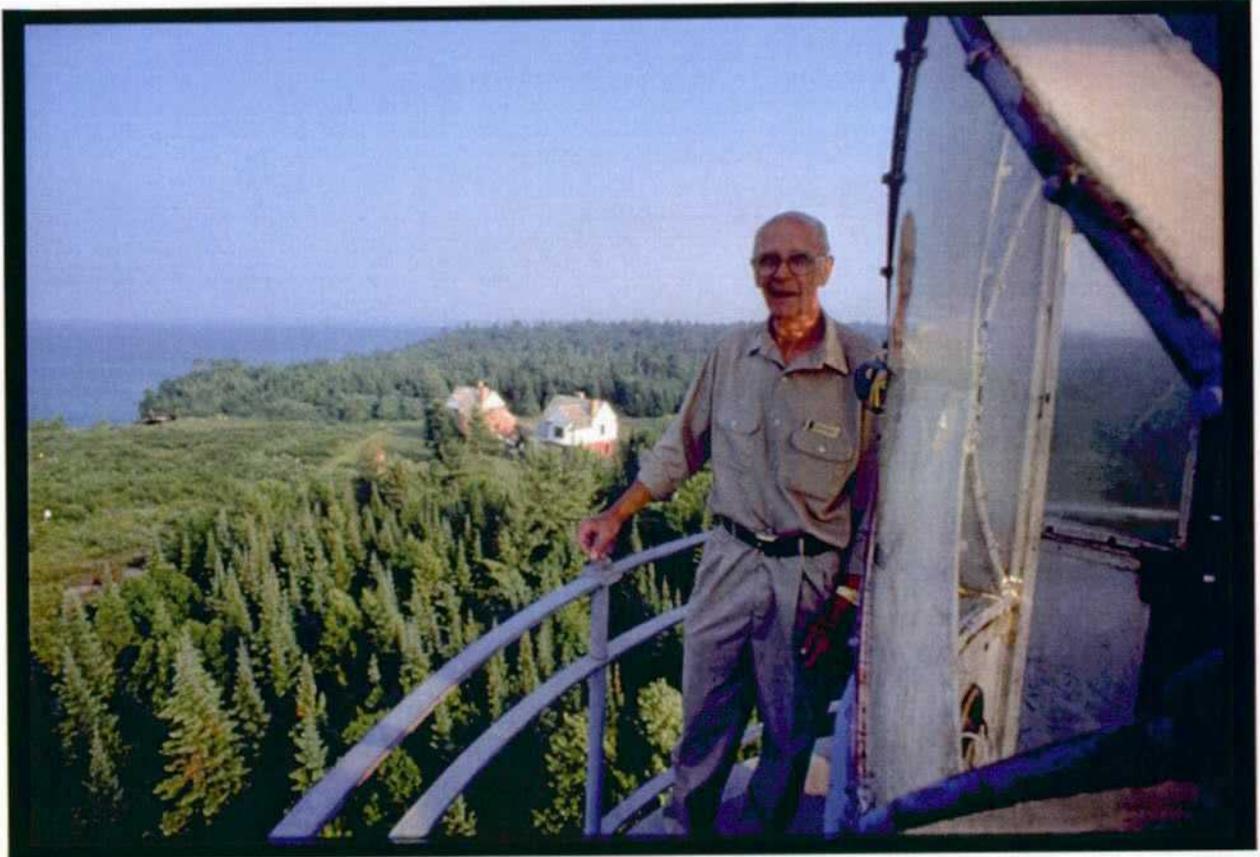


633/D-175

# LONG-RANGE INTERPRETIVE PLAN

## APOSTLE ISLANDS NATIONAL LAKESHORE



September 2002

NATIONAL PARK SERVICE



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**APOSTLE ISLANDS NATIONAL LAKESHORE  
PRESERVES AND INTERPRETS A SUPERIOR ARCHIPELAGO,  
RICH IN HUMAN HISTORY, SCIENTIFIC VALUES, AND NATURAL  
RESOURCES - FOR ALL TO ENJOY.**

Lakeshore Mission Statement



*“Interpretation is everyone’s job, not  
just the role of those assigned it.”*  
Superintendent Apostle Islands NLS

**LONG RANGE INTERPRETIVE PLAN**

**APOSTLE ISLANDS NATIONAL LAKESHORE**

**2002**

**WISCONSIN**

**PREPARED BY**

**DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE**

**APOSTLE ISLANDS NATIONAL LAKESHORE**

**HARPERS FERRY CENTER  
INTERPRETIVE PLANNING**

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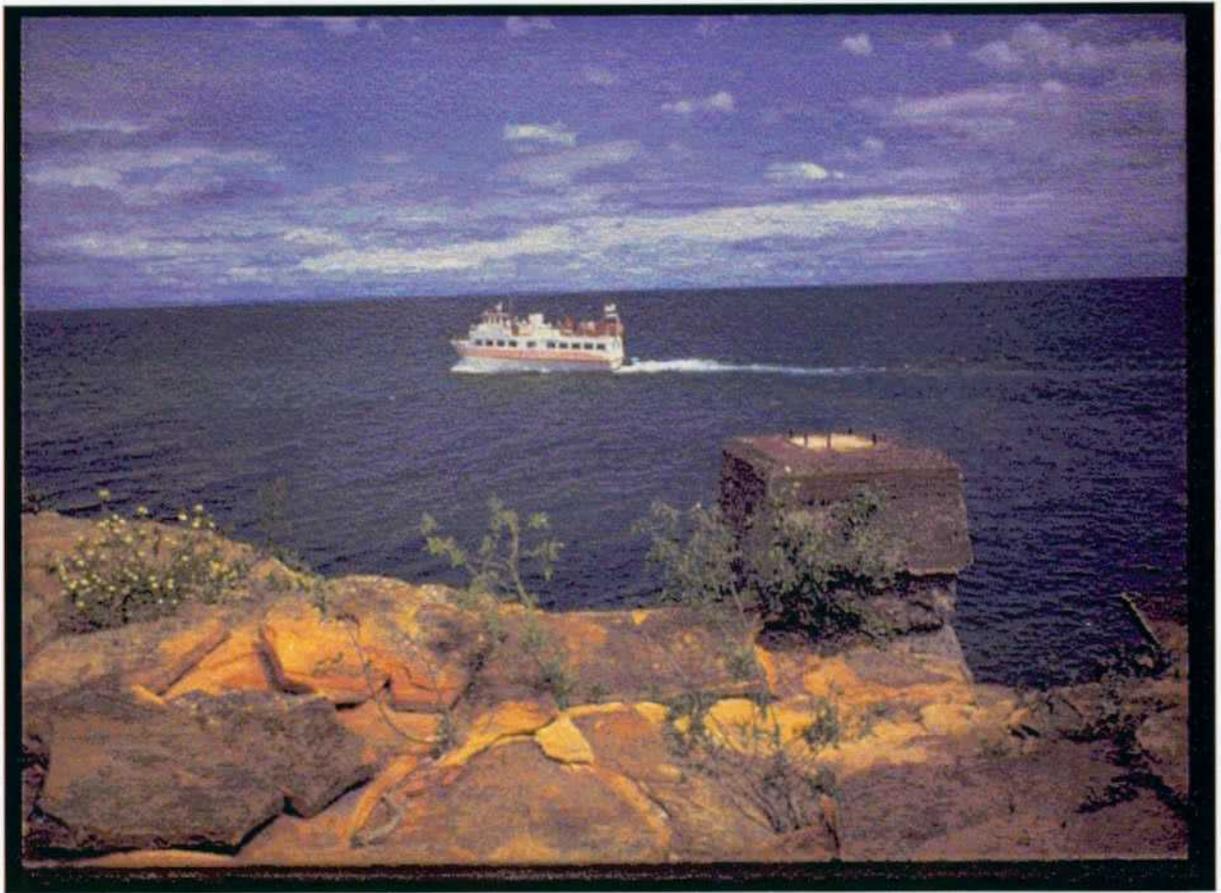
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# BACKGROUND FOR PLANNING

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# WHAT IS INTERPRETATION?



