

U.S. Geological Survey



Gordon P. Eaton, Director
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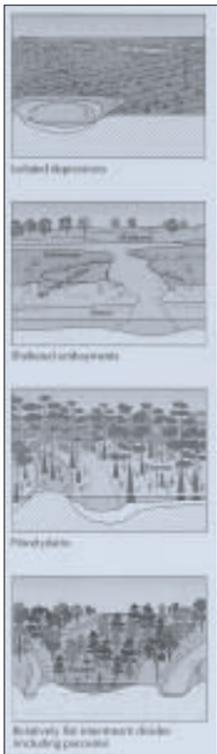
Interagency Effort Inventories National Wetlands Resources

by Fretwell

National Water Summary on Wetland Resources, a state-by-state overview of wetland resources in the United States, was recently released by the USGS. The attractive, full-color book describes the types and distribution of wetlands, trends of wetland losses and gains, and conservation efforts in each state.

The book offers a spectrum of articles discussing wetlands from many different perspectives and documenting the values of wetlands not only to wildlife but also to society in terms of flood control and water quality improvement. It provides information on history, legislation, habitat, hydrology, research, assessment, mapping, restoration, and recovery.

Wetlands are a wide essential habitat for many species of wildlife, such as the snowy egret, roseate spoonbill, and wading birds. Wetlands also provide critical positions of wetlands relative to other topographic features. At far right is a simplified diagram of the nitrogen cycle that enables wetlands to clean polluted water.



The book is a cooperative effort of scientists from federal and state agencies and other organizations, including the U.S. Fish and Wildlife Service, the former National Biological Service (now the Biological Resources Division of the USGS), the U.S. Environmental Protection Agency, and the U.S. Army Corps of Engineers.

Its publication concludes a series of eighth volumes begun in 1983 to document national water resources. Earlier summaries addressed hydrologic events and issues, selected water-quality trends and ground water resources, surface water resources, ground water quality, water supply and use, floods and droughts, and stream water quality.

A Tour of America's Wetlands

There are many types of U. S. wetlands, known by several familiar names, including swamp, marsh, bog, playa, tidal flat, prairie pothole, and pond. Lesser known and localized names are cienega, pocosin, muskeg, wet pine flatwoods, and willow carrs. They are distributed unevenly throughout the United States and occur in widely diverse settings ranging from coastal margins to high mountain valleys.

Wetlands are among the most productive habitats in the world. About one-third of North American bird species use wetlands for food, shelter, or breeding and half of the 188 animals that are federally-designated as endangered or threatened depend on wetlands.

When they are associated with lakes and streams, wetlands store floodwaters by spreading the water out over a large area. This temporary storage decreases runoff velocity, reduces flood peaks, and distributes stormflows over longer time periods, causing flow in tributaries and main channels to peak at different times.

Wetlands can maintain good quality water and improve degraded water. The ability of wetlands to filter and transform nutrients and other constituents has resulted in the construction and use of artificial wetlands to treat wastewater and acid mine drainage.

Watersheds with more wetlands tend to have water with lower concentrations of chloride, lead, inorganic nitrogen, suspended solids, and total and dissolved phosphorus than watersheds with fewer wetlands. Wetlands are a major sink (where material is trapped and held) for heavy metals and sulfur, which combines with metals to form relatively insoluble compounds.

Of the original 221 million acres of wetlands in the conterminous United States, 103 million acres remain today. Although the rate of wetland conversions has slowed in recent years, wetland losses continue to outdistance gains. Wetland alterations have changed the migratory patterns of birds, the local climate, and the composition of plant and animal populations.

States are becoming more active in wetland protection, adopting programs to protect wetlands beyond those enacted by the federal government. Wetland restoration and creation, which result from mitigation projects, help maintain the benefits of wetlands and accommodate the human need for development.



Alaska Volcano Observatory staff set up equipment for a system that tracks volcanic ash clouds and provides warnings to airline pilots flying the North Pacific route.

Alaska Observatory Honored For Alert System

Karen Wood

Employees of the Alaska Volcano Observatory developed a system to warn airline pilots of ash clouds from erupting volcanoes, earning the team one of Vice President Al Gore's Hammer Awards, a special recognition for contributions in support of the President's National Performance Review Principles.

The award was presented by Deborah Williams, special assistant to the Secretary of the Interior for Alaska, on October 22 in Anchorage. It is given for efforts that demonstrate the principles of putting customers first, cutting red tape, empowering employees, and getting back to basics.

