

Cooperative Conservation

“Management of landscapes that will provide for the long-term well-being of both natural populations and human populations requires the cooperative efforts of all who live in and manage that landscape.”

—William L. Halvorson
National Parks and Protected Areas: Their Role in Environmental Protection

Partnerships have become an essential tool for carrying out the mission of the National Park Service. Park managers are increasingly working with neighboring communities, state and federal agencies, corporations, nongovernmental organizations, and universities to deal with a wide range of issues and maximize limited resources. For example, they understand that effectively addressing watershed management and protection, the spread of exotic plants and animals, or the recovery of endangered or declining species involves working cooperatively with myriad partners, from state agencies and private landowners to university researchers and committed volunteers. In addition to tackling resource threats coming from outside park boundaries, managers seek partnerships with other institutions and individuals to realize the unparalleled value of the parks for learning and scientific research. Partnerships also recognize that “two heads are better than one,” and as the articles in this chapter demonstrate, frontline park managers are developing the expertise to build successful long-term relationships that result in tangible benefits to both the parks and their partners. The administration also values the vitality of cooperative efforts for resource protection; in 2003 it launched the Cooperative Conservation Initiative, ushering in a new era for partnerships in the parks. The parks play an essential role in the social and economic fabric of the nation, and partnerships for cooperative conservation are an explicit recognition of this evolving reality.

Effigy Mounds National Monument is located in the Yellow River watershed in northeastern Iowa, where the National Park Service and other government agencies and nongovernmental organizations are cooperating to develop a model in which local leadership is educated and empowered to steward natural resources and sustain a healthy environment.

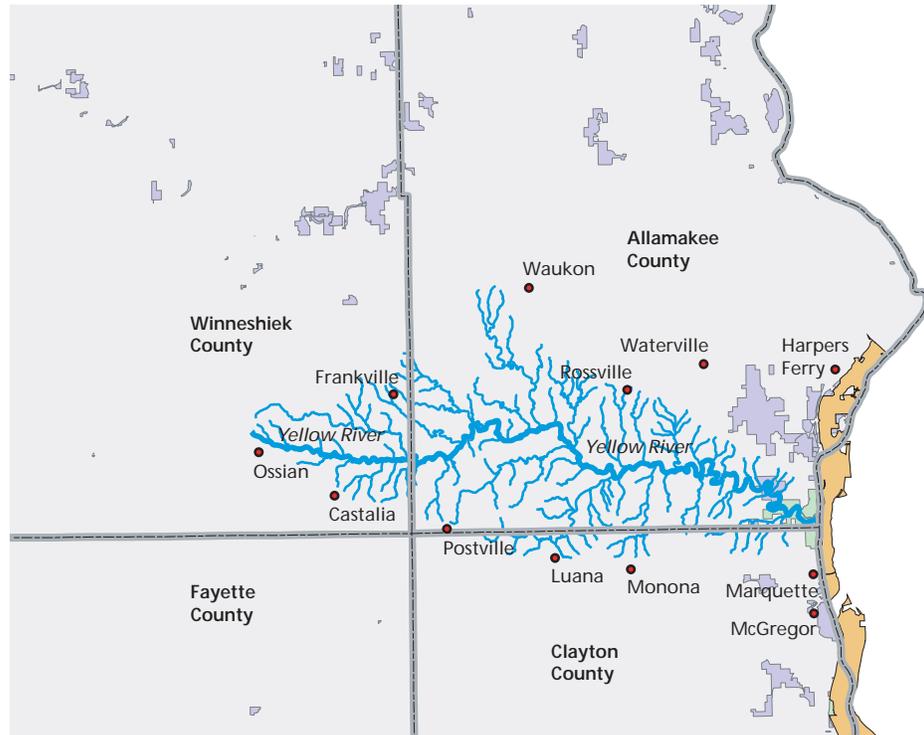


The Yellow River Initiative: A partnership for resource sustainability

By John H. Sowl

YELLOW RIVER WATERSHED

- Upper Mississippi River National Wildlife Refuge
- Effigy Mounds National Monument
- Iowa Department of Natural Resources



THE NATIONAL Park Service's Midwest Region has played an important role in a demonstration project called the Yellow River Initiative, undertaken by the Midwest Natural Resources Group (MNRG), a federal interagency partnership. This initiative is intended to develop methodologies whereby all stakeholders in a watershed cooperate to protect and conserve its natural resources in balance with the ongoing human needs of the area. The Yellow River watershed was selected for this project because of its manageable size and diverse landscape components, and because six federal agencies have a physical or active programmatic presence. The National Park Service has been charged to provide both overall administrative and local coordination of this project through Effigy Mounds National Monument (Iowa).