*"In the end we will conserve only what we love; we will love only what we understand; and we will understand only what we have been taught."*

- Baba Dioum

The word "Interpretation" comes from the Aramaic word "pah-shaar." It means "solution." An individual providing interpretive services, regardless of rank or division, is someone who sees through the mystery of something. It suggests knowing how to explain difficult things, having the ability to unfold mysteries - in short, understanding how to go to the foundation of things.

As defined in the National Park Service's (NPS) interpretive development program, interpretation "facilitates a connection between the interests of visitors and the meanings associated with park resources." All effective interpretation can be described as linking tangible resources (physical features, buildings, artifacts) to intangible resources (stories, people, values, ideas, systems) in order to reveal meanings.

**This is what our philosophical business is:**

We affirm that resources in every community and from every landscape are composed of both natural and cultural elements woven so tightly together that to separate them dilutes the truth of their union. Apostle Islands National Lakeshore (APIS) staff will work diligently towards an outcome that allows visitors to understand the foundation and mysteries that revolve around their personal connection to these resources, while protecting and preserving the resources we have been charged with.

## THE PURPOSE OF APOSTLE ISLANDS NATIONAL LAKESHORE



*"At a distance of one to five miles in the lake lie a cluster of wooded islands, which Carver called the Twelve Apostles. There appears to be fifteen or twenty in number, and they present a very beautiful and picturesque group..."*

- Henry R.  
Schoolcraft, 1820

- To protect the scenic, scientific, historic, geologic, and archeological features which contribute to public education, inspiration, and enjoyment.
- To preserve or restore the conditions and processes which sustain the indigenous flora and fauna, and the physiographic and geological resources of Apostle Islands National Lakeshore.
- To provide appropriate facilities necessary for visitors to experience the recreational and educational benefits of the park.

# POWER OF PLACE

## STATEMENTS OF SIGNIFICANCE



*This is a unique collection of islands... There is not another collection of islands of this significance within the continental boundaries of the United States. I think it is tremendously important that this collection of islands be preserved."*

- Senator Gaylord A.  
Nelson

Statements of significance clearly define the most important things about the park's resources and values. They serve as a tool in identifying primary park-wide interpretive themes and desirable visitor experiences. Significance statements help park managers and staffs focus on the preservation and enjoyment of those attributes that directly contribute to the purpose of the park and that must be protected.

The geologic features of the Apostle Islands National Lakeshore provide an outstanding opportunity for understanding the dynamic processes, which formed the Lake Superior Basin and continue to shape the region's landscape.

The cultural and tribal identity of the Lake Superior Ojibwe has deep historic roots in the Apostle Islands.

The park is exceptionally rich in scenic beauty, its shorelines carved into cliffs, caves, and sandscapes (perhaps the most diverse collection of coastal features in the Great Lakes).

The park provides a wide range of outstanding recreational opportunities in a pristine setting accessible from several large urban centers.

The rare combination of scenery, climate, and topography of the Apostle Islands affords sailing and sea kayaking opportunities found nowhere else in the Great Lakes region.

The park preserves significant forest not impacted by commercial logging or white-tailed deer. These old-growth stands include perhaps the best remaining examples of hemlock-hardwood forest in the upper Great Lakes.

The park preserves crucial migratory, nesting, and breeding habitat for a rich array of bird species.

The park preserves significant historic structures and landscapes which represent the economic and settlement activities of the Lake Superior Region in the 19<sup>th</sup> and 20<sup>th</sup> centuries.

The six historic light stations preserved in the lakeshore are the most significant collection in the Great Lakes, representing the architecture, engineering, and operational history of these important navigational aids for more than a century.

# CRITICAL ISSUES FOR INTERPRETATION



*"When we try to pick out anything by itself, we find it hitched to everything else in the Universe."*

- John Muir

## Natural Resources Management

Invasive exotic species can potentially cause significant negative impacts on native flora and fauna. What can management and visitors do to help prevent further spread?

Aquatic exotics - ruffe, gobi, zebra mussels, sea lamprey

Plants - purple loosestrife, spotted knapweed, garlic mustard, Eurasian water milfoil

Insects - gypsy moth

Heavy visitor use of the park's sandscapes (beaches, dunes, cusped forelands, tombolos, sandspits) threatens the fragile, unique ecosystems sandscapes support.

Increasing numbers of campers are causing measurable impacts on camping areas in the national lakeshore. Leave- No- Trace camping techniques can minimize impacts and improve the quality of the camping experience.

Black bears inhabit several islands in the national lakeshore. Visitor safety and bear survival is threatened if visitors do not take appropriate measures to prevent bears from becoming habituated to human food.

Visitor recognition of Apostle Islands National Lakeshore's significant wilderness characteristics (i.e., opportunities for solitude, quiet, clean air and water, clear night skies) will facilitate protection of these resources.

The Apostle islands provide habitat for 13 state threatened or endangered plants and for Federally threatened or endangered animals such as bald eagle, piping plover, and timber wolf.

Potential forest restoration efforts in the islands bring visitors in contact with smoke from prescribed fire and National Park Service operations that resemble low- technology commercial logging. Interpretation is necessary to help mitigate these impacts.

## **Management**

Lack of visitor awareness about safety issues contributes to visitor accidents; provide statistics on the most frequent visitor accidents to help raise awareness.

The sacrifice of families whose former property now makes up the park enjoyed by millions of visitors is not adequately recognized.

Many visitors do not take advantage of opportunities to visit the islands. Park staff could work with the concessionaire to increase use of Apostle Islands Cruise Service. His gains are our gains.

Improved relations with tribal groups must continue to be developed through consultation and hiring.

## **Protection/Visitor Safety**

Non- compliance with park rules and regulations impacts visitor safety. Examples include lack of appropriate number and type of approved personal flotation devices on boats, overloading small boats and dinghies, not using anchor lights and not keeping dogs on a leash.

## **Maintenance**

Improper disposal of trash, particularly in vault toilets, threatens park resources and the park's ability to maintain visitor facilities.

## **Resources Education**

The lack of specific "entrances" to the park complicates ability to provide basic and in- depth information to park visitors.

Restricted accessibility of island resources due to short visitor season and cost of transportation limit environmental education opportunities for area schools.

Interpretive programs must be strongly grounded with the most current information relating to park resources. Interpretation needs to be an element of resource management projects in the national lakeshore.

Insufficient data concerning visitor use patterns and visitor wants, needs, and desires hamper ability to design interpretation and education activities with assurance that they meet visitor and park management needs.

