce the use of fertilizers and pesticides that destroy and pollute frog habitat. The foundation is the nation’s largest non-profit, member-supported, conservation organization practicing a common-sense approach to protecting wildlife and wild places.



Martin and Chris Kratt, stars of the popular public television series *Kratt’s Creatures*, will provide public service announcements to raise awareness of the threats to frogs and their habitat.

The task force is expected to focus on education, science, and conservation. It includes representatives from the Departments of the Interior, Agriculture, Education, Justice, Health & Human Services, Defense, State and Energy; the Environmental Protection Agency, U.S. Agency for International Development, Smithsonian Institution, the National Science Foundation, GLOBE; and the White House Council on Environmental Quality and Office of Science & Technology Policy.

To enlist the American public in the national effort, Interior also has joined the National Wildlife Federation and **Martin** and

Chris Kratt, of the popular public television series *Kratt’s Creatures*, to invite Americans everywhere to become part of a Frog Force. “Clearly, the government and the scientific community can’t solve this problem alone,” said Mark Van



CARIBBEAN VOLUNTEERS HELP SURVEY HISTORIC FORTIFICATIONS AT SAN JUAN

Deborah Marcella Rehn, AIA

San Juan National Historic Site, which includes millions of square feet of historic masonry, has found an innovative way to begin the huge task of inventorying those structures and documenting their physical condition.

The park is mandated under the Inventory Condition Assessment Program to measure, describe, and assess the preservation needs of every historic structure at the site. Though a relatively small park in terms of acreage, San Juan contains the largest and most important Spanish fortifications in the new world. In 1982 it was named a World Heritage Site, along with the Puerto Rican governor’s residence, La Fortaleza.

The park has more than three miles of historic walls, two fortifications—each comprising hundreds of thousands of square feet, and numerous outworks dispersed over 20 acres. These structures were built over a period of 400 years, beginning in 1509 and reached their current configurations by the end of the 18th century. The park also maintains a powder magazine (El Polverín), three neo-classical guardhouses, four colonial offices and residences, and a small fort across the bay on Isla de Cabras.

Because of these extensive and varied historic resources, the amount of work required to carry out the inventory and assessment had been a task too daunting for the park to undertake, until recently. In 1995, the park’s Cultural Resource Management staff was augmented by an historical architect and an archeologist. The additions were due to the foresight of **Paul Hartwig** (then with the office of the NPS Southeast Regional Director and now the park’s superintendent) and the leadership of former Superintendent **Ping Crawford** and Deputy Superintendent **Mark Hardgrove**.

A supportive, teamwork approach allowed one thing to lead to another for great results. **Ken Wild**, the park archeologist, learned about a professional, non-profit, preservation group—Caribbean Volunteer Expeditions—that had done historic documentation and inventory work throughout the region since 1991. Ken heard about the volunteers from a friends group he often works with on archeology projects at the Virgin Islands National Park. The volunteers had completed several projects on St. John in the U.S. Virgin Islands. Ken suggested that **Anne Hersh**, the founder and principal architect with the Caribbean Volunteer Expeditions, call **Deborah Rehn**, the historical architect at San Juan, who described the work that needed to be done.

After the volunteers agreed to help, Deborah worked with park management to identify priority structures that could be used to develop strategies and methods for data collection, and coordinated the dates for the volunteers to visit with park administration. The volunteer group handled all of the recruiting and coordination to match volunteers to the specific projects. Because volunteers pay all of their own expenses, ideally, housing is provided by the park.

The first team of six volunteers arrived in August 1997 and after a brief orientation to the historic site, they measured La Princesa and El Abanico Bastions in the outworks of San Cristobal. The Historic Structures Report and drawings were used for background information and base drawings for keeping notes. Architect **Ali Miri**, of the NPS Southeast Regional Office, provided welcome technical assistance with developing methods to solve the complex problems of how to break down and categorize features of the often indistinct fortification structures to fit the inventory program format. He also helped Deborah and Anne to establish criteria for assessing the conditions of the features.

After measurements were completed and calculated, the volunteers helped to enter the data into the inventory program’s dedicated computer. The final products were two excellent computer printout reports containing quantities, descriptions, and conditions of the structures that were studied. The detailed information will be immensely useful to managers in making decisions about maintaining and preserving the structures.

This past January, the second group of volunteers collected data on El Canuelo, Santa Elena Guardhouse, and the South Covered Way at San Cristobal outworks. The project continues to record the existing conditions and develop treatment recommendations and inspection schedules using the Historic Structures Report, Historic Structures Preservation Guide, and up-to-date technical information from Heritage Preservation Services in Washington. The park’s Resource Management Division will work with the Maintenance Division to plan, carry out, and document the preservation, including the costs and amounts of work. For more information, call **Debbie Rehn** at (787) 729-6653.

1998 Environmental Achievement Awards

Interior employees and a private contractor whose initiatives advanced environmental improvements in the workplace have received the Department's 1998 Environmental Achievement Award. The honor acknowledges employees, teams, offices, and private contractors for their exceptional achievements and contributions in pollution prevention, waste reduction, recycling, or acquisition of environmentally preferred products and services.

John Berry, the assistant secretary for Policy, Management and Budget, and **Dr. Willie R. Taylor**, director of the Office of Environmental Policy and Compliance, presented the awards during a Sept. 17 ceremony in the Interior Museum. The recipients were selected by an Awards Committee of representatives from Departmental bureaus and offices. The group reviewed nominations that were submitted by bureaus. The selections were based on criteria for exceptional achievement or contribution as published in the award nomination procedures. For additional information on the awards program, please contact **Ken Naser** at (202) 208-3901 or **Jim Ortiz** at (202) 208-7553.

The winners are: **Roy Murphy**, an environmental scientist with the Navajo Area Office of the Bureau of Indian Affairs, was selected because of his outstanding efforts in creating and carrying out an environmental compliance and waste management program for the large number of landfills and facilities located in the Navajo Area.

PRIZIM Inc. is a small environmental management consulting firm based in Gaithersburg, Maryland, completed more than ten key environmental management assignments for the National Park Service and the Department, including the development of Envirofacts Sheets for use by NPS personnel. PRIZIM serves as an exemplar of joint private and public sector partnerships.

The Hazardous Material Investigation Team, Mojave National Preserve-National Park Service, helped to solve a crime involving the illegal dumping of large quantities of hazardous waste in the California desert. The team is made up of several federal, state, and local law enforcement agencies.

The Remote Sensing Support Group, National Interagency Fire Center, Bureau of Land Management, was selected for creating the Remote Environmental Modeling Station (REMS) system from the Remote Weather Station system, an innovative tool for resource management and pollution prevention.



At top, Roy Murphy, BIA, second from left, receives his Environmental Achievement Award from Assistant Secretary Berry and Director Taylor. Below, PRIZIM President Frank Priznar, third from right, accepts his company's award with Dawnn Johnson.

was selected for creating the Remote Environmental Modeling Station (REMS) system from the Remote Weather Station system, an innovative tool for resource management and pollution prevention.

The Clean Streams Initiative Team, Office of Surface Mining, Reclamation and Enforcement, demonstrated exceptional teamwork in accelerating the clean up of streams polluted by acid mine drainage from abandoned mines and preventing new sources of contaminated drainage. More on the OSM award is on page 15.

In addition, the following individuals and bureaus were sent letters of Honorable Recognition. **Dick Fisher**, of the National Park Service, for waste reduction-recycling initiatives and compliance assistance efforts at Badlands National Park.

Tammy Mitchell and **J. Shannon Swann**, of the National Park Service, for establishing a fish waste composting program at Lake Mead National Recreation Area. **James H. Wood**, of the Fish and Wildlife Service, for establishing a highly successful oil recycling and waste reduction program at the Eastern Shore of Virginia National Wildlife Refuge.

The Mid-Pacific Region of the Bureau of Reclamation and Region 1 of the Fish and Wildlife Service for their restoration and repair work on the Sacramento River.



At top, OSM Director Kathy Karpan receives the Appalachian Clean Streams Initiative Team award on behalf of team members. More on the team is on page 15. Above, members of the Bureau of Land Management's Remote Sensing Support Group (National Interagency Fire Center) accept the team's award. From left, John Gephard, Buddy Adams, Bob McCormick, Phil Sielaff (receiving the award from John Berry), Dr. Taylor (in the background), Ed Shepard, and Tom Fry, a BLM deputy assistant secretary. Left, Mary Martin, superintendent of the Mojave National Preserve, receives the award on behalf of the Hazardous Materials Investigation Team. Photos by Tami Heilemann, ISC



PERSONAL AWARENESS DAY

John Koskinen has a countdown clock on his desk that ticks off the number of days remaining until the year 2000. It was a gift from Vice President Al Gore, aimed at reminding Koskinen of his immense responsibility and not, as some wags have suggested, to induce a Millennial neurosis. As chairman of the President's Council on Year 2000 Conversion, Koskinen is counting—456, 455, 454—to pace his work, hoping it will help him add a sense of urgency where and when it is required.

A former deputy director at the Office of Management and Budget, Koskinen supervises the Administration's efforts to ensure that the Federal Government's critical information technology systems are fixed well before 2000 and to work with state, local, tribal, private sector, and foreign institutions on the inter-connectivity problem. Their systems are linked to the U.S. Government's and even when federal systems are fixed, others that interact with them can cause problems if they are not Y2K compliant.

While the technical solution is fairly straight forward, the Y2K problem presents a Herculean managerial task, Koskinen told an employee assembly at Main Interior on Oct. 1. "Imposing those technical solution across the vast federal landscape is difficult, arduous, repetitive work," he said at the kickoff of Interior's Y2K Personal Awareness Campaign. The problem is the inability of computer software programs that use two-digit date routines—98 instead of 1998—to correctly interpret 00 when the year 2000 arrives. The failure of these systems to properly operate could cause major problems for government and private sector computer systems, and possibly calamities.

Interior bureaus and offices have identified 92 mission-critical information systems, ranging from financial collection to computer controlled irrigation and electric power generation, that must be fixed before the next century. Interior Y2K teams are fixing these systems. Embedded computer microchips in laboratory, safety, and telecommunications devices must also be checked to ensure operational readiness. Identifying and correcting these situations before they are a problem is a major Secretarial priority.

Koskinen pointed out that while only two to three percent of the embedded microchips in information systems are susceptible to the Y2K problem, that amounts to about 40 billion chips worldwide. The international implications of the problem—for financial



Far left, John Koskinen, the lead Administration manager in the Y2K initiative, and Daryl W. White, the chief information officer for Interior's Office of Information Resources, talk to employees about what they can do to prepare for potential Y2K problems in their personal lives. Photos by Tami Heilemann, ISC

markets, commercial transportation, and international security—are huge and many nations and small and medium companies are far behind the curve in fixing their systems, he said.

While addressing the seriousness of the challenge, managers must also guard against creating an overreaction, Koskinen warned. "If hundreds of millions of Americans decide on December 31, 1999 to pull their money out of the market, hoard gas and food, and stay home on January 1, the affect could be catastrophic. On the other hand, if we tell them there's not a problem, we're not doing them or us a lot of good," he said. The emphasis should be on the actual problems, whether on a personal level—banking, investments, home computers, cell phones, automated tellers, etc.—or on a government or business system level. People should be encouraged to become informed and to reach out for help with the solutions.

Koskinen noted that the Y2K Good Samaritan act can help companies and governments learn from others' efforts. Known as the Year 2000 Disclosure Act, the law will enhance the flow of Y2K information by removing legal constraints for good faith disclosures. Many companies have been reluctant to share information on their Y2K solutions, fearing legal liability for problems that other firms might encounter from using the information. Koskinen also expressed confidence that the \$3.2 billion emergency funding in the President's budget for federal Y2K conversion programs will enable bureaus to hire the personnel and buy the equipment needed to enter the millennium bug free. The Y2K Awareness Day, organized by the Office of Information Resources, also brought representatives from industry to exhibit Y2K compliance products and services that are useful for government, business, and personal situations.



The Spirit of Discovery: Profiles of Scientists with the Minerals Management Service

Walter Bonora

We dwell on a largely unexplored planet biologist Edward O. Wilson

He was called the most dangerous man in England. **Charles Darwin**, the father of evolutionary biology, rocked the world with the publication of his book, *On the Origin of Species*.

Darwin was vilified by religious fundamentalists for more than a century and the subject of perhaps the most famous U.S. courtroom drama of the 20th century—the 1925 Scopes Monkey Trial, which made a national issue of teaching evolution in public schools.

Biology has come a long way since then. Biologists roam the globe seeking answers to nature's puzzles. Their journey has enabled them to discover and name 1.5 million animals, plants, and microorganisms. About 750,000 of these species are insects and about 40 percent of these are beetles, making that group the most diverse form of life on the planet. When Darwin's friend, Thomas Huxley, was asked what the study of creation had revealed about the mind of the creator, he quipped, "The Almighty has an inordinate fondness for beetles."

But how many living organisms exist on Earth is still unknown. Some estimates place the number of earth dwellers at 30 million. Some say 100 million. Since 1908, eleven new species of whales have been discovered. And in 1988, scientists learned of three new types of monkeys. Occasionally, new species of worms, mollusks, and crustaceans are dredged from the mud of the ocean floor.

In the spirit of discovery, scientists working for the Minerals Management Service conduct environmental studies that enhance our understanding of the world we inhabit. The MMS is primarily responsible for the safe management of mineral resources on the nation's outer continental shelf.

Environmental studies funded by the agency provide information needed to determine the effects of offshore natural gas and oil development on marine and coastal habitats. This information is used to determine what measures are needed to protect species and the environment, if they are found to be in jeopardy. Here's a look at some of the people who dedicate their careers to supporting the MMS mission, and in so doing, play a role in unlocking some of our planet's secrets.



The future of the world depends on water Jacques Cousteau

Ken Turgeon, chief scientists for the Minerals Management Service, surveys Arctic tundra at Prudhoe Bay, Alaska, while visiting British Petroleum's production facilities on the North Slope.

recalled. "I had this burning desire to go overseas, so I took a job teaching biology at the American University in Lebanon. The university sat on the green line—the imaginary border between the Christians and the Muslims in Beirut. One night, I went to buy a pack of cigarettes in an area where I wasn't supposed to be. Suddenly, I'm surrounded by some scary characters pointing AK 47s at me."

While being interrogated and threatened with being shot on the spot, Turgeon told the group's captain that he was an anglais teaching marine biology at the university. That may have saved his life, because the captain of the interrogation team had a cousin who was a student at that same university.

"One minute they were about to shoot me; the next minute I'm being told how good the school is and what a good teacher I must be," Turgeon said. With an admonition

to be careful because he might not be so lucky next time, Turgeon was released. "Good thing his cousin attended the university, or I wouldn't have lived to experience my next brush with death."

And that happened on the terrace of his apartment, when a shot rang out and a bullet ricocheted off the balcony wall, only inches from his head. "I dove head-first back into the apartment as a second shot ripped through the air," he recalled. "To this day, I'll never know why, but for some reason I was the target of sniper fire during a supposed cease-fire." Beirut, once the Paris of the Mideast, had become a bombed-out shadow of its once splendid past. Turgeon experienced one year of the city's turmoil before he and other Americans were evacuated by a U.S. Navy destroyer.

Years later, and packed with more war stories than a combat veteran, Turgeon serves as chief scientist for the Minerals Management Service. He brings with him not only academic credentials but also a worldly expertise that enables him to move with ease in and out of diverse groups of professionals. He advises all levels of management on environmental and scientific issues that affect natural gas and oil development activities in the marine environment. His work reaches into academia and research institutions where he promotes the agency's scientific interests.

The 55-year old, New Bedford native originally had his sights set on a medical career. "I wanted to be a doctor, and worked my way through Stonehill College in Massachusetts as an emergency room orderly. After five years of that, I said 'no thanks.' I didn't have the make-up for it, and besides I had always had a love of the sea."

So Turgeon went to William and Mary College where he got his masters degree in biological oceanography and then on to the University of New Hampshire for a doctorate in marine zoology. He had other near brushes with death, like being chased by a mean-spirited hippopotamus while studying crayfish for the Kenyan Fish and Game Department, and receiving a painful and debilitating sting from a poisonous worm while diving in the Indian Ocean.

But after a circuitous route, Turgeon landed on the shores of the Minerals Management Service in 1988. "The agency does good work; important work for the environment, and for the American people, and I am proud to be a part of it," said Turgeon.

★ ★ ★ ★ ★

The North Atlantic right whale is perilously close to extinction. "There are only about three hundred left," said marine biologist **Judy Wilson**. "It's very hard for a species to survive when their numbers dwindle so low. Most of them are not very strong or healthy because of inbreeding."

MMS-funded studies helped to discover the right whale's calving grounds in waters off the Georgia shore. They are slow, docile animals that get hit by boats and caught in fishing nets. "It makes me very sad to know that we may lose them forever," Wilson said. "Were it not for MMS-funded studies, people would not have been made aware of the precarious situation facing these creatures."



Judy Wilson

Early experiences like that and her father's fondness for Jacques Cousteau influenced her. She had read Cousteau's book, *The World Without Sun*, over and over. It was her love of the marine environment that led her to a masters of science degree from Old Dominion University.



Discovering right whales' calving grounds

North Atlantic right whales, an endangered species whose calving grounds were discovered by MMS scientists, surface for air.

Today, Wilson is the MMS coordinator for Endangered Species Act consultations with the Fish and Wildlife Service and the National Marine Fisheries Service. She offers guidance to the regions to ensure the agency is fulfilling its responsibilities under the act. She also is the headquarters' liaison with federal agencies like the National Park Service and the National Oceanic and Atmospheric Administration concerning biological aspects of activities on the Outer Continental Shelf.

"One of my responsibilities is to ensure that we do an effective job in our environmental analyses and impact statements," she said. Like many of her colleagues, she derives great satisfaction working with biologists from other fields and agencies. "It is a continually stimulating environment," she said.

With calm and grace, Wilson also brings her commitment and enthusiasm to her son's pre-school where she gives talks on animal protection. "I try to explain to the kids the importance of protecting animals who are unable to protect themselves."



Les Dauterive

Monitoring the marine environment

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

Just off the coast of Pensacola, Florida, seven divers prepare to enter the warm waters of the Gulf of Mexico for one of their regular mission dives. The MMS team's primary responsibility is to collect data to support studies that are used in environmental impact statements and assessments in the gulf. Near the top of their list of dives is the on-going, long-term monitoring of coral conditions in the Flower Garden Banks National Marine Sanctuary.

"After the agency was charged with the responsibility to permit offshore oil development in an environmentally sound manner," explained dive safety officer **Les Dauterive**, "it became necessary to know more about the environment we were protecting. What better way to do that than to put on a tank of compressed air, dive into the water, and get a fish-eye view of the area."

As a result of this 20-year effort, agency diver/scientists have provided information to solve interagency conflicts and protect biologically sensitive areas. Safety issues have been reported and corrected, historic shipwrecks discovered, and money saved.

Jim Kendall, chief of the agency's Gulf region environmental studies program, and one who, like Ken Turgeon, has a tank-full of war stories, beams with pride when asked about the dive team's work. "We dive for science," said Kendall, a 42-year old Ohio native. "We dive to get background information for a study or when mandated in our mission. The work is not easy, and conditions are rarely ideal. Diving in the open waters of the gulf, we often encounter strong currents and low visibility. But the work is necessary and we are committed."

Shrugging off any allusion that his life may be in danger while on a dive, the good-natured Kendall recalled an episode while diving in the Red Sea. "I went there in 1984 because I saw an outstanding opportunity to study marine biology in one of the best diving sites in the world," he recalled. "Late one night I was in the water when the Israelis decided to conduct naval operations. 'Part of their exercise was to set off charges in the water. They were about two miles away when the first of several charges were dropped and exploded. The sensation I felt was like being pounded in the chest with a baseball bat. Needless to say, I got the hell out of that water.'" The pounding in his chest has long since disappeared, but the enthusiasm for his work is as strong as ever. The trip to Alaska converted him. Geologist **LeRon Bielak** recalled how a 10,000-mile

It's a mystery, right in front of our nose

geologist Aron Smythee

journey by car to Alaska in 1971 changed his life. "I had a political science degree and found myself teaching in middle school in Cincinnati," he said. "One night, a couple of friends whom I had recently met urged my wife and I to join them on an adventure."

That adventure was a summer journey by car from Cincinnati to Alaska. "Until I came to southwestern Ohio, I had only known the flat terrain of the southern Great Lakes area where I grew up," said Bielak. "The glaciated hills and valleys along the Ohio River were a big improvement in my mind. But driving through the Dakota Badlands and then on through the Canadian Rockies was almost a mystical experience. We witnessed some of the most spectacular and breathtaking country imaginable. Seeing the majesty of all those mountains unfold before me, hooked me. And that trip opened my eyes to geology."

After the journey, Bielak rushed to the nearest university, and began evening courses towards a graduate degree in geology, with a specialty in micro paleontology. While studying at the University of Cincinnati, he became aware of the wealth of fossils located in his own backyard. "Cincinnati is a treasure trove of limestone filled with fossils," he explained. "I mean there are fossils everywhere—like stars in the sky. Exposed rock is littered with fossils. I felt like a kid at Christmas with all your presents ready to be opened. Where do you start?"

Like so many of his colleagues, Bielak was fascinated by the unknown. "Geology is like detective work. We continually put pieces of a puzzle together knowing that we may never find all of those pieces," he said. A 19-year MMS veteran and one of the agency's



MMS geologist LeRon Bielak examines rock from a Triassic Age outcrop in Ashburn, Virginia.

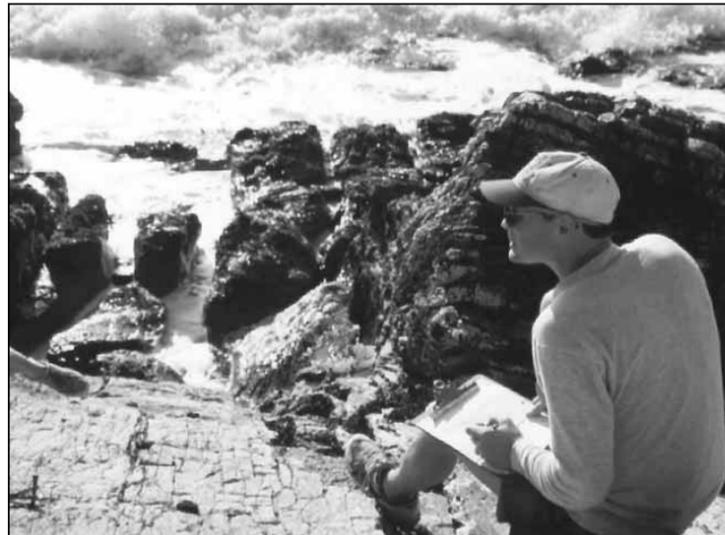
original members, he has managed to put both his political science and geology expertise to full use in the energy and non-energy mineral arenas of the offshore program. He serves as a special assistant to the associate director for offshore by promoting reengineering within the offshore group, and participating in special studies of problem areas.