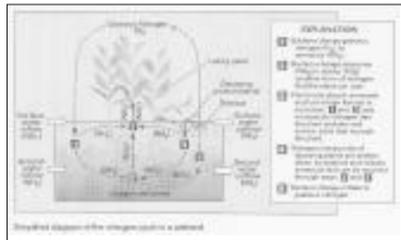
Congratulatory statements were also made by the Chancellor of the University of Alaska Fairbanks, by representatives of Alaska Senators Ted Stevens and Frank Murkowski, and by the Governor of Alaska.

Observatory employees were honored for playing a key role in implementing an effective mitigation strategy to reduce human and economic losses from aviation hazards due to volcanic ash. These employees monitor Alaskan volcanoes and provide near real-time eruption warnings and the prognosis of likely activity to the National Weather Service, which uses satellite imagery to help identify and track volcanic ash clouds.

The Federal Aviation Administration uses the information from the Observatory and National Weather Service to alert pilots and air traffic controllers of volcanic activity, so planes can be rerouted safely and efficiently around the ash clouds.

In the past 15 years, about 80 jet aircraft are known to have entered volcanic-ash clouds, putting thousands of passengers at risk. Although no aircraft have been lost, there have been several near misses, as intake of volcanic ash caused jet engines to stall temporarily. The busy air routes of the northern Pacific are especially vulnerable to such hazards, due to the 100 frequently active volcanoes in Alaska and the Russian Far East.

The Alaska Volcano Observatory is a cooperative effort of the USGS, the University of Alaska Fairbanks Geophysical Institute, and the Alaska Division of Geological and Geophysical Surveys.



For more information visit <http://hzo.usgs.gov/Lookup/get?wsp2425/>

Tracking Grizzlies in the Yellowstone Ecosystem

Gail Keirn

Grizzly bears once roamed over most of the western United States from the high plains to the Pacific coast. However, between 1850 and 1920, grizzly bears were eliminated from 95 percent of their original range through hunting.

Because of this dramatic decline, grizzly bears in the contiguous United States were listed as a threatened species under the Endangered Species Act in 1975. Today, grizzly bears persist in five areas in the lower forty-eight states: the Northern Continental Divide, Greater Yellowstone, Cabinet-Yaak, Selkirk, and North Cascade ecosystems.

In 1973, the Interagency Grizzly Bear Study Team was formed to assist with the management and recovery of the grizzly bear. The team, whose members come from USGS, NPS, BLM, FWS, the Forest Service, and the States of Idaho, Montana, and Wyoming, has been conducting research on grizzly bears in the Greater Yellowstone Ecosystem for more than 15 years.

The results of their studies are providing valuable information to resource managers for the immediate and long-term management of grizzly bears in the Yellowstone area.

As part of the team, scientists from the USGS Biological Resources Division's Midcontinent Ecological Science Center are working to gain a better understanding of the ecology of grizzly bears. To do this, individual bears are captured and fitted with radio transmitter collars and marked with ear tags and tattoos.

The collared bears are monitored by weekly aerial surveys to provide data on movements, home range, habitat use, and population parameters. After these locations are pinpointed, ground crews investigate the areas to determine food habits and habitat use.

The information gained from these monitoring activities is being used to develop a Geographic Information System-based cumulative effects model. The model will aid scientists and resource managers in predicting the impacts of human

Grizzly Bear Facts

Grizzlies are relatively long-lived, some surviving up to 40 years in zoos. The oldest grizzly captured in the Greater Yellowstone Ecosystem lived to be 28.

Adult male grizzlies normally weigh 400-600 pounds, but have reached close to 800 pounds. Adult females weigh 250-350 pounds.

Adults stand 3.5-4.5 feet at the hump when on all fours and may rear up on their hind legs to a height of eight feet.

Grizzlies are omnivores, eating both plants and animals including fish, ground squirrels, ungulates, carrion, roots, fungi, tubers, berries, and nuts.

Scientists estimate that there were a minimum of 245 grizzly bears in the Greater Yellowstone Ecosystem during the 1990-1994 period.



Reproductive rates and population trends are determined by monitoring individual female grizzlies over several years. At top left a male grizzly surveys his habitat, while above right a mother is on the move with her cubs. Until 1975, grizzly bears were hunted extensively throughout the lower forty-eight states. Today, only five remnant populations remain in locales indicated on the map at top right. These are found in the Northern Continental Divide (NCDE), Greater Yellowstone (GYE), Cabinet-Yaak (CYE), Selkirk (SE), and North Cascade (NCE) ecosystems.

activities and land use practices on grizzly bear habitat.

Center scientists and other members of the Interagency Team have learned a great deal about the population trends and habitat needs of the grizzly bear in the Greater Yellowstone Ecosystem, and data show the bear population is increasing. Unfortunately, human impacts on bears and bear

habitat are the biggest threats to the species' recovery.