# MANAGEMENT GOALS - GOVERNMENT PERFORMANCE AND RESULTS ACT OF 1993 (GPRA)



*"Certainly a leader needs a clear vision of the organization and where it is going, but a vision is of little value unless it is shared in a way so as to generate enthusiasm and commitment. Leadership and communication are inseparable."*

- Claude Taylor

In 1995, the National Park Service (NPS) began actively working to comply with GPRA to develop a performance management system. This Act requires both strategic planning and performance measurement - setting goals and reporting. The Act seeks to make the federal government more accountable to the American people in its actions and expenditures. The NPS, with its mandate to preserve the nation's parks and treasures, can and must demonstrate its value to the American people. The interpretive program plays an important role in achieving desired results.

The following goals are for the year 2001. The annual plan will contain current versions of goals.

## Preserve Park Resources

**Mission Goal Ia:** Natural and cultural resources and associated values are protected, restored, and maintained in good condition and managed within their broader ecosystem or cultural context.

**Long Term Goal Ia6:** 75% of preservation, protection conditions in the park museum collection meet professional standards. This goal cannot be achieved without support from Midwest Archeological Center (MWAC). MWAC serves as a repository for 81,507 APIS archeological objects and 7,075 APIS archival objects.

**Mission Goal Ib:** The Apostle Islands National Lakeshore contributes to knowledge about natural and cultural resources and associated values. Management decisions about resources and visitors are based on adequate scholarly and scientific information.

**Long Term Goal Ib2d:** 100% of the objects housed at the lakeshore in 1997 are catalogued as well as new accessions. Again, without backlog cataloguing at APIS's repository (MWAC) being addressed this goal cannot be achieved.

## **Provide for the Public Enjoyment and Visitor Experience of Parks**

**Mission Goal IIa:** Visitors safely enjoy and are satisfied with the availability, accessibility, diversity and quality of park facilities, services, and appropriate recreational opportunities.

**Long Term Goal IIa1:** 85% of park visitors commenting through applicable studies, surveys, or park input opportunities indicate satisfaction with appropriate park facilities, services, and recreational opportunities.

**Long Term Goal IIa2:** Maintain the visitor accident/incident rate at the average five-year level for the period 1992- 1996.

**Long Term Goal IIa0-1:** Improvements in facility and program access have been accomplished which allow substantial participation in park activities by persons with disabilities at sites serving 66% of visitation to the lakeshore.

**Mission Goal IIb:** Lakeshore visitors and the general public understand, appreciate, and support the preservation of the lakeshore and its resources for this and future generations.

**Long Term Goal IIb1:** 86% of park visitors understand and appreciate the significance of the park they are visiting.

## **Ensure Organizational Effectiveness**

**Mission Goal IVa:** The Apostle Islands National Lakeshore uses current management practices, systems, and technologies to accomplish its mission. To become more responsive, efficient, and accountable, the lakeshore will continue to integrate its planning, management, accounting, and reporting and other

resource systems. Integrating or interfacing these systems will provide better cross-communication during daily operations and help accomplish the lakeshore's annual performance plans. Improvements in the areas of workforce diversity, employee safety, employee housing, and employee performance standards will help the lakeshore accomplish its mission.

**Long Term Goal IVa4:** Increase by 25% to a total of five, over 1998 levels, the number of employees from underrepresented groups in a targeted series of the Apostle Islands' workforce.

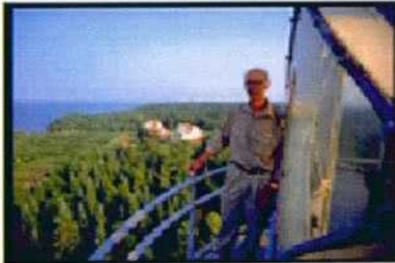
**Long Term Goals IVa6:** The national lakeshore's five-year average lost time injury rate will improve to 2.6 per 200,000 hours worked and the number of hours of continuation of pay will be at or below 221 hours.

**Mission Goal IVb:** The lakeshore increases its managerial capabilities through initiatives and support from other agencies, organizations, and individuals.

**Long Term Goal IVb1:** The number of Volunteers- In- Parks (VIP) hours contributed will meet or exceed 13,153 hours (FY1992- 96 average.)

**Long Term Goal IVb2:** The dollar amount of donations and grants will be maintained at FY 2000 levels.

# PRESENTATION OF PLACE/PRIMARY INTERPRETIVE THEMES WITH SUB-THEMES



*"Lake Superior has a beauty that millions can enjoy. These islands are part of our American Heritage. In a very real sense they tell the story of the development of this country."*

- President John Kennedy, 1963

Interpretive theme statements convey park significance. Primary park-wide interpretive themes are the key ideas through which the park's nationally significant resource values are conveyed to the public. They connect park resources to the larger ideas, meaning, and values of which they are a part. They are the building blocks—the core content—on which the interpretive program is based. Each primary theme may connect to a number of specific stories or sub-themes. Listed below are the seven primary interpretive themes with examples of sub-themes that relate to each one. These elements can be helpful in designing individual services ensuring that the main aspects of primary themes are addressed.

1. At the center of the continent, Lake Superior has long served as a highway of commerce connecting the Apostle Islands region to a global economy, thereby transforming the landscape and its people.

The Apostle Islands region has been home for bands of the Lake Superior Ojibwe people for hundreds of years.

Because the Apostle Islands were a center of the Lake Superior fur trade, European influence and settlement came early to the region.

The commercial endeavors of fur trapping, commercial fishing, timber harvesting, and quarrying drew European explorers, traders, and finally settlers to the Apostle Islands region.

Starting in the mid-nineteenth-century, the harvest of Apostle Islands' resources through logging, quarrying, and farming altered species composition and converted virgin forests into second growth forests and isolated fields.

Changes in the environment associated with the harvest of Apostle Islands' resources impacted the composition, distribution, and relative abundance of fish and wildlife species in the area.

A variety of transportation methods (i.e., railroads, boats, wagons, cars, wind sleds) were important to the settlement and tourism of the region.

Apostle Islands' residents have depended on a variety of communication methods (i.e., mail, telephone, radio) to provide links to the outside world.

Since the second half of the nineteenth-century, maritime enterprises have depended on navigational aids to guide ships through the Apostle Islands.

The collection of light stations gracing the Apostle Islands' shores represents not only America's westward expansion and the exploitation of regional resources for global markets, but also the preservation of resources for future generations.

**2. The stories of Apostle Islands National Lakeshore reveal themselves along edges where water meets land and sky, field meets forest, culture meets culture, and past meets future.**

Erosion and deposition caused by the persistent action of wind and waves on ancient sandstone and glacial till continually forms and reshapes the Apostle Islands.

Some of the Apostle Islands' most spectacular scenic resources are found along its dramatic shoreline cliffs, caves, and beaches.

The Apostle Islands' beaches, sandspits, tombolos, cusped forelands, and barrier spits comprise one of the most diverse collection of depositional features ("sandscapes") found in the Great Lakes.

Starting in the mid-nineteenth-century, the harvest of Apostle Islands' resources through logging, quarrying, and farming converted virgin forests into cleared fields.

The commercial endeavors of fur trapping, commercial fishing, timber harvesting, and quarrying drew European explorers, traders, and finally settlers to the Apostle Islands region.

Many European immigrants were attracted to this region by climate and job opportunities similar to what they experienced in their homelands.