Most recently, Bielak's expertise was needed by an MMS task force that reviewed information technology issues at headquarters and in the gulf region. "Not the typical assignment for a geologists," he recalled with some amusement. "But they needed someone with an understanding of geological research evaluation." From paleontologist, to geologist, to special assistant, Bielak has brought a wealth of knowledge and experience to the agency.

Nature proceeds little by little, from things lifeless to animal life.

Aristotle

Herb Leedy, an MMS biologist



Biology may reasonably be regarded as having begun with the Greeks, and Aristotle was perhaps the first man to have developed a notion of evolutionary theory. Though he never took a clear, definitive view on evolution, he was moving in that direction, and had he lived longer, according to some scholars, he may have actually gotten there. His observations of the habits of fish, and his discourses on whales and dolphins, have led some experts to proclaim him the best observing naturalist ever.

From Aristotle's time, to the present, biologists have shared one thing in common—a thirst for knowledge. At MMS, whose primary mission is managing America's offshore energy resources while protecting her coastal and marine environments, scientists quietly conduct the surveys and studies that are necessary to get on with the business of managing offshore natural gas and oil development. And they do so virtually unnoticed by the public.

Their work has often led to important discoveries, like chemosynthetic communities living in the Gulf of Mexico's deep waters. These dense assemblages of tube worms and mussels live off of hydrocarbons emitted from natural seeps.

"Our agency's research contributes to the state-of-the-art knowledge of the marine environment for the nation as a whole," said Turgeon. "Over 1,000 studies have been conducted since 1982 to examine the environmental impacts that could occur from offshore development."

MMS-funded research continually provides information on the distribution, abundance, and behavior of marine mammals in Alaska, California, and the Gulf of Mexico. Along the California coast, scientists are engaged in long-term monitoring of rocky intertidal beds. In the Gulf of Mexico, scientists recently discovered that some monarch butterflies rest on offshore platforms during their long migration, and in Alaska, the Bowhead Whale Aerial Survey project continues to track the annual migration of these endangered mammals. (More on the bowhead project is on page 28.)

The agency is fortunate to have with them of dedicated scientists who, in support of the MMS mission, help unravel some of the mysteries of this largely unexplored planet.

CALIFORNIA SEABIRD SURVEYS

Several times a year, MMS biologists Mike McCrary and Mark Pierson conduct aerial surveys of coastal birds in southern California. The goal of these studies is to provide the agency with up-to-date information on those species of birds that may be affected by offshore oil development.

"Seabirds, like grebes and loons, are especially vulnerable to oil spills," said Pierson. "The effect of an accidental spill on bird populations is a major concern to the agency."

Birds are a major component of the marine and coastal environment of southern California. Millions of coastal birds may occupy these waters and their coastal habitats at different times of the year. Working with partners from the University of California, Santa Cruz and the California Office of Oil Spill Prevention and Response, McCrary and Pierson conduct their seabird surveys about every 4-6 weeks. The first of the surveys was conducted in January 1996.

Their twin-engine Partenavia flies at an altitude of 200 feet above the water. McCrary and Pierson search a 160-foot wide corridor on either side of the aircraft. In addition to birds, the two observers include marine mammals, turtles, and large fish in the counts. After a completed survey, the data is combined with information from previous MMS surveys to form a marine mammal/seabird data base for all of California.



MMS biologists Mike McCrary, left, and Mark Pierson, right, prepare to board their twin-engine Partenavia aircraft for their regular sea bird survey off the coast of southern California.



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To mark National Wildlife Refuge Week, the USGS reports on examples of cooperative efforts with the U.S. Fish and Wildlife Service and other federal and state partners to bring science to bear on critical stewardship problems in national wildlife refuges. Those challenges range from conserving migratory bird habitat on the Mississippi to restoring coastal wetlands on Lake Erie's shoreline and analyzing contaminated sediment sites in Michigan.

Habitat Management Strategies in the Upper Mississippi Basin

Mark Wenger

The floodplain of the Upper Mississippi River and its network of tributaries have long provided breeding, migration, and wintering habitat for millions of birds. Known as the Great River Flyway, this traditional migration corridor has become increasingly important because of wetland and forest losses in the Midwest and across the country.

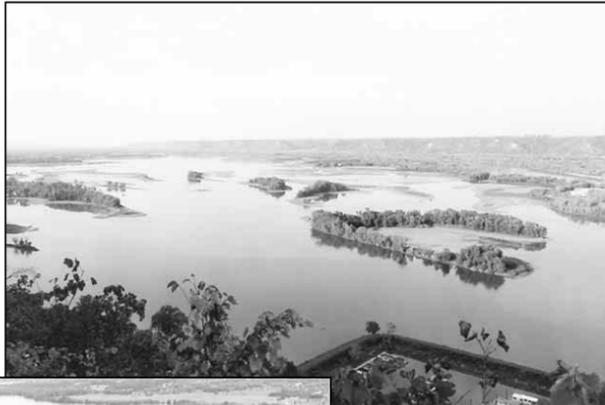
But the long-term viability of the Upper Mississippi River Basin as a resource for migratory birds is threatened by expanding human activity and development. To ensure that the availability and quality of wildlife habitat on the Mississippi River are sufficient to support and enhance optimum populations of migratory birds, USGS and Fish and Wildlife Service research biologists have developed a proactive approach over the past decade.

The Management Strategy for Migratory Birds on the Upper Mississippi River, which the team began to develop in the late 1980s, identifies the habitat requirements of birds and assists FWS resource managers in the basin to develop management alternatives that use the latest information and state-of-the-art technologies.

The FWS manages three national wildlife refuges along the river which provide crucial habitat for migratory birds. The Upper Mississippi River National Wildlife and Fish Refuge, the Trempealeau National Wildlife Refuge, and the Mark Twain National Wildlife Refuge extend from Wabasha, Minnesota, to Cairo, Illinois. Their combined 235,000 acres is one of the largest remaining areas of contiguous migratory bird habitat in the Central United States.

A key feature of *The Management Strategy* is the use of geographic information system (GIS) maps to document habitat requirements of bird species. These maps combine information gleaned from traditional research methods (for example, field research) with spatial data obtained from aerial photos, satellite imagery, and USGS digital products.

This "decision support system" enables managers to view habitat changes over time, work with bird species habitat and species richness models, and query raw data to help make management decisions that are consistent with an integrated ecological approach. In addition to helping conserve the region's migratory birds and their habitats, these procedures also show promise as a prototype for managing other ecological systems.



The Upper Mississippi National Wildlife and Fish Refuge near Winona, Minnesota contains critical bird habitat on the Great River Flyway, a traditional migration corridor for millions of birds.



Wetland/Upland Management Practices at Grays Lake

Jane Austin

The USGS Quick Response Program has been tapped to assist the U.S. Fish and Wildlife Service to make some timely judgments about the proposed use of grazing as a key management tool in beautiful Grays Lake National Wildlife Refuge in Idaho.

Nestled in the shadow of the Caribou Mountains in southeast Idaho, Grays Lake National Wildlife Refuge encompasses a 22,000-acre bulrush marsh surrounded by productive wet meadow and grassland habitat. This high mountain basin hosts the highest breeding density of sandhill cranes in North America and also many breeding and migrating ducks, Canada geese, trumpeter swans, Franklin's gulls, white-faced ibis, and other waterbirds.

Throughout the basin's history, ranchers have grazed the meadows and grasslands, and in recent years refuge managers have used grazing as one of their principle habitat management tools. In 1996, the FWS developed a new strategic plan for managing wet meadow/grassland habitats to address concerns about the compatibility of grazing with refuge objectives. The strategy proposed a combination of management practices: summer grazing, fall grazing, fall prescribed burning, haying, and idling.

Under a FWS-USGS research partnership, scientists at the Northern Prairie Wildlife Research Center in Jamestown, North Dakota, have worked cooperatively with refuge managers since 1996 to develop a comparative study using measures that pertain directly to the goals and objectives of the refuge. The overall objective of the study is to assess the relative values of four regimes to manage biological resources of the meadow ecosystems on Grays Lake.

The pre-treatment field work has already provided valuable information to the refuge. Analyses of 1997 field data show direct relationships between plant community composition and the lake level. Basic data on the biodiversity of the Grays Lake ecosystem—information that had not been previously available to the refuge staff—has now been catalogued. More than 200 plant species have been found, along with species lists for birds, small mammals, and predator communities. The distribution of the major predators of nesting birds—coyotes, red foxes, eagles, ravens, and skunks—also has been documented.

The Fish and Wildlife Service will use the results of this large-scale experiment to select management methods that best meet the objectives for the Grays Lake National Wildlife Refuge. The partnership between USGS researchers and FWS managers has successfully conducted research with direct applications to refuge management.

MISSOURI RIVER CONNECTIONS

Marcia K. Nelson

The U.S. Fish and Wildlife Service and the U.S. Geological Survey are taking advantage of natural events occurring on the Missouri River to enhance a national wildlife refuge. In the lower river, major floods between 1993 and 1996 altered the riverbed, damaged flood control structures, and contributed to a change from private to public ownership of flood plain lands.

Protecting, enhancing, and restoring the integrity of the Missouri River ecosystem within the framework of modern river uses is the goal of a partnership between the USGS and the Big Muddy National Fish and Wildlife Refuge. The new public lands present an opportunity to recover habitat for declining species and expand recreational opportunities on a river that provides navigation, industrial and municipal water supply, recreation, and fish and wildlife resources.

Through its multi-disciplinary River Studies Center, USGS conducts scientific studies to determine baseline conditions of fish and wildlife resources and successful strategies for habitat restoration on the lower Missouri River—information the Big Muddy Refuge managers need. By joining forces, these two federal agencies, working with the U.S. Army Corps of Engineers and state agencies such as the Missouri Department of Conservation, are determining the most cost-effective, successful restoration strategies for the post-development Missouri River.

For more complete information on studies of the Big Muddy National Fish and Wildlife Refuge and the Missouri River, visit the USGS Environmental and Contaminants Research Center page at www.ecrc.cr.usgs.gov/river_studies/current_projects.htm on the World Wide Web.



Located south of Glasgow, Missouri, Lisbon Bottoms and Jameson Island, above, were damaged by the Midwest Flood of 1993 and purchased from willing sellers for the Big Muddy Fish and Wildlife Refuge. Additional flooding from 1995-96 resulted in the formation of a new channel across Lisbon Bottoms. Now, the USGS, FWS, and other partners are conducting interdisciplinary studies of channel dynamics, habitat change, and biotic response on the new, secondary channel.



Maps of the FWS Big Muddy National Fish and Wildlife Refuge are produced at the USGS Environmental and Contaminants Research Center using geographic information system technology. At right, Mark Laustrup, GIS specialist, left, and J.C. Bryant, Big Muddy Refuge manager, discuss responses of the Missouri River resources to physical changes along the river corridor.

Coastal Wetland Restoration: The Metzger Marsh Dike

Douglas A. Wilcox, Kurt P. Kowalski,
S. Jerrine Nichols, and John R. P. French III

USGS scientists at Great Lakes Science Center helped to devise a restoration strategy for heavily eroded Metzger Marsh in western Lake Erie that mimicked the original natural interaction between the wetland and the lake.

The marsh, which includes lands managed by Ottawa National Wildlife Refuge and the Ohio Division of Wildlife, was once protected from wave attack by a barrier beach. However, high lake levels, coupled with a reduction in available sand caused by extensive armoring of the shoreline, eroded the beach and much of the wetland vegetation. Initial plans to restore the marsh called for construction of a dike that would completely isolate the wetland from the lake.

In consultation with USGS scientists, the restoration plans were revised to lessen environmental impacts and target restoration for multiple wetland functions. Under the new approach, a dike was constructed in 1995 that mimicked the protective function of the eroded barrier beach, which would likely never return due to insufficient sediment supply. The dike also included a water-control structure that could be opened following restoration to allow hydrologic connection with the lake similar to the original wetland.

In 1996 and 1997 the water-control structure was used to drawdown water levels in the marsh to mimic a low lake-level period; much of the wetland was revegetated from the



Metzger Marsh

seed bank. The marsh was reflooded in late 1997 without lake connection, and the control structure will be opened in 1999. The structure also includes an experimental fish-control system to restrict access to the wetland by large carp while allowing passage of other fish.

Great Lakes Science Center scientists collected pre-restoration data on wetland plant communities, tested fish-control mechanisms, and helped arrange studies of most major groups of fish and wildlife. Plant community studies have continued during the drawdown years, and all studies will be continued following reflooding. Results

from these studies will assist federal and state refuge managers in making decisions regarding future management actions. They will also provide guidance on means of opening diked wetlands at other sites in the Great Lakes and elsewhere, thus increasing wetland functions and improving habitat for a variety of both fish and wildlife.

An unexpected discovery was made during the first year of drawdown at the marsh. Thousands of native clams with few signs of infestation by zebra mussels were found in the soft sediments. Laboratory studies showed that warm, shallow waters cause the clams to burrow into the sediments, where low oxygen concentrations kill any attached zebra mussels. This discovery suggests that wetlands may serve as refugia for native clams once thought to be nearly eliminated from Lake Erie by zebra mussels.

ASSESSING RISKS TO RESOURCES FROM CONTAMINATED SEDIMENT SITE

Bruce Manny

Grassy Island is a 72-acre Confined Disposal Facility created by the Army Corps of Engineers on the Wyandotte National Wildlife Refuge in the Detroit River in 1961. It is filled with grossly contaminated sediments dredged from the bottom of the Rouge River.

Scientific studies by the Corps and the FWS prior to 1990 showed that the island sediments contained high concentrations of PCBs, oil and grease, and heavy metals, and that breast and liver tissue collected from Canada geese, ducks, and woodcock at the disposal facility contained elevated levels of lead, chlorodane, DDE, and DDD.

Public officials expressed concern that contaminants might be leaking from the disposal facility and entering the water intake for the City of Wyandotte, Michigan, which is located about a quarter of a mile directly downstream of the facility. Concern was also expressed by the FWS that contaminants were being absorbed by wildcelery (*Vallisneria spiralis*) that grows near the facility and is consumed by thousands of diving ducks that feed there during their annual fall migration. In 1995, Interior designated Grassy Island as one of three Hazardous Materials Management (HAZMAT) sites in our nation.

To restore the quality of terrestrial, wetland, and aquatic habitat at Grassy Island, information was needed on the risk posed to fish and wildlife trust resources by contaminants in the disposal facility. In 1997, as part of collaborative research by FWS and USGS, the Great Lakes Science Center collected samples of soil from 40 sites on the island and wild celery tubers and river bottom sediments at four sites nearby.

The samples were analyzed for PCBs, PAHs, and heavy metals by a contract laboratory near Ann Arbor. Results showed that the island soils were heavily contaminated with PCBs and numerous heavy metals. River bottom sediments were moderately contaminated with PCBs and some heavy metals. Wildcelery tubers were uncontaminated. Further research is needed to evaluate the potential for contaminants leaking from the facility.

A two-year study by the center recently showed that wildcelery in the refuge is recovering to former levels of abundance, coincident with greater water clarity that resulted from filtration of these waters by zebra mussels, since they invaded the Detroit River in 1989. Also, to evaluate the status and recovery potential of the state-threatened lake sturgeon (*Acipenser fluviatilis*), an historic, reputed, spawning ground beside Grassy Island is being investigated by the center and the Fishery Resources Office of the FWS in Alpena,



Grassy Island

Michigan to determine if adult sturgeon are spawning there and if young sturgeon occupy habitats in the refuge.

All of this research will help to improve the quality of water and sediments that are habitat for fish and wildlife in the Detroit River. This type of remediation is one of the four main goals of the American Heritage River Plan that was activated by President Clinton in 1998 to restore the Detroit River to full health and vitality. All management decisions on Grassy Island and trust resources in the Wyandotte NWR are the responsibility of the FWS.

HYDROLOGY RESEARCH GUIDES RESTORATION OF DRAINED PEATLAND



Seney National Wildlife Refuge

Douglas A. Wilcox and Kurt P. Kowalski

The largest wetland drainage project in the history of Michigan was initiated in 1912 when ditches 30 kilometers long were dug across a vast peatland in the Upper Peninsula in an attempt to convert the land to agricultural use.

The agricultural venture failed, the drainage system was abandoned, and the land eventually was included in Seney National Wildlife Refuge. However, many of the ditches remained on land that has since been designated wilderness. The refuge manager wanted to restore the peatland but needed guidance on how to reestablish suitable hydrology while avoiding further damage to wetland habitat. Scientists at the Great Lakes Science Center were asked to provide scientific guidance for the restoration effort.

The research began in 1998 with an evaluation of current environmental conditions in the wetland and the impacts caused by drainage. Plant communities were studied at varying distances from the ditch and from natural streams that flow through the wetland. Potential changes in land elevation caused by drying and burning of the peat were investigated by surveying areas near the ditch. Other environmental factors were also evaluated, including preliminary studies of ground-water hydrology. The Water Resources Division of USGS then joined as a collaborator on the project and will determine the sources and amounts of water entering the study area, as well as the outflows.

Ecological and hydrologic information will be used to assist the refuge manager in developing a plan for future distribution of water across the wetland that more closely approximates pre-drainage conditions. When the plan is carried out, studies will continue to provide an evaluation of the ecological changes resulting from management actions and to assist in refinement of management plans. Knowledge gained at this site will hopefully provide important information for future peatland restoration projects at other locations.

Erk Reimnitz, 'Bearing Sea' Scientist, Honored by the Justice Department

Pat Jorgenson,

MENLO PARK, California—**Erk Reimnitz**, who spent 30 years with the USGS as a research geologist and currently serves as a Scientists Emeritus, has been awarded a Special Commendation by the U.S. Department of Justice for his valuable assistance in a landmark boundary dispute.

"As the most knowledgeable navigator on the Beaufort Sea as a result of his geological research," the citation states, "Dr. Reimnitz provided the information that induced the United States to initiate *United States v. Alaska* in which the Supreme Court ruled for the United States on more than 600 miles of Arctic Ocean boundary, ultimately awarding the United States more than \$1.4 billion in escrowed oil revenues and more than a half million acres of submerged land.

"Dr. Reimnitz also generously gave his time helping to develop evidence and pivotal expert testimony, wholly apart from and in addition to his research responsibilities at the U.S. Geological Survey," the citation stated.

Reimnitz began working for the USGS after graduating from the University of the Puget Sound in Seattle. In 1970, Reimnitz began research into the origin of the Dinkum Sands, a submerged shoal, offshore from Alaska's oil-rich North Slope. He became an expert on 'dirty ice,' sediments transported by Arctic ice floes.

Because he required special boats to conduct his research 200 miles north of the Arctic Circle, Reimnitz, who had learned to sail in the North Sea of his native Germany, designed and supervised the building of a 42-foot motor-sailer, the *Karluk*, in Seattle.



At left, Reimnitz in heavily insulated diving gear, returns to the deck of the *Karluk*, which he designed and built for Arctic expeditions. Since his retirement, the *Karluk* has been on loan to NOAA, where she is being used to conduct research in the Puget Sound.

At right, Erk Reimnitz surveys the Alaskan coast of the Beaufort Sea, where he spent nearly 30 field seasons researching the 'dirty ice' of the Dinkum sands.



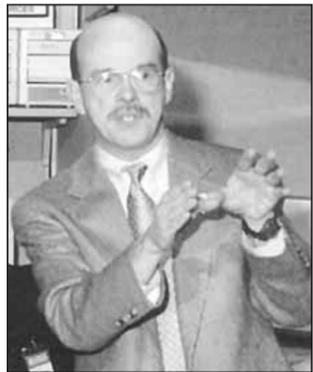
Reimnitz and a crew of three assistants used the *Karluk* for 12 summer field seasons to collect seismic data, side-scan sonar and bathymetric profiles, sediment cores, and observations from dives. They then used this information to produce maps of the previously unmapped coast and ocean floor. Although he officially retired from the USGS in 1997, Reimnitz continues his research as a USGS Scientist Emeritus.

SHOWCASING TECHNOLOGIES THAT ENHANCE PUBLIC HEALTH RESEARCH

Karen Wood

Although natural resource scientists have not traditionally played a substantial role in addressing human health issues, the USGS as the nation's natural resource science agency can significantly help in understanding the relationship between environmental contributions and diseases and human health.

At the 3rd Geographic Information Systems in Public Health Conference, USGS scientists and health professionals from across the country met to discuss using geographic and cartographic information systems, remote sensing satellites, and other technologies to identify clear geographic relationships between environmental conditions and the occurrence of disease.



Acting Director
Tom Casadevall

The August 17-20 meeting was co-sponsored by the USGS and featured a keynote address on *GIS and Health at the Federal Level* by USGS Acting Director **Dr. Thomas Casadevall**.

"USGS has always had a strong commitment to supporting public health and safety through our natural hazards and water quality work," Casadevall said. "We are now bringing our interdisciplinary expertise directly to bear on critical public health issues."

Information about some of the USGS research on the relationship between environmental factors and human and wildlife health is on the Internet at <http://www.usgs.gov/themes/FS-189-97/>

VIRTUAL FIELD TRIP TO THE CAPITAL

Rea Mueller

The U.S. Geological Survey is offering a virtual field trip using a new interactive CD-ROM entitled *Topographic Field Trip of Washington, D.C.* Students fly into Ronald Reagan National Airport, view the Capitol from the Washington Monument, and tour the White House complete with sound and animation.

Although targeted to middle-school students, this multi-platform CD-ROM can also be used to teach introductory topographic map-reading skills to students at many educational levels. Users of the *Topographic Field Trip* can explore USGS topographic maps, learn to measure distance and direction, determine latitude and longitude, examine aerial photographs and historical maps, and learn about map symbols.