The Yellow River watershed is located in northeastern Iowa's unglaciated "driftless area." This 154,666-acre (62,640-ha) watershed has diverse topographic and natural resource features, along with a variety of resource-related problems similar to those found throughout the watersheds of most tributary streams feeding into the Upper Mississippi River. Situated within a karst region, approximately 90% of the Yellow River's flow comes from groundwater. The watershed is a

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diverse, mostly agricultural landscape of incised valleys and rolling uplands. Significant natural habitat exists in the watershed, particularly within its lower reaches where Effigy Mounds National Monument is located. Due to the rugged topography and drainage pattern of this portion of the driftless area, small rural communities are situated almost exclusively along the outer fringe of the Yellow River watershed.

Members of the Yellow River Initiative include agencies at the federal, state, county, and conservation district levels as well as non-governmental organizations and individuals. Procedures to accomplish the goals of the initiative will be developed through collaboration among the partners. Participants have accepted the challenge to keep

the end products of this effort “simple, practical, and understandable” for everyone.

The goals of the Yellow River Initiative are:

1. to assess the natural resources within the Yellow River watershed, based on existing information, and determine their extent, distribution, and condition;
2. to identify, in light of the assessment, possible options to promote the long-term sustainability of the watershed’s natural resources; and
3. to develop an Internet-based “toolbox” of technical assistance information, “hotlinks” to appropriate existing resource sites, and contacts to help the public implement these options.

Scientific data and other information are now being gathered from partners, regional universities, and other sources to support watershed resource analysis and the creation of the technical assistance Internet-based “toolbox.” In addition, informal, public open-house meetings have been, and will continue to be, held within the watershed to develop details of the initiative, answer questions, provide opportunities for partnership interactions, and generally encourage public participation in and contributions to the project.

To promote local leadership and ongoing local control of the initiative and its work, a Resource Conservation and Development (RC&D) office within the watershed has been identified as the potential long-term local coordinator after the initiative’s two-year development is completed in early 2005. The National Park Service will continue to provide administrative coordination during the project’s initial

development. The RC&D would then take over coordination, providing information and guidance to assist individuals, landowners, and organizations in promoting voluntary implementation of long-term natural resource stewardship options within the watershed.

“The Yellow River watershed is located in northeastern Iowa’s unglaciated ‘driftless area.’”

At the end of its two-year developmental period, the initiative is expected to result in:

1. development of a methodology that can be applied to other small watersheds;
2. benefits to local residents by providing them with information, including completion of the Internet “toolbox,” so that they feel empowered to be effective stewards; and
3. establishment of voluntary relationships among stakeholders, to promote stewardship of the watershed’s natural resources.

Ultimately, the National Park Service hopes that the Yellow River Initiative will be a practical model for developing local leadership in stewarding a watershed to sustain the health and vitality of its natural resources and its human community. ■

john_sowl@nps.gov

Landscape Ecologist, Midwest Region; Omaha, Nebraska

Web-based communication system eases public review of environmental planning

By Jacob Hoogland

Web-based computer applications have become an essential part of park management. They aid in a variety of important functions, from financial planning and procurement to research permitting and biodiversity inventorying. In addition, nongovernmental organizations and members of the public are making use of Web-based communications (including e-mail) to scrutinize and comment on activities of the National Park Service. Recognizing that these tools could be used to simplify and “automate” the public review of environmental impact statements and other environmental planning documents required by the National Environmental Policy Act and related statutes, the National Park Service initiated a needs assessment in 2000 to determine how best to harness the Internet to meet these obligations. The results of the

assessment were used to develop the Planning, Environment, and Public Comment (PEPC) system.

