

Isle Royale Archipelago; photo courtesy Brenda Moraska Lafrancois, NPS

## **Background**

The North American Great Lakes are a globally significant and extraordinary resource, containing nearly 20 percent of the world's and 85 percent of our nation's total supply of freshwater. The 10,900-mile coastline of the Great Lakes is the longest in the nation. The Great Lakes watershed drains 200,000 square miles in eight U.S. states - Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin - and two Canadian provinces - Ontario and Quebec, and is home to more than 34 million residents, or ten percent of U.S. and twenty-five percent of Canadian populations. The lakes are nationally and internationally important for drinking water, power production, industrial use, irrigation,

commercial and recreational fisheries, navigation and commerce. Millions of people enjoy fishing, hunting, swimming, boating, diving, and the sheer beauty of the Lakes above and below the surface. The basin's bogs, sand dunes, coastal wetlands, 30,000 islands, rocky shorelines, prairies, savannas, forests, fens, and other landscape features are globally unique and support a wide variety of species.

The National Park Service is responsible for conserving unimpaired and providing for the enjoyment of seven specific *places* on the Great Lakes<sup>1</sup>. Many of the resources contained therein, are significant regionally, nationally, and globally. For purposes of this Strategy, we refer to them as the national parks of the Great Lakes, though they may be known individually as a national park,



<sup>&</sup>lt;sup>1</sup> Seven national parks are located *on* the Great Lakes shorelines and are the focus of this Strategy. An additional five national parks, though not on the coast, are also clearly within the Great Lakes *basin*. While these parks (Cuyahoga Valley National Park and James A. Garfield National Historic Site in Ohio, and Keweenaw National Historical Park in Michigan, both in the NPS Midwest Region; and Theodore Roosevelt Inaugural National Historic Site and Women's Rights National Historical Park in New York and in the NPS Northeast Region) are not *coastal*, their conservation is no less important and they are likely to be occasionally involved in some Great Lakes issues on a case-by-case basis. Fort Stanwix National Monument (NY; Northeast Region) straddles the basin divide.

monument, memorial, or lakeshore. Congress, in the 1970 General Authorities Act, described the units of the national park system as "distinct in character ...united through their inter-related purposes and resources into one national park system as cumulative expressions of a single national heritage" to be "preserved and managed for the benefit and inspiration of all the people of the United States."

While these seven national parks encompass only two percent of the acres of the national park system included in the "NPS 'Ocean' Park Stewardship Action Plan" (801,400 acres), they represent 15% of the total water (487,500 acres) and 12 percent (613 miles) of shoreline of all of the NPS fresh and salt water national parks. Isle Royale National Park has 338 miles of coast and Apostle Islands National Lakeshore has 154 miles of coast. These parks have the 4<sup>th</sup> and 9<sup>th</sup> longest coastlines of all parks in the national system (Table 1).

Table 1. Great Lakes Units of the National Park System [1]						
Unit Name	Year Established	State	Lake	Size (acres) [2]	Waters (acres)	Coast (miles)
Apostle Islands National Lakeshore	1970	WI	Superior	69,372	27,232	154
Grand Portage National Monument	1951	MN	Superior	710	0	1
Indiana Dunes National Lakeshore	1966	IN	Michigan	15,060	436	25
Isle Royale National Park	1931	MI	Superior	571,790	438,009	338
Perry's Victory International Peace Memorial	1936	ОН	Erie	25	0	1
Pictured Rocks National Lakeshore	1966	MI	Superior	73,236	9,770	47
Sleeping Bear Dunes National Lakeshore	1970	MI	Michigan	71,199	12,000	65
Total Great Lakes National parks	7			801,392	487,447	631
Totals of all NPS Units	74			34,168,777	3,173,388	5,130
Great Lakes Percent of all NPS units	9.5%			2.3%	15.4%	12.0%

[1] From: Maintaining Unimpaired, Ocean Resources And Experiences: A National Park Service Ocean Stewardship Strategy prepared by Gary E. Davis, Visiting Chief Scientist—Ocean Programs, U. S. National Park Service Washington, DC, May 6, 2004, p. 15-18.