By answering mapping and geography questions in a travel journal, recording observations, and reading postcards from places they visit, the students earn virtual fare cards on the subway to travel from the airport around the National Mall area, and finish with a tour of the White House.

Copies of *Topographic Field Trip of Washington, D.C.* are available for \$11.50 (plus a \$3.50 handling charge per order) from the USGS, Information Services, Box 25286, Denver, CO, 80225. Credit card orders can be faxed to (303) 202-4693.

WEB CAMERA TECHNOLOGY TESTED FOR ROLE IN USGS STREAMGAGING

Jim E. Monical, Tucson, Arizona

SCOTTSDALE, Arizona—A USGS team is evaluating the effectiveness of web cameras as streamgaging tools. The USGS water resources office in Arizona recently installed a webcam at its streamflow-gaging station on the Verde River near here to visually monitor current hydrologic conditions.



The USGS streamflow-gaging station on the Verde River near Scottsdale, Arizona, is now equipped with a webcam to visually monitor hydrologic conditions.

Web camera technology, one of the newest and most exciting technologies to appear on the World Wide Web, has been used in many different ways, including monitoring freeway traffic and showing live images of resorts or vacation spots around the world.

According to USGS hydrologist **Jeff Phillips**, the webcam can provide scientists and water-resource managers with important and potentially critical hydrologic information, as well as information of interest to fisherman, recreational rafters, boaters, and other outdoor enthusiasts.

During floods, the webcam can provide information when other instruments have been lost or destroyed. In dry spells, when stream flow diminishes and moves away from where instruments are located, stream depth could be measured by installing a temporary measuring staff that could be read by the webcam. Other hydrologic conditions, such as sandbar formation or alteration, bank erosion, and loss of vegetation in the stream channel, could also be documented.

The staff of the Arizona office is using the Verde River station to evaluate the Webcam hardware and software for reliability, ease of installation, and cost effectiveness. The Verde River gage house is about the size of a phone booth and contains several scientific instruments that measure a number of things, including the depth of the water in the stream. This summer, temperatures as high as 130 degrees Fahrenheit were recorded inside the station.

The webcam, which is about the size of a paperback book, was installed by **Owen Baynham**, a hydrologic technician, and **Dan Hensley**, a computer specialist. They also hooked up a modem and cellular telephone to transmit live images to the Tempe field office. From there, the images are sent via a wide-area network to the Tucson office. The images are at http://www.dazten.wr.usgs.gov/webcam/cam_09511300.html

The water resources office in Arizona plans to install additional web cameras at critical streamflow-gaging stations throughout Arizona as part of the continuing effort by provide the best possible hydrologic information to the public.



Kathy Karpan, Director
Jerry Childress, Bureau Editor
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OSM's Appalachian Clean Streams Team Wins Interior Environmental Award

The team is on the cutting edge of federal environmental restoration efforts, helping communities to develop model environmental programs that boost local economies.

That's how OSM Director **Kathy Karpan** described the work of the Appalachian Clean Streams Initiative Team that recently received the Department's Environmental Achievement Award for 1998.

The award, presented in ceremonies at the Main Interior Building museum on Sept. 17, acknowledges bureaus, offices, employees, and contractors for exceptional achievements or contributions in pollution prevention, waste reduction, recycling, or acquisition of environmentally preferred products and services. The award is Interior's highest honor for conserving and protecting the nation's natural resources.

Karpan said that the OSM team was selected for its exceptional achievement and teamwork in accelerating the clean up of streams polluted by acid mine drainage from abandoned coal mines and for preventing new discharges of contaminated drainage.

Karpan lauded the team's accomplishments in assisting community efforts to clean up acid mine drainage. "The



Representatives of the OSM Appalachian Clean Streams Initiative Team receives the Departmental Environmental Achievement Award. From left, Rick Buckley, Jeannie O'Dell, Danny Ellis, Mike Kalagian, David Hamilton, Fred Fox, David Best, David Beam, Pete Hartman, and Ron Vicars. Photo by Tami Heilemann, ISC

Appalachian Clean Stream's program represents the cutting-edge of the future of OSM and government environmental programs," she said.

"We are seeing the emergence of partnerships, leveraging scarce funds, and offering citizens a variety of resources, such as grants, technical assistance, and training as the model for environmental programs," explained Karpan.

"The Appalachian Clean Streams Initiative Team is demonstrating that these concepts can be turned into on-the-ground success and is recognized as a role model for the rest of the federal government."

Karpan also expressed her appreciation to agencies that work closely with the Appalachian Clean Streams Initiative team, particularly the Department of Agriculture's Natural Resources Conservation Service and the Environmental Protection Agency, and to former OSM employees **J. Hammond Eve** and Director **Robert Uram** for their roles in starting the initiative.

Alan Cole Retires

Alan Cole retired on Sept. 3, after 34 years service with the Department of the Interior. And he did it his way.

Cole added a personal touch to his retirement party—he planned the entire event himself down to the food and entertainment. And his family and life-long friends ran the whole party, which included an hour of music by the Potomac Brass of Virginia. In his life outside the Department, Cole plays the French Horn in the Potomac Brass Quintet as well as in the City of Fairfax Band.

Cole has been the news media spokesman and public affairs officer for the Office of Surface Mining in Washington, D.C., since 1985. Before coming to OSM, he was assistant director of Public Affairs in Interior's Bureau of Reclamation, where he also served as speech writer to the Commissioner of Reclamation and as public involvement officer.

Cole started his Interior career in the summer of 1961 as a student assistant in public information with the Bureau of Land Management. In 1963 he had a similar summer student job with the Fish and Wildlife Service. After graduating from the University of Virginia (with a bachelor's degree in English, 1964), he joined



Interior's Bureau of Mines as a public information specialist.

He stayed with the Bureau of Mines through 1979, when he was selected for a Congressional Fellowship, sponsored by the U.S. Office of Personnel Management and the American Political Science Association.

During his fellowship year, he served as a legislative assistant to Senator John Warner of Virginia and as acting public affairs director of the House Committee on Interior and Insular Affairs. He is married and the father of two grown sons. He lives in McLean, Virginia.

Photos by Tami Heilemann, ISC



Left, Alan Cole holds two of the awards presented to him at his retirement party in recognition of his service to the office. He received a Special Recognition Award from the OSM Director and an EEO Award. At center is Margy White, chief of staff for the OSM director, and Kay Henry, of the Solicitor's Office. At far left, Jim Joiner, OSM's EEO officer, presents Cole with an award. At right, Cole plays the French Horn with his group—the Potomac Brass Quintet.



Education Vital for Continued Environmental Action—Karpan

An understanding of the natural environment and the ways that human activities can alter it, for better or worse, will be essential for future generations, OSM Director **Kathy Karpan** told high school students in a Pennsylvania mining center.

The director praised environmental education in the schools and urged educators to emphasize programs that involve students in monitoring the health of the land and water in their own communities. Karpan said that stream pollution from acid mine drainage is an especially appropriate target of environmental education.

Karpan spoke to students at Shade-Central City Junior-Senior High School in Johnstown, Pennsylvania on September 14 at the invitation of Pennsylvania **Congressman John P. Murtha**.

"Coal was mined to provide energy for our country, not to harm our environment," Karpan said. "Even though coal mining today is subject to strict environmental regulation, current and future generations of Americans in coal mine areas are still burdened by the detrimental environmental side effects of past coal mining, before there was a national surface mining law."

"Cleaning up acid mine drainage works best when public and private interests join forces," Karpan said. "That's the driving force behind the national Clean Streams Initiative, which got its start here in the coal fields of Appalachia." Schools can make



OSM Director Kathy Karpan

a difference by making sure that today's generation of students have a chance to study the living systems that depend on clean streams, learn the facts about pollution, and become part of active clean-up coalitions.

"For secondary school students, environmental education can open up new avenues to the sciences," Karpan said. "Just as our parents and grandparents were interested in the sciences to learn ways of improving resource production, our current generation of students may be drawn to scientific fields because of their commitment to environmental protection."

Fortunately, opportunities for action abound early in the process of environmental education, Karpan added. "As part of the Clean Streams Initiative, and in connection with ongoing scientific studies at school," she noted, "today's students can volunteer as River Keepers, helping to monitor water quality and flow in streams being cleansed of acid mine drainage, and in streams where acid pollution remains a significant problem."

Karpan's remarks to the Shade-Central City students were part of America Goes Back To School initiative that is sponsored by the U.S. Department of Education with state educational agencies and local school districts. The program is designed to spotlight education in America, and coincides with the fall resumption of classes all across the United States.

Wired for the Millennium

Interior Library Catalogue Goes Online

Since 1937, the Department of the Interior Library has anchored the C Street Lobby of the Main Interior Building, providing stately surroundings for browsers and researchers alike. Its rich collections are a unique, major federal information resource and database.

The wealth of information in the library has always been available to staff who could visit and search the catalog. Now, for the first time, Interior employees throughout the Main Interior Building or anywhere in the nation can tap into the library's riches without leaving their desks. The Interior library catalog and reference services are on the Web at <http://library.doi.gov>

With the installation of Sirsi Corporation's WebCat software, anyone with Internet access can browse through titles in the extensive collection, search for documents, research Department activities, and discover the depth and usefulness of the library's resources.

In the language of information technology, WebCat provides a 'searchable interface' to the library's database of items that have been added since 1975. That means you can use your computer and the Internet to search for information that is traditionally found in a card catalog: title, author, publisher, date, subject headings, and call number. You can search for any of these elements or by keywords or phrases. Results can be sorted by title or author and printed or e-mailed to yourself or others.

You can even browse the stacks by scrolling through title lists arranged by call number, series, subject, title, or author and selecting only those items of interest to display, print, or e-mail. All activities are performed in the familiar point-and-click web browser environment; no previous search experience is necessary.

The Collections: The library is the official repository (aka, Library of Record) for all publications produced by the Department. Its million-volume holdings include a General Collection of publications produced by Interior offices; Department-funded research projects and reports; and commercially-produced books and journals that pertain to such topics as American Indians and Native Alaskans, land use, the environment, natural resources, national parks and reserves, endangered species, historic sites, wildlife conservation, water resources development, and government policies and procedures.

The Law Collection is an integral part of the library. It consists of the United States Reports; Federal and Regional Reports; selected state, territorial, and tribal codes; legal treaties; Interior legal and administrative material; legal reference documents; and legal periodicals. Particular emphasis is on material pertaining to the environment, Native Americans, and administrative law.

The library's Reference Collection includes standard reference sources such as almanacs, encyclopedias, yearbooks, and directories. Resources focusing on areas of particular interest to the Department are also collected—such as microform collections of all Congressional publications and documents, presidential executive orders and proclamations, and selected Departmental records held by the National Archives and Records Administration.

Library: A collection of books organized for use. The collective memory of civilization.

Buildings can e-mail their requests to library@ios.doi.gov and their selections will be forwarded through interoffice mail. Staff in field offices can request library materials via Interlibrary Loan (ILL) for postal delivery and should contact **Don Chase**, the ILL technician, for additional information. He can be reached at (202) 208-3309 or Don_Chase@ios.doi.gov

Some items, such as journals, CD-ROMs, and microforms, do not circulate, but can be used in the library. Journal articles held by the library can be photocopied and faxed to field offices.

Online Reference Services: WebCat is only one facet of the library's new website, which is designed to direct researchers to electronic resources at Interior as well as other resources via the Web. Current components include:

Inside DOI: Links to press releases, fact sheets, and current news posted on Department websites.

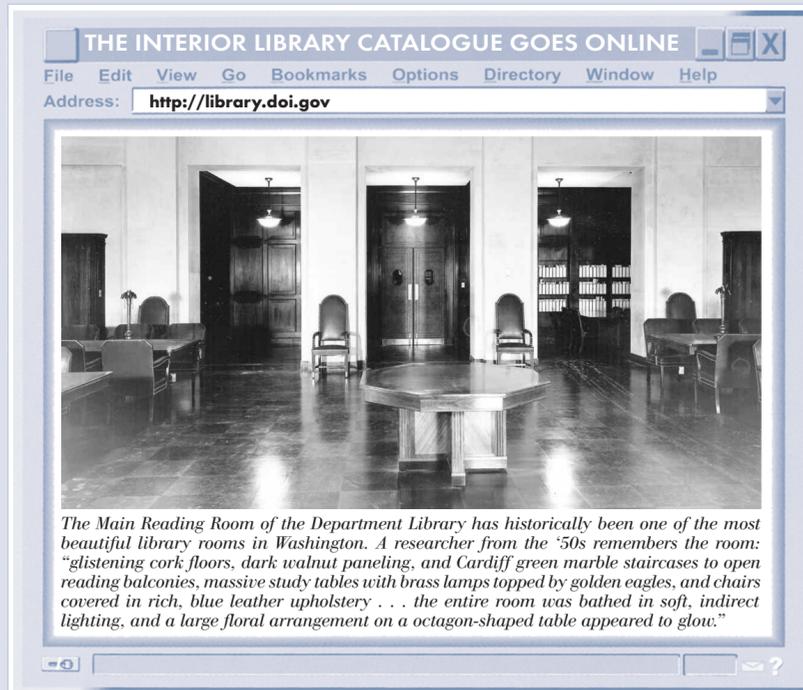
Legal Corner: Links to laws related to the Department's mission, decisions, and regulations; the Code of Federal Regulations; courts; Federal and state laws and legislation; other legal sources such as law journals, law libraries, and law schools; and additional search engines and meta-sites.

Library Services: Descriptions of services and resources available in the library as well as additional information about and instructions for searching WebCat.

Library Publications: Electronic versions of the library's *New Book List*, which contain items added to the collection during the previous month, and the *Selected List of Federal Register Items of Interest to the Department of the Interior*.



Librarian Barbara Bauman searches the library's law collection.



The Main Reading Room of the Department Library has historically been one of the most beautiful library rooms in Washington. A researcher from the '50s remembers the room: "glistening cork floors, dark walnut paneling, and Cardiff green marble staircases to open reading balconies, massive study tables with brass lamps topped by golden eagles, and chairs covered in rich, blue leather upholstery . . . the entire room was bathed in soft, indirect lighting, and a large floral arrangement on a octagon-shaped table appeared to glow."

The Interior Department Library is part of the Interior Service Center and is a member of FLICC/FEDLINK, the federal library consortium.

Links to other Federal agencies.

Research Corner: Links to online catalogs, electronic journals and/or abstracts; newspapers; and other useful reference services.

The web site is a living, evolving resource. The library's reference librarians are continually reviewing and updating existing links and expanding the web pages to be of optimal use for staff.

Other Reference and Technical Services: Although some services are now at your desktop, there are still reasons to visit, call, or e-mail the library staff. Send e-mail to library@ios.doi.gov or call (202) 208-5815. **Cindi Wolff**, the reference services manager, **Joan Leiner**, the law librarian, and **Connie Blackman**, reference librarian, are on duty during regular operating hours (Monday-Friday, 7:45 a.m. to 5 p.m. EST) to provide research assistance.

These services include checking holdings for specific items; explaining services, policies, and the arrangement of library materials; and helping individuals to use research tools. On request, reference librarians conduct literature searches in commercial online databases for Interior staff. If a needed book or article is not in the collection, reference and ILL staff will try to obtain the item (either on loan or a photocopy) from another source.

The library's technical services staff operate behind the scenes to ensure that materials are ordered, processed, and made available to patrons and that WebCat remains up and running. **George Franchois**, the library's acquisitions specialist, is well known to many Interior employees. In addition to books and serials for the collections, George orders and tracks many materials for other, selected offices. E-mail to George_Franchois@ios.doi.gov or call him at (202) 208-3686.

When an item is received at the library, it is processed (sorted, stamped, barcoded, labeled), cataloged (minutely described in a catalog record), and classified (assigned a call number and subject headings) by technical services staff. The library places a premium on the accuracy and consistency of its catalog records, so you can locate the item you seek. As with reference services, the library's technical services benefit from new Internet tools and electronic access, which results in the quicker availability of new books, reports, and other library materials.

Library staff photos by Tami Heilemann, ISC.



The staff of the Interior library includes, from left, Stanley Hines, Don Chase, Cindi Wolff, Connie Blackman, Mark Leech, Teresa Coleman, Julia Yang, and John Sherrod. Staffers Joan Leiner and Nese DeBruyne were unavailable when the photograph was taken.

Libraries in the Information Age

From Warehouse to Network

In today's Internet environment, where seemingly unlimited information is available at an individual's desktop, where journals are digitized for unlimited distribution, and where reference sources can become outdated in a matter of minutes, how does the library continue to play an integral role in the information infrastructure of the Department of the Interior?

By doing what it has always done—identifying, organizing, and redistributing information that is of optimal use and timeliness to Department staff. Since the inception of libraries, their role has been defined by four core activities: collect, organize, preserve, and disseminate. Despite changes in media or method, the library's core activities are as vital today as they were in ancient times.

Collecting: To build a collection that meets the specific needs and interests of Department staff, the library has developed and refined selection criteria for identifying reference materials and other resources that best complement and supplement its holdings of Interior publications.

These selection criteria include careful considerations of content, accuracy, currency, and cost. The skill and process of selecting appropriate print materials are likewise essential for determining the websites, electronic subscriptions, listservs, and online databases that will be of greatest use and value to the Department.



George Franchois, an acquisition specialist, tracks books, serials, and other materials.

As more library resources become virtual—accessed via websites rather than in their building and 'housed' on other, remote servers rather than on library property—the library's collection of URLs and hyperlinks will have been selected with the same care given to its print materials. And Interior staff will have the convenience of desktop accessibility without having to locate and evaluate websites and electronic services on their own.

Organizing: Collections of useful information are actually useless if they are not organized to make them accessible. The library's collection has been carefully classified by subject and shelved by the resulting call number to allow users to locate specific items as well as related materials. To provide even greater access to library materials, each item in the collection is cataloged with descriptive information (e.g., title, author, year of publication, etc.) and given subject headings that further define the relevant topics.

As yet, the bulk of this work is done manually by librarians with the subject expertise and familiarity with cataloging protocols to provide the depth and consistency necessary for accurate and precise catalog searching. In contrast, the majority of resources on the Internet have not been adequately organized and cannot be searched with much accuracy or precision.

Internet developers largely use automated programs to 'index' materials by keywords and rely on relevancy-ranking software to provide an 'organized' results list for searchers. Automated programs are not yet capable of identifying sophisticated semantic relationships or descriptive data not explicitly worded on a web page. Internet users are left to cull through huge lists, hoping the item they seek made it into the top 10.

By using its website and online catalog as an Internet 'gateway,' the library can expand its established organizational systems to incorporate Internet resources; websites can be described, accurately identified by subject, and hyperlinked with similar sites; links can be grouped according to topic or genre or creator to create multiple points of access. By starting their searches on the library website, Interior staff can begin locating web resources as quickly and precisely as they can locate materials in the library's physical collection.

Preserving: As the official Library of Record for the Department, the library has always taken an active role in maintaining Interior's 'corporate memory,' as reflected in its publications, related legislation, and in the 'hot topics' that have interested staff through the century. As more Departmental information is created, approved, and disseminated in electronic form, questions of preservation have become much more complex.

For example, how permanent are electronic storage media (e.g., CD-ROMs, disks, servers)? Or how can the 'official' electronic document be identified or maintained in an unadulterated form? Or what happens to the valuable information on a website that is abruptly discontinued? The library is uniquely positioned to begin answering these questions as it has already made the transition from paper to optical (i.e., microfilm, microfiche) to digital storage.

The library has grappled with the subsequent access and permanence issues, has determined which items warrant special preservation and how that should occur, and has examined and adopted conventions for accurately identifying electronic resources to create both a fixed, historical record (i.e., one that permanently reflects the resource at a fixed point in time) and a dynamic record that is updated as the resource itself changes.

Disseminating: The library is often viewed as a sort of warehouse or archive. When employees want a book or a fact, they go to the library, get the information, and return to their offices. Dissemination is thought of in terms of books borrowed, Interlibrary Loan items sent, reference questions answered, or online searches conducted.

This is only a part of the story, however. In today's electronic environment, the 'warehouse model' is becoming increasingly irrelevant. The library is, rather, a network, where those seeking knowledge are connected to those who have the knowledge. That information may exist entirely within the Department, or it can occur anywhere in the world. The knowledge may exist in electronic form or may be printed on paper, or may float as a thought in a specialist's head.

With its expertise in collecting, organizing, and preserving knowledge that is specific to the needs of Interior employees, the library is the conduit through which information can be sought: information that is 'value-added' for being timely, accurate, reputable, concise, and optimally formatted.

Knowledge is of two kinds. We know a subject ourselves, or we know where we can find information upon it.

— Samuel Johnson



Robert G. Stanton, Bureau Director
Ricardo Lewis, Bureau Editor

CC:Mail to Rick Lewis at NP-WASO

PEOPLE

Gateway Leadership Award to Mihalic

TACOMA, Washington—**David Mihalic**, superintendent of the million-acre Glacier National Park in northern Montana, received the first Merrill G. and Emta E. Hastings Foundation National Park Service Superintendent Leadership Award. Accompanied by a \$7,500 grant to the park and the NPS, the award honors park superintendents who develop partnerships with residents and businesses in the towns that serve as “gateways” to national parks.



David Mihalic and Lisa Peterfreund

“So many superintendents before me built relations with local communities, the Blackfeet, and Canada,” Mihalic said in accepting the award, “I’ve just built on what they started in the Peace Park. If I stand out, it’s because it is their shoulders I stand on.” The award was presented by the Hastings Foundation and administered by The Conservation Fund, a national non-profit organization. The presentation took place Sept. 24 at the first Building Gateway Partnerships Conference.

“Superintendent Mihalic was also recognized for his work with local organizations in U.S. and Canadian towns that border Glacier National Park,” said **Lisa Peterfreund**, trustee of the foundation. “The \$7,500 award acknowledges his dedication as a public land manager and support for programs that protect wildlife habitat.”

“With the great popularity of national parks, many of the gateway communities are being overwhelmed by a growing number of visitors and increases in traffic congestion and commercial development,” said **Edward McMahon**, director of the American Greenways Program for The Conservation Fund. “The result can be a loss of community character and a threat to future economic growth.”

Dufficy Tapped for NASA-Goddard Liaison

Toni Dufficy has been selected as the NPS liaison to NASA’s Goddard Space Flight Center, where she will serve as the primary contact between the agencies, work with the visitor center and education staff, and provide training in interpretive skills. Her goal is to develop communications links to improve visitor services of both agencies, which share the goal of enhancing the nation’s technological and scientific literacy.