The Apostle Islands region has been home for bands of the Lake Superior Ojibwe people for hundreds of years.

The Ojibwe people both historically and currently have utilized the natural resources of the Apostle Islands area to sustain their way of life.

The mantle of second- growth forest reclaiming the Apostle Islands contains isolated remnants of the old- growth hemlock- hardwood forest and boreal forest, which once characterized the region.

The glaciers have been gone for 10,000 years, yet the Apostle Islands continue to provide a home for sub- arctic plants found nowhere else in Wisconsin.

The collection of light stations gracing the Apostle Islands' shores represents not only America's westward expansion and the exploitation of regional resources for global markets, but also the preservation of resources for future generations.

3. After being altered by centuries of exploitation, the Apostle Islands' environment is slowly restoring itself and regaining its wilderness characteristics.

Starting in the mid- 19th- century, the harvest of Apostle Islands' resources through logging, quarrying, and farming altered species composition and converted virgin forests into second growth forests and isolated fields.

The mantle of second- growth forest reclaiming the Apostle Islands contains isolated remnants of the old- growth hemlock- hardwood forest and boreal forest, which once characterized the region.

The Apostle Islands provide critical habitat for more than 150 bird species that breed in the area and more than 200 bird species that stop in the islands during migration.

Natural events and human activities have affected the composition, distribution, and successional stages of vegetation in the Apostle Islands.

The wilderness character of the Apostle Islands offer visitors excellent opportunities to experience solitude, physical and mental challenge, scientific study, inspiration, and primitive recreation.

Preserving the Apostle Islands' wilderness characteristics depends on visitors' understanding of what those characteristics are and why they are important, and their willingness to follow Leave- No- Trace recreational practices.

The future state of the Apostle Islands environment is inseparably linked to the actions and processes of nature, science, management, and visitors.

**4. The Apostle Islands have long attracted people to Lake Superior's shore to enjoy world- class opportunities for a variety of recreational experiences.**

Apostle Islands National Lakeshore provides a wide range of outstanding recreational opportunities in a pristine setting.

The rare combination of scenery, climate, and topography of the Apostle Islands affords sailing and sea kayaking opportunities found nowhere else in the Great Lakes region.

Tourism and recreation were important historically to the settlement and development of this region and in the establishment of Apostle Islands National Lakeshore.

The wilderness character of the Apostle Islands offers visitors excellent opportunities to experience solitude, physical and mental challenge, scientific study, inspiration, and primitive recreation.

**5. The Apostle Islands' protected plant and animal communities, remote yet not removed from outside influences, serve as indicators to help measure the pulse of the planet.**

The Apostle Islands provide critical habitat for more than 150 bird species that breed in the area and more than 200 bird species that stop in the islands during migration.

The mantle of second- growth forest reclaiming the Apostle Islands contains isolated remnants of the old- growth hemlock- hardwood forest and boreal forest, which once characterized the region.

The glaciers have been gone for 10,000 years, yet the Apostle Islands continue to provide a home for sub- arctic plants found nowhere else in Wisconsin.

The Apostle Islands are natural laboratories to help study the effects of forest fragmentation and alternative forms of resource management in other areas.

Changes in the environment associated with the harvest of Apostle Islands' resources impacted the composition, distribution, and relative abundance of fish and wildlife species in the area.

Natural events and human activities have affected the composition, distribution, and successional stages of vegetation in the Apostle Islands.

## **6. Lake Superior defines the Apostle Islands, shapes its ecosystems, and sustains life in the region.**

The glaciers have been gone for 10,000 years, yet the Apostle Islands continue to provide a home for sub-arctic plants found nowhere else in Wisconsin.

Erosion and deposition caused by the persistent action of wind and waves on ancient sandstone and glacial till continually forms and reshapes the Apostle Islands.

Natural events and human activities have affected the composition, distribution, and successional stages of vegetation in the Apostle Islands.

The composition, distribution, and relative abundance of wildlife species in the Apostle Islands is influenced by Lake Superior's role as a natural barrier to migration.

Lake Superior, through its effect on regional weather pattern, influences the Lakeshore's natural environment and human activities.

The extensive interface of terrestrial and aquatic ecosystems helps create a remarkable diversity of species at Apostle Islands National Lakeshore.

## **7. Dynamic and uncontrollable, Lake Superior is a force to be encountered on its own terms.**

Tranquil one moment and violent the next, changing weather conditions have a tremendous impact on the plans and recreational pursuits of Apostle Islands' visitors. (Lake Superior, through its effect on regional weather patterns, influences the lakeshore's natural environment and human activities.)

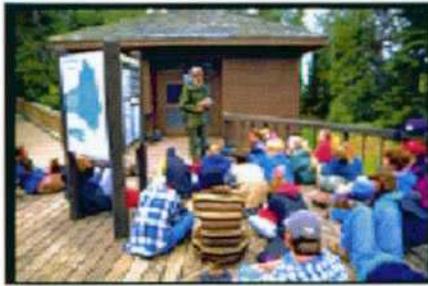
The lake's expanse of freshwater serves to facilitate some forms of transportation but also forms a barrier to people, plants, and animals.

Light stations built on the Apostle Islands to facilitate development of area resources also served to preserve significant areas of old-growth forest.

Though the Apostle Islands usually meant shelter for sailors, they were also the scenes of disastrous shipwrecks.

The largest freshwater lake in the world (by surface area), Lake Superior is an inland sea sustaining wind and wave conditions of a magnitude not seen on most lakes.

# WHO IS THE AUDIENCE?



*"This area holds marvelous recreational possibilities for the future, and in time will come into its own."*

- Assistant National Park Service Director Arno Cammerer, 1931

The National Park Service Public Use Statistics Office in Denver records monthly and annual visitation statistics.

## Annual Recreational Visits 1990 - 2000

1990	140,980
1991	141,038
1992	113,106
1993	129,793
1994	147,376
1995	167,909
1996	168,614
1997	183,636
1998	236,829
1999	193,260
2000	182,814

## Average Monthly Recreational Visits 1990 - 2000

January	501.4
February	1,308.0
March	1,407.5
April	2,093.8
May	6,682.5
June	20,589.9
July	45,173.8
August	51,063.5
September	23,339.5
October	7,596.0
November	1,615.5
December	873.3

## Average Seasonal Visitation Patterns 1990 - 2000

Spring: March - May	6.28 %
Summer: June - August	72.01 %
Autumn: September - November	20.06 %
Winter: December - February	1.65 %

**Recreational Users**

Sailors, kayakers, power boaters, hikers, swimmers, campers, shoppers, photographers, fishers, hunters, excursion boat sightseers, land-based sightseers, birdwatchers, lighthouse buffs, explorers, divers, national park visitors/collectors, berry pickers, students of nature

**Educational Users**

Students (all ages), teachers, correctional programs

**Spiritual Users**

Weddings, funerals, wilderness users (solitude, spiritual re-creation), York Island memorial

**Cultural Users**

Artists

**Commercial Users**

Concessions, outfitters, fishermen, cruise ships, bus tours, media, National Park Service employees, and freighters seeking protection

**Stewards**

Staff, friends of the park, volunteers, politicians, benefactors, Native Americans, all visitors could/should be

**Virtual (off- site) Users**

Internet, Site Explorer, mail/phone information requests, Bayfield/Madeline Island visitors, Big Top Chautauqua

**Other User Groups**

(May fall in any or all of the above categories): Children, senior citizens, disabled, international (non- English speaking), local residents

Recent trends reflect that cruise line traffic to the Apostle Islands is increasing with approximately four ships currently arriving annually.