PEPC is an online collaborative tool designed to support project planning; public comment tracking, analysis, and response; and other public communication efforts. The system was developed in collaboration with park, regional, and other NPS experts working with specialists from Aquilent, a leading provider of Internet solutions for government. The system consists of both internal and external components. The internal system allows NPS employees to track public review milestones, prepare routine documentation and reports online, easily post documents to the Internet, and manage public comments and NPS responses in a paperless environment. The external component of the system

enables the public to determine the status of various environmental planning documents, download copies of these documents, and return comments to the National Park Service.

PEPC is modeled after a system developed by Blue Ridge National Parkway staff. The park initiated the precursor system to integrate facility planning with compliance to avoid delays in funding and construction.

The PEPC system was tested with a group of park users in 2003 and modified to provide additional features. Pilot park testing is scheduled to begin early in 2004, with nationwide use of the system available later in the year. ■

jacob_hoogland@nps.gov

Chief, Environmental Quality Division;
Washington, D.C.

Ocean resources of the National Park System: Out of sight, out of mind, left behind

By Gary E. Davis

AMERICANS EXPECT their National Park System to comprise unimpaired resources and to exhibit values that represent the nation's heritage in superlative natural, historical, and recreational areas. More than 40 ocean parks, however, currently fail to meet these expectations. National parks afford little or no special protection to nature in the ocean, which surprises many citizens. To address this issue in 2003, ocean park superintendents and other park professionals invited staff from other agencies and organizations to draft an "Ocean Park Strategy." They identified several major issues and recommended ways to address them.

The partners included the National Oceanic and Atmospheric Administration, U.S. Geological Survey, U.S. Fish and Wildlife Service, California State Parks Department, American Fisheries Society, Sport Fishing Institute, Sea Web, The Ocean Conservancy, Environmental Defense, National Parks Conservation Association, Wild Coast, Reef Environmental Education Foundation, Student Conservation

"States regulate ocean fishing in most national parks and do not differentiate parks from surrounding waters."

Association, Partners in Parks, and a dozen universities. To find common ground among participants and develop the strategy, the partners held six regional workshops and four topical workshops on, respectively, marine protected-area science, the political realities of ocean conservation, partnerships and public involvement in ocean conservation, and an action plan to improve coastal conservation in the national parks.

Ocean stewardship is complicated by many factors. Human-driven global forces that alter climate and sea level render concepts of *natural* and *unimpaired* difficult to grasp when considering the ocean. Pollution and invasive nonnative species also threaten ocean parks, but the effects of people removing thousands of tons of fish and other sea life from parks every year far exceed those threats. States regulate ocean fishing in most national parks and do not differentiate parks from surrounding waters. Overfishing that has depleted sea life populations throughout U.S. waters also has depleted fish and sea life in the parks. Consequently, parks have lost fishing and other recreational opportunities dependent on living ocean resources. In addition, the ecological effects of overfishing have permeated parks, dramatically altering entire ecosystems. Flattened, disturbance-adapted sea urchin

Lobster traps become lodged in coral reefs at Biscayne National Park, Florida, as a result of storms. No longer active for lobstering, they continue to trap and kill fish. Newly established reserves in parks will serve as recovery areas that allow a variety of fish and other sea life to grow large, become fecund, and help restore depleted populations.





A coral reef without large fish? Populations of snapper and grouper in national parks of the Caribbean Sea and Florida have plummeted over the past couple of decades. Advances in fishing tackle, fish-finding sonar, and the use of global

positioning systems have enabled fishers to target large fish effectively. One of the concerns of the recently drafted Ocean Park Strategy is unsustainable removal of ocean resources by humans.

barrens, algae-covered rocks, and other diminished communities have replaced diverse and productive giant kelp forests, coral reefs, and seagrass meadows in parks.

The four pillars of park stewardship—*Know, Restore, Protect, and Connect*—provide a simple way to organize the Ocean Park Strategy. As for what to know, the National Park Service needs to increase its capacity

“Overfishing that has depleted sea life populations throughout U.S. waters also has depleted fish and sea life in the parks.”

to explore and understand the ocean realms of parks and to revitalize its scientific and public safety diving program. Park stewards need to better understand ocean ecosystems and human roles in them. They need resource inventories, submarine habitat maps, monitoring, and more clearly defined ocean boundaries and jurisdictions. On land the National Park System plays an important role in national conservation strategy and policy, but in the ocean, relationships with other resource management agencies are not as clear. To restore and protect, the strategy proposes a “Restore Impaired Ocean Park Resources” initiative to address critical restoration issues and to improve park protection. Ocean parks need to assess performance of newly established marine recovery

areas in parks, develop joint fishery management plans with states, prevent extirpation of native species, and establish ocean damage assessment teams.