Toni has been with the NPS for 13 years. She has worked at various park sites throughout her career, including the National Visitor Center in Washington D.C., Jean Lafitte NHP, Women’s Rights NHP, Theodore Roosevelt NP. When she has completed her one-year detail at Goddard, she will return to Everglades NP.

The need to explore opportunities for joint NPS/NASA research and projects was recognized more than ten years ago. In 1996, the staff at Goddard contacted the NPS because they recognized the need to gain a broader audience and share their resources. The effort will benefit NPS’ visitor services and resource management programs by establishing information links through the World Wide Web, and providing access to NASA’s experts and vast earth image library. The initiative also will link the agencies’ outreach/education centers.



Toni Dufficy

Pursley Named NPS Intake Trainee

Justin Pursley, a computer specialist at Mammoth Cave National Park, has been selected as an NPS intake computer trainee. After two years of training, his new home park will be Saint Croix National Scenic Riverway on the Wisconsin-Minnesota border.



Justin Pursley

“We are proud of Justin,” said **Ronald Switzer**, superintendent of Mammoth Cave NP. “Intake positions don’t come along everyday. In fact, Justin was chosen from a field of 470 applicants. He is a sharp man and will do well for the National Park Service.” Pursley will travel with 30 other trainees to various NPS sites for classroom and on-the-job training. His first assignment, which began in August, was a four-week stint at the Albright Training Center in Grand Canyon National Park, Arizona.

Pursley grew up in Glasgow, Kentucky, and worked at Mammoth Cave even before graduating from Barren County High School in 1990. He started his NPS career as a student aid (1990-91) and later guided summer cave tours while attending Western Kentucky University, where he earned a bachelors degree in finance (1994). In 1997, Pursley accepted a permanent position at Mammoth Cave, where he researched, built, and installed the video information system in the visitor center and programmed the new automated ticket-selling machine and auto-attendant.



OSHA Area Director David DiTommaso and Yellowstone Superintendent Mike Finley sign an interagency agreement aimed at improving the protection of visitors and employees at Yellowstone National Park.

YELLOWSTONE WORKING TO CORRECT SAFETY HAZARDS CITED BY OSHA

Following an extensive review of operations at Yellowstone National Park, the Occupational Safety and Health Administration has cited the park with 92 serious violations of health and safety codes. During the investigation, steps were immediately taken to correct the problems noted by OSHA, and park staff continue to work on the remaining violations.

“Safety at Yellowstone is a matter of serious concern to all of us,” said **Michael Finley**, superintendent of Yellowstone. “In spite of the inherently hazardous conditions within which employees must work in the park, serious steps are being taken to correct situations that put employees at risk.”

The investigation, carried out by OSHA’s Billings, Montana office, noted a total of 600 violations. Many were instances of the same problem found in different locations in the park, including 180 electrical violations (e.g., frayed cords in older equipment, improper grounding, improper extension cord usage); 97 fire extinguisher violations (e.g., monthly inspection violations, hydrostatic tests); 180 exit violations (e.g., exits blocked, lack of exit signs); 84 machine violations (e.g., improper equipment guards; drill presses not anchored); 61 guardrail and handrail violations (some in historic structures built before regulatory requirements); 41 emergency lights violations; and 26 flammable liquid storage violations. The report also noted the need for additional employee training in extinguishing structural fire, handling fire extinguishers, administering first aid, and general safety.

Before the OSHA investigation began (on Aug. 6, 1997), the park had set risk management goals to reduce the number of on-the-job accidents by 10 percent each year. In May of 1997, Yellowstone decided to set aside one percent (about \$220,000) of the park budget to correct safety problems. The effort will provide safety equipment in construction and repair shops, water and wastewater treatment plants, and backcountry operations in winter weather and avalanche conditions. The funds will also correct problems that result from the staff having to use historic buildings and facilities that are not up to current codes and standards.

The Park Service has agreed to enter a partnership program with OSHA aimed at correcting the problems identified in the investigation. The partnership calls for OSHA to provide the Park Service with technical assistance, safety program development, and training resources. The Park Service will abate all hazards identified by OSHA, increase its efforts to educate its employees on safety concerns and issues, step up its program of developing and implementing job safety analyses, and implement a park-wide internal safety audit and accountability system.

“We welcome our partnership with OSHA,” Superintendent Finley noted. “Their technical and training expertise is invaluable to the success of the park’s safety program. The Park Service is committed to an aggressive program to substantially reduce the hazards identified by the OSHA review and thereby provide a safer and healthier environment for its employees and the park visitor. This will require significant changes in employee attitudes so that safe work practices are incorporated into daily work routines. Our goal is for every employee to develop an attitude of ‘zero tolerance-no excuse’ when it comes to safety.”

Ten national parks for OSHA safety program, 2.

MEMORIAL FUND FOR DAUGHTER OF MOUNT RUSHMORE WORKER

A memorial fund has been established for the surviving daughter of a Mount Rushmore employee killed in a car crash. **Morgan Borden**, 40, a seasonal maintenance employee, was killed on August 20th while on his way to work in the park from his home in Hot Springs, South Dakota. He was traveling alone in his own vehicle when it collided nearly head-on with a vehicle from Minnesota. All four of the occupants of the second vehicle were injured, two critically. Morgan had worked at Mount Rushmore since May. He was an outstanding worker who was very well liked by his fellow employees. Morgan is survived by his wife, Pam, and one-year-old daughter, Cassandra. Her memorial fund is receiving contributions in care of Community First State Bank, 702 Jennings Avenue, Hot Springs, South Dakota 57747.

Reg Restricts Watercraft: Jet Skis and other personal watercraft may continue to be used at 25 recreation and seashore areas where they are now allowed, but the controversial motorized craft will not be allowed at all other NPS sites, according to a new federal regulation. A case-by-case review over the next two years will determine whether their use will be restricted or banned at 12 sites where they are currently permitted. In issuing the regulation, NPS rejected a proposal by environmental groups to ban the skis throughout the National Park System, concluding that their use is appropriate at 13 sites where recreational boating is a primary attraction. Some environmental



groups have pushed for a total ban on the skis, arguing that they are noisy, leak oil and gas into the water, pose safety risks to visitors, and damage natural resources.

Under the regulation, jet skis may be used at

two national seashores—Gulf Island (Florida-Mississippi) and Padre Island (Texas) and in 11 national recreation areas: Amistad (Texas), Bighorn Canyon (Montana), Chickasaw (Oklahoma), Curecanti (Colorado), Gateway (New York-New Jersey), Glen Canyon (Arizona-Utah), Golden Gate (California), Lake Mead (Nevada), Lake Meredith (Texas), Lake Roosevelt (Washington), Whiskeytown-Shasta-Trinity (California). The sites where the craft will be evaluated but allowed during the two-year study are: Assateague Island (Maryland), Canaveral (Florida), Cape Cod (Massachusetts), Cape Hatteras and Cape Lookout (North Carolina), Cumberland Island (Georgia), Fire Island (New York), Indiana Dunes (Indiana), Picture Rocks and Sleeping Bear Dunes (Michigan), Chattahoochee River (Georgia), Delaware Water Gap (Pennsylvania-New Jersey).

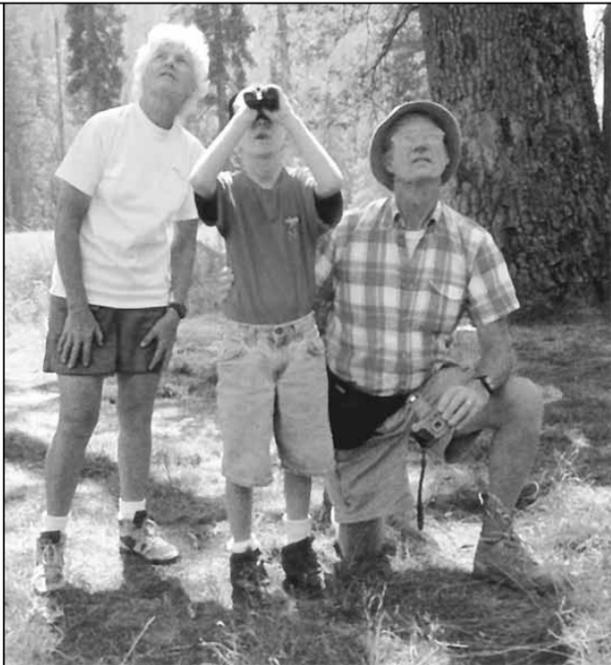
Access for All: Glacier National Park is building on a 245-foot elevated walkway that will make the overlook at Oberlin Bend also accessible for visitors in wheelchairs. The site is along the Going-to-the-Sun Road, just west of Logan Pass. The \$90,000 project to improve the existing facility is being funded by the Recreational Fee Demonstration Program. This three-year program allows parks to keep most of the entrance and other visitor fees collected, and use those funds for projects that directly benefit park visitors. The Oberlin Bend walkway is part of a large-scale effort at Glacier NP to make park buildings, programs, trails, and services accessible to the disabled, in compliance with NPS policy as well as federal laws..

Climbing Trails Restored: Time, erosion, and heavy use have seriously damaged the climbing trail in the Bridge Buttress and Fern Point areas in **New River Gorge National River**. But thanks to a community volunteer effort and grant from the Access Fund, the trails have been restored and stabilized. The Access Fund is a non-profit organization dedicated to conserving climbing environments. **Gene Kistler**, local Access Fund representative and **Jim Angell**, well-known trail consultant, spent many hours working with volunteers, NPS employees and climbers to improve, reroute, and upgrade this climbing trail. Seventy volunteers donated 161 workdays on three weekends in April 1998 to stabilize the trailhead, clear, and reroute the trail. Rerouting not only improved access for climbers but also protected the wetland and habitat for the Swainsons Warbler. In addition, a footbridge was built over Fern Creek.



Above, climbing trail stabilization at New River Gorge National River. Right, footbridge built over Fern Creek.

National Park FOUNDATION



The National Park Foundation is the official nonprofit partner of the National Park Service. Created by Congress in 1967, the foundation raises support from corporations, foundations, and individuals to preserve and enhance America's national parks. Over the past five years, the foundation has raised more than \$21 million in direct support for the parks.

Science Education Grants: The **National Park Foundation** has received grants from the Coca-Cola Foundation and Exxon Corporation to expand earth science education programs in the national parks. Coca-Cola's \$1.5 million gift will develop National Park Discovery Centers at 12 sites, while Exxon's \$1.5 million will help students to apply science lessons to real-life environmental conservation issues in 32 national park areas.

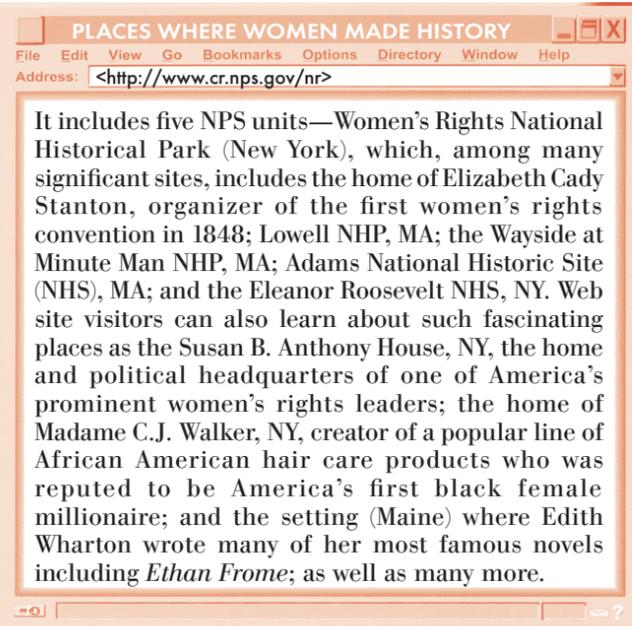
The Discovery Centers will allow visitors to explore animal habitats, wetlands, marine life, and soil samples, among other activities. Each center will have special features, from a 'touch-tank' with hermit crabs and sea urchins to a working grist mill and adobe oven where kids can prepare local food specialties. The center sites are: Boston Harbor Islands National Recreation Area in Massachusetts; Biscayne National Park in Florida; Gateway National Recreation Area in New York/New Jersey; Great Smoky Mountains National Park in North Carolina/Tennessee; Martin Luther King, Jr., National Historic Site in Georgia; Rock Creek Park in Washington, DC; Rocky Mountain National Park in Colorado; San Antonio Missions National Historical Park in Texas; and a collaborative project between Yosemite, Lassen Volcanic, Sequoia and Kings Canyon National Parks in California.

Exxon's grant will fund the Parks as Resources for Knowledge in Science (PARKS) program, a collaborative effort among Exxon, the National Park Foundation, the NPS, and the National Science Teachers Associations. National park areas in the following states will receive grants: Alaska, Alabama, Arizona, California, Colorado, Florida, Idaho, Indiana, Michigan, New Jersey, New York, Oregon, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Wisconsin, and the District of Columbia. The new program provides opportunities for students and teachers to use national parks as 'hands-on' learning laboratories and will draw on the unique natural and historic resources of national parks to promote science literacy.

To kick off the Discovery Centers project, Coca-Cola is helping the foundation to launch a nationwide contest to design an official Discovery Center logo. The symbol should illustrate the fun of visiting a national park and being outdoors. U.S. residents between the ages of 8 and 14 are eligible. The grand-prize is a free trip with a parent or guardian to a national park to help unveil the logo at the opening of the first Discovery Center. The winner also will receive a \$1,000 savings bond provided by Coca-Cola. Three other winners will each receive a \$500 savings bond. For more information or contest rules, check out the National Park Foundation web site at <http://www.nationalparks.org> or write to the National Park Foundation/Coca-Cola Logo Contest, P.O. Box 4292, Blair, Nebraska 68009-4292.

Boater Awareness: The grounding of a tugboat and barge loaded with 24 million pounds of sugar on **Biscayne National Park's** Ledbury Reef this past summer is just one of many boating accidents that damage significant park resources each year. The park is currently pursuing restoration or restitution in some 30 incidents where boats have run aground. Park staff are emphasizing that while initial damage from the grounding is usually accidental, operator attempts to free the vessel are often the root cause of the major damage. Rather than simply shutting down and waiting for high tide, or pushing off gently, many boaters attempt to use the engine's force to power off. This practice can create craters, destroy corals or seagrass that was located in that area, and bury corals and other marine life, eventually suffocating the creatures. Lack of basic boating skills (such as how to read and use a chart) and an ignorance of the significance of the damaged resources also play a part in the problem. Reefs are among the most biologically diverse ecosystems on earth, providing economic benefits and recreational opportunities. Seagrasses serve as nursery areas for many of the commercially and recreationally important species of fish, crabs and lobsters. For information, contact Gary Bremen, (305) 736-8226

Women's History: A new on-line National Register of Historic Places travel itinerary, *Places Where Women Made History*, focuses on 74 historic places in New York and Massachusetts associated with varied aspects of women's history. The itinerary is located on the NPS's web site at <http://www.cr.nps.gov/nr>



The itinerary includes interactive maps, a description of each place's significance in women's history, essays on women's achievements in American history, photographs, and information on public accessibility of each historic place.

Women's Rights Lessons: The National Register of Historic Places also is offering two new *Teaching with Historic Places* lesson plans on women's history. One new lesson plan is titled *The M'Clintock House: A Home to the Women's Rights Movement*. Learn why a family home in upstate New York became the site for creation of one of the most important documents in American history. Florissant Fossil Bed National Monument is the location of the other new lesson plan, *Adeline Hornbek and the Homestead Act: A Colorado Success Story*. Discover how Adeline Hornbek, single mother of four, defied traditional gender roles to become the owner of a successful ranch under the Homestead Act. Other existing lesson plans that spotlight women's history are *First Lady of the World: Eleanor Roosevelt at Val-Kill* and *Clara Barton's House: Home of the American Red Cross*. Teaching with Historic Places lesson plans use places listed in the National Register to teach a topic usually included in history and social studies curricula and link a dramatic story to larger themes, issues, and events in history. The lesson plans are available for a small fee (\$7) through Jackdaw Publications by calling (800) 789-0022.

Women's History, Parks' Beauty
Inspire Ranger's First Novel, 3



Jamie Rappaport Clark, Director
Janet L. Miller, Bureau Editor

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Restoring 'Lifeblood of the West' Lower Colorado Conference Seeks Immediate Action

Ben Ikenson

LAS VEGAS, Nevada—In a fan-shaped auditorium rigged with projectors, **Nancy Kaufman**, the Fish and Wildlife Service's regional director for the Southwest, stepped into a haze of blue light and approached the podium.

"I open this symposium," she began, "not with a sense of optimism but with a sense of challenge, not with the idea that science and engineering will have the answers but that we must apply ourselves in deadly earnest to an ecological crisis born of incremental loss." Kaufman discussed how 'over subscribed' the Lower Colorado River is, painting a grim picture of potential water wars in the West in which counties, cities, and states would vie for costly water rights.

"Think about a community of homeowners, each with a mortgage of a quarter of a million dollars, discovering that an overly optimistic water budget leaves their investment worthless because they can't get tap water," Kaufman warned. "The natural environment will be gone, the upper and middle class will be gone. An economic diaspora is in the making."

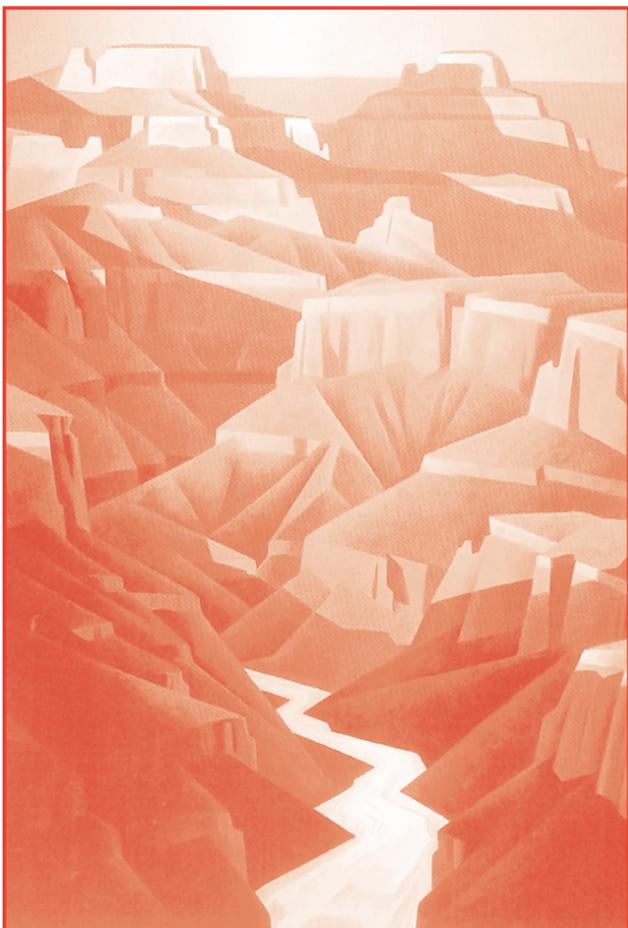
It is no longer possible," she said, "for us to engage in esoteric discussions of whether the Law of the River trumps the Endangered Species Act or vice versa. We, each of us, must put aside the egotism of our specialty—whether you view yourself as a defender of the planet, an expert at the law, or a provider of water for municipal and agricultural users. We must listen to each other, not for information that agrees or disagrees with your ideas but rather for information that you can use to formulate an action plan."

With those stirring words, Kaufman kicked off an historic conference aimed at finding practical and immediate ways of restoring the river's natural functions. About 150 people attended the July 8-9 symposium at the Marjorie Barrick Museum of Natural History at the University of Nevada-Las Vegas.

The exchange was organized by the steering committee for the Lower Colorado River Multi-Species Conservation Program. This regional conservation partnership is aimed at protecting sensitive, threatened, and endangered species of fish and wildlife and their habitats on the Lower Colorado. Members include state representatives from Arizona, California, and Nevada, along with various water and power agencies, Native American Tribes, and federal agencies.

Those in attendance ran the gamut from members of the Colorado River Indian Tribes to representatives of water management agencies. Environmentalists were seated next to agriculturists. Land management consultants mingled with experts on the Law of the River, which governs river management. Also attending were staff members of

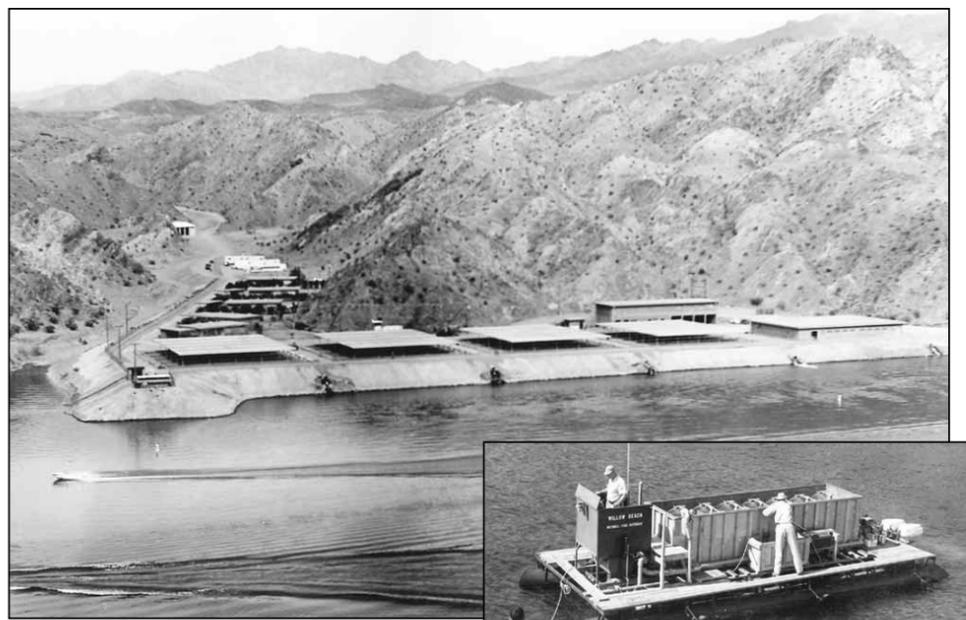
Willow Beach National Fish Hatchery and several national wildlife refuges associated with the Lower Colorado River.