The headquarters visitor center continues to be the only national lakeshore experience for many motor coach users other than a windshield tour along Lake Superior shores.

## VISITOR EXPERIENCE STATEMENTS



*"I was alone in a wild and lovely place, part of the dark forest through which I had come, and of all the wild sounds and colors and feelings of the place I had found. That day I entered into a life of incredible beauty and delight. There I believe I heard the singing wilderness for the first time."*

- Sigurd Olson

Visitor experience may be described as those memories, often few and characterized by feelings rather than knowledge, visitors accrue during their contact with a place. Often the most memorable experiences occur informally. The best experience for some visitors may be a casual walk along a sandy lakeshore beach. Others may remember the gentle flight of gulls crossing a bay. Crossing a channel by boat facing a caressing breeze to discover sea caves and lighthouses may become another visitor's most memorable experience.

Resources and facilities provide opportunity for a variety of experiences throughout the park. Experiences range from a drive-by windshield tour to a half-day mainland or island experience to a several day immersion in area resources. Visitor experience opportunities emphasize more specific stories as visitors travel farther away from the inner islands.

**Mainland** - (Sense of Arrival and Comforting Knowledge) - Park facilities and resources at Meyers Beach, Little Sand Bay and Bayfield; and at contact points including Northern Great Lakes Visitor Center, Washburn, Red Cliff, and Cornucopia provide information and interpretation that tell all park themes and stories. Resources at these locations provide vicarious glimpses of island environments and characteristics for visitors who cannot or do not visit the islands. Alternatives offered at the park visitor center help people decide among experience opportunities available to them and encourage them to go to other sites in the park and promote use of mainland sites.

**Inner Islands** - (Initial Exploration, Social Island Experience) – Islands close to the mainland - Basswood, Hermit, Oak, Raspberry, York, and Sand - provide opportunity to experience natural island environments while maintaining a sense of relative security and connection to the mainland. Here visitors can find many opportunities for group experiences and may frequently encounter other visitors and a significant amount of boat traffic.

**Middle Islands** – (Immersion in the Island Environment) – Visitors to Long, Stockton, Manitou, Ironwood, Otter, Bear, Rocky, and South Twin Islands find fewer signs of people than on the mainland or the inner islands. Probability of frequent encounters with other visitors and management staff will be moderate. Visitors will have more opportunity to experience natural quiet and feel isolated from the mainland.

**Outer Islands** – (Solitude) - Encounters with other visitors and park staff will be infrequent on Devils, North Twin, Cat, Outer, Michigan, and Gull Islands. These less visited islands provide more natural, remote, primitive experiences. Visitors who are more self-reliant can find opportunity for challenge, adventure, solitude, and quiet.

Visitor experience statements describe desired ends or visions for the lakeshore's future to be achieved through planning, design, development, and operation. Long-range interpretive plan proposals should facilitate the following statements of visitor experience.

Visitors have an enjoyable experience as a result of receiving accurate trip planning, orientation materials and interpretation of significant themes, and stories about the Apostle Islands region.

Visitors are prepared to safely experience a wide variety of water and land-based recreational opportunities.

Visitors experience clean facilities in a pristine environment.

Visitors experience courteous, consistently respectful service from National Park Service personnel.

Visitors find opportunities to safely experience wildlife and a variety of plant communities in unspoiled natural areas.

Visitors are provided opportunities to experience isolation, solitude, and a sense of remoteness.

Visitors have opportunity to participate in hands-on, tangible experiences in the resource that produce strong memories.

Visitors are informed about the Apostle Islands' rich cultural heritage to help them put their experience in historical perspective and give them a deeper sense of connection to the area. Stories of past inhabitants help visitors "feel the people who were here."

Visitors are prepared to experience an environment where the lake and natural forces control what happens. Help open visitors to adventure...the experiences not planned for. Visitors always hope for perfect weather, but should be encouraged to experience foul weather days. Having to adapt and make do can produce the strongest memories.

Visitors realize that they will experience real resources in a real world, not a controlled environment. Visitors need to have real experiences to learn to love the resource.

Group experiences are facilitated through limited development in specific areas.

Visitors are provided opportunities to do something good for the park, to give something back through active stewardship.

Visitors receive a clear explanation of park rules and regulations established to protect park resources and promote a safe experience.

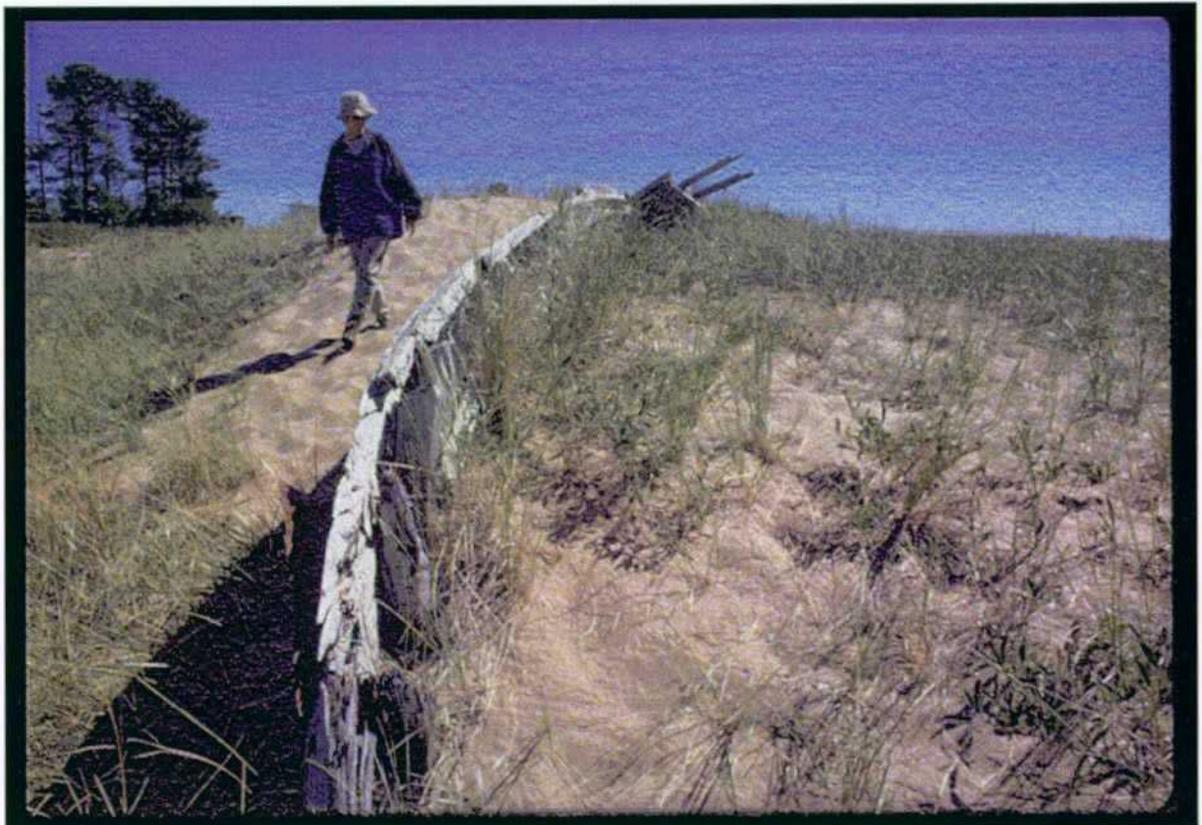
Visitors understand the need to minimize their impacts on park resources to limit their effects on the experiences of others.