Reducing human-bear conflicts, primarily by managing levels of human activity in areas best-suited for grizzly bear, remains one of the primary concerns of resources managers working to recover the species.

USGS Ohio Team Wins Lake Erie Protection Grant

Ohio Governor George V. Voinovich presented Donna Francy, Water Quality Specialist in the USGS Ohio office, with a 1996 Lake Erie Protection Fund Grant during the Fifth Annual Ohio Lake Erie Conference.

Francy is project chief of a 3-year study of bacteria in nearshore sediments of public bathing beaches in Cuyahoga County, Ohio, in the Cleveland area. When bacteria stored in the lake sediments are resuspended in the lake water, they may impair the quality of water for swimming and other recreational uses.

Francy and her team are studying when, how, and why this occurs by analyzing the distribution and concentrations of fecal-indicator bacteria in water and lake-bottom sediments throughout the recreational season, the effects of physical disturbances on lake-bottom sediments, and other related factors.

The Lake Erie Protection Fund Grants are awarded by the Ohio Lake Erie Commission and are intended to assist the state of Ohio in protecting and enhancing Lake Erie through research and monitoring studies and educational programs. The commission consists of the directors of the Ohio Environmental Protection Agency and the Departments of Natural Resources, Agriculture, Health, Transportation, and Development.

Currently the Lake Erie Protection Fund is supported by the Great Lakes Protection Fund, Ohio's Lake Erie license plate program, and donations from individuals, organizations, and corporations.



Above, Donna Francy, center, receives the Lake Erie Protection Fund grant from Donald Schregardus, Director of Ohio Environmental Protection Agency, left, and Ohio Governor George Voinovich. Below, a USGS field crew collects sediment samples.



The Lake Erie Conference in late September was the centerpiece of Ohio's Coastweeks '96—A Celebration of Lake Erie. Coastweeks is a national program designed to increase citizens' awareness of the importance and role of the nation's waters and coastlines.

The Avid Media Composer 4000 (above), performs off-line (to 2-channel special effects generator and digital D2 recorder that simultaneously plays back and records video signals.

Mountains, Plains, and Plateaus

The complexity and variety of our nation's topography are shown on the popular map "Landforms of the Conterminous United States," which the USGS recently reprinted. This computer-generated relief map shows landforms from the Appalachian ridges in the East to the San Andreas fault in the West, even those as small as one mile.

The map, which looks like a black-and-white aerial photograph, was produced by computer manipulation of elevation data. It is accompanied by a pamphlet explaining how image processing and computer graphics have automated the art of landform portrayal. The pamphlet identifies topographic features, geographic regions, and state boundaries of the United States.

"Landforms of the Conterminous United States-A Digital Shaded Relief Portrayal" (I-2206) is available from USGS Branch of Information Services, Box 25286, Denver, CO, 80225, for \$4 plus \$3.50 handling per order. Fax credit card orders to (303) 202-4693.

U.S. Geological Survey (Continued)

Geographic Data Committee Honored

hored for their vision and efforts in creating ational, readily accessible source of accurate spatial data, the 14 federal agencies represented on the Federal Geographic Data mmittee received **Vice President Al Gore's** mmer Award at a recent ceremony held at Interior Department.

e award is the Vice- sident's special gnition for tributions in support the President's National 'ormance Review niples for putting stomers first, cutting l tape, empowering loyees, and getting k to basics. The honor gnizes new standards excellence achieved by ms helping to reinvent 'ernment.

ecretary **Babbitt**, who sent the award, cifically recognized the mmittee members for : progress they've made an initiative that has involved hundreds of licated federal employees working peratively with their counterparts at the e and local level, in academia, and in the spatial technology industry. Better rdination to avoid costly duplication and the



Secretary Babbitt presents the Hammer Award to representatives of the Geological Data Committee during a recent ceremony at the Main Interior Building. Photo by Rosa Wilson, NPS

establishment of common standards, has resulted in significant time and cost savings.

Vice President Gore called for the creation of a National Spatial Data Infrastructure in the report of the National Performance Review. Through an Executive Order in April 1994, the Committee was charged with leading federal and state agencies and other organizations that

annually spend billions of dollars producing geospatial data.

Members of the Committee include the U.S. Departments of Agriculture, Commerce, Defense, Energy, Housing and Urban Development, Interior, State and Transportation, the Environmental Protection Agency, Federal Emergency Management Agency,

Library of Congress, National Aeronautics and Space Administration, National Archives and Records Administration and the Tennessee Valley Authority. USGS provides staff support to the Committee.