Science in Service



Nancy Kaufman
Southwest
Regional Director



Since the early 1970s, native fish spawning has been a mission at Willow Beach National Fish Hatchery. The hatching of razorback suckers on-station was made possible with the 1994 installation of large-capacity water heaters. Currently, Willow Beach's commitment is to receive and rear all wild-captured razorback sucker larvae collected from Lake Mohave; to produce razorback sucker eggs, larvae, and fingerlings for a variety of programs; and to produce several thousand 10-12" razorback suckers and bonytail chubs for return to the warm waters of Lake Mohave, where, at that size, they will safely grow to reproductive age, enabling recovery of the species.

Dr. Duncan Patten, professor emeritus of Plant Biology at Arizona State University, acted as moderator, setting the academic stage and later synthesizing the focus of thought. **Glen Gould**, a fishery biologist with the Bureau of Reclamation's Lower Colorado Region, followed Kaufman. He called the Colorado a "losing river," citing evidence that only two of the 12 known native fish species still exist, mostly due to predation by the 29 nonnative fish species.

John Pitlick, Ph.D., a fluvial geomorphologist, pointed out that fish hatcheries serve a great purpose when they grow endangered fish species to a large enough size for release, which reduces the risk of their being eaten by nonnative predator species. However, the quality of the river itself must be improved, he said. As a result of severely altered flow patterns from dams, the Lower Colorado is a "sediment-starved system" and Pitlick suggested that simple laws of physics can teach us how much water pressure would be necessary to move sediment downstream, depositing nutrients along the way.

Mark Bain, Ph.D., an aquatic scientist on the faculty of Natural Resources at Cornell University, discussed the benefits for native fishes that would result from enhancing river flows downstream of large dams. He stressed the importance of near-shore and shallow habitats that can be transformed into "dead zones" as a result of dam operations. Using New England's Deerfield River as an example, Bain cited research that justified the use of enhanced river flows to restore a diverse riverine fish fauna. "Species richness doubled," he reported, "and the abundance of fish increased 500 percent in sensitive shoreline habitats, with restored species being largely those specializing on flowing water microhabitats."

After a day and a half of these and other engaging discussions, "the break-out sessions were a great success," reported **Dr. R. Stuart Leon**, a recovery specialist for the Service's Southwest Region. Five groups of 20-30 people met at various conference rooms at different locations on the university's campus. All of the groups proved enthusiastic and innovative. The results of the symposium will serve as a foundation for coordinating future rehabilitation activities throughout the length of the Lower Colorado River.

Over the next few years, interim conservation measures will address the immediate critical needs for certain endangered species. Many of the options regarding restorative measures for the river will be further examined. The Lower Colorado River Multi-Species Conservation Program is planned to be carried over a 50-year period. Ultimately, the goal is to reconnect the remaining fragile, fragmented parts of the river's native ecology, drawing upon collective wisdom and willpower to restore natural function to the "lifeblood of the West."

CORRALLING THE LOWER COLORADO

The Lower Colorado River symposium was convened 121 years after Thomas Blythe made the first application to divert water from the Lower Colorado River to irrigate California's Palo Verde Valley. The Colorado has long been considered the lifeblood of the West. During the period of Spanish exploration, the river was used as a travel corridor where newly introduced cattle and burros could graze.

With continued westward expansion in the mid 1800s, the need for ferry service across the river led to the establishment of navigation companies that harvested riverside trees for steamboat fuel. In 1877, water from the river was diverted to irrigate the Palo Verde Valley. Other diversions followed for irrigation in the Yuma and Gila valleys in Arizona and the Imperial Valley in California.

At the turn of the century, efforts to protect agricultural fields from flooding resulted in the first of the levees along

the river. With the strength of the river's high flows, though, the success of these structures was dubious at best. However, the completion of Hoover Dam in 1935 had the most significant physical impacts in the project area of the river of any action before or since.

Without high spring and early summer flows, there was a reduction in inundated bottomlands and flow through backwaters and marshes. Erosion and deposition did not follow previous patterns and altered fish migration or spawning cues based on rising water levels. Also, Lake Mead was formed, a large reservoir that trapped nutrient-rich sediment.

Today, the Colorado River supplies vital water and power resources for more than 20 million people in Arizona, California, and Nevada.

New Ouray Hatchery Boosts Endangered Fish Recovery Efforts on Upper Colorado

Community Shows Strong Support

Connie Young

VERNAL, Utah—A crowd of nearly 200 area residents, including city and county officials, local families, Boy Scouts, and other area residents, attended the open house and dedication ceremony for the Ouray National Fish Hatchery on Sept. 19.

Located on the Ouray National Wildlife Refuge southwest of here, the hatchery is one of 66 Fish and Wildlife Service national fish hatcheries and only one of five of hatcheries whose sole purpose is to raise endangered fish.

The new hatchery will raise razorback suckers primarily, along with smaller numbers of endangered Colorado squawfish, bonytails, and humpback chubs. These four fish species are found in the Colorado River basin and nowhere else on earth.

Construction of the \$4.5 million facility was funded through the Service's National Fish Hatchery Construction Fund and the Upper Colorado River Endangered Fish Recovery Program—a public-private partnership aimed at recovering species while also allowing for future water development.

Mike Stempel, a Service official from Denver, noted that restoring these fish is just one aspect of maintaining an interconnected river ecosystem. "Restoring habitat for these fish is one of the most important aspects of recovering them," he said. "When the ecosystem is healthy for the fish, the populations of waterfowl, upland game, deer and elk are also up."



Community support for the goals of the hatchery was evident throughout the event. Volunteer ambassadors from the Vernal Chamber of Commerce's **Dinah Mites** helped greet visitors. The Coca-Cola Bottling Company of Vernal provided soft drinks at no charge. A local Boy Scout Troop served a Dutch-oven buffet lunch to all visitors and performed a flag-raising ceremony.

Bill Knapp, the chief of National Fish Hatcheries for the Service, applauded the community participation and thanked participants for their support of the Service's efforts. He especially noted the importance of the work for the younger generation. "The hatchery provides an opportunity for kids to learn about fish, to develop a set of values, and to appreciate the outdoors," Knapp said.

Fish and Wildlife staff explained the new indoor facilities and showed visitors the 36 outdoor ponds, which already hold more than 3,000 razorback suckers. Live endangered fish were displayed in an aquarium, in several indoor tanks, and in the back of a hatchery truck equipped with a plexiglass side window, giving visitors a chance to see some of the rarest fish on earth.

Vernal City Manager **Ken Bassett** called the hatchery a 'great addition' to the community. "What a great experience it is to step outdoors to a facility like this and to enjoy what Mother Nature provides for us," he said. "We're all beneficiaries of these facilities. They help make the quality of life what it is here."

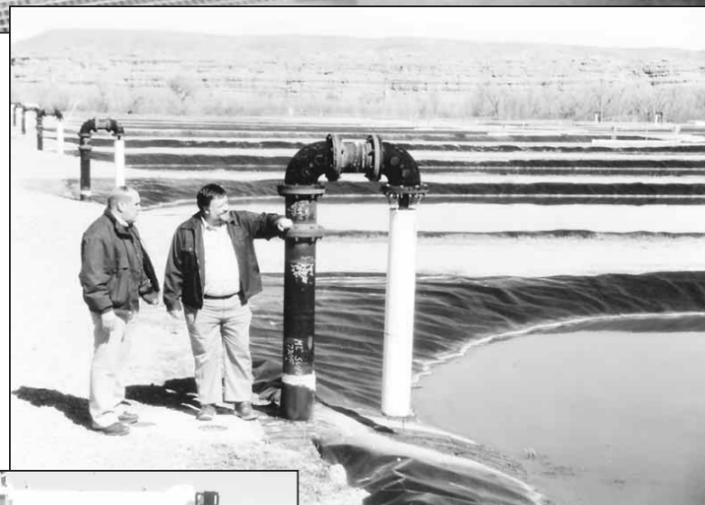
"Most of the razorback suckers left in the wild are very old adults," said **Tom Pruitt**, manager of the Ouray hatchery. "At this hatchery, we will be able to raise juvenile and young adult fish. Once these young fish are 12 to 16 inches long, they can be stocked in the river and will begin reproducing." Before coming to Vernal, Pruitt managed the Garrison Dam National Fish Hatchery in Riverdale, North Dakota, which raises 23 million fish per year.

Excavation of the 36 outdoor ponds next to the hatchery building was begun in 1992 and was completed this year. Razorback suckers, Colorado squawfish, and bonytails have been held in the completed ponds as early as 1994. "The hatchery was built here because this area is prime habitat for the razorback," Pruitt said. "Also, we will have heated water in the indoor tanks, which will be used to trigger the fish to spawn. The large number of tanks allows us to raise separate groups of fish from different parents, providing the kind of genetic diversity needed for survival in the wild."

At right, Bill Knapp, chief of national fish hatcheries for the Fish and Wildlife Service, hails community support of the Ouray hatchery and the Service's endangered fish recovery efforts. The 65-foot by 150-foot hatchery building is equipped with 100 fiberglass tanks and troughs, below, to raise endangered fish found only in the Green/Colorado river basin.



Larry Shanks, left, refuge supervisor for the Fish and Wildlife Service, and Tom Pruitt, manager of the Ouray hatchery, survey some of the 36 outdoor rearing ponds next to the hatchery buildings.



Fishery Restoration & Management

A key element in fishery restoration and management is technology development. The Service's six Fish Technology Centers provide cutting-edge technology and scientific information to fish hatcheries and fishery managers—knowledge critical to their ability to continue to manage fishery resources and to recover endangered, threatened, and declining fish stocks. The centers comprise a national network, each complementing the other in the effort to conserve and restore the nation's fisheries.

The centers develop culture techniques and diets for endangered and threatened species, maintain captive populations and broodstocks, and assist in monitoring the success of reintroductions. A database of the genetic fingerprints of many wild stocks is being assembled and used as a baseline for characterizing and comparing wild and hatchery stocks. Cryopreservation (low temperature) techniques to safeguard the genetic material of threatened and endangered fishes are also being developed.

The centers were established in 1965 to develop and improve fish culture techniques and provide assistance and advice on fish culture to National Fish Hatcheries, other federal and state agencies, tribes, other nations, and the aquaculture industry. The centers developed culture techniques and fish diets now used around the world, including the dry, long-lasting feeds that revolutionized the fish-rearing industry. Technology developed by the centers provided the foundation of the aquaculture industry, which contributes millions of dollars annually to the U.S. economy.

Today, the centers continue to provide technical support to the National Fish Hatchery System and the fish culture community, with emphasis on: improving the quality, genetic diversity, and post-release survival of captive-reared fish; identifying and reducing any detrimental effects of hatchery releases on wild fish populations; developing technologies to reduce water consumption and pollution in hatcheries; and developing and improving diets to meet nutritional requirements of captive-reared fish.

Abernathy Salmon Culture Technology Center
Longview, Washington

Dexter Fish Technology Center
Dexter, New Mexico

Mora Fish Technology Center
Mora, New Mexico

Bozeman Fish Technology Center
Bozeman, Montana

Northeast Fishery Center
Lamar, Pennsylvania

Warm Springs Fish Technology Center
Warm Springs, Georgia



Boy Scout Troop No. 890 served a Dutch-oven lunch for the 200 visitors to the Ouray hatchery open house and dedication. In front row, from left, are Joseph Lawson, Spencer Caldwell, and Marty Merkley. In back row, from left, are Jordan Irving, Michael Merkley, Mark Struthers, Devin Caldwell, and Jared Labrum. Jacob Kenczka was unavailable.

Photos by Connie Young



Kevin Gover, Assistant Secretary
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BUILDING A WALL Initiative & Self-Reliance at the BIA's Crow Agency

CROW AGENCY, Montana—It was a cool, sunny Saturday—a perfect day for a family outing or a fishing trip in Big Sky country.

“I would rather be fishing on the Big Horn,” admitted **Chris Dillon**, who was hard at work with a crew that was laying a wall of natural stone on a wrought iron framework. “But the guys wanted to get this done.”

There was not enough time during the regular work week to put an entire crew on the project, he explained. “The mortar sets up too fast for just a couple of men to work it.” Chris is the manager of the Facilities Branch at the Crow Agency and the wall serves as a buffer fence in front of the BIA Facilities building.

Robert Other Medicine was the lead man on the project because of his experience in masonry and construction. **Leroy Cummins** was in charge of welding the ironwork. “The rest of us helped as needed,” said Chris, who pointed out that enthusiastic trainees from the Crow Tribal Employee Division were helping BIA staff on this and other construction around the agency. “For them, the hands-on experience of doing this sort of work gets them tuned in to the reality of teamwork and moving right along—no coffee breaks or the mortar will set up on you.”

This self-reliant teamwork has completed a number projects at the agency, saving thousands of dollars. A private contractor estimated the cost of the stone wall at \$13,000, for example. “By doing this in-house, we effectively cut the cost to \$3,000,” Chris noted. The team also erected a chemical storage building and office—work estimated at \$34,000. “Our in-house budget was \$19,000 and our team did the work for \$16,900,” said Chris. “The project will pay for itself in two years.” The lead man on that effort was Leroy Cummins, who used his carpentry skills and knowledge of welding and concrete work. He was helped by **David Jefferson**, Robert Other Medicine, **Norman Pretty On Top**, **Eugene Bird In Ground** and tribal employees **Ralph Chavez** and **Gerald Passes**.

Other projects are on the table and several will have to be funded without BIA budget help. “We are seeking money to make the BIA office more accessible for people with handicaps,” said Chris, who works with **Frank Merchant**, the agency administrative officer, to prioritize projects and funding sources. “We wait for the green light from him before embarking on a new plan,” Chris explained. “Our basic philosophy is to be self sufficient to the utmost of our ability and to use the backgrounds and skills of our people to do as much in-house work as we can.”

The Crow Agency's five-year plan, which was devised by the administrative officer and the Area Branch Division, calls for repairing the administration building, residential housing, and other facilities. “It is well ahead of schedule,” said Chris, “and will be completed within three years.” He believes that the men have reached such a high level of competence that no project is too big to tackle. “Sometimes it may mean putting personal situations on hold, working on weekends, and such. We take pride in our work and we get high on achievement instead of drugs.”



Above, the self-help team that worked on a buffer fence of natural stone at the Crow Agency in Montana includes, from left, Gary Daves, of the Crow Tribal Staff; Leroy Cummins, BIA Facilities; Ralph Chavez, Crow Tribal Staff; and Chris Dillon, BIA Facilities. At left, is Robert Other Medicine, whose masonry and construction skills have enabled the team to save thousands of dollars on projects.



While budget cuts and downsizing have had a major affect on tribal programs, Chris and his team don't dwell on the problem. “I came into the bureau on the tailend of the cutbacks,” he explained. “If you never had something, you never really miss it. What a guy has to do is concentrate on what needs to be done! That is what I try to instill in team members,” Chris explained. “Believe me, they are doers and I'm very proud of them!” He especially thanked **Emmett Old Bull** and **Velma Bird In Ground**, who handle administrative duties at the agency, for their effort.

Chris' responsibilities include overseeing the operations of the agency's facilities, from water quality and sewer disposal, to repair and maintenance of property, to custodial work at the main office building. Because the work benefits their home, the men don't mind the sacrifices. “My wife and my family are here. The hunting and fishing are great, but a job is a job regardless of where you are,” Chris said. “There is a lot of work to be done here and I am proud to be a part of this hustling community.”

Chris traces the roots of this self-help, can-do spirit to family upbringing and military service. “I was born and raised here on the Crow Reservation. I came from a hard-working family and learned from my parents and grandparents and elders what hard work was all about,” he said. “And I learned about ethics in pursuing what I believe in.”

His father was major influence. “My dad is still in construction. He's a stone mason, union member, and excellent teacher of the trade. I learned plenty from watching him and going to job sites with him,” Chris said. “He taught me that life is like a business. No matter how big or small the operation or how booming or slow it may be—the doors have to be open and the lights on to do business each day.”

Chris also served in the U.S. Navy where he received extensive training and a teamwork philosophy. He is a veteran of the Persian Gulf War. “Aboard ship, you're on a floating island and have to work as a team to stay afloat and deliver the goods,” he explained. “So I owe a lot to the Navy experience. It all boils down to teamwork. In that light you might want to consider the Indian Reservations as islands. Let me tell you—there's a lot of talent on these reservations that can be tapped to stay afloat.”

New Fire Trucks for Agencies



Turtle Mountain Agency, North Dakota; Eastern Navajo Agency, New Mexico; Red Lake Agency, Minneapolis; and Western Navajo Agency, Arizona, which will receive two.

The BIA's Facilities Management & Construction Center recently took delivery of the vehicles to supplement its Structural Fire Protection Program. The trucks, which are painted in traditional bright red, are class A-type, triple combination pumpers that are fully equipped, including fire hoses, nozzles, axes, first aid kits, ground ladders, foam sprayers, and other required equipment. They sit on an international commercial chassis and have a three-person cab. The vehicles meet the latest requirements set by the National Fire Protection Association Standards.

Unlike the trucks previously used in the program, the new vehicles have automatic transmissions and a larger capacity water tank. The improved transmissions are needed because BIA agency fire units across the United States have experienced a significant amount of down-time for fire trucks that had clutch problems. Using standard transmissions also requires additional driver training. And while the earlier

Four Bureau of Indian Affairs tribal agencies will be receiving new, heavy-duty fire trucks to help them provide greater protection against fires at schools, dormitories, and administrative offices. Slated to receive the pumper trucks are the

vehicles had steel water tanks with only a 500-gallon capacity and five-year warranty, the new trucks are equipped with a polypropylene (plastic), 1,000-gallon tank with a lifetime warranty.

The pumper trucks are the first to be acquired by the BIA Facilities Management & Construction Center in the last several years. The BIA began its own agency fire departments in the 1960s, and they became operational in the 1970s. This was a non-budgeted program that the center supported through its Division of Operation & Maintenance. Subsequent cuts in government programs hit the BIA hard and some agency firefighting units virtually ceased operations.

In early 1995, the assistant secretary for Indian Affairs appointed a Fire Protection Committee to make recommendations for a Structural Fire Protection Program. The recommendations called for establishing a separate budget for the program, providing increased firefighter training, and scheduling replacement of outdated equipment.

Of paramount importance to Tribal communities and BIA agency offices is protecting BIA schools and other educational facilities, especially dormitories. Among other initiatives, this was to be accomplished by updating and retrofitting the fire protection systems for these structures. Although the program has improved fire safety, it was imperative to address fire suppression, which depends on serviceable fire equipment. This purchase has provided a much needed ‘shot in the arm’ to the BIA's Structural Fire Program. BIA will replace the remainder of unreliable and unsafe fire trucks according to a program schedule.



IT'S ALL RELATIVE

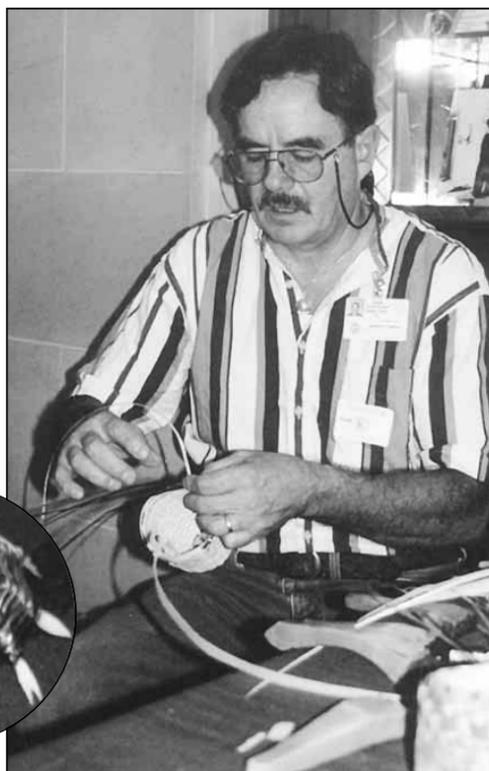


Below, potter Barbara Gonzales, of the San Ildefonso Pueblo, demonstrates hand building pottery at the Indian Craft Shop's Sept. 16-18 artists at work session as part of its 60th anniversary commemoration. The shop began purchasing pottery from Barbara's great grandmother, Maria Martinez, in 1938.

The demonstrations and exhibits focus on the continuity of family art and craft traditions among American Indian and Native Alaskan communities. At right, Barbara's son, Cavan, also a potter from the San Ildefonso Pueblo, discusses techniques and styles with patrons at the show.



Photos by Mark Hall, ISC

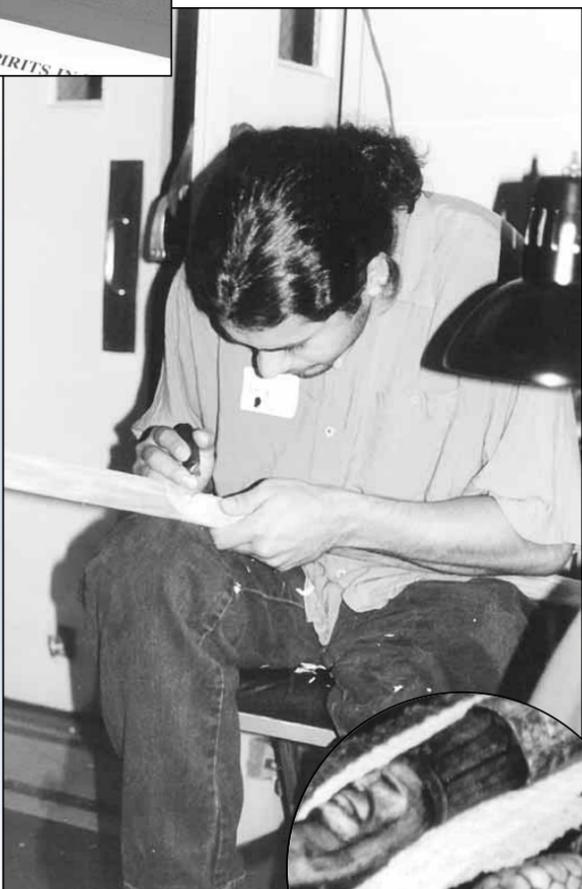


At left, Gerald Barnes, a Passamaquaddy basket maker, demonstrates the steps of making ash basketry. He is finishing the top rim of a basket with split ash and sweetgrass. Below, in addition to baskets, decorative objects that he and his family weave with split ash and sweetgrass include turtle shapes and bells.