Visitors experience how environmental threats to the islands result from human activities and how our daily lives can impact the park.

Visitor experiences are broadened through programs offered by park neighbors and partners outside park boundaries (cultural demonstrations at Red Cliff, historical musicals at Big Top Chautauqua.)

# INTERPRETIVE PROGRAM DESCRIPTION

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# INTERPRETIVE PROGRAM INTRODUCTION



*"Those who contemplate the beauty of the earth find reserves of strength that will endure as long as life lasts."*

- Rachel Carson

This section of the comprehensive interpretive plan proposes educational and informational media and personal services to enhance the interpretive future of Apostle Islands National Lakeshore. It responds to the assessment of existing and planned visitor use programs described in the **BACKGROUND FOR PLANNING** section of this document. Proposals are specific enough to define interpretive concepts but not so prescriptive they thwart the creativity of future media designers and park staff.

Interpretive proposals will be described for each of the following: Matching Themes, Media, and Interpretive Sites; Off-site Information and Orientation; Park-wide Program; and Site Inventory of Themes, Resources, Facilities, and Staff.

Recommendations in this plan are based on existing approved plans, such as the general management plan, development concept plan, and strategic plan.

## Matching Themes, Media, and Interpretive Sites

APIS = Apostle Islands National Lakeshore

BA = Basswood Island

Big Bay = Big Bay State Park

DE = Devil's Island

EN = Eastern National Parks and Monuments Association

HQ = Headquarters

Isl = Island

LSB = Little Sand Bay

MI = Michigan Island

NGLVC = Northern Great Lakes Visitor Center

OA = Oak

OU = Outer Island

RA = Raspberry Island

S. = South

SA = Sand Island

ST = Stockton Island

Desired Future Interpretive Program - Program Overview			
Primary Park- wide Interpretive Themes	Interpretive Audiences		
	1. General Audience	2. Organized Educational Groups	3. Non- English Speaking
i. At the center of the continent, Lake Superior has long served as a highway of commerce connecting the Apostle Islands region to a global economy, thereby transforming the landscape and its people.	Wayside Exhibits Light Stations, Quarries, Logging Camps, Fishing Camps	Lighthouse Curriculum Rasp. Isl. Lighthouse	Translation of Park Brochure All locations
	Exhibits NGLVC, RA, DE	Guided Tours Light Stations, Fish Camps	Ojibwe Site Bulletin
	Guided Tours Light Stations, Fish Camps	Park Brochure All locations	Translation of Site Bulletin(s)
	Park Brochure All locations	Web Site Internet	Informal Contacts via Other Languages HQ, LSB, RA

	Site Explorer HQ, LSB, NGLVC	Interpretive Talks HQ	
	Sales Publications EN sales outlets		
	Site Bulletins OU, BA, OA, SA, ST, Lights of APIS		
	Web Site Internet		
	Interpretive Talks HQ		
	Informal Contacts Light Stations, Fish Camps		
	Park Newspaper Park- wide, off- site		
2. The Stories of Apostle Islands National Lakeshore reveal themselves along edges where water meets land and sky, field meets forest, culture meets culture, and past meets future.	Exhibits LSB	Lighthouse Curriculum Rasp. Isl. Lighthouse	Translation of Park Brochure All locations
	Park Film HQ, LSB	Guided Tours Light Stations, Fish Camps	Ojibwe Site Bulletin
	Wayside Exhibits Farm Sites (SA, BA)	Park Brochure All locations	Translation of Site Bulletin(s)
	Guided Tours Light Stations, Fish Camps	Web Site Internet	Informal Contacts via Other Languages HQ, LSB, RA
	Evening Programs ST, LSB	Apostle Islands School ST, SA, BA, LSB	
	Guided Cruises Concession	Park Film HQ, LSB	
	Web Site Internet	Interpretive Talks HQ	

	<b>Site Explorer</b> HQ, LSB, NGLVC		
	<b>Park Brochure</b> All locations		
	<b>Park Newspaper</b> Park- wide, off- site		
	<b>Sales Publications</b> EN sales outlets		
	<b>Informal Contacts</b> Light Stations, Fish Camps		
3. After being altered by centuries of exploitation, the Apostle Islands' environment is restoring itself and regaining its wilderness characteristics.	<b>Informal Contacts</b> HQ, LSB, ST	<b>Lighthouse Curriculum</b> Rasp. Isl. Lighthouse	<b>Translation of Park Brochure</b> All locations
	<b>Camping Brochure</b> Park- wide	<b>Apostle Islands School</b> ST, SA, BA, LSB	<b>Ojibwe Site Bulletin</b>
	<b>Bulletin Boards</b> Park- wide, Outhouses	<b>Park Brochure</b> All locations	<b>Informal Contacts via Other Languages</b> HQ, LSB, RA
	<b>Web Site</b> Internet	<b>Web Site</b> Internet	
	<b>Park Newspaper</b> Park- wide, off- site		
	<b>Park Brochure</b> All locations		
	<b>Guided Walks</b> ST, RA		
	<b>Evening Programs</b> ST		
	<b>Wayside Exhibits</b> ST, OA		
	<b>Sales Publications</b> EN sales outlets		
	<b>Site Bulletins</b> OU, BA, OA, SA, ST		

4. The Apostle Islands have long attracted people to Lake Superior's shore to enjoy world- class opportunities for a variety of recreational experiences.	Exhibits NGLVC, HQ, LSB	Park Brochure All locations	Translation of Park Brochure All locations
	Park Film/Videos HQ, LSB, Cruises	Web Site Internet	Translation of Site Bulletin(s)
	Web Site Internet	Park Film HQ, LSB	Informal Contacts via Other Languages HQ, LSB, RA
	Bulletin Boards Park- wide	Apostle Islands School ST, SA, BA, LSB	
	Informal Contacts Park- wide		
	Site Explorer HQ, LSB, NGLVC		
	Site Bulletins (Boating, paddling, camping, diving)		
	Park Newspaper Park- wide, off- site		
	Park Brochure All locations		
	Trail Guide and other Sales Publications EN sales outlets		
	Wayside Exhibits Kiosks, S. Twin		
	Informal Contacts HQ, LSB, ST, RA		