Powell Awards Recognize Public Contributions

The John Wesley Powell awards of the USGS, named in honor of the second USGS Director, are presented each year to individuals or organizations who have made significant contributions to achieving the USGS mission. Three Powell awards were presented recently to people whose actions have significantly advanced USGS programs.

Jack Dangermond of Environmental Systems Research Institute, Redland, California, received the Powell award for achievement in industry. As a worldwide leader in developing and distributing geographic information systems, his work has transformed the way USGS data can be analyzed and presented to customers.

W. Jacquelyne Kious, a private citizen and dedicated USGS volunteer, was honored for the thousands of hours she has given over the past five years as a co-author, with USGS volcanologist **Robert Tilling**, of the new, informative, and colorful general-interest publication *This Dynamic Earth: The Story of Plate Tectonics*.

Nancy L. Parke's personal and professional efforts, especially as Government Affairs Director of the American Congress on Surveying and Mapping, have supported the surveying and mapping community throughout the United States, including the USGS mapping program. Her vigorous and untiring efforts benefited the USGS and its workforce without compromising her unquestioned professional credibility.



Dangermond



Kious



Parke

Science Education Pact for Native Americans

USGS has joined with the Bureau of Indian Affairs to enhance science education for American Indian students and their teachers. **Patricia Beneke**, assistant secretary for Water and Science, and **Ada Deer**, assistant secretary for Indian Affairs, announced the joint effort at the 27th annual convention of the National Indian Education Association in Rapid City, South Dakota, on October 15. Nearly 3,000 Indian educators attended the meeting.

The USGS sponsored a booth at the convention to display educational resources available from the agency, such as teacher packets, booklets, and resource lists, and provided information on accessing the USGS Homepage on the World Wide Web.

The agreement will 1) establish liaisons to serve as points of contact in states with BIA Office of Indian Education Programs; 2) identify and distributing educational resources offered by the USGS; 3) Seek comment from teachers on how to improve these resources; 4) foster mentor programs for students and science teachers; and 5) develop opportunities for USGS employees to highlight career options in science and to create hands-on science and environmental technology experiences

Following the convention, Beneke visited the USGS District Office in Rapid City and then traveled to the Pine Ridge Reservation, accompanied by USGS District staff members **Dan Driscoll** and **Allen Heakin**. Both assistant secretaries addressed a large group of Oglala Sioux tribal government officials, educators, parents, and students. Driscoll and Heakin described the educational information and materials available and presented educators with copies of posters and teachers packets.

OSM



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

Grants To Restore Brier Creek...

OSM has awarded a \$300,000 grant to assist in the restoration of Brier Creek in Mullen County, Kentucky. The creek is polluted by acid mine drainage. Acting Director Henry announced the award on October 23.

The money will be used by the Kentucky Department for Surface Mining Reclamation and Enforcement under the terms of the Appalachian Clean Streams Initiative. The state can use the funds to apply for matching grants from the U.S. Environmental Protection Agency, the Army Corps of Engineers, and other agencies cooperating in the clean effort.

Congress appropriated \$4 million from the Abandoned Mine Land Reclamation Fund for more than a dozen Appalachian Clean Streams Initiative projects, including Brier Creek. The initiative has made a substantial start reversing the toll of damage to streams and rivers.

...And Agreements with Partners

Acting Director Henry attended a signing ceremony for a Statement of Mutual Intent among OSM, the Corps of Engineers, and the Environmental Protection Agency in Chattanooga, Tennessee. The agreement, signed in October, will help federal and state wildlife agencies combat the effects of acid mine drainage in the rivers and streams.

The parties hope the agreement will create a solid foundation, ensuring cooperation for the Appalachian Clean Streams Initiative. The Corps of Engineers has been given \$25 million to assist in carrying out its Clean Streams mission. Jim Tait, ARCC, handled preparations for the event.

Joan Shaw Retires

Joan Shaw retired from federal service on November 1, completing an exemplary 32 years of government service. She was a Program Specialist with OSM's Office of Communications in Washington, D.C. Headquarters.

Shaw was detailed to OSM in 1978 as a Survey Statistician and wore many hats during her service. She received a Congressional Fellowship from October 1992 until 1993 and also served as vice-president of the Washington, D.C. chapter of the Women In Mining.

On November 14, her colleagues in the Office of Communications presented her a tribute. Her co-workers fondly recalled Shaw's extraordinary courtesy, integrity, conscientiousness, professionalism, common sense, and willingness to help. And they vowed not to forget her.