Navajo sculptor Betty Emerson, below left, demonstrates the making and painting of clay figures, above left, that include women, men, angels, and domestic animals. At right, her son, Travis, also a Navajo clay sculptor, fashions the head of a woman on a new figure he began at the Sept. 16 demonstration.

At right, Joe 'Hugga' Dana, a wood carver from the Penobscot Tribe of Maine, begins to sculpt details of a face in a poplar walking stick. Joe's father, Stan Neptune, has been teaching his son the history of ceremonial root clubs, above left, and training him in how to carve them in an attempt to revive and preserve the tradition. The clubs depict animal spirits. Below, the exhibit included a selection of walking sticks that Stan and Joe Neptune have carved from birch, poplar, and ash.



The Indian Craft Shop's 60th anniversary commemorative program continues through December with exhibits on the Arts of Alaska, November 9-30; Innovators of the Southwest, November 20-24; and Arts of the Zuni Pueblo, December 8-11. The shop is open Monday to Friday from 8:30 a.m. to 4:30 p.m. and extends late hours for demonstrations and shows. For information, call (202) 208-4056.



THREE BY THREE

Ron Bowman, a member of the Citizen Potawatomi Nation, fulfilled a life's dream in Hawaii. Page 3; Joanie Rowland, a member of the Crow tribe, is receiving specialized training from the Minerals Management Service to enable her mineral-owning tribe to do their own coal auditing. Page 29; and Roy Murphy, an environmental scientist with the BIA Navajo Area Office, received the Department's 1998 Environmental Achievement Award. Page 9.



Bowman

Rowland

Murphy



Eluid Martinez, Commissioner
Carrie Kemper, Reclamation Editor
ckemper@usbr.gov

PEOPLE

Chief Security Officer Named

Elaine Simonson, Reclamation Service Center

DENVER, Colorado—Reclamation now has an agency-wide security officer, **Bill Chesney**, whose primary goal is to ensure that employees have a safe and secure workplace so that they can concentrate on performing their jobs. Chesney will also be working on an agency-wide security plan that includes establishing a toll-free hotline that employees can use to voice their security concerns.

In his new position, Chesney is responsible for the management, formulation, coordination, and oversight of all security functions. He also will establish and oversee Reclamation's security standards, policies, objectives, and goals.



Security Officer
Bill Chesney

"Reclamation's infrastructure is phenomenal, especially if you consider the larger facilities such as Grand Coulee, Hoover, and Shasta dams," Chesney said. "And, while most people understand the benefits of our dams—such as delivering water for crops and wildlife—they tend to forget that national security and public safety issues revolve around our facilities."

Chesney, who believes that his first responsibility is to learn more about Reclamation's facilities, plans to spend most of the next six months in the field, meeting with managers and employees so that he has a better understanding of their concerns and challenges. He formerly served as chief of Security and Law Enforcement for the Army Corps of Engineers—North Atlantic Division. Chesney also held positions in the Corps Defense Investigative Service, the Army Materiel Command-Europe, and the U.S. Army.

Bach Honored for Public Service

Chris Kirkham, Reclamation Service Center

Maryanne Bach, the assistant director for Denver's Program Analysis Office, recently received an honorary Doctoral of Public Service Degree from Providence College in Rhode Island. The college recognized Bach as its highest-ranking female graduate in the Federal Government.

During the award ceremony, Bach was cited for "serving her profession and her country in senior managerial positions in the development of national science policies." She was also recognized for serving a key role during the development of legislation for the Federal Technology Transfer Act, the North American Wetlands Conservation Act, and the Everglades Expansion Act. Bach is widely acclaimed as a respected authority on environmental and science issues in the Federal Government.



Maryanne Bach

Gila River Indian Tribe Spurs Work on CAP Water System

Rich Dent, Phoenix Area Office

PHOENIX, Arizona—Reclamation and the Gila River Indian Community took a major step toward launching construction of the tribe's massive Central Arizona Project (CAP) water distribution system on July 20 when Commissioner Martinez and Lt. Governor **Cecil Antone** signed the Master Repayment Contract.

This contract enables the community to begin using CAP Indian Distribution funds on project construction. Until now, the community could only expend federal funds advanced under the Self-Governance annual funding agreements on non-construction activities.

The project, which will deliver the Gila River Indian Community's 173,100 acre-feet CAP allocation, Gila River Decree water, and well water, is estimated to cost nearly \$400 million over the next 12 to 15 years. Commissioner Martinez said that Reclamation will focus on obtaining adequate funding for this period to ensure timely completion of the project. Reclamation also is prepared to offer support and assistance upon request, fully understanding that it is the community's intent to perform the vast majority of the work under the provisions of the Self-Governance program.

At right, E. Lee Thompson, director of the Gila River Indian Community's Department of Land and Water, at center, gives opening remarks at the formal signing ceremony of the Community's Central Arizona Project Master Repayment Contract. Also seated at the table, from the left, are Dana Norris, director of Water Rights for the Community, Lt. Governor Cecil Antone, Councilman John Flores, and Commissioner Eluid Martinez.



Above, Commissioner Martinez, seated at right, signs a Memorandum of Understanding with Pearlle Reed, the new chief of the Department of Agriculture's Natural Resources Conservation Service, seated at left. Witnessing the ceremony are, from left, Ron Marlowe, from the Natural Resources Conservation Service, and Jose Ramirez, Julie Spezia, Allen Powers, and Steve Richardson from Reclamation. The MOU is the basis for a new Bridging-the-Headgate



Partnership Initiative. At right, Commissioner Martinez, signs a Memorandum of Understanding with Ernest Shea, the chief executive officer of the National Association of Conservation Districts, in July to collaborate on water conservation efforts. Photo by Gertel Harris Brace, Commissioner's Office

NEW CONSERVATION PARTNERSHIP SUPPORTS LOCAL LEADERS IN WEST

Reclamation intends to become a more active player in a new partnership that stresses local leadership in water conservation programming for seventeen western states.

Commissioner **Eluid Martinez** has signed agreements with three agencies to create a conservation partnership that provides new opportunities for cooperation in helping local communities to develop conservation programs. The partners are the Department of Agriculture's Natural Resources Conservation Service, the National Association of Conservation Districts, and the National Association of State Conservation Agencies.

Working through its Water Conservation Field Services Program, and in cooperation with its major partners, Reclamation has developed an innovative action plan that will involve the bureau in local conservation districts at the field level. The major goals are to increase the networking and sharing of federal water management program resources and to increase the opportunities for collaboration among conservation programs to promote efficient agricultural water management in the West.

Immediate actions include the assignment of appropriate organizational liaisons, assessments of the opportunities for sharing technical and other resources, establishment of pilot programs, allocation of targeted grant funds, and steps to re-establish the availability of water management field expertise.

Pearlle Reed, the chief of the Natural Resources Conservation Service, captured the essence of the partnership when he said, "We have to recognize that today we need to approach conservation, and conservation programs, differently than in the past. We need to have an open-door policy and invite all the constituencies in to participate in the process."

Ernest Shea, the chief executive officer of the National Association of Conservation Districts, is thrilled with the newly created partnership. "This is a classic example of working with people to solve problems," Shea said at a signing ceremony with Commissioner Martinez. "With this partnership in place, we can succeed in helping water districts develop and implement locally led water conservation and other natural resource programs."

Allen Powers, Reclamation's coordinator for this initiative, told the three agencies that "Reclamation needs to be involved at the local level, and to become an appropriate player in the local-state-federal partnership promoting efficient water management and conservation in the West. Combining the leadership of local conservation districts with Reclamation's water resource expertise is a perfect way in which to do that."

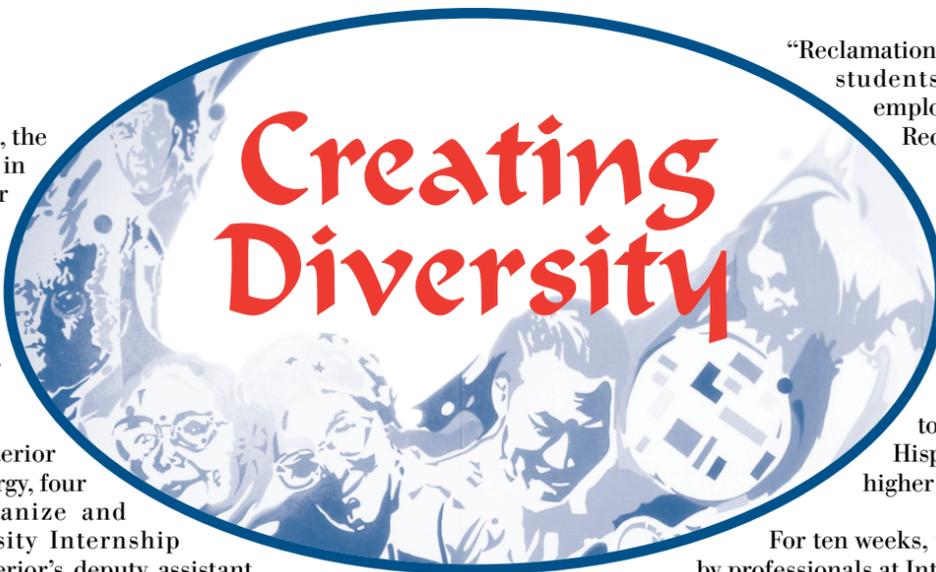


Chris Kirkham and Rico Aguayo,
Reclamation Service Center

As part of its diversity building effort, the Bureau of Reclamation participated in an expanded intern program for minority students this past summer. The program introduced the interns to a variety of professional activities, offered them personal contacts and mentors, and encouraged the students to consider federal careers.

“Through agreements between Interior agencies and the Department of Energy, four nonprofit partners helped organize and implement the expanded Diversity Internship Program,” said **Mari R. Barr**, Interior’s deputy assistant secretary for Human Resources. Participation in the Diversity Intern Program has increased from 16 students in 1994 to 87 students in 1997. During the past summer, 58 worked in field offices in 17 states, while 29 were placed in Washington, D.C.

“The Diversity Internship Program gives Reclamation the ability to be recognized for giving students the opportunity to gain work experience in a progressive federal agency,” said **Max Gallegos**, Reclamation’s acting deputy director of Human Resources.



“Reclamation managers and employees have worked with minority students and are discovering that they are outstanding employees. This is a great program for both students and Reclamation. We both learn by the experience.”

The internship program is a cooperative effort among Interior and nationally recognized educational associations, including the Student Conservation Association, Hispanic Association of Colleges and Universities, Haskel Indian Nation University, and the National Association for Equal Employment in Higher Education. Each partner recruits, screens, and selects interns for the summer. The partners also pay a stipend to students who are primarily but not exclusively from Hispanic-serving, historically Black, or Native American higher education institutions.

For ten weeks, the interns received hands-on work experience guided by professionals at Interior sites in the field and in Washington, D.C. Coming from diverse backgrounds and academic majors, the interns brought new ideas and innovation to participating agencies.

Reclamation and other agencies participating in the program are creating a pool of talented and determined young professionals who will be familiar with Interior and consequently more competitive for career positions in the Department. The intern program is a sign of Interior’s continuing commitment to build a culturally diverse workforce.

SCREENING FOR RESTORATION

John Redding, Bureau of Reclamation

YAKIMA, Washington—The current economic strength of the Pacific Northwest did not come without environmental tradeoffs. Declining fish populations in many of the region’s dammed and diverted rivers and streams has been one of the major compromises.

While the dams and diversions provide water for power, agricultural production, and drinking water, the dwindling number of fish is a serious loss to the environment as well as to tribal and commercial fishing communities. Numerous restoration programs are working to reestablish native species of fish in an environment where they once flourished. (See related articles on pages 20-21.)

A restoration effort at Reclamation’s Fish Screen Maintenance Facility has merged engineering expertise and environmental concern to form a unique program aimed at replacing rusted, outdated, and inefficient fish screens. The facility, which is part of the Upper Columbia Area Office in Yakima, Washington, was built specifically to refurbish the thousands of screens as their condition deteriorated. The screens prevent fish from entering irrigation canals and intake tubes for power plants and water works.

The concept is simple: Remove bulky screens along the Yakima Basin, refurbish and reinstall them. The old and outdated screens are being given new life and increased efficiency through the skill, expertise, and cooperative efforts of the Reclamation screen crew, engineers, supervisors, and biologists.

But the procedure is complex: The number of screens due for overhaul in the next few years is immense, and there are time constraints on removing them. The crew not only must modify each screen to improve its design but also meet biological concerns, such as ensuring that the refitted screens are fish tight.

One way the crew has met these restrictions is by working “in the wet”—removing and replacing screens while water is still in the canals, and using an underwater camera to ensure that the screens are sealed properly. This gives the crew a longer production



Yakima Office workers Randy Wilsey, left, and Duane Dobbs remove an old fish screen needing design alteration. Screen refurbishing is like a production line program, says Tom Leonard. But instead of quick assembly line work, it’s like working on five Chevys needing extensive modifications, then three Volkswagens needing only a couple of changes, then eight Lincoln Town cars that are a mess. Photo by Dave Walsh, Pacific Northwest Region

window in which to work—from five months to more than seven. The crew puts in false fronts to protect fish from the canal systems while the screens are being repaired.

Open discussion among all the team members has contributed to the success of the program. “Every day brings a new challenge and different costs,” said **Tom Leonard**, the facility’s supervisor of fish maintenance. “But the crew has come up with solutions and ideas that make this one of the most unique programs in Reclamation.”

The project, which has garnered considerable interest from other federal, state, and local agencies that are responsible for fish protection, is well on its way to meeting the environmental challenges of the future.

EMPLOYING DISABLED AMERICANS

Chris Kirkham, Reclamation Service Center

DENVER, Colorado—In an era of streamlined efficiency and limited budgets, Reclamation must continue to adapt by inventing new ways of conducting business.

One of Reclamation’s latest innovations involved joint funding with another federal agency to hire a group of disabled workers who assembled and packaged a customer survey for mailing under an extremely tight deadline.

Through a Memorandum of Understanding, Reclamation’s Program Analysis Office in Denver pooled resources with the Department of Energy to hire workers from the Developmental Disabilities Resource Center—a community-based organization that employs disabled persons. The center offers its services in several Colorado counties.

The Program Analysis Office hired the workers to assemble its Customer Survey Initiative packets for distribution. **Gene Munson**, coordinator of the Customer Satisfaction Survey, was pleased with the outcome. “The time frame between obtaining OMB approval for the survey and the survey’s mailing has been kept to a minimum through the center’s efficiency and quick response to our needs,” Munson explained.

The center began 34 years ago, when a group of astute individuals recognized a need to give disabled Americans more opportunities to work. The center offers these workers



Alfie Atencio helps Reclamation with important clerical duties. Photo by Chris Kirkham.

a chance to carve out an independent life . . . and provides companies a quality product. It has extended its outreach into many areas, currently placing disabled employees in a variety of services, including food, janitorial, clerical, day care, recreation, and nursing home.

Businesses that hire center employees benefit because they gain motivated employees, savings in recruitment, hiring, and training, and a tax credit from the federal government.

As the center grew to its present size, Colorado embraced the concept and created funding sources for 20 similar agencies throughout the state. While the center is a state-funded, regional program, it also receives job requests from companies throughout the West.

“Our center services many areas from the local government to the private sector,” noted **Skip Jutze**, the marketing manager for the center. “We would welcome more opportunities to extend our services to the Federal Government.” For more information about the center, contact your agency’s acquisitions office.

Sexual Harassment: What Is It? What Can You Do About It?, 4



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PRESERVING A NATIVE AMERICAN SACRED SITE

Phillip L. Guerrero, BLM Las Vegas Field Office

LAS VEGAS, Nevada—Entering the sacred site, you're overcome by the quiet and serenity. When the wind blows down the deep canyon, as it has for eons, it seems to be a place untouched by time. The black walls and boulders are etched with curious designs of big horn sheep, what look like extra-terrestrial creatures and spacemen, as well as cowboys riding horses.

Yet signs of vandalism mar the once pristine rock art. The fresh color of the stone indicates some of the abuse is recent, within the last few months. Chisel and hammer marks are evident where slabs of art have been stolen, entire pages ripped from this priceless Native American history book. Other cuts are older, discolored by the sun, weather, and time.

It's not a pretty sight. And that's why Bureau of Land Management managers are pushing ahead to develop creative ways to limit the damage and protect this historic place, which is located in a current BLM wilderness study area, while allowing for modern visitors. The exact location of this archaeological site near Las Vegas is not revealed in this article because of the recent acts of vandalism.

One immediate plan calls for placing large, immovable boulders across the canyon to restrict vehicular traffic into the site. There also will be a visitor register that would include short, generic rock art interpretation along with a notice to warn would-be vandals of the consequences for their actions. Most importantly, BLM rangers in coordination with a local archaeological group are developing a monitoring program that can protect the site from vandalism and other abuse.

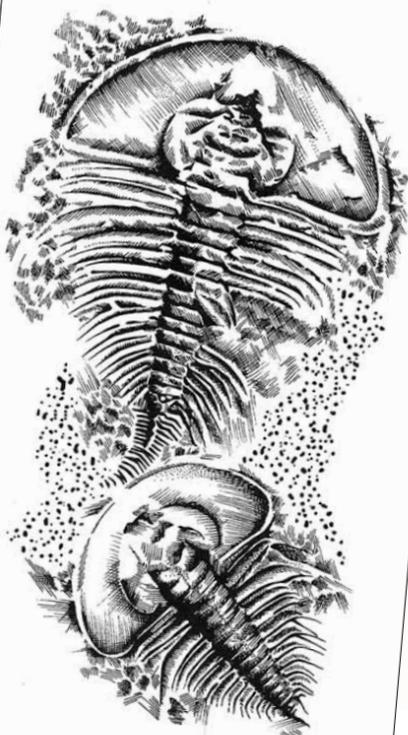
The canyon has been a National Register Listed Site since December 1978, but protecting the archeological treasures has become critically important because of the rapid residential and commercial growth in the Las Vegas valley in the last several years. More than 4,000 new residents move into the area every month, according to the Clark County Comprehensive Planning Division. That makes Clark one of the fastest growing counties in the United States.

This growth threatens the sacred site in many ways. A master-planned community is breaking ground not far from the entrance to the rock art canyon, for example. **William White**, senior archaeologist for the Harry Reid Center for

Environmental Studies at University of Nevada at Las Vegas, is gravely concerned. "As the houses get built this way, you're not going to be able to keep the people out of here," he predicts. A team from the center has been documenting the site's condition under a BLM contract, as the bureau works in partnership with tribal groups, concerned residents, and the nearby developer to protect the site.

Americans have inherited an extraordinary legacy—the 264 million acres of public lands administered on their behalf by the Bureau of Land Management. These lands, located primarily in the Western United States, contain a remarkable array of natural, historical, and cultural treasures. And none is more remarkable than the public land's fossils, which remind us of life from long ago. The BLM hopes that this short guide will help you not only understand more about the importance of these fossils, but also appreciate the public lands that preserve these remnants of past ages. For information, contact your local BLM office.

FOSSILS on America's Public Lands



The rock art above is referred to as *Calendar Man* by BLM archaeologist Stanton Rolf. While the precise meaning of the symbols is not clear, they appear to tell the story of people who lived here before and what was important in their daily lives. At left, a petroglyph depicts Desert Bighorn Sheep, which can still be seen looking for water and vegetation in the canyon.

As part of a BLM contract to characterize the Indian spiritual site, researchers are looking for clues about the people who lived in the Las Vegas area before Europeans came to the valley in the 1800s. Archaeologists from the Harry Reid Center for Environmental Studies at the University of Nevada, Las Vegas, have chronicled more than 1700 individual design elements on 318 rock art panels. The petroglyphs in the canyon walls suggest an age range from the archaic to post-contract or historic times, which further suggests cultural affiliations with Archaic, Anasazi, Patayan, and Numic groups. A UNLV research team recently completed its site field work inventory, which is the first step in a two-year process that will lead to public meetings on preserving and managing the fragile resource.

Prominent state leaders agree. **Senator Harry Reid** (D-NV), a member of the Senate Environmental and Public Works Committee and the Interior subcommittee that appropriates funds to the BLM, has a passion for protecting the canyon which stems from some of his early life experiences. One event that particularly stands out occurred in Paiute Springs across the Nevada-California border, where the senator had taken his family for an outing.

"It was an unbelievable place," he recalled. "Water lilies just gushing out of this volcanic rock." The senator revisited the site several years later and was appalled by what he saw. "The place was trashed," he said. "It was all gone. The stream was a mess, the birds weren't there anymore. People had ruined it." With this in mind, the senator wants to be sure the canyon archaeological site is protected. "It should be like a museum," he stressed. "A museum is no good unless people can come and see the paintings."



Senator Harry Reid

The preferred option is preservation and protection of the site, added **Richard Arnold**, a Southern Paiute who serves as executive director of the Las Vegas Indian Center. **Stanton Rolf**, a BLM archeologist, concurs. "All the Native Americans I've consulted about this site want the area preserved. It's not just about art for my Native American brothers," Rolf explained. "It's about the water, the plants, the entire ecosystem. To them it's like an open-air museum. It seems to me that the Native Americans had this perspective forever, and we're finally catching on."

The local tribes are the only people who really know what the rock art means, Rolf said. "This is their heritage and they feel very strongly about people walking on or touching these images." He hopes to soon have a stewardship agreement in place in which local Native American groups will participate in managing the site. "The most important thing we as land managers can do is gain advice from the local Native Americans about this precious site, which they consider not only historic but also religious," Rolf said.

"Now that all the art on the site has been recorded by UNLV, we can get on to the next step of deciding how to best protect the site," said Rolf. "Without 24 hour surveillance, I don't know if we can ever completely stop the vandalism," he added. Rolf also intends to have discussions with the nearby home builder to gain support for the protection of the area. "It will be the crowning achievement of my career when we achieve official protection of this sacred site."

New Appointees to Resource Advisory Councils continue consensus building in the West, 6

PLACITAS LAND EXCHANGE PACT SIGNED

Tanna Chatten, New Mexico State Office

ALBUQUERQUE, New Mexico—Tribal, state, and federal officials have signed an informal agreement with the BLM, confirming their intent to work on a three-way land exchange near Placitas, New Mexico. Representatives from Santo Domingo and San Felipe Pueblos, the New Mexico State Land Office, and the Bureau of Indian Affairs signed the Agreement to Initiate an Exchange for about 18,000 acres of BLM administered public land popularly known as the Ball Ranch, which is located northeast of Albuquerque.