The critical keys to improved ocean conservation in the National Park Service are partnerships with other ocean-related agencies to facilitate cooperation, collaboration, and communication. But doing a better job of connecting people to ocean parks may be the most important task ahead. The strategy recommends that an ocean park task force coordinate these activities. Such a task force would help resolve misconceptions about the need to change traditional ocean conservation and improve communication among ocean park professionals and with the public. It would also engage artists, students, and volunteers in parks, and raise the National Park Service’s awareness about its ocean responsibilities and opportunities. The Natural Resource Challenge addresses these same kinds of stewardship issues for all parks. The Ocean Park Strategy seeks to focus ongoing Natural Resource Challenge efforts on particular common needs of ocean parks to prevent the nation’s ocean heritage from being left behind. ■

gary_davis@nps.gov

Visiting Chief Scientist, Ocean Program; Washington, D.C.

Cooperative Conservation Initiative celebrates remarkable progress in first year

By Lindsay McClelland

THE COOPERATIVE Conservation Initiative (CCI) is a new program that seeks to strengthen citizen participation in conservation through partnership projects with U.S. Department of the Interior agencies. Congress appropriated nearly \$5 million to the National Park Service in FY 2003, the initiative's first year, to restore natural resources and establish or expand habitat for wildlife in national parks. At least 50% of project costs must be contributed by partners, including neighboring landowners, nonprofit organizations, local and state governments, corporations, and many individual volunteers. The National Park Service supported 74 projects with 200 partners in 2003, generating an additional \$8 million to benefit the parks.

Many CCI-funded projects targeted removal of invasive plants and reestablishment of native species. Melaleuca monocultures once infested 186 square miles (482 sq km) of Big Cypress National Preserve, Florida (see article, page 15). Initial treatment of about 14 million stems was recently completed. To keep the trees from recolonizing, the initiative and the State of Florida are funding hand-pulling and herbicide treatment in two large areas of the preserve. Another CCI project involves fighting three noxious weed species that have recently invaded riparian corridors in Lake Mead National Recreation Area, threatening to replace native vegetation and disrupt wildlife habitat. Project partners Clark County, Nevada, and the Southern Nevada Water Authority will provide matching funds to support the treatment of entire drainages to prevent the spread of these weeds to the whole Colorado River corridor.

CCI supported the expansion of a successful project to reestablish a nesting colony of Kemp's ridley sea turtles at Padre Island National Seashore, Texas, site of more than half of this turtle's documented nests in the United States (see related stories, pages 91–93). The grant will fund additional patrols to locate nest sites, and a new facility capable of incubating more eggs and releasing more hatchlings. Key partners include the Texas Parks and Wildlife Department, Shell Oil Company Foundation, Unilever (through the National Fish and Wildlife Foundation and the National Park Foundation), and more than 100 volunteers. CCI funds were also used to enhance turtle nesting habitat at Cumberland Island National Seashore, Georgia, and Hawaii Volcanoes National Park.

In partnership with the State and City of New York, CCI funds will help start a major restoration of the Jamaica Bay salt marsh in Gateway National Recreation Area, where substantial wetland loss has occurred. After the initial 2-acre (0.8-ha) project is completed, the U.S. Army Corps of Engineers will restore 50 to 75 acres (20 to 30 ha) of salt-marsh habitat. Zoologists with natural heritage programs in Maryland and Virginia have identified four rare invertebrates in Potomac River Gorge springs and seeps within Chesapeake and Ohio Canal National Historical Park and George Washington Memorial Parkway. The seeps suffer from erosion, sedimentation, and toxins from nearby develop-

ment. With CCI funding, the parks and their partners, including American University; Arlington County, Virginia; The Nature Conservancy; and the Potomac Conservancy, will cooperate to restore vegetation buffers, reroute trails, improve parking areas, influence road maintenance practices, and reach out to nearby landowners.