5. The Apostle Islands' protected plant and animal communities, remote yet not removed from outside influences, serve as indicators to help measure the pulse of the planet.	<b>Guided Tours Light Stations</b>	<b>Apostle Islands School ST, SA, BA, LSB</b>	<b>Translation of Park Brochure All locations</b>
	<b>Guided Hikes ST, RA</b>	<b>Web Site Internet</b>	
	<b>Exhibits ST</b>	<b>Park Newspaper Park- wide, off- site</b>	
	<b>Wayside Exhibits SA, ST, DE, RA, OA, OU</b>		
	<b>Julian Bay Trail Guide ST</b>		
	<b>Site Explorer HQ, LSB, NGLVC</b>		
	<b>Web Site Internet</b>		
	<b>Sales Publications EN sales outlets</b>		
	<b>Informal Contacts ST, RA, OU, SA</b>		
	<b>Park Newspaper Park- wide, off- site</b>		
	<b>Guest Lecture Series HQ</b>		
6. Lake Superior defines the Apostle Islands, shapes its ecosystems, and sustains life in the region.	<b>Exhibits NGLVC, HQ, LSB, ST</b>	<b>Apostle Islands School ST, SA, BA, LSB</b>	<b>Translation of Park Brochure All locations</b>
	<b>Guided Hikes ST, RA</b>	<b>Lighthouse Curriculum Rasp. Isl. Lighthouse</b>	<b>Ojibwe Site Bulletin</b>
	<b>Evening Programs ST, LSB, Big Bay</b>	<b>Web Site Internet</b>	

	Guest Lecture Series HQ	Park Film HQ, LSB	
	Web Site Internet		
	Park Newspaper Park- wide, off- site		
	Park Brochure All locations		
	Guided Cruises Concession		
	Sales Publications EN sales outlets		
	Wayside Exhibits		
	Site Bulletins		
	Park Film HQ, LSB		
	Informal Contacts HQ, LSB, ST		
7. Dynamic and uncontrollable, Lake Superior is a force to be encountered on its own terms.	Guided Tours Light Stations, Fish Camps	Lighthouse Curriculum Rasp. Isl. Lighthouse	Translation of Park Brochure All locations
	Park Brochure All locations	Apostle Islands School ST, SA, BA, LSB	Translation of Site Bulletin(s)
	Park Newspaper Park- wide, off- site	Web Site Internet	Informal Contacts via Other Languages HQ, LSB, RA
	Web Site Internet	Park Newspaper Park- wide, off- site	
	Evening Programs ST, LSB, Big Bay	Interpretive Talks HQ	
	Wayside Exhibits LSB, Kiosks		
	Exhibits NGLVC		
	Bulletin Boards		
	Site Bulletins		

	<b>Sales Publications</b> EN sales outlets		
	<b>Informal Contacts</b> HQ, LSB, RA, DE, MI, SA, ST		

## OFF-SITE INFORMATION AND ORIENTATION



*"National Parks are the best idea we ever had. Absolutely American, absolutely democratic, they reflect us at our best rather than our worst."*

- Wallace Stegner, 1983

Anticipation and excitement about Apostle Islands National Lakeshore begins long before visitors arrive at the park. Potential visitors and others seeking knowledge of the park will have convenient access to adequate, accurate information and interpretation of themes, resources, activities and programs while at home, as they travel and upon arrival at the park. A variety of media can help visitors build appropriate expectations for their visit, understand time and cost requirements to experience the islands, and learn about possible educational and recreational experiences available at the park.

From their homes, potential visitors can find information through telephone, publications distributed by mail, local media broadcasts, and the park's home page address on the Internet.

A variety of publications will inform potential visitors and others interested in the lakeshore about what to expect, including limitations of the island experience and how to prepare for it.

People accessing the park website on the Internet can learn about significant resources, resource management programs and special activities, and visitor services. The website will include an expanded "virtual visitor center" that provides evocative interpretation of all park themes for people who cannot visit the area. Electronic versions of site bulletins will provide detailed information about specific topics. Short digitized video clips from park interpretive films, clips showing various park locations and audio segments can easily be incorporated into the website. Pages dedicated to each division or each function (interpretation, protection, resource

management, park management, and administration) may be developed and linked to a central page to reflect a complete, unified park operation. Links to websites of partner organizations will allow people to contact those entities for specific information about their resources, facilities, and stories related to Apostle Islands.

A video version of the park's interpretive film can be made available to regional tourism offices, local cable television, and other closed circuit systems. These entities reach a large number of potential visitors in communities surrounding the lakeshore and in urban areas from which many visitors travel.

Cooperative promotion of park visitor experience opportunities through Wisconsin and Minnesota cultural and natural sites, state and local tourism media, and brochures distributed at state and regional welcome centers will attract visitors as they approach the park. Descriptions of the lakeshore should create images of an intriguing natural landscape with a multitude of wildlife and many opportunities for recreational and educational experiences. Wayside exhibit kiosks outside the park can prepare visitors for lakeshore experiences. In addition to the existing kiosks at the Bayfield waterfront and Port Superior Marina, possible locations include Washburn, Madeline Island, Cornucopia, Red Cliff, and Ashland.

The Northern Great Lakes Visitor Center in Ashland, Wisconsin, is a multi-agency visitor center that serves as a gateway to the region. Apostle Islands National Lakeshore uniformed personnel staff the information desk at the center.

A Travelers Information Radio Station (TIS) is located on Highway 13 west of Meyers Road. The station will provide information appropriate to its location with content written and narrated in an interpretive style. The station can welcome visitors to the lakeshore, describe visitor experience opportunities, invite people to explore park resources, introduce the need for preservation of these important resources, and identify the Headquarters Visitor Center and Little Sand Bay Visitor Center as essential stops for additional visitor information. Design and installation of radio facilities will be coordinated with the National Park Service TIS Coordinator, WASO Office of Operations Engineering.

## PARK-WIDE INTERPRETIVE PROGRAM



*" There are certain values in our landscape that ought to be sustained against destruction or impairment, though their worth cannot be expressed in money terms. They are essential to our "life, liberty, and pursuit of happiness." This nation of ours is not so rich it can afford to lose them; it is still rich enough to afford to preserve them."*

- National Park Service  
Director Newton B. Drury, 1951

Resources and facilities throughout the park provide visitors many opportunities to participate in a variety of activities appropriate for audiences with different levels of interest, understanding, and sophistication. Most visitors will find activities that match their preferred level of involvement with the area. Some may choose in-depth education. Others can select activities for an extensive involvement with mainland and island environments. Still others may pursue a casual driving experience along mainland roads that offer distant views to the Apostle Islands. A few may only want to get away from their work for a short time or to picnic in a pleasant area. Whatever their level of interest visitors will find information and facilities that help them quickly identify appropriate options and select the ones most likely to meet their needs.

Easy, convenient access to all significant park resources, programs, and facilities can minimize distractions from non-park attractions. Interpretive programs and services can contribute to a safe environment throughout the park and will provide the primary vehicle for delivery of park management concepts and activities to visitors and park neighbors. Polite, sensitive, knowledgeable, courteous, professional, and efficient staff and innovative media will provide accurate interpretation based on the best available documented research developed by all park management departments.

Entry signing, directional signing, and orientation and interpretation wayside exhibits throughout the park need to be planned concurrently to reflect design compatibility and consistency. This

comprehensive interpretive plan recommends an updated park-wide sign plan be developed in conjunction with a wayside exhibit proposal and plan. The plans should consider location, message and design of signs and wayside exhibits throughout the park. This will be conducted in cooperation with the park sign committee and the maintenance division with input from all staff.

Opportunities for a variety of experiences help visitors acquire an understanding and appreciation of park values and a sense of the importance of protecting park resources. The interpretation program will incorporate a variety of media, including personal services, exhibits, waysides, publications, audiovisuals, and web pages to meet the needs of existing and potential audiences. Cultural history, natural history, and wilderness preservation will receive balanced emphasis through personal and non-personal services to meet management goals.