[2] National Park Service, U. S. Department of the Interior, Statistical Abstract 2003, p. 51-67.

The cultural resources of many of these parks reflect a maritime history of many centuries of movement of people and goods across these vast inland waterways. The resources range from ancient copper mines, fisheries, and habitation sites of the Ojibwe and other native American cultures, to the site of a key naval battle from the war of 1812, to the international fur trade, to more recent lighthouses and other shipping aids, fish camps, farming communities, and resorts that developed along the different navigation corridors. The construction of lighthouses on the Lake Superior frontier during the Civil War was a remarkable commitment to an optimistic national future in the midst of trying times. The array of life saving and light stations at Isle Royale, Apostle Islands, and Pictured Rocks protected mariners and helped built communities as new ports developed at Duluth, Sault Ste. Marie, and other places. These historic resources demark the breadth of the post 1850 navigation history on Superior. The six historic Apostle Islands light stations have been recognized as the largest and finest group of lighthouses in the nation. At Sleeping Bear Dunes, the Manitou Passage between the mainland and North and South Manitou Islands provided a major shipping lane to Chicago and other

southern Lake Michigan port cities. It too, features nationally significant life saving stations and Coast Guard facilities along its shore as well as ship wrecks. In fact, all of the maritime parks of Lakes Superior and Michigan contain numerous remarkably well-preserved shipwrecks that contain rich material evidence of the nineteenth and twentieth centuries' Great Lakes shipping history as both a regional phenomenon and as part of the development of the world economic system as we know it today. Many of these remnants of the rich legacy of maritime history are listed on the National Register of Historic Places.



Sand Island Lighthouse, Apostle Islands, Lake Superior; photo courtesy Jay Glase, NPS

Significant natural resources are also protected in the coastal environments of the Great Lakes national parks. Four National Lakeshores were established to preserve outstanding natural shoreline features, including impressive sand dune formations and scenic cliffs, diverse islands and sand features, and unique coastal geomorphic processes. Isle Royale National Park, a remote freshwater archipelago, has been designated an International Biosphere Reserve and encompasses more than 400 islands and over 400,000 acres of Lake Superior itself. National parks of Lake Superior contain some of the most productive fisheries in the basin, and significant habitat for self-sustaining populations of lake trout, whitefish, and other fish species. Additionally, Isle Royale National Park contains three of only four remaining populations of coaster brook trout (a candidate species for listing under the Endangered Species Act) in the U.S. waters of Lake Superior, as well as unique morphotypes of lake trout which could be critical for restoration efforts in other parts of Lake Superior and other Great Lakes. Great Lakes national parks provide excellent spawning and rearing habitat for culturally, commercially, and recreationally important fish species. The protected shorelines of these national parks provide nesting and feeding habitat for a variety of migratory birds; Sleeping Bear Dunes and Apostle Islands National Lakeshores contain some of the only breeding habitat for the federally endangered piping plover, with Sleeping Bear Dunes alone accounting for approximately 40% of all of the nesting pairs of this species in the Great Lakes. Isle Royale's protected Lake Superior shorelines are the only places that common loons nest anywhere on the Great Lakes proper. Unique shoreline splash pools and cliffs in the Lake Superior national parks provide habitat for a variety of rare and arctic disjunct species.

There is growing evidence that climate change in the region is occurring and it is expected to profoundly impact coastal ecosystems, cultural resources, infrastructure, and visitor experiences along the freshwater coast. The Great Lakes

national parks can serve as "canaries in the mine" as relatively unimpacted places to better measure and understand these impacts, as well as ideal places to share findings with the public and demonstrate leadership by example in sustainable operations.

The national parks in the Great Lakes are places where Americans go to recreate, reconnect with nature, and learn about our shared history. In addition to being places of scientific inquiry and a backdrop for natural



Perry's Victory International Peace Memorial, Lake Erie; photo courtesy NPS

and cultural education, these Great Lakes national parks provide a vast array of recreational and educational opportunities, and are a source of inspiration and wonderment.