Before the ceremony, **Victor Reano**, acting governor of Santo Domingo Pueblo, graciously performed a traditional Pueblo blessing. Then, BLM State Director **Michelle Chavez** signed the agreement with San Felipe Pueblo Governor **Robert Velasquez** and Lt. Governor **Sam Candelaria**, Santo Domingo Pueblo Acting Governor Reano, and Acting Lt. Governor **Regorio Calabaza**, State Land Commissioner **Ray Powell**, and BIA Area Director **Rob Baracker**.

"This is a very complicated and sensitive transaction," Chavez said. "We've had some real challenges along the way, so I'm very excited about this agreement which captures the willingness of all the partners to make the exchange work." Commissioner Powell said the agreement will avoid further complications. "It's an effort to really do something positive. It reaffirms everyone's desire to do the right thing for all parties



Signing the land agreement on August 26 are, from left: BIA Area Director Rob Baracker, San Felipe Pueblo Governor Robert Velasquez, BLM State Director Michelle Chavez, Santo Domingo Pueblo Acting Governor Victor Reano and Spokesman Benny Atencio, and State Land Commissioner Ray Powell.

involved," said Powell. San Felipe Governor Velasquez said, "I know Santo Domingo and San Felipe worked so long together on this. We're very happy that this finally took place."

The intent of the agreement is for the Pueblos to acquire private lands of equal value to BLM's Ball Ranch land and transfer that private land to the State Land Office. The BLM would then transfer the land in the Ball Ranch area to the Pueblos, retaining a portion deemed environmentally sensitive. BLM will subsequently acquire state inholdings as part of the agreement. But the initial actions will resolve BLM's current land debt to the state.

The exchange was initiated in 1996 when the State Land Office, on a mandate from Congress, gave the BLM 15,000 acres surrounded by Santa Ana Pueblo. The BLM transferred those acres to Santa Ana. The exchange of the lands near Placitas will compensate the State for the lands transferred to Santa Ana.

The three-way exchange exemplifies the kind of collaboration the BLM strives for with tribal and state governments. In this case, the Pueblos will be able to administer Indian cultural and sacred sites, the New Mexico State Land Office will acquire lands to meet their state trust obligations, and the BLM will be able to bring critical state land inholdings under federal protection.

A separate Memorandum of Understanding was signed by leaders from Santo Domingo and San Felipe Pueblos and the BLM to cooperate on the management of the Ball Ranch Area of Critical Environmental Concern, a parcel that will be retained by the BLM in the land exchange.

ADOPTING BY INTERNET

Joy Pasquariello, Eastern States

CROSS PLAINS, Tennessee—Imagine adopting a wild horse or burro from the comfort of your home! More than 10,000 curious folks did just that when they clicked on the BLM's Adopt-A-Horse or Burro Internet site at <www.adoptahorse.blm.gov>

BLM, Eastern States offered 25 animals for adoption online in this pilot effort. Potential adopters could view electronic photos of the horses and burros, and submit an application. Once notified that the application was approved, adopters bid on their choices of horses or burros. Regulations for adopting online were the same as those for any other wild horse and burro adoption.

During the two week process, 53 applications were received, 18 of which were approved. All the animals offered received bids. When the big day finally arrived to take the animals home, ten successful bidders packed up their gear and kids, and headed to the Wild Horse and Burro Adoption/Holding Facility in Cross Plains, Tennessee, where the animals were waiting. Adopters came from Florida, Virginia, Illinois, Indiana, Kentucky, and Texas!

Many of the adopters said they participated in the Internet adoption because they preferred to bid on and adopt the animal of choice rather than depend on the luck of the draw that is the typical selection process at other adoptions. The highest



Terri Marr, an Internet bidder, and her daughters meet with Karen Malloy, center, from the BLM Milwaukee Field office, and Eastern States Director Hord Tipton, at right. Marr, who adopted a burro through Eastern States first Internet bidding initiative, reports that her jack burro is letting them touch him, eating grain from her hand, and starting to lead after only two days! He has become the No. 1 attraction of their neighborhood! "What's not to love," Marr said of her cute jack burro. Photos by Cathy Rodine, Eastern States

bid received was \$375 and the average bid amounted to \$164. Animals not selected through the Internet adoption were placed into the regularly scheduled adoption held the same weekend at Cross Plains.

"The first Internet adoption was a tremendous success," said **Hord Tipton**, BLM's director of the Eastern States Region. "We've placed 15 animals into loving homes! The Internet has proven to be a fantastic tool to help us reach folks who had never heard of the Wild Horse and Burro Program. As a pilot effort, it could hardly have been more successful!"

For a look at more wild horses and burros that are available for adoption online or at an adoption/ holding facility, check out <www.adoptahorse.blm.gov>



BLM Roundup Headed for TV Screen



Dorothea Boothe, Arizona State Office

KINGMAN, Arizona—There are burros on top of burros here in the burro capital of the nation. Hundreds of wild and domestic burros live in the vicinity. They come in many different colors, ranging from chocolate and vanilla to caramel, black, and mixed. Nearby in the town of Oatman, the burros parade unescorted through the streets.

That's why Hollywood came here recently to film them—not as living symbols of America's Southwest, but as stars in their own right. Film crews for a new prime time TV series, spent three in Kingman, filming a BLM burro roundup in the Black Mountains. The show, *Game Warden*, depicts the lives of real people working as stewards of public lands to protect natural and cultural resources. A 30-minute program will debut on national television early in the fall. The show will feature a story on the roundup of wild burros in one of the opening segments.

The film crew shadowed BLM professionals, including wranglers, wild horse and burro specialists, and helicopter crews during the roundup. Their front row positions alongside the BLMers enabled the cameramen to shoot extraordinary footage of wild burros bolting when they were spotted, being captured, gathered, and herded into temporary holding corrals. The BLM team rounded up about 90 wild burros during the three-week project, half of its goal. Another roundup will take place in the fall. Once gathered off the range, the wild burros are taken to their new home, the Kingman Regional Wild Horse and Burro Facility, where they will be vaccinated, freeze branded for identification, corralled, and made available for adoption.



Wild burros are rounded up in May at the Kingman Regional Wild Horse and Burro Facility.

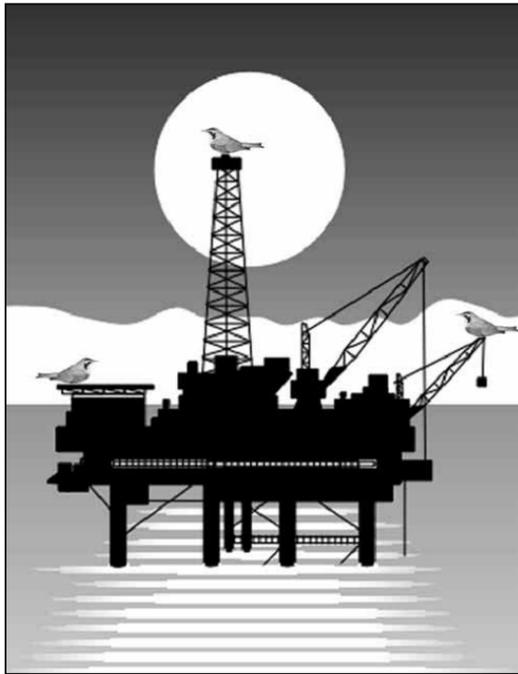


If you're interested in adopting a living symbol of the American West or would simply like to visit their home, contact the Kingman Field Office at (520) 692-4400.



Cynthia Quarterman, Director
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Islands of Refuge

Robert M. Rogers, PhD

GULF OF MEXICO—The Minerals Management Service has recently entered into a partnership with research universities and the offshore oil and gas industry to gain a deeper understanding of the movement of migratory birds across the Gulf of Mexico and how offshore production affects their annual migration.

“Stationed on oil rigs in the gulf, a team of scientists are studying the migration of nearly half a billion birds,” said **Dr. Bob Russell**, a researcher at Louisiana State University.

The three-year study is the first project to analyze—in a systematic and quantitative way—how birds use these off-shore platforms. The research will not only generate the first significant amount of data on these interactions but also produce valuable information on the timing of bird migrations in the northern gulf. The objectives of the study will be to identify the birds, count their numbers, determine the locations they prefer on the platforms, and how long they stay.

The North American birds that winter in the tropics are known as neotropical migrants and include a variety of songbirds such as warblers, tanagers, orioles, and buntings.



Several migratory birds rest on the arm of an offshore oil worker. Staff photo

They form an integral part of the ecosystem, consuming insects, distributing seeds, and serving as food for high-level predators.

Researchers have already completed an initial study of the spring migration. About 170 species of birds have been identified, most of them landing at night to rest, and departing in the morning hours. A number of insects, including moths and dragonflies, also were observed using the platforms.

The study, funded with \$535,000 from the MMS and matching funds from Louisiana State University and several international oil companies, provides an opportunity for researchers to observe these birds on the islands of refuge that the platforms provide.

Partners in this effort include researchers from the Louisiana State University Museum of Natural Sciences, and Clemson University Radar Ornithology Laboratory. Logistical support is provided by British Petroleum, Mobil, and Exxon.

MMS Scientists Profiled, 10-11

The Minerals Management Service recently released a set of four CD-ROMs that present a 50-year history of offshore drilling in the Gulf of Mexico.

The new product, entitled *50 Year Anniversary Offshore Oil and Gas CD Collection*, organizes the information by subject areas—including paleontological, production, pipeline, and leasing data—that incorporate all the elements needed by most companies to historically evaluate the prospects for lease, purchase, or development of oil and gas deposits in the gulf.

“The set is designed to give the public a compact history of Gulf of Mexico development,” explained MMS Director Quarterman. “This CD-ROM set is invaluable to the landmen, legal offices, and industry personnel who research federally owned and leased properties. By packaging and updating all four CD-ROMs, MMS is providing the maximum value for its customers while meeting their needs.”

The package has more than 1,400 paleontological reports and 150,000 pages of monthly production data that were compiled and released to the public last year. In addition, a pipeline CD contains 4,000 pages that list every surveyed point of each pipeline, and provide X,Y and latitude/longitude coordinates of each point. The latest addition to

50 Year Anniversary Offshore Oil and Gas CD Collection



Former MMS employee Kevin Banks, right, and fellow whale watchers spend their days inside a cramped TWIN OTTER searching for bowhead whales. Alaska Region photo

VOLUNTEERS MONITOR ENDANGERED BOWHEAD WHALES IN BEARING SEA

Robin Cacy

BEAUFORT SEA, Alaska—The arrival of fall in Alaska brings with it the annual departure of the Bowhead Aerial Survey team. For two weeks, volunteers from the MMS Alaska regional office spend hundreds of hours flying over the Beaufort Sea looking for the endangered bowhead whale.

MMS has sponsored the Bowhead Whale Aerial Survey for most of the last decade. During September and October, bowhead whales migrate from the Canadian Arctic through the Beaufort Sea and into the Bering Sea. The bowhead, so named for its unique bow-shaped skull, is the only large whale living exclusively in the Arctic.

This large mammal plays a major part in Inupiat culture and provides important subsistence food for the Alaskan coastal villages along their migration route. The Inupiat whalers are allowed to take a limited number of whales each year for subsistence use. The bowhead's blubber can be 28 inches thick, which helps protect it from the cold. The whales range in size from 49 to 60 feet, and weigh up to 80 tons. But the species' diminished numbers and icy habitat make it difficult to study them.

For these reasons, MMS studies the migration routes and the numbers of whales making the trek to the Bering Sea to determine what effect, if any, oil and gas exploration and development has on the whales and on subsistence hunting. Every morning, team leader **Steve Treacy** decides whether or not they will fly that day based on the limited weather information available for the Beaufort Sea area.

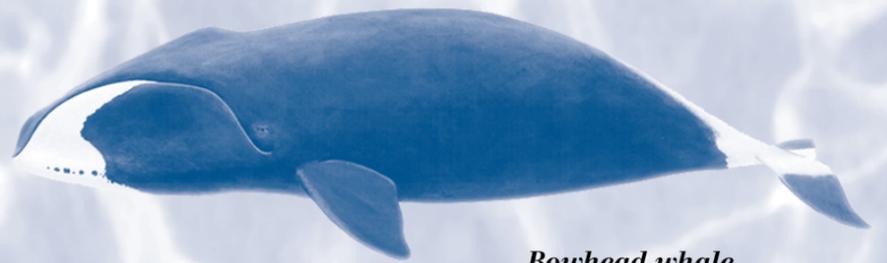
“If the weather allows, we fly at about 1,500 feet in an aircraft with bubble windows for good visibility,” he said. They use randomly chosen lines in established survey areas. The team works with Native groups to avoid disturbing their hunting and with other aircraft to ensure safe flying over dangerous waters and ice floes.

Information about the whales sighted, such as their numbers and behavior patterns, is recorded along with weather and ocean conditions. The information is entered into a computer that is linked to the aircraft's navigation equipment so that sightings can be precisely correlated with the aircraft's position. The survey also records information on other marine mammals.

Once a day, information about the location of the whales is sent from the field camp in Prudhoe Bay to Anchorage. This information is shared with the National Marine Fisheries Service for its use in determining how the fall migration is developing. Information about sea ice is shared with the Naval Ice Center.

Once the migration is over and the team returns to Anchorage, the data that was collected is analyzed. Maps that show the coordinates of each sighting are plotted. A report is prepared and made available to the public which outlines the team's findings and compares them to the statistics from previous years.

The Bowhead Whale Aerial Survey Program, which began in 1987 and recently completed its 11th mission, is providing MMS, the National Marine Fisheries Service, and the Inupiat with current information about these important marine mammals. The more that MMS knows about the bowhead, the better the agency can manage oil and gas development activities to minimize their effect on these whales.



Bowhead whale

the package is the *Lease History CD-ROM*, which tracks changes in ownership and operating rights for all leases since 1947 and provides descriptions of each lease.

The CDs come with an Adobe Acrobat reader ready to download for viewing on any personal computer, even those with modest capability. The disk includes instructions for downloading Acrobat Reader. Some of the CDs contain an ASCII file of data that can be incorporated into the customer's database for mapping or more sophisticated searches. Copies of the set can be ordered for \$60 by calling 1 (800) 200-GULF, or by sending a fax to (504) 736-2620.

President Visits MMS Partner School

Stephen Shaffer

HERNDON, Virginia—**President Clinton** and Education Secretary **Richard Reily** were the featured speakers at an Education Issues Roundtable held at MMS partner school, Herndon Elementary, in September. The forum spoke to an audience of faculty, parents, students, and members of the Herndon community who are active in the life of the school.

The President stressed the importance of education, not just at the college level but at all levels. "You cannot just educate half the people very well through university. You must educate 100 percent of the people very well in elementary and secondary schools," he said. "The ultimate national security of any nation rests in the strength of its own citizens," the President added. "And for us, that means we have got to prove that no matter how diverse we are, we can still offer a world-class education to every American child."



President Clinton, with Herndon Elementary teachers Joanne Shackelford, left, and Martha Bell, at Herndon Elementary School.

"I am pleased that we are able to offer the Crow Tribe this opportunity," said MMS Director **Cynthia Quarterman**. "The agency has been an active participant in the movement towards tribal self-governance. We are committed to providing opportunities for Indian tribes to manage and monitor their own mineral revenues. I hope the Crow Tribe's experience in the program and subsequent success will lead other mineral-owning Indian tribes to explore the potential this program offers."

"This has been a career goal for me—to assist the tribe in its mining ventures," said Rowland, who added that it was exciting to have the opportunity to work with the tribe and learn coal auditing methods. After a year of valuation training with the agency, Rowland will spend a year at the Colorado State Department of Revenue, learning coal auditing techniques.

"Rowland, who has a bachelor's degree in accounting and several years of work experience, comes to the program qualified and eager," said **William Douglas**, coordinator for the training program. MMS began offering specialized training to Indian tribes in 1996 as a means to foster tribal self-governance. An employee of the Cherokee nation was the first participant. Interns must be tribal employees and must return to their tribe after their internship is completed. The agency reimburses tribes for many program costs.

California Oil History Tours

Elizabeth Donovan, MMS Pacific Region Intern

CARPINTERIA STATE BEACH, California—A lucky group of high school teachers recently received a 'geologists' tour of California oil history, thanks to the efforts of MMS specialists and the University of California at Los Angeles.

Jeff Kennedy and **Jim Galloway**, MMS Pacific Region geologists, and UCLA professor **Ray Ingersoll** took the group on a field trip that highlighted the natural oil seeps along Carpinteria State Beach, and the nearby San Miguelito oil field. The MMS geologists discussed local coastal geology, land use planning ventures, and regional biological concerns. The teachers were attending the Integrated Science Teacher Conference that was sponsored by the UCLA Graduate School of Education.

The field trip started at Carpinteria State Beach, just south of Santa Barbara, where the group located several active natural oil seeps. The first oil industry activity in the Ventura Basin in the 1840s and 1850s consisted of distilling illuminating oil from seepage oil and used mining technology to recover oil from mountainsides, Galloway explained. "This activity pre-dates the first modern oil well drilled in Pennsylvania by Edwin Drake in 1959," he said.

Art Barabas, a geologist who teaches at Fresno State University, found the oil seeps particularly intriguing. "It's interesting to see the sediments impregnated with the petroleum (at Carpinteria), and to see how the oil starts to move again almost like lava," Barabas said. Kennedy turned the attention of the group to the nearby intertidal area, informing the teachers that Carpinteria is one of nine sites that make-up a base-line study of the natural biology of the region. "In the unlikely event of an oil spill, we look at the impact on the community, both socio-economic and biological," he said.

As the tour neared the 1000-foot elevation of the San Miguelito oil field, Ingersoll explained why the oil companies came up the hill to drill as opposed to staying right on the beach. "The geology of the region is dominated by a large anticline, an area where old rock is pushed up and over the younger surrounding rocks. In this formation the oil is trapped in the anticline," Ingersoll explained. "It flows up because it is less dense than the water and the sediments it is buried with. As it evolves, it gets trapped in the top of the anticline by impermeable sedimentary layers of rock. This is the easiest way to find oil anywhere in the world."

Priscilla Lee, a UCLA teacher consultant who put the conference together, felt the MMS-sponsored trip was an important part of the three-day event. "I would like to see even more interactive events in the future," said Lee. "It would be great to have teachers go on a number of different field trips and return to the conference site to share with each other what they learned." The Integrated Science Teacher Conference, which attracted about 180 secondary teachers, was held in cooperation with National Science Foundation initiatives that encourage the teaching of science and math in urban areas.



Above, UCLA Geology professor Ray Ingersoll indicates the vast geological complexities of the region surveyed. In the background is part of the anticline as seen from the San Miguelito oil field. At left, MMS geologist Jeff Kennedy goes over some geological points in a teacher handout. Photos by Elizabeth Donovan

Shome, the Alaska Region's summer intern. "And things sure are different up here." Debika was hired through Interiors Minority Intern Program to work on the MMS Alaska Region homepage.

After mastering *Frontpage 98* (the page-building software) in a matter of days, her first project was to design a web page for the Alaska Region's Shipwreck database that lists shipwrecks in Alaskan waters from the earliest Russian times (1741) to the pre-World War II era. She then turned her attention to the Kid's Page, setting up a photo gallery of Alaskan images for students and teachers to download. She also designed a prototype web page for an extensive database on traditional knowledge. That page will be posted on the Alaska Region homepage in the near future.

Although she kept busy during the day, Debika's roommates made certain that she experienced some of Alaska's unique summer recreational opportunities. During the nine weeks she was in Alaska, Debika went salmon fishing on the Russian River, halibut fishing in the Gulf of Alaska, camping in an Alaskan downpour, battled the world famous Alaskan mosquito, and survived the office picnic. The Columbia University graduate found a soulmate in MMS Director Cynthia Quarterman who also is a Columbia graduate. Debika returned home to New Jersey with a sled full of great stories to tell her family and friends.



Thums Island Explorers

At first glance, Pacific Region interns thought they were going to tour high-rise condos on a series of small, well-landscaped islands off the coast of Long Beach, California. But MMS geologist **Harold Syms** and petroleum engineers **Armen Voskanian** and **Mic Else** were

quick to point out that these were not condos but an oil production facility in camouflage.

Don Clarke, an engineer and geologist for the City of Long Beach, Department of Oil Properties, led the group on a day-long tour of ARCO's Thums Islands oil production facility. This visit was one of several field trips that were organized by the region's Summer Diversity Internship Program. The goal was to educate interns on local oil and gas related issues. "The tour focused on the facilities' daily operations and provided an overview of the strategies used by the City of Long Beach to ensure environmentally-safe production of the oil in the area," said Clarke.

The Diversity Internship Program is a cooperative effort between the Department and the Hispanic Association of College and Universities, the National Association for Equal Opportunity in Higher Education, the Haskel Indian Nations Universities, and the Student Conservation Association. This summer the program brought four students to the MMS Pacific Region office in Camarillo, California: **Chiumbo Jones**-Washington, D.C.; **Michael Swank**-Laramie, Wyoming; **Jean Kuderski**-New Berlin, Wisconsin; and **Elizabeth Donovan**-Baltimore, Maryland.

Catherine Chen, a high school graduate from Camarillo, California, also took part in the tour. She spent the summer working in the Pacific Region's Office of Resource Evaluation. Her internship was sponsored by the Petroleum Technology Transfer Council's California Oil Mentoring Entrepreneurial Training program.



Joanie Rowland

MMS Trains Crow Tribe Accountant

Joanie Rowland, a member of the Crow Tribe and tribal employee, has become the second Native American to participate in a specialized internship program with the Minerals Management Service. Designed to train interns in coal valuation and auditing methods, the goal of the two-year program is to enable mineral-owning tribes to eventually do their own coal auditing, a function that MMS now performs.

Office of Insular Affairs



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

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Compacts Haven't Brought Islands Expected Economic Development

—Stayman

The success of the compacts of free association was given mixed marks by **Allen P. Stayman**, director of the Office of Insular Affairs, in his testimony on Oct. 1 before the House of Representatives Committees on Resources and International Relations. Stayman agreed with officials of the Departments of Defense and State that national security and international relations objectives of the U.S. compacts with two Pacific island states had been achieved, but expressed concern about economic development.