The National Park Service manages some of the nation's most important bat habitat. In cooperation with numerous partners, including Bat Conservation International and U.S. Borax, Inc., CCI will help fund the construction of bat gates that ensure the safety of cave and mine openings in eight parks, while protecting habitat for bat hibernacula and maternity roosts.



Badlands National Park biologists Doug Albertson and Greg Schroeder take a blood sample from a captive swift fox prior to its release in the park.

Poaching eliminated the previously flourishing yellow lady's-slipper orchid from Mammoth Cave National Park, Kentucky. Restoration had been impractical because orchids are difficult to propagate, but scientists have recently learned that orchid seeds can be germinated in the laboratory and then transplanted. A self-sustaining orchid population that can also be a source of plants for restoration efforts in other parks will be established using CCI funding, more than 3,000 volunteer hours, and discounted orchids from the Vermont Ladyslipper Company, which specializes in laboratory-propagated lady's-slipper orchids.

Predator control and habitat change have eliminated the swift fox from most of the Great Plains. In partnership with the Turner Endangered Species Fund and South Dakota State University, CCI has helped to fund reintroduction of these housecat-sized carnivores to Badlands National Park, South Dakota (see article, page 76). Before releasing 30 swift foxes captured in Colorado, project scientists located areas where coyotes, important swift fox predators, are not abundant.

With strong support from the U.S. Department of the Interior and numerous partners, the CCI provides an important new opportunity for habitat restoration and enhancement throughout the National Park System. ■

lindsay_mcclelland@nps.gov

Geologist, Geologic Resources Division; Washington, D.C.

Natural Resource Partnership Program continues to grow

By Diana Maxwell

THE NATURAL Resource Partnership Program began in late 2000 as a result of the ever-increasing need to bring additional fiscal and human resources to diverse natural resource field programs in the National Park Service. The program coordinator is cooperatively funded by five divisions in the Natural Resource Program Center (NRPC): Air Resources, Biological Resource Management, Geologic Resources, Natural Resource Information, and Water Resources Divisions. These divisions have numerous successful partnerships in place and program center staff members often collaborate with parks on projects, including the Geoscientists-in-the-Parks Program. The need for a formalized partnership effort evolved as park requests for technical assistance through the Natural Resource Challenge demonstrated a clear need for increased expertise in accomplishing important natural resource projects.



Members of the Environmental Alliance for Senior Involvement (EASI) visited Rocky Mountain National Park, Colorado, during the summer to learn about a variety of volunteer opportunities with the park. The EASI Natural Resource Laureate Program places experienced natural resource professionals in national park units to accomplish scientific work that might not otherwise be produced.

The goal of the program is to develop new and enhanced partnerships that will expand the NRPC technical support base and increase the number of natural resource projects in parks. The program has evolved in scope by forming partnerships with new organizations. This year proved to be successful for beginning new programs and for making progress with “maturing” projects.

The partnership program teamed up with the Sonoran Institute, Bureau of Land Management, Colorado Rural Development Council, U.S. Fish and Wildlife Service, USDA Natural Resources Conservation Service, USDA Forest Service, and Partnership Architecture, LLC, to develop a website for federal employees and the public to find new research and funding opportunities. The Conservation Assistance Tools (CAT) website is a user-friendly method for searching many databases for grant information. These partners have also produced a new brochure describing the benefits of the website. The long-term

goal is to find additional funding and expertise to improve CAT so that it will be of great assistance to park managers who need financial support for natural resource management projects. In November the Sonoran Institute announced that the Red Lodge Clearing House, an organization created by the Liz Claiborne–Art Ortenberg Foundation, will take over the development and funding of this promising program. The CAT website address is www.sonoran.org/cat.