## **Personal Services**

Personal service activities will continue to be an essential component and occupy a major portion of the overall interpretive operation.

Professional interpretation conveys important messages from all park divisions to visitors. Resources education staff takes a lead role in sharing information about other division operations. Law enforcement rangers, maintenance, resource management, and administration staff all share visitor service responsibilities. All have a vital role responding to visitor inquiries for directions and providing information about resources and programs. Having a staff of knowledgeable, helpful individuals working together as a team to protect resources and serve visitors projects a positive image to the public. To facilitate high quality visitor service and to help all employees achieve their public contact performance competencies, a summary sheet of information will be given to all park staff so they understand basic interpretive visitor contact responsibilities. Basic customer service training will also be provided to all park staff. All management departments will be offered the opportunity to be included in interpretation training as presenters and participants. The assurance of this is a supervisory issue and can be dealt with through performance standards that are already in place.

Personal services have the advantage over most other media of being tailored to the needs of individuals or groups to help people understand and appreciate the significance of the lakeshore. Interpretive staff, whether behind an information desk, leading a tour, conducting a children's education program at a lighthouse, or informally roving through sites frequented by visitors are the best interactive devices in helping people experience, understand, and appreciate the park's significance. During the visitor season a variety of personal service activities such as walks, tours, evening programs, lectures, and special events provide opportunities for visitors to get to know and enjoy lakeshore resources. Effective

use of personal services will require stationed assignments at visitor contact facilities, roving contacts at the most frequented field sites, scheduled offerings of environmental education activities, and occasional talks and guided walks. Park staff will continue to assist with on and off-site staffing during events such as Minnesota Education Association activities, Color Season - September/October, Lighthouse Celebration, and Apple Festival.

The quality of interpretive and educational programs presented to the public, and by extension the image and reputation of the National Park Service, are directly related to the skills, training, and professionalism of those who provide the service. A competent, well-trained work force is essential to the delivery of high-quality interpretation and education. Accordingly, all National Park Service interpreters will strive to achieve the certification standards for the essential benchmark competencies identified in the Interpretive Development Program.

A professional training program is vital to ensure a well designed personal service interpretive program that includes consistency and high quality. In addition to instructing what goes on at various sites, a training program will focus on content, accuracy, completeness, and interpretive and communication skills necessary for preparing and presenting programs and activities. The park will provide training and up-to-date information for the employees of boat tour and transportation providers, kayak liveries, marinas, and other partners who provide visitor services in the national lakeshore.

Visitation to various sections of the park will be monitored regularly and personal service activities scheduled in response to changing visitation patterns to assure maximum visitor contact possible within allotted budget.

The personal service interpretive program will be routinely examined to evaluate its thematic depth and diversity. Continuous appraisal of the program should focus activities on specific resources and compelling stories and assure that visitor desires and management needs are met with the greatest possible effectiveness.

Uniformed employees, volunteers, and cooperating association sales clerks will staff visitor center information and sales desks. Staff will give directions to various points of interest in the park and give information about special activities. Personal services at the visitor contact stations can give personal attention to regulations, safety, resource management issues, and other matters affecting park use. Cooperation and sharing of expertise among all park departments will assure that visitors receive the most up-to-date information about park issues and activities and understand the importance of each division's contributions to high quality resource protection and visitor use.

Communication between park staff and neighbors through outreach programs creates a positive personal relationship and effectively communicates important resource based messages to local communities near the park. Interpretation plays an important role in educating the public about park and adjacent land issues. Interpreters are responsible for informing the public about the values of the park and surrounding resources. They educate the public about the role and responsibility of the National Park Service in land conservation, and encourage the public to accept personal responsibility in preserving the park and conserving surrounding lakeshore resources.

## Wayside Exhibits

The current collection of outdoor exhibits displayed in the park include routed interpretive or informational signs, lexan and fiberglass exhibits, and bulletin cases displaying a variety of park information. Only two exhibit panels that were developed by Harpers Ferry Center (HFC) in 1997 meet present NPS- HFC wayside exhibit standards. They conform to unigrid design and use full- color graphics. Text is concise and compellingly written, but the graphic design of the panels is simplistic and misses opportunities to display information in a more functional and content- intriguing manner.

The overall appearance of park outdoor exhibits seems dated and does not establish any park design uniformity. In an attempt to correct this situation, the park in cooperation with Harpers Ferry Center, conducted a park-wide assessment of all wayside exhibit needs in 2001. Terry Lindsay and Ron Roos from the Department of Wayside Exhibits at the Harpers Ferry Center are preparing a wayside exhibit proposal outlining the number of exhibits required, the purposes for each exhibit, park themes to be addressed by the exhibits, a schedule for completion of the exhibit work (if to be created by HFC), and a project budget detailing the estimated cost of the proposed project. This unified approach to development of wayside exhibits using Harpers Ferry Center exhibit specialists and park specialists representing all park divisions and expertise assures exhibits that reflect sensitivity to themes and landscapes in language, text, design, and placement. Wayside exhibits cannot meet all the park interpretive needs but will contribute toward communication of park themes in conjunction with other interpretive media and park personal services. Three levels of wayside exhibits may be appropriate for Apostle Islands: orientation exhibits, trailhead exhibits, and site- specific interpretive exhibits.

Wayside exhibits work best as a site- specific interpretive medium helping visitors make connections with the natural and cultural landscape. They should be graphically compelling and content rich, but succinctly written and avoiding any intrusion on the site.

With the expected designation of much of the park's land base as wilderness, wayside exhibits will be restricted to non-wilderness zones. Trailhead exhibits that introduce visitors to features within wilderness areas will do so in general terms to conform to the philosophy of wilderness management, which encourages a sense of discovery. Wayside exhibit maps can make distinct the park wilderness boundaries and text will convey the experiential expectations that should be recognized by visitors when entering designated wilderness.

## **Museum Exhibits**

Several sites in the park are appropriate to house museum exhibits. Exhibits are recommended for the park Headquarters Visitor Center, Northern Great Lakes Visitor Center, Little Sand Bay Visitor Center, Presque Isle contact station, Manitou Fish Camp, and selected light stations. Exhibits can provide experiences of varying complexity, allowing visitors to select the depth of involvement with the exhibit they choose. Exhibits can graphically transcend language and cultural barriers by incorporating artwork, artifacts, or mixed media to produce desired atmosphere or effects. They promote visitor participation and encourage learning through interaction between individuals in the viewing party and the exhibit.

## **Historic Furnishings**

Historically accurate refurnished rooms offer the public a unique interpretive experience by placing visitors within historic spaces. Surrounded by historic artifacts visitors can feel the spaces "come alive" and relate more directly to the historic events or personalities commemorated by the park. The approach used to convey the experience of historically furnished spaces will vary from site-to-site. The goals, however, will remain the same, to give the public as rich an interpretive experience as possible given the nature of the structure.

Hokenson Brothers Fishery, the Manitou Fish Camp, and one light station, probably Raspberry Island light, will be partially or fully furnished. Previous historic furnishing recommendations will be reviewed and revised or a new furnishing study will be developed for these locations. An evaluation of existing furnishings and recommendation to improve visitor experiences at the sites will provide documentation and site plans for building interiors and related grounds in the immediate vicinity of the structures.

## **Education