The compact with the Republic of the Marshall Islands and with the Federated States of Micronesia (FSM) was signed in 1986, and the compact with Palau in 1994. The financial and federal program assistance under the compact will end in 2001 for the FSM and the Marshalls, and for Palau, eight years later. U.S. financial support for the Marshalls, about \$40 million a year, and the FSM, about \$78 million annually, will continue at current levels until 2003, if negotiations for an extension are continuing.



OIA Director Allen P. Stayman meets with Palau President Kuniwo Nakamura to discuss compact funding and federal program assistance.

Stayman said that "insufficient attention was paid to economic planning" for the islands' economies. He noted that the freely associated states "did not have the necessary experience and expertise for good economic planning and implementation, and did not require the planners they employed to develop viable economic plans with specific goals, strategies, and milestones and a clear linkage with United States financial assistance."

As a result, he said, the private sector in the islands has not grown as much as it could have, and the economies of the two nations are too dependent on the flows of grant money from the United States. Stayman said that OIA has contributed funding for the Asian Development Bank to provide economic planning expertise for use by the freely associated states. Teams of economists are stationed in the Marshalls and FSM to provide advice to the national governments on how to restructure their policies and economies to reduce government sector employment and stimulate private sector development. Providing stable and transparent foreign investment policies are a key to the restructuring.

Summing up OIA's experience with the funding of economic activity in the freely associated states, Stayman said, "Federal program assistance works the best when the assistance is available only on a discretionary basis, and island officials must persuade federal agencies of the merit of the proposed program. Requiring a local funding match often helps to ensure local commitment to the program, including political support."

Assistant Secretary **Stanley Roth** represented the State Department at the hearing and Deputy Assistant Secretary **Kurt M. Campbell** spoke for the Department of Defense. "Above all else we never should forget that the freely associated states have, despite substantial challenges, created solid democracies," Stayman said. "This reflects well on the citizens and officials of these nations and also on their association with the United States," he concluded.

ISLANDS HEALTH OFFICIAL APPOINTED TO TECHNICAL ASSISTANCE POST IN OIA

Roylinne F. Wada, a long-time islands health official who has worked with every hospital and health department in the U.S.-related Pacific islands, has been appointed the technical assistance officer of the Office of Insular Affairs.

Ms. Wada's appointment was announced by **Allen P. Stayman**, the OIA director. Previously headquartered in Honolulu, her new work with the islands will be Washington-based. "The addition of Ms. Wada to our staff will allow OIA to work more closely with the islands and our federal partners on health and related matters," Stayman said. "She understands the issues."

Ms. Wada until recently served as both executive director of the Pacific Island Health Officers Association and as assistant professor of Public Health at the University of Hawaii. In her new position she will work with **James Johnson**, director of OIA's Technical Assistance Division.

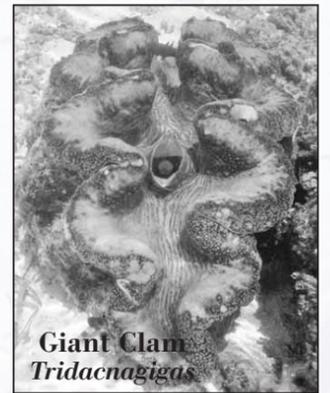
The technical assistance program provides small grants to a number of island-serving organizations working to improve the economies, governments, and quality of life of the seven US-related island groups (American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and the U.S. Virgin Islands, all U.S. territories) and the three freely-associated states (the Marshalls, the Federated States of Micronesia, and Palau).

No Single Solution for the Islands' Economic Problems

Allen P. Stayman

No single solution can solve the long-term economic challenges facing small Pacific Islands, including U.S. insular territories. Scattered geographically, many of the islands have limited natural resources and rapidly expanding populations.

Because of their strategic locations, American Samoa and Guam benefited economically by military buildups during World War II and the Cold War. But U.S. defense cutbacks and newer technologies are ending that era.



Giant Clam
Tridacnagigas

Foreign investments have helped to develop some island industries, like tourism and commercial fisheries, but this type of large-scale, outside-induced development can also distort and even overwhelm island economies. For example, the Republic of Nauru's historic dependence on the phosphate industry literally ate away much of the island, leaving a virtually uninhabitable moonscape. And the Northern Mariana Islands dependence on a foreign-controlled garment-assembly industry has created an unsustainable dependence on alien labor as well as mounting public health problems that threaten the islands' social stability.

Moreover, as the Federal Government continues to downsize and reduce federal welfare and other program assistance, can outside business investment fill the gap? To some extent, yes. Wise and island-friendly investments in medium-to-large-scale island tourism is essential. So too is a reconstituted fisheries industry, with more island-based fishing fleets, as opposed to foreign boats merely harvesting island off-shore resources. More island-based processing plants are essential to provide the local economies with jobs, wages, and tax revenues.

Part of the economic mix in the future should be small-scale, islander-controlled, islander-staffed activities that will bring healthy, sustainable, economic benefits to the islands, something that will complement and balance large-scale overseas development. It is for these reasons that the Office of Insular Affairs, working with other federal agencies, has been supporting a decentralized program of promoting aquaculture for all of the U.S.-affiliated islands, including territories and freely-associated states. Aquaculture produces economic activities, usually in complete harmony with traditional island life-styles. When it stresses high-value products, aquaculture often has the additional benefit of not putting undue stress on the transportation system. It does not take much space to ship cultivated pearls, for example, off to distant urban markets.

OIA has worked with both the University of Hawaii's Sea-Grant program and with the University of Guam's Marine Laboratory to develop aquaculture programs that will make sense in the Pacific Islands and will provide hands-on technical assistance so that islanders can run their own, initially small, aqua-businesses. These programs are carefully tailored to meet the demands of niche overseas markets while, at the same time, protecting island environments. Examples include programs for giant clams and living coral. The clams serve many purposes—food for local consumption, export to Asian markets, shell for island crafts, and, as small living creatures, an ornament in hobbyists' fish tanks, where they are sometimes joined by bits of living coral.

In both cases, the demand for the end-product can be met through aquaculture, meaning income for islanders, and not through pillaging the reef, thus protecting the islands' environments. With this in mind, OIA supports, among many other things, the growth of seeded pearls in the Marshalls; sponges in the Federated States of Micronesia; sponges and living coral in Guam; giant clams in Palau, and more recently, in American Samoa. Some programs combine products, like the growth of snapper in the Northern Marianas' fish ponds, from which the recycled water is used to fertilize hydroponic lettuce to be sold to tourist hotels.

No one has yet become a millionaire from these projects, but they are island-friendly forms of economic development that look very promising for all of the U.S. affiliated islands.

During her more than ten years at Pacific Island Health Officers Association, Ms. Wada served as the principal investigator of training, service, and applied research projects dealing with, among other things, primary health care for infants and children, health-care financial systems improvements, and the evaluation of the new tele-health programs.

At the University of Hawaii's School of Public Health, she had taught health policy, health planning, and health services administration. Earlier she has been an assistant professor at the University's School of Nursing, and a legislative research officer for the Hawaii State House of Representatives.

She brings to the position a long series of academic credentials, including a BA in political science and psychology from Linfield College, McMinnville, Oregon; and, from the University of Hawaii: a BS in nursing, an MS in maternal and child nursing, and a Masters in Public Health.



Roylinne F. Wada



Interior Employees Ride for AIDS Research, Awareness

Jim Gasser

AIDS RIDES have been crisscrossing the country annually for the past five years to raise millions of dollars in support for AIDS research, prevention, and awareness. Riders from all walks of life cover routes of 250-600 miles from cities such as Boston to New York, Raleigh to Washington, and San Francisco to Los Angeles, to name but a few of the routes.

At least three, and probably more, of the thousands of AIDS RIDERS this year were Interior employees: **James R. Dahlgren**, National Park Service, Presidio Unit; **Jay Douglas**, of the Bureau of Land Management, and **Chris Thomson**, of the Secretary's Office of Indian Water Rights Settlement.

"The ride was one of the most incredible events of my life," said Dahlgren. "I can't say that it changes my life, but it certainly affected it deeply. True, it was physically grueling, but the emotional impact was felt even more than the physical one. Every day of the ride I was moved to tears."

Dahlgren, a 29-year-old public safety dispatcher for the Golden Gate National Recreation Area in San Francisco, California, rode the 576 miles, with route changes, from San Francisco to Los Angeles with 2,600 other riders. More than 600 persons accompanied the riders as members of their support crews. All riders must raise at least \$2,500 in order to ride. James's total was \$3,300.

"It was continually reinforced on us that this was not a race," Dahlgren explained. "It was a ride. It was not about being the first into camp; it was about making sure that everyone made it into camp. We were there to support each other, to help each person try his or her best and make it as far as he or she could ride."

Many riders were pushed to their limits, according to Dahlgren, "We were emotionally supported throughout the ride by local townspeople as well as by other riders. People cheered us on through every town that we passed—churches set up pit stops, a group of girl scouts made us paper flowers, coffee shops gave us free coffee and use of their indoor plumbing!," he said. "Some riders pedaled up and down the larger hills several times to cheer other riders on. Every day I stopped to help at least one person change a flat tire or perform some other bike repair. I never made it into camp early, but I met a lot of people and made a few friends."

Chris Thomson participated in the AIDS RIDE from Raleigh to Washington, D.C. and also found it a moving experience. "For just one moment, imagine riding a bicycle 350 miles," he said. "Imagine mounting your bike just as the sun rises, passing through lush fields of sprouting corn, waving to children playing in their yards, sweating



At left, Jim Dahlgren marks a milestone on his AIDS Ride from San Francisco to Los Angeles. Below, Chris Thomson, left, and Jay Douglas, celebrate the finish of their AIDS Ride from Raleigh, North Carolina, to Washington, D.C. The riders raised thousands of dollars for AIDS research and awareness programs.

profusely as the searing sun bears down, and struggling merely to see through a torrent of rain. Imagine riding abreast of 1,500 others, all facing their own personal challenges. Imagine the triumph of being greeted by thousands as you ride home. Then, imagine those for whom you ride, the friends, family, and significant others who can't face such an experience, such a challenge, because of a disease called AIDS."



Chris had to raise a minimum of \$1,800 to participate in the ride. He raised more than \$4,500. The 32-year old, who is a special assistant to the Secretary, has been with the Department for four and a half years. He was joined on this ride by Jay Douglas, a minerals leasing specialist with the Bureau of Land Management's Washington Office of Fluid Minerals. Jay, who has worked with Interior for 25 years, raised \$2,200 from friends and colleagues for his part in the Raleigh to Washington Ride.

"My goal in doing the ride was to try to help some people who physically couldn't help themselves," said Jay. "Although my goal was to help, I feel like I got a lot more out of it than I put in, despite the conditions. I feel privileged to have been able to be part of this group. Everyone on the ride came together, as if old friends, to work for a common cause. We felt like a moving army on a mission. Of course, many of the riders had been personally affected by AIDS, either themselves, friends, or family. However, I was especially moved by the number of riders who had not been directly affected but wanted to do the ride 'just to help out.'"

If there are other Interior employees who participated in AIDS RIDES, please contact: **Jim Gasser** at (202) 219-7727. Employee contributions to charitable organizations should be acknowledged as often as possible.

INTERNS PROMOTE INDIAN ARTS AND CRAFTS

Jennifer Macomber and Katherine Wright

We recently completed an internship with the Indian Arts and Crafts Board as curatorial assistants, working with the board's contemporary arts and crafts collection to make it more accessible to the public. It was not only a hands-on assignment that provided opportunities for creative exhibit work but also a significant learning experience with Native American arts and crafts.

For the first time in its 64-year history, the board tapped into the nationwide internship program through the National Park Service and the National Council for Preservation Education at Cornell University with the help of the Interior Museum Program.

The board, an agency of the Department, promotes economic development for Native American artists and craftspeople, sustaining culturally important arts and crafts skills, and carries out the Indian Arts and Crafts Act of 1990—a truth-in-marketing law. The board conducts much of its activities through the headquarters office at the Main Interior Building in Washington, D.C. and at its three regional museums: the Southern Plains Indian Museum in Anadarko, Oklahoma; the Sioux Indian Museum in Rapid City, South Dakota; and the Museum of the Plains Indian in Browning, Montana.

The board uses its collections of contemporary American Indian and Alaska Native arts and crafts to help American Indian and Alaska Native artists and craftspeople promote, develop, and market their work. The headquarters' collection provides the board ready access to a pool of objects that are loaned to promotional and educational exhibitions and presentations. It also is a core of masterpieces from all geographical regions of the country, exemplifying varied styles of work both to document artistic work and provide later generations a context for their work.

Our projects included learning and using the automated catalog database SNAP! for Windows, and responding to public inquiries by searching the database. We also helped to arrange for professional conservation of objects needing treatment; took inventory; cleaned and assessed objects; monitored environmental conditions for objects; archived photo transparencies and 35mm slides; and managed object documentation.



From left, Katherine Wright and Jennifer Macomber were full-time students and received stipends plus credit for the semester they worked at Interior for the Indian Arts and Crafts Board. Jennifer, who is from Reston, Virginia, graduated from Mary Washington College in May with a BA degree in historic preservation. Katherine, from Scranton, Pennsylvania, received her MA degree in museum studies from George Washington University in May. They are continuing their internships with the Department while searching for permanent positions in the museum field. Katherine returned to the Indian Arts and Crafts Board to work with its headquarters' collection. Jennifer entered a new internship in the Interior Museum Program, Office of Acquisition and Property Management. Photo by Tami Heilemann, ISC

Creating an exhibit on musical instruments, entitled *Sounds of the People*, was the most challenging and rewarding project. We did all the planning and were given a lot of freedom in determining its focus and design. After searching the collection database, we selected objects to display, conducted background research on them, wrote the text and object labels, selected photographs from the board's archives, and with the help of the Interior Service Center Graphics Department, came up with a design layout.

The layout including a mock-up of the exhibit cases with the objects, text panel, photos, and labels placed in their appropriate position. We also selected mounts and display material for the objects and developed custom mounts for those requiring special attention. The exhibit was installed in August in the hall exhibit cases next to the board's office, room 4004, Main Interior Building. It focuses on contemporary Native American musical instruments, including drums and rattles that are most commonly used in ceremonies and dances, plus images of people playing them.

Overall, we had a great internship experience. We learned many valuable skills that we will carry with us in our future endeavors. This project allowed us to experience every step of the exhibit production process from curator to designer, to researcher, to editor. We have always been interested in exhibit design, and now have first-hand experience doing an exhibit from start to finish. It's a wonderful feeling to see your name on a finished product that you put all your hard work into.

New Interior Charge Cards on Their Way

In just a few weeks, Department employees will have new government charge cards—cards specifically designed to give greater flexibility and control to Interior's cardholders and program coordinators.

Issued by NationsBank, the new integrated MasterCard will combine purchase, travel, and fleet vehicle functions into one convenient card. Training materials are being distributed in October and November, and cards will be mailed around November 11. All Interior cards should be activated and ready to use starting November 30.

As the first federal agency to adopt a fully integrated card program, Interior leads the way in reaching the Administration's goals of streamlining, simplifying, and outsourcing routine transaction processing. NationsBank, a leader in electronic commerce solutions, and MasterCard, a premier card organization, have joined forces to provide the Department with a powerful, efficient, and effective card program. Through MasterCard, cardholders will enjoy acceptance at more than 14 million merchant locations worldwide. Interior travelers will have cash access at more than 340,000 ATM locations displaying the MasterCard symbol.

One of the new and powerful features of the card program is EAGLS, the Electronic Account Government Ledger System. This Internet-based program gives Interior users convenient access to card program information 24 hours a day, as well as the ability to set up new accounts, make changes to accounts, retrieve statements, and order reports online.

Program coordinators and reviewing officials will receive EAGLS training during October and November at regional training sites, and cardholders will receive an EAGLS users guide. NationsBank has set up a Government Card Services Unit to help support

the program. Interior employees will be able to get assistance 24 hours a day, every day of the year, by dialing 1-800-472-1424.

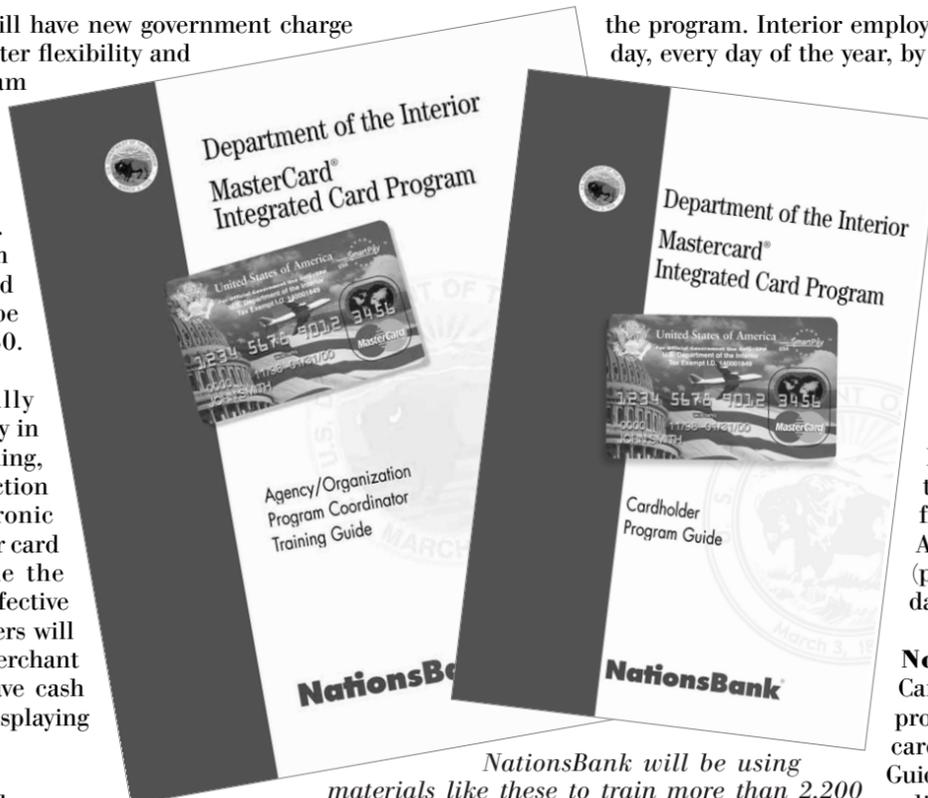
The Department's Charge Card Implementation Team is working diligently to make the card program conversion easy and hassle-free for all Interior employees. Here's a look at key events and answers to some frequently-asked questions:

November 6-11: New cards and Card Receipt Verification letters will be sent directly to cardholders in separate mailings. Each cardholder will be asked to call NationsBank to confirm receipt and activate their card by providing the personalized code from the verification letter. Cardholders with ATM access for travel will receive a PIN (personal identification number) about five days after their card.

November 16-20: A Program Guide for Cardholders, containing comprehensive card program information, will be mailed to each cardholder. In addition, a complete EAGLS Users Guide, and a wallet reference card with Interior policy reminders and NationsBank help line numbers will be included in the mailing.

November 15-30: EAGLS users will receive their passwords and user-id names in a separate mailing.

November 29: Changeover! All American Express, VISA, and Wright Express cards will expire at 11:59 p.m. (EST), regardless of the expiration date shown on the card. Each activated NationsBank MasterCard becomes ready to use at 12 a.m. (EST), and is the only card that can be used from that point forward.



NationsBank will be using materials like these to train more than 2,200 Charge Card Coordinators and Reviewing Officials at classes in 18 cities during October and November. In addition, a program guide and EAGLS orientation materials will be mailed to all cardholders.

Questions and Answers

Q: What should I do if I am traveling on business on November 30?

A: If possible, it would be good to avoid being in travel status on November 29 and 30. However, these tips should help you avoid difficulty if you must travel during the changeover.

Use the American Express card to:

Make airline or other transportation, reservations and pick up tickets before November 29, even if the travel is after November 29.

Reserve a rental car for pickup before November 29, even if the car will be turned in after November 29.

Reserve a hotel room for occupancy before November 29, even if you check out after November 29.

Guarantee late arrival before November 29, even if the room reservation is for after November 29.

Use the new NationsBank MasterCard to:

Pay for rental cars turned in after November 29, even if they were reserved and picked up using the American Express card.

Pay for hotel rooms vacated after November 29, even if you checked in before that date using the American Express card.

Conduct transactions that take place entirely after November 29.

If you make airline or other transportation reservations before November 29 for travel after November 29, card selection should be discussed with the airline or travel agent.

Q: If I already have an American Express, IMPAC VISA, or Wright Express card, how do I get a new NationsBank MasterCard?

A: Current cardholders will be enrolled in the new program based on information provided by the old card providers, and should receive a new card automatically. Cardholders with delinquent travel accounts may not receive new cards; persons in this situation should contact their Bureau/Office Charge Card Coordinator for further guidance.

Q: What should I do if I don't receive a card?

A: Cards should arrive by November 15. If you were expecting one, and it has not arrived, contact your Bureau/Office Charge Card Coordinator for assistance.

Q: Am I personally responsible for purchases made with my NationsBank MasterCard?

A: Yes and no. Some travel-related expenses will be billed personally, while travel transportation, rental cars, purchases of goods and services and fleet-related transactions will be centrally billed to the government. Merchant codes will determine which category a transaction falls into. All transactions will appear on the cardholder's statement under the relevant business line heading—travel, purchase or fleet. The only amount due from the cardholder will be the total of individually-billed (i.e., travel) items.

Q: Is there a web site that has more information?

A: Yes. The address is: <http://www.doi.gov/pam/chargefaqs.htm>

Q: What training is available?

A: NationsBank will be training more than 2,200 Charge Card Coordinators and Reviewing Officials at classes being held in 18 cities during October and November. In addition, a program guide and EAGLS orientation materials will be mailed to all cardholders.

Q: What do I do with my old cards?

A: Destroy them on November 30. We recommend that the signature be rendered illegible, and then the American Express, IMPAC VISA, and Wright Express cards should be cut horizontally through the account number and discarded.

Q: Can I use my NationsBank MasterCard for gas for my government vehicle?

A: Yes and no. If your vehicle has a Department of Interior tag, use either your own NationsBank MasterCard or the card assigned to the vehicle. If your vehicle has a GSA 'G' tag, use the Citibank Voyager card issued to the vehicle by GSA. In both cases, follow the prompts you receive at the pump to complete your transaction.