In 2002 the Natural Resource Partnership Program began a relationship with the Environmental Alliance for Senior Involvement (EASI). Named the Natural Resource Laureate Program, this new program places experienced natural resource professionals in national park units to accomplish needed scientific work that might not otherwise be produced. In 2002 a pilot test of the laureate program was announced to parks, who submitted 47 requests for lau-

“The goal of the program is to develop new and enhanced partnerships that will expand the NRPC technical support base and increase the number of natural resource projects in parks.”

reate candidates. Initial placements began in September 2003 and will continue throughout 2004. Pilot programs are running at Richmond National Battlefield Park, Biscayne National Park, Timucuan Ecological and Historic Reserve, the Appalachian National Scenic Trail, and San Juan Island National Historic Site. Another goal of the program is to develop a database of natural resource specialists who can assist parks as needs arise. ■

diana_maxwell@nps.gov

Partnership Coordinator, Natural Resource Program Center; Lakewood, Colorado

NPSFACT

The National Park Service holds one or more active memorandums of understanding with 11 countries: Argentina, the Bahamas, Canada, Chile, China, Gabon, Hungary, Italy, Mexico, Poland, and Venezuela. One of the **most important aspects** of the agreement between the United States and Mexico is empowering **local land managers from both countries to exchange information and work together**. Because of this, scientific and technical exchange and coordination on natural resource management have increased among staff and managers of the natural protected areas.

Steve Chaney's successful efforts to protect dune ecosystem recognized



The Director's Superintendent of the Year Award for Natural Resource Stewardship went to Steve Chaney, superintendent, Great Sand Dunes National Monument and

Preserve, Colorado. Steve's accomplishments at Great Sand Dunes crown a distinguished career in natural resource management in the National Park Service that includes membership in the initial class of NPS resource management trainees in the early 1980s. His leadership resulted in legislation that created the 42,000-acre (17,010-ha) Great Sand Dunes National Preserve, expanded the Great Sand Dunes National Monument to about 108,000 acres (43,740 ha) and authorized its designation as a national park, and created a new 90,000-acre (36,450-ha) national wildlife refuge. When the land acquisition is complete, the preserve will be a unit of the National Park System in which hunting is permitted and the previously designated monument, plus the newly acquired properties, will become a

national park. These two units combined will be the Great Sand Dunes National Park and Preserve. This legislation provides permanent protection for the entire Great Sand Dunes system whereas the original monument boundary encompassed only the high dunes and left out the surrounding sand deposits and watershed elements of the ecosystem, which are critical to its long-term protection.

Passage of this legislation required extensive coalition building with county commissioners, chambers of commerce, private organizations, federal and state agencies, and Congress. Once the land purchase was authorized by Congress, the process of purchasing the land began, involving complex negotiations with many neighbors. The prize for all of this work is that boundaries were drawn on an ecosystem basis, rather than a political basis, placing the entire resource system into a protected status, and creating a huge outdoor laboratory. "Included in this system," Steve says, "is an incredible diversity of resources ranging from pristine tundra to desert environments. The area includes towering 13,000-foot [3,965-m] peaks; sparkling

lakes and streams; forests of pinyon, juniper, spruce, fir, ponderosa pine, aspen, and cottonwood; alpine wildflowers; verdant wetlands; and, of course, the continent's tallest dune field."

To study these widespread resources, Steve has been instrumental in expanding the park's natural resources program. Several species inventories are in progress and more are planned, as is vegetation mapping. Researchers will be accommodated in a new building designed by park staff that includes natural resource staff offices, laboratory facilities, and bunk space for visiting scientists.

In addition to managing his park, Steve is active in helping other parks. Among his activities is membership in the Intermountain Region Natural Resources Communication and Advisory Team where he has chaired efforts to revise the region's procedures for developing and prioritizing resource management funding proposals, in particular to assist smaller parks, and in general to make the entire region more competitive in obtaining support for natural resource research and management. ■

Greg McGuire stewards his park and more



"Thirty years ago, my next-door neighbor had this job and brought me in as seasonal help. Then he retired and a few years later I got his job," says Greg McGuire, facilities

manager at Fort McHenry National Monument and Historic Shrine, Maryland. He does that job very well, receiving the Director's Award for Excellence in Natural Resource Stewardship through Maintenance both for adopting energy-efficient and environmentally sensitive practices at his park and for significantly enhancing the surrounding landscape.

Greg's biggest accomplishment was spearheading the cleanup of the tidal wetlands adjacent to the park (featured in *Natural Resource Year in Review—2002*, page 75).