# **Purpose of the Strategy**

As freshwater seas, the Great Lakes have not always been considered part of the 'ocean' community, but they share many features with their salt water marine counterparts (e.g., large size, coastal processes, cultural and economic importance, maritime history, and traditions, etc.). Recognizing these similarities, the *U.S. Ocean Action Plan*, completed in 2004 in response to Executive Order 13366, specifically included the Great Lakes in its guidance for strengthening and coordinating U.S. ocean policy. The NPS, in response to this *U.S. Ocean Action Plan*, launched an initiative intended to focus attention on ocean and Great Lakes park marine resources. The 2006 *NPS Ocean Park Stewardship Action Plan* calls for an increased understanding of marine ecosystems and human interactions, restoration of impacted natural and cultural resources, and new measures to enhance park resource management efforts. Fostering partnerships, strengthening the capacity of the NPS to explore and protect marine resources, and engaging the public in park stewardship are fundamental to the Action Plan.



Kayaking at Isle Royale, Lake Superior; photo courtesy Brenda M Lafrancois, NPS

Promoting stewardship of Great Lakes national park resources is not new. A comprehensive strategy is needed that looks to the future, integrates all programs (including natural and cultural resources, resource and visitor protection, interpretation and education, facility management, planning, and partnerships), calls for a focused effort of collaboration within and between parks, facilitates partnerships, and addresses the complex issues of global climate change. Regionally focused conservation strategies are increasing. The attention focused on the Great Lakes through the Great Lakes Regional Collaboration established through Executive Order 13340, and the intergovernmental strategy document it produced in 2005 have prompted related questions about how the priorities of the various agencies active in

the Great Lakes, including the NPS, complement these efforts. This Strategy provides the Midwest Region with the vision to become a leading partner in the conservation and restoration of marine resources and maritime heritage that define our Great Lake parks.

The Midwest Region Great Lakes Strategy identifies ways to sustain and enhance these activities and to incorporate them into the larger framework of the U.S. Ocean Action Plan and the NPS Ocean Park Stewardship Plan. Specific goals and action items for the four topical areas identified in the NPS Ocean Park Stewardship Action Plan will be addressed in the Midwest Region Great Lakes Strategy:

- Establish a seamless network of Great Lakes parks, sanctuaries, refuges, and reserves
- Discover, map, and protect Great Lakes national parks
- Engage the public, communities, and visitors in Great Lakes national park stewardship
- Increase technical capacity for Great Lakes national park exploration and stewardship

Some of the specific actions identified in the Midwest Region Great Lakes Strategy can be implemented and achieved within months, while others are more complex and will involve longer timeframes to fully implement. The strategy will be periodically reviewed and revised as action items are completed and as additional tasks are identified.

#### **Establish a Seamless Network**

Of Great Lakes Parks, Sanctuaries, Refuges, and Reserves

Numerous federal, tribal, state/provincial and local agencies, and conservation-oriented organizations, share common mandates for protection of Great Lakes resources. Achieving shared stewardship goals and responsibilities can be more effective and efficient through enhanced collaboration. National parks are often immediately adjacent to or within a shared ecoregion of federal, tribal, state, local or private land management agencies or organizations, including international conservation units. Stewardship and management of each of the Great Lakes other than Lake Michigan is shared with Canada, yet conservation issues and challenges transcend boundaries.

GOAL: Facilitate partnership opportunities among federal, tribal, state/provincial and local agencies and nongovernment organizations in the US and Canada toward enhanced Great Lakes resource conservation and education.

- Strengthen relationships with other agencies and organizations doing *place-based* conservation, especially those near national parks or in the same ecoregions, such as the Lake Superior National Marine Conservation Area established by Parks Canada.
- Strengthen relationships with other agencies and organizations working on *thematic issues* Great Lakes-wide that influence national park conservation or management. Systematically prioritize where additional NPS involvement is merited, building on and strengthening the liaison established through the Great Lakes Regional Collaboration.
- Investigate opportunities to improve or establish new areas for resource protection, education, and appropriate outdoor recreation adjacent to, or near, national parks, particularly marine sanctuaries.