OSM Tours Mine Site

OSM employees from the Applicant-Violator System Office, Lexington Field Office, toured the Starfire Mine in Perry County, Kentucky, with 11 other Interior employees. In from row, from left, are Emma Dee, Amy Willoughby, and Kim Loesch, all from the Lexington Field Office. In the Applicant-Violator System Office. In the



Deputy Secretary John Garamendi presents the Hammer Award to the Appalachian Clean Streams Team.



Students from Chartiers Valley High School received recognition for their participation in the Appalachian Clean Streams Initiative, they each received a Hammer pin from Acting Director Henry.

Hammer Award For Clean Streams Team

Deputy Secretary **John Garamendi** presented Vice President Al Gore's Hammer Award to OSM's Appalachian Clean Streams Team in a ceremony at the Scrubgrass Run Stream reclamation site near Pittsburgh, Pennsylvania.

The Clean Streams Team, composed of 16 OSM employees and three employees from the U.S. Environmental Protection Agency, was honored for reinventing the process OSM and other federal agencies use to clean-up more than 7,000 miles of streams in nine Appalachian states which are polluted by acid mine drainage from abandoned mines, according to Garamendi.

Students from **Chartiers Valley High School**, partners in the Appalachian Clean Streams Initiative, were recognized for spearheading the clean-up effort at Scrubgrass Run. Secretary Babbitt visited the Scrubgrass Run site last spring, describing it a national model for the Appalachian Clean Streams Initiative.

Appalachian Artistic Impressions

Kathrine L. Henry, OSM's acting director, helped kick-off an OSM-sponsored art exhibit at Interior's museum. The exhibit of work by six faculty members from the Appalachian State University art department, which opened in November, will run through January. Its goal is to heighten awareness



Artists Marianne Stevens-Suggs, left, and Judy Humphrey, center, receive a plaque for the Appalachian State University art exhibit from OSM Acting Director, Kathrine Henry. Below, Interior Chief of Staff Anne Shields, left, and Museum Curator, Debra Berke, right, make welcoming remarks.



back row, standing from left, are Carol Montgomery, Shirley Hardin, Susan Napier, Jama Randolph, and Linda Rainey, all from the Lexington Field Office. In the Applicant-Violator System Office. In the

The work of the Clean Streams team has resulted in an unprecedented degree of cooperation by federal, state, and local government agencies, as well as non-government partners, making this a unique initiative to reclaim the environment in the most cost-effective manner, with the best on-the-ground results for the American people, Garamendi said.

Acting Director Henry announced at the ceremony that OSM will provide an additional \$15,000 to assist with the Scrubgrass Run clean-up project. Henry also said that Congress has appropriated \$4 million in fiscal year 1997 funding for Appalachian Clean Streams Initiative. "This will let us accelerate our work aimed at making Appalachian streams and rivers clean again after so many years of pollution from acid mine drainage," Henry said.

Thanks to all the public and private cooperation and support the program has received over the past year, the Appalachian Clean Streams Initiative has the potential to be one of the federal government's most successful activities in 1997 and beyond, Henry said.

of the cleanup of acid mine drainage from the abandoned coal mines. Also attending the kick-off were Chief of Staff Anne Shields, of the Secretary's Office, and Ed Kay, OSM's deputy director.

The exhibit's message was conveyed in a variety of media. A piece by Judy Humphrey, entitled *The Polluted Water Garden*, was a collage that cleverly incorporated pictures and debris such as cigarette butts and hyperdermic needles, showing that what appears clean on the surface may be dangerously contaminated beneath.

In *The Life Boat Apron*, Marianne Stevens-Suggs, weaves various shades of blue string unto branches, making her statement about water. *Half Done* by Gail Weitz is a striking table, whose legs are of a woman. On the table's surface is a glass of water.

The second part of the exhibit opened, which opened in December, features oil paintings by another Appalachian State University artist, *Joan Smyly-Durden*. Durden visited and photographed mine sites, reclamation areas and interviewed people as background for the project. The solo show will remain on display until January 31.

In Memoriam

On September 26, 1996, OSM lost a very dear friend. **James C. Blakenship, Jr.** served as the director of the OSM Charleston, West Virginia, Field Office since 1985. Known to everyone as "Jim" he was a pleasant individual, unassuming and unpretentious, who always had time for his fellow employees. Jim was also known to have a good joke or story to tell, and his amiable personality extended to both the press and the public.

Jim had a very colorful career, and spent a lifetime around coal mining. After serving in the U.S. Army during World War II, he began digging coal, and in 18 years, had worked his way up to mine superintendent. He also served under the U.S. Mine Safety and Health Administration from 1962 to 1979. In May 1968, Jim was responsible for rescuing six nearly-starved miners trapped for 10 days inside a flooded underground mine. He will be greatly missed.