"It was a hideous debris pile," he says, on state-owned land. After a media campaign that Greg instigated, the state called in a contractor to do the cleanup, but the contractor requested \$250,000 just to build a road into the site. Greg told the state, "I'll do the job for \$25,000." To get the job done, Greg created an innovative partnership with the National Aquarium in Baltimore and then presented the project to the public. A large corps of volunteers, including individuals, government agencies, industry, and nonprofits, removed hundreds of tons of debris and invasive vegetation. The eyesore is gone and wetland wildlife is now returning.

At the park, buildings and vehicles have been retrofitted for maximum energy efficiency. Greg was a leader in working out a Green Energy contract with Constellation Energy Group that made it possible to install photovoltaic lighting throughout the park and

a ventilation system that recycles exhaust air to retain heat, convert small Cushman vehicles to natural gas, and install passive solar skylights in a storage building recycled from Gettysburg National Military Park, Pennsylvania.

In addition, he has acquired a power-assisted bicycle to be used when heavier vehicles are not required and a pickup truck that uses natural gas; in diesel-fueled vehicles he uses biodiesel, made from rapeseed (canola). He has reorganized mowing operations to conserve fuel and staff time, installed low-flow toilets, and uses recycled materials wherever possible.

Greg's environment-friendly practices not only benefit the park, but have also broadened the traditional role of the park from that of being interpreter of local history to being active in the conservation of the Chesapeake Bay watershed. ■

“Partners in Stewardship”: Considerations for natural resource stewardship and science in the national parks

By Nina S. Roberts, Ph.D.

CREATING PARTNERSHIPS can be both arduous and enjoyable. Although the concept of partnerships has been around for many decades, the need for them among land stewards has never been greater. Yet new strategies are often required to make the most of what they have to offer. Accordingly, the National Park Service, in collaboration with the USDA Forest Service and other federal land management agencies, hosted the national conference “Joint Ventures: Partners in Stewardship” in November 2003. Held in Los Angeles, this gathering explored ways to create effective partnerships that strengthen ties among communities, nonprofits, educational institutions, and government agencies as the nation strives to develop a more accessible and meaningful network of public parks and open spaces. Many of the ideas are applicable to nurturing partnerships for the scientific management and preservation of park natural resources.



Partners in Stewardship

With more than 270 conference sessions, several major themes were ubiquitous throughout the week. Foremost was that of changing demographics, an indication that institutional change is needed in order for the National Park Service to move in new directions. It was clear to all that the National Park Service cannot continue to operate in the same traditional way. As conference participants affirmed, old thinking, rather than new problems, obstructs change. Additionally, the theme of diversity emerged in many sessions as a critical component of successful contemporary partnerships.

Several prominent figures in government, nonprofits, and the media gave insightful keynote addresses, stimulating new ways of thinking, ideas for the future, and impetus to move ahead. The speakers included Gale Norton, Secretary of the Interior; Fran Mainella, Director of the National Park Service; Lynn Scarlet, Assistant Secretary of the Interior for Management and Budget; and David Rockefeller, Jr., Chairman of the Board of the National Park Foundation. “Keeping it real” was the attitude communicated by Ray Suarez, host of National Public Radio’s *Talk of the Nation*. Suarez shared an international perspective of public land use in the United States. Although “we have some of the most spectacular wonders of the world,” he said, “we have ... a great challenge to create intergenerational solidarity.” The nation is polarized between the haves and the have-nots, and public land management agencies, including the National Park Service, must strive toward greater equity in park access and opportunities for all Americans.

Another prevailing theme was the “power” of partnerships. Fundamental to strong unions are shared interests and concerns of all partners and the opportunity for spontaneity in sharing all viewpoints.

For example, giving skeptics a chance to voice their concerns and interests is powerful and allows a diversity of perspectives to surface and become part of the decision-making process. The key is to preserve relationships and permit partnerships to move in their own direction, at their own pace. Relationships that are forced or strewn with conflicts and dissatisfaction are not conducive to problem solving, whereas shared action can serve all stakeholders.

Partnerships related to marketing and to serving visitor education and park preservation purposes are a growing trend. “People who enjoy special places have a stake in these special places,” noted Director Mainella. A current trend is marketing the park experience to diverse ethnic and cultural groups through the tourism industry. Tourism can help establish a meaningful relationship between diverse groups and the parks, a relationship that is underdeveloped and critical to park preservation. Suarez noted that 40 million foreign-born Americans today and millions more in the years to come “don’t know your parks yet, don’t love them yet, but will if you let them.” Analyses of tourism can help organizations like the National Park Service meet the needs of these visitors and engage the interests of nonvisitors alike.