Aerial view of Apostle Islands; photo courtesy William Cronon

- Better utilize the multi-agency Northern Great Lakes Visitor Center in Ashland, Wisconsin to serve the needs of the suite of national parks and other protected lands and waters in the Great Lakes region. Seek adequate funding to provide for this goal.
- Develop cooperative agreements with state and federal agencies so as to exercise the highest level of resource stewardship in protected areas regardless of ownership.

## Discover, Map, and Protect

#### **Great Lakes National Parks**

Great Lakes national parks protect important coastal and submerged natural and cultural resources. Logistical challenges and limited jurisdiction on the water, however, have been barriers to the NPS engaging in detailed inventory and monitoring efforts on the Great Lakes, as well as participating fully in interagency conservation efforts. As a result, only limited information is available related to coastal, nearshore, and offshore resource conditions in and near these national parks. Accessing, acquiring, and interpreting baseline inventory, mapping, and monitoring data will enable national parks to more actively participate in the local and regional management of the Great Lakes and to respond to emerging issues such as climate change, lake level changes, and aquatic invasive species. Great progress has been made with the establishment of the NPS Great Lakes Inventory and Monitoring Network, but this task is best done in collaboration with other entities.

# GOAL: Inventory, map, and monitor natural and cultural resources within and near the submerged land boundaries of Great Lakes national parks.

- Ensure that adequate maps of Great Lakes coastal resources are available and accessible for each national park, including lake bathymetry, nearshore benthic habitat, lake bed classification, sedimentology and geomorphology, water quality, and submerged cultural resources.
- Support proposed pilot benthic habitat classification and mapping projects, in cooperation with the USGS Great Lakes Science Center, in Sleeping Bear Dunes and Apostle Islands and conduct benthic habitat classification and mapping in all freshwater national parks.
- Conduct submerged cultural resource inventories, documentation and condition assessments coordinated by the NPS Submerged Resources Center and the Midwest Archeological Center. Consideration of cultural resource data collection should be incorporated into any new hydrographic surveys of the Great Lakes.



Shipwreck along the shore of Sleeping Bear Dunes National Lakeshore; photo courtesy Brenda Moraska Lafrancois, NPS

- Map significant, management-relevant resources and habitats that extend across park boundaries.
- Seek assistance from other Great Lakes agencies and entities in filling the known high priority gaps in the NPS vital signs inventory and monitoring program relevant to coastal resources and issues.
- Seek funds to conduct baseline biological and cultural inventories and long-term monitoring of nearshore waters in Great Lakes national parks, to ensure effective management of these resources as effects of climate change and species invasions become more apparent.
- Fund the search for and collation of legacy hydrographic and benthic surveys that have been conducted to refine
  baselines and develop a cumulative, GIS-based characterization of the Great Lakes and how they are changing over
  time. The interagency coordination of surveys, data post processing and formats will provide a cost effective data set
  that reduces data collection redundancy.

### GOAL: Expand understanding of Great Lakes national park boundaries, jurisdictions, and authorities.

- In cooperation with the national-level Ocean Park Stewardship Task Force and NOAA, seek to include national park boundaries on digital and printed nautical charts. Evaluate the desirability and feasibility of using buoys and/or publishing GPS waypoints to mark national park boundaries. Clarifying these boundaries may assure protective management of vessel discharges near park waters.
- Convene a meeting of the NPS and US Coast Guard to discuss issues of mutual interest, such as ballast water management, aids to navigation (particularly in cultural resources), search and rescue, and spill response. This meeting could be limited to Great Lakes issues or, in conjunction with other NPS regions, national in scope.

- Convene a workshop for national park managers aimed at clarifying Great Lakes national park maritime jurisdictional issues. Coordinate this effort with the Department of the Interior Solicitor's Office. Plan for 2009, learning lessons from the similar workshop to be convened by the Pacific West and Alaska regions in fall 2008.
- Request a Solicitor's opinion on boundaries, jurisdictions and authorities for each Great Lakes national park that
  needs one, including a discussion on relevance to fishing, submerged cultural resource protection, and whether the
  boundary is fixed on the Earth or movable with lake levels. Parks entering the general management planning process
  should be given high priority.
- Develop regional and park-by-park boundary and resource protection strategies, where appropriate, to address the potential future where the coast currently within NPS boundaries may migrate out beyond the park if lake levels fall significantly. Evaluate whether or not changes in boundary definitions are needed to protect national park resources.
- Where there are jurisdictional issues, work with states and other agencies to resolve them by agreements that allow
  the highest level of management and protection for resources. This initiative may be on the individual park level or at
  the level of agreements among MWR Regional Director and state governors.
- With respect to the Submerged Lands Act, work with the Department of the Interior Solicitor's Office to provide
  guidance on the management of newly-emerged park resources that may be revealed in the future by falling lake
  levels.