Panning for Gold Takes a Strong Back

ree geologists from the Eastern Minerals m recently visited the Navy Elementary ool in Herndon, Virginia, to teach more than 4 fourth-grade students about rocks and erals at the invitation of teacher **Mrs. Elsie od**.

ring morning and afternoon sessions on ober 24 and 25, **Andrew Grosz**, **Bruce in**, and **Jason Greenwood** from the USGS in ton worked with each class, including one h autistic children. Hands-on gold panning in school's courtyard introduced the children :oncepts in economic geology, mineralogy, eral availability, and physical properties of erals.

sand the students used was specially pared so that it contained plain sand (spar and quartz), ilmenite, zircon, and gold. s students learned that the minerals will sort in the pan according to their relative sities. Many students showed a real talent for ming. Each student was asked to write a brief er explaining what they had learned from the erience. Some excerpts from their letters:

"I really liked panning for gold. I learned ... that gold was so small and that people in California didn't just pick gold out of the ground then announce that they were rich."

"I learned gold sinks to the bottom of the pan."

"I learned that you have to have a strong back, which I don't. I always thought you could just pick up pieces of gold....I never knew that it would be such hard work....there's a slim chance that I might be a geologist..."

"...and now I know why gold is so expensive..."

"What I learned before you become a geologist you have to have good parents and a good back..."

"I have one question. Can you do this at birthday parties?"

"I never knew that glass was made from melted quartz! Do you really have to melt it at 2000 degrees F? Ouch! I'm not even sure that anything can get that hot! Well the sun. I think it is 270,000,000 degrees F or C. Maybe I'll be a geologist. Maybe."



Geologist Bruce Lipin and Navy Elementary School students pan for tiny grains of gold and other heavy minerals.



Bureau of Indian Affairs



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

New Policy Will Speed Up Construction of Indian Schools

anks to a newly developed process that eamlines the planning, design, and construction Indian schools, BIA will be able to complete new rools in half the time or less. The current seven eight years that it takes to build or renovate a ool will now require only three years or less.

le are extremely pleased to announce this major nefit to tribes and Indian students," said **Assistant Secretary Ada Deer**. "The Clinton nistration is committed to improving Indian ucation programs and this fast-track delivery of w Indian schools is a major step toward this goal.

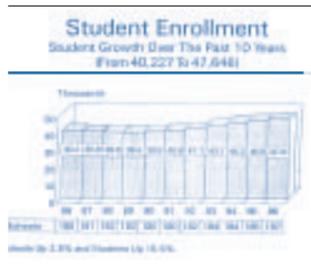
mbers of the team that is carrying out the new ccess include: **Anthony E. Howard**, Contracting d Grants Administration, BIA; **Dr. Kenneth ss**, Office of Indian Education Programs, BIA; **rman Suazo**, Facilities Management and nstruction Center, BIA; **Stanley Thurber**, Office the Secretary; and **Nolando Neswood**, ployees Union Representative.

le now call on Congress to fulfill its ponsibilities by funding the more than \$600 ilion in unmet Indian school construction and air needs," Deer said. "With a rapidly rising rollment of Indian students, we have a critical pportunity to ensure that Indian students have cent learning environments to help them cceed in the 21st Century."

A has selected four new school construction pilot jects. Tribes and schools boards will then be le to decide if they want their proposed schools be a part of the new expedited program. These ot school projects will be selected from the 14 rrently funded proposed school construction jects.

a part of the Clinton Administration's nventing Government program, the new school unning, design, and construction process was veloped by a Reinvention Laboratory Team of BIA d other Interior employees. Copies of a report scribing the new process have been distributed the leaders of tribes that have BIA-funded ools, school principals, and BIA line officers.

r more information and copies of the report, nact **Norman Suazo**, Program Planning and lementation, BIA Facilities Management & nstruction Center, P.O. Box 1248, Albuquerque, I, 87103.



Tribes Tackle Welfare Reform

The goal is to reduce the cost and increase the effectiveness of federally-funded skill training and employment programs in Indian Country. More than 177 federally-recognized tribes representing 18 tribal grantees have joined the demonstration project.

And some already are reporting that job placements have increased, application requirements have shrunk, and \$17 million in federal funding has been shared by participating agencies.

"The program has been a great success and is an example of the Administration's efforts to make government more responsive and flexible," said Assistant Secretary Deer.