Partnerships in natural resource management and science were highlighted in conference sessions about the cooperative management of federal and private lands, addressing water resource issues at the watershed level, transportation issues, connecting urban populations with forest landscapes, development of the natural resource stewardship curriculum, training wildlife stewards, and others. Several sessions stressed that partnerships must be coordinated to combine scientific knowledge and experiential learning. Some of the innovative education and outreach programs (including coastal ecosystem education) and distance-learning partnerships that were profiled are achieving success. Another important theme was the need to involve academics and researchers in maintaining good scholarship and continuing to incorporate the human dimension of managing public lands. Case studies were presented, small groups interacted, panel presentations engaged audiences, and a full day focused on developing the skills needed for successful collaboration.

In the end, partnerships require compromise and the realization that what may work for one may not for another. Yet partnerships are limited in what they can accomplish only by our imagination.

Further information on the conference and session reports are available on the Web at www.partnerships2003.org. ■

nina_roberts@nps.gov

Education and Outreach Specialist, Natural Resource Information Division; Fort Collins, Colorado

Place-based science and public-private partnerships key to preserving national parks

By John Dennis

At Director Mainella's request, the National Park System Advisory Board tasked its National Parks Science Committee to review the Natural Resource Challenge and offer recommendations regarding science and scientific resource management in the national parks. The committee submitted its report, titled "National Park Science in the 21st Century," to the Advisory Board in early August and the Advisory Board accepted the report with a request that the committee consider expanding its thoughts about the institutional role of scientists in parks.

The committee's report summarizes the role of national parks, the history and role of science associated with those parks, the trends of changes to natural systems in the 20th century, the dependence of national parks on the presence of functional connections to adjacent lands and waters, the utility of applying land-based concepts of resource protection to ocean resources, and the current status of Natural Resource Challenge implementation. The committee's report offers six recommendations for future directions for national park science. One is to make national parks part of a national system created by biologically linking protected areas. A second is to have the National Park Service contribute its resource protection experience to interagency efforts to improve the protection of freshwater and marine systems related to units of the National Park System. A third is for the Service to draw on its foundation of scientific and traditional knowledge to help improve the scientific literacy of our citizens and to help foster a national stewardship ethic. A fourth is to strengthen the Service's institutional capability for using scientific information in its resource protection activities. A fifth is to show how America's diverse human

cultures have depended on and interacted with the natural world over time. A sixth is for the Service to encourage and work with a virtual consortium of many public and private partners to develop and maintain an electronic encyclopedia of America's natural history.

In conducting its review and offering these recommendations, the committee touched on how the Natural Resource Challenge is meeting its mission and contributing functions that support the committee's recommendations. The committee also offered a vision of what the National Park Service should strive to achieve over the long term. The committee found that the Challenge is embracing creativity through competition, effectiveness through peer review, and accountability and public awareness through rigorous reporting; is increasing the Service's use of science in resource inventory, monitoring, and restoration; and is emphasizing the incorporation of partnerships in all facets of Service activities. These attributes of the Challenge in turn empower the Service to carry out the committee's vision—that each national park serves as a center of enlightenment, that the Service advances the use of place-based science with involvement of a public-private virtual institute for preservation, and that people come to recognize that public enjoyment and protection of the natural integrity of parks are mutually dependent.

The National Parks Science Committee members, Sylvia A. Earle, Robert Chandler, Larry Madin, Shirley M. Malcom, Gary Paul Nabhan, Peter Raven, and Edward O. Wilson, together observed that the vital core of the national park idea is a "broad, inclusive sharing of unique segments of the American landscape with all native species" and that

America's National Park System "represents a profoundly egalitarian concept: landscapes of incomparable beauty and grandeur that are to be shared and enjoyed by all people," a sharing that "would thus extend beyond the human species to all native flora and fauna of the parks." ■

john_dennis@nps.gov
Supervisory Biologist, Natural Systems
Management Office: Washington, D.C.