# GOAL: Understand and quantify threats to natural and cultural submerged resources, identify impaired or threatened resources, and develop mitigation or restoration strategies.

- Complete NPS natural resource/watershed condition assessments for each Great Lakes national park. Whenever
  possible, encourage an emphasis on coastal watersheds, following the model used previously for Apostle Islands,
  Indiana Dunes, and Pictured Rocks, and encourage the development of a consistent set of stressor indicators for
  coastal resources.
- Collaborate with partners to initiate multi-resource studies addressing priority resource issues shared among Great Lakes national parks (e.g., effects of changing climate and lake levels on infrastructure, natural resources, and submerged cultural resources; effects of contaminants and aquatic invasive species in coastal waters).
- Develop long-range strategies for adapting to climate change, using 'scenario planning' to explore potential future conditions and management options.
- Enhance communication among planning staff and natural and cultural resource managers, to assure that coastal issues and threats are addressed comprehensively in General Management Plan and other planning documents.
- Identify emerging coastal issues, and develop synthesis papers addressing the state of the science, expected impacts
  on park resources, operations, and visitor experiences, and possible management strategies. Incorporate the
  analyses into park planning processes and coordinate with other agencies, states and tribal groups.
- Raise awareness of potential energy development near national parks. Evaluate and assess trade-offs between sustainable energy development and protection of NPS viewsheds and natural resources. Participate, where appropriate, in regional feasibility studies (e.g., the Wisconsin Public Service Commission's Lake Superior wind energy study).
- Highlight successful coastal resource restoration/rehabilitation projects in Great Lakes national parks (e.g., wetlands at Indiana Dunes, coaster brook trout at Isle Royale, coastal processes at Pictured Rocks), to demonstrate accomplishments and to serve as models for other possible projects.
- Encourage a Service-wide policy discussion related to the use of organic fishing bait within national parks, particularly in multi-jurisdictional coastal contexts.



Adult Coaster Brook Trout, photo courtesy Jay Glase, NPS

 Cooperate with states and tribes to identify significant submerged cultural resources just outside national park boundaries. Develop cooperative strategies for resource protection and public access and enjoyment and, where states and tribes believe it is appropriate, consider seeking targeted boundary changes to encompass vulnerable resources.

GOAL: Increase understanding and awareness of significant maritime cultural resources in Great Lakes national parks, highlighting their role and collective importance in the development of the continental nation.

- Prepare a comparative historic context examining the relationship of NPS maritime resources within the history of
  navigation and development across the entire Great Lakes and its interaction with Atlantic maritime themes, and
  prepare National Historic Landmark and Maritime Landscape documentation based on the findings. Accelerate
  National Historic Register and National Historic Landmark nomination(s) in progress where the significance is already
  recognized.
- Develop an initiative and possible Centennial Projects with resource management partners, to accelerate funding and completion of critical Historic Structure Reports, Cultural Landscape Reports, cultural resource property management plans, site inventories and condition assessments, etc. to define preservation priorities and identify funding needs and fundraising opportunities across the Great Lakes national parks.
- Develop preservation treatment (and the required PMIS and FMSS documentation to secure funding) and long-term stewardship strategies for significant maritime cultural resources.

# **Engage the Public, Communities, and Visitors**

In Great Lakes National Park Stewardship

The national parks of the Great Lakes are a major destination for local, national and international visitors, creating opportunities for a wide variety of large lake, boating, and coastal experiences. Opportunities abound to engage our gateway communities and nearby Indian nations. These national parks provide extraordinary venues to communicate Great Lakes and ocean stewardship messages.