The Indian Employment, Training and Related Services Demonstration Act of 1992 is known as the "477 Program" because it was authorized under P. L. 102-477. It responds to the 1994 findings of the General Accounting Office, which identified 154 federal work force development programs which provide similar or overlapping services to the same populations.

The GAO concluded that conflicting eligibility requirements and differences in annual operation cycles hampered the ability of programs to provide participants needed services. Differences in ineligibility criteria created a complex process that confused clients and frustrated administrators.

"The 477 demonstration program changes all that", Deer said. "Instead of operating ten different federal programs, tribal governments now operate just one—commingling all federal funds. Instead of ten separate tribal accounts, tribes have one. Instead of ten reporting requirements with 166 pages due quarterly, tribes now have one annual reporting requirement."

Some tribes initially expressed reservations due to funding transfer delays, or skepticism due to



Assistant Secretary Ada Deer joins Joe Martin, the Head Man Dancer at a November 20 powwow marking American Indian Heritage Month. Martin, a Justice Department solicitor, wore traditional Plains Indian attire to performed a Feather Dance. Story, page 2.

years of frustration, according to Deer. "The same tribes now express their pleasant surprise because the 477 program has made it easier for staff at the tribal government level to do their jobs and to be more successful," Deer said. "The Cook Inlet Tribal Council increased their job placement from 500 the first year to 1,000 in the second year," Deer added.

All federally-recognized tribes are eligible. The program receives formula-funding for employment, training, and related services from the Department of Labor's JTPA and Summer Youth Program, the Department of Health and Human Services' JOBS and Child Care Programs, and BIA's General Assistance, Tribal Work Experience, Adult Education, Adult Vocational Education, Johnson O'Mally, and Direct Employment Programs.

For more information, contact the Office of Economic Development, Division of Job Placement & Training, (202) 219-5270. Bureau of Indian Affairs, MS 1458, MIB, 1849 C Street, NW, Washington, DC, 20240.



Stamps Celebrate Native American Dances

Five traditional Native American dances are celebrated on a U.S. stamp issue now on sale nationwide. The U.S. Postal Service commemorative stamps depicts the Fancy, Hoop, and Traditional Dances, which are performed at powwows by many tribes, and are a twentieth century phenomenon arising from the dances of the Plains and Pueblo Indians.

The stamps also show the Raven Dance, which is performed by Pacific Northwest tribes, and the Butterfly dance, a creation of the Southwest Pueblo Indians. Authenticity and accuracy were stressed during the design of the four-color stamps. Indian dancers perform to assure the continuation of ancient life ways, to honor deities and each other, and to affirm their Indian identities.

"Realizing that all Native American eyes would be upon us, our goal was to maintain the integrity of the dances and represent them as faithfully as possible," said **Keith Birdsong**, the American Indian artist who created the images.

"Every detail, including markings, facial expressions, and dance movements, was approved by a panel of Native American experts," said Birdsong, who is of Cherokee and Creek heritage.

The Postal Service will print 139 million of the stamps, which are printed with black, Cyan, Magenta, and Yellow inks. The first printing was unveiled at Oklahoma City's Red Earth Festival, one of the largest celebrations of Native American culture in the United States.

In addition to **Bert Mackie**, postal governor of the Postal Service, the ceremony was attended by Senator **Enoch Kelly Haney**, a member of the Red Earth Board of Directors; **Ann Simank**, vice-mayor of Oklahoma City; and **Mary Fallin**, lieutenant governor of Oklahoma. Special guests included **Phil Lujan**, president of the Red Earth Board of Directors; **Ken Bonds**, vice-president of the Board; **Don Moses**, district manager for Postal Service; and **Clarence Hopkins**, postmaster of Oklahoma City. Call (800) STAMP24 for purchasing information.

Native American Profile: A Look Out at Life

Curt Gustafson

Gary Paxson's life changed forever in a fiery Oregon forest ten years ago. When a hot log broke loose and pinned the Fort Apache Hotshot, the gravely injured firefighter had to decide whether to live or die.

He chose life. And ten years later, after another life-or-death struggle with his injuries, Paxson made another courageous decision—to contribute. This past summer he returned to work with the Bureau of Indian Affairs as a fire detection specialist trainee to help protect the forests he loves.

Paxson had joined the BIA firefighters immediately after high school, married, had two children, and enjoyed seven productive years. "I sure liked being out there," he recalled.

That life ended on August 6, 1986, when he was dispatched with the Hotshot crew to a blaze in the Klamath National Forest. Near the fireline, he was assigned to help a logger free a pinched saw from a felled, smoldering tree. The logger had been trying to "buck out" the logs, cutting them at angles to get at the fire burning beneath.