GOAL: Demonstrate a commitment to stewardship through adoption of sustainable operations and practices at Great Lakes national parks.

- Identify infrastructure in the greatest need of major investment for maintenance, repair or protection to support appropriate sustainable tourism and recreational opportunities. Develop a multi-park line item construction strategy and project proposals to accomplish priority projects, considering likely impacts of changing Great Lakes water levels and other factors.
- Work collaboratively with local and regional marinas and boater organizations to encourage "green boating" and
  exotic species abatement. Customize "green marina" materials for applicability to Great Lakes boating, recognizing
  that marinas include NPS facilities, concession operations, and (most commonly) private facilities outside park
  boundaries.



- Following the successful lead of Pictured Rocks and Apostle Islands, conduct Climate-Friendly Parks Workshops and complete Climate-Friendly Action Plans at all Great Lakes national parks.
- Improve the efficiency of park boats and actively seek opportunities for energy-efficient alternative water transportation for visitors to Great Lakes national parks.
- Continue to distribute the Climate Change site bulletin for the Great Lakes national parks and keep it updated with the latest scientific information.

# GOAL: Enhance awareness and understanding of ocean stewardship issues through the development of interpretive materials and recreational opportunities.

Work with NPS and Department of the Interior colleagues at the national and regional levels to ensure that thematic
interpretive and educational materials and programming developed for the Oceans Initiative fully include the Great
Lakes. Assure that terminology is consistent and inclusive, as many people do not understand the intent to include
the Great Lakes when terms like "ocean" and "marine" are used.



Indiana Dunes National Lakeshore situated on the south shore of Lake Michigan between steel mills and power plants; photo courtesy Christopher Light, NPS

- Encourage the Great Lakes Research and Education Center at Indiana Dunes to lead the development of interpretive and educational materials and templates that can be used by all Great Lakes national parks and customized for individual park use. These materials should explore common themes and promote stewardship in all of the Great Lakes national parks in the context of the seamless network of ocean and Great Lakes protected areas.
- Require an interpretive/education component for all coastal and maritime resource projects in Great Lakes national parks.
- Work with NPS Rivers, Trails, and Conservation
  Assistance staff, gateway communities, state agencies, tribal
  governments, and other partners to develop and enhance the
  network of self-guided water trails in and through the Great
  Lakes national parks.
- Following the successful Mississippi National River and Recreation Area model, develop partnerships with aquariums
  and museums in major cities to interpret the Great Lakes national parks and the significance of their resources and
  stewardship in a larger context.
- Encourage national parks with Artist-in-Residence programs to collaborate on a travelling Great Lakes National Park art exhibit highlighting the beauty of the parks and appropriate stewardship messages.
- Develop publications for the public that summarize the history associated with submerged cultural resources and its
  national and international significance. These popular pieces should describe the resources as well as their frailty and
  the measures taken or needed to preserve them.

# GOAL: Enhance relationships and develop appropriate partnerships with user communities and organizations interested in Great Lakes issues.

- Engage the lighthouse and shipwreck communities in supporting NPS stewardship opportunities and needs. Explore
  the development of multi-park centennial projects that address preservation, protection, interpretation and increased
  multi-media access to submerged and terrestrial cultural resources.
- Increase NPS involvement in celebrating Lake Superior Day (the third Sunday in July) in each park and collectively.

### **Increase Technical Capacity**

#### For Great Lakes National Park Exploration and Stewardship

Great Lakes national parks are committed to understanding, conserving, and interpreting Great Lakes coastal resources, and have developed innovative ways to accomplish these goals with limited technical staff. However, many of these efforts have been limited to individual park units or workgroups within parks, often constrained by lack of funding, staff, technical gear, or training. Additional coordination within and among park units, with other NPS centers of expertise, and with partners would enhance the capacity to preserve and protect Great Lakes national park resources.

#### GOAL: Enhance capacity of NPS dive teams in Great Lakes parks



Diver – Underwater Measuring, Isle Royale, Lake Superior; photo courtesy Kenneth J. Vrana

- Increase Midwest Region support to dive teams in the Great Lakes national parks, to make travel to parks for temporary assignments possible and to help maintain the required certifications and training, and to increase dive team capacity and capabilities so as to be able to support increased management initiatives in all NPS Great Lakes areas. Consider the need for additional NPS divers in key parks.
- Provide opportunities for dive team members, regardless of park work group, to work together to better understand, monitor, and protect submerged resources, through joint training dives, joint projects, and NPS-specific training courses.
- Clarify, and if possible, work with the NPS National Dive Control Board to maintain Great Lakes national park dive programs at the highest levels of safety and efficiency, and streamline the 'dive reciprocity' process required to dive cooperatively with other agencies, academics, and volunteers.

#### GOAL: Capitalize on NPS, partner, and citizen expertise to better protect and interpret park resources.

- Strengthen relationships among national parks and NPS programs in the Great Lakes region. For example, create synergy between the Great Lakes Inventory and Monitoring Network and the Great Lakes Research and Education Center through cooperative projects.
- Increase the accessibility of the Great Lakes Research and Education Center to all Great Lakes national parks. Periodically solicit requests for assistance with education and/or research relevant to all or several Great Lakes national parks. Prepare education programs related to submerged aquatic resources and stewardship.
- Consider creating a Public Information Officer position to serve the Great Lakes parks. A shared public information specialist, placed in a centrally located office, could work with multiple parks to assist with media relations and public information related to Great Lakes resources and issues.
- Identify opportunities to co-locate NPS with cooperating agencies or academic institutions, to enhance interagency exchange of expertise and extend the technical capacity of NPS staff.
- Provide NPS staff with the skills and best practices needed to develop and maintain volunteers and citizen scientists, following successful examples from Cuyahoga Valley National Park, Mississippi National River and Recreation Area, and the Great Lakes Research and Education Center.



Kayak Paddlers Inside Cave, Pictured Rocks, Lake Superior; photo courtesy Stan Chladex, Michigan Travel Bureau

### GOAL: Explore new venues and tools for communicating about Great Lakes issues.

- Focus an upcoming Western Great Lakes Research Conference on freshwater coastal issues and the NPS Great Lakes Strategy. Invite people from a broad range of natural resource, cultural resource, and interpretive disciplines to attend and participate.
- Increase efficiency of field operations by sharing supplies, sampling gear, boats, lab facilities, and other equipment among parks and with partner agencies. Create a space on the Midwest Region website to post to facilitate exchanges within NPS.
- Encourage the NPS Water Resources Division to pilot an "Aquatic Scientists in the Parks" program (similar to the Geologic Resources Division's "Geoscientists in the Parks" program) in the Great Lakes national parks.
- Share crisis/spill response expertise and plans among Great Lakes national parks. Trained personnel and equipment from nearby national parks could augment larger response efforts by the U.S. Coast Guard, the Environmental Protection Agency, and local communities, and in some cases reduce response time.
- Convene an island national parks workshop, working with other NPS regions, to bring together managers and key staff to share best management practices and discuss mutual challenges of stewardship and management of these logistically challenging protected areas.
- Consider organizing a "Great Lakes National Parks" visit to Washington by superintendents and key staff to raise the
  profile of the NPS in Great Lakes and oceans issues with the NPS Washington office, the Department of the Interior,
  key members of Congress and their staffs, and appropriate non-governmental organizations and other agencies.

# Implementing the Great Lakes Strategy Keeping It Off The Shelf

Elevating the profile, and sustaining interest in Great Lakes coastal resources and realizing the goals of the NPS Great Lakes Strategy will require a strong commitment from park and regional leaders, active support from NPS technical staff and programs, and enhanced cooperation within and beyond NPS boundaries. In order to move the Strategy forward, several near-term organizational actions are essential:

- Create an interdisciplinary Great Lakes national park task force to lead the effort
- Prioritize actions, defining the details as necessary
- Develop an implementation schedule
- Obtain financial support
- Track progress



The Witch Tree, Grand Portage, Lake Superior; photo courtesy Jeff Gunderson, Minnesota Sea Grant

October 2008