Paxson chopped around the saw blade to free it. "The terrain was steep, a bad place to be," he said, "because you never know which way it's going to roll." Suddenly one of the logs broke loose, rammed into Paxson, and steamrolled him down the hill, pinning him against a standing tree.

The arteries in both of his arms had been crushed and he was bleeding badly but fought against going into shock and refused a bandanna his co-workers offered to shield him from his severe wounds. Paxson barked out orders while his crew boss, **Ralph Thomas**, pulled him out the instant the standing tree was felled.

Paxson was carried on a litter for three-quarters of a mile over rough terrain to a clearing where the helicopter could land. At a series of hospitals, he underwent surgery seven times, including the amputation of both arms. He received 18 pints of blood—twice the amount of blood in an adult body.

"I was up and walking around the next day after the surgery," Paxson recalled. But while he was strong and brave enough to quickly regain his physical

health, he wasn't prepared for the emotional devastation his injuries caused.

"I lost my arms, I lost my family, and I turned it over to drinking," he said. For eight years, he went through rounds of drinking, jail, hospitalization, and treatment. But his children, Garret and Garry, who he treasured and wanted to care for again, were always in his thoughts.

"I saw that my kids were going to give up on me," Paxson said. "Then something snapped somewhere. I saw people drinking and suffering out there, and I didn't want to be like that anymore."

He entered a treatment program and joined a vocational rehabilitation project. "I've never seen anyone so dedicated," said **Nancy Field**, his vocational rehabilitation specialist, who works for the U.S. Department of Labor. "His case is one of the most challenging and most rewarding I've had."

"She's one lady who didn't give up on me," Paxson said. After extensive physical therapy, he became so dexterous that he was ready to enter the job market. His love of the forest led him to McKay's Peak Lookout this past summer as a trainee.

"He learned to operate a fire finder and other fire locating equipment, and issue fire warnings and collect and disseminate fire weather information over a two-way radio and telephone," said **Dallas Massey**, forestry information officer for the Fort Apache Agency. Paxson also instructed visitors on fire hazards and fire prevention regulations.

When the fire season ended, Paxson returned to Phoenix to

Gary Paxson learned how to handle fire location equipment at the McKay Peak Lookout, where he plans to be a self-sufficient member of the Fort Apache Agency's fire watch team. Below he is joined by his son, Garret. Photos by Nancy Field, USDOL.



earn his driver's license so that he can drive to work on his own. Next year, after some modifications to the McKay Peak Lookout, Paxson will be self-sufficient at his fire watch station and hopes to live there with his sons, who now are 15 and 11 years old.

"My dreams have come true," Paxson said. "Some believe I should have stayed home and just received my monthly check, but I love to get up in the morning and look forward to going to work. It feels good."

Curt Gustafson is the editor of the Fort Apache Scout, the official newspaper of the White Mountain Apache Tribe. This article was excerpted from the September 27 issue of that newspaper.

Court Upholds Indian Land Law

The United States Supreme Court has upheld the constitutionality of a 60-year old Indian land law that protects Native Americans' rights to self-government.

"The Supreme Court's ruling is a significant victory for all Indian tribal governments," said Assistant Secretary Deer, who had urged the Interior and Justice Departments to defend the law. "The ability of Tribal governments to govern hinges on jurisdiction over land and its use."

In upholding the Indian Reorganization Act, the U.S. Supreme Court voided an earlier ruling of the U.S. Court of Appeals for the Eighth Circuit, instructed that court to void the judgment of the United States District Court, and sent the matter to the Secretary of the Interior for reconsideration of his administrative decision.

In 1990 the Lower Brule Sioux Tribe bought 91 acres of fee land—private non-Indian ownership—to develop an industrial park. The Tribe requested the Secretary of the Interior, under Section 5 of the Indian Reorganization Act, to place the land in trust for their benefit.

Bald Eagles Attract A Crowd

Montana's Canyon Ferry Bald Eagle Viewing Program is well underway this fall with more than 1,000 bald eagles expected to migrate through the area. Each year, the bald eagles stop at Hauser Lake to feast on the kokanee salmon that die after spawning. This popular program includes a hosted viewing area, school tours and a visitor center with excellent exhibits on bald eagle ecology. Nine local, state, private, and federal cooperating organizations take turns hosting the viewing site on holidays and weekends. The BLM serves as the lead agency under an interagency agreement with the Bureau of Reclamation. **Chuck Neal**, BLM Park Ranger, and **Walt Timmerman**, Seasonal Park Ranger, direct the program and, along with over 30 volunteers, enhance the eagle viewing experience for about 13,000 people each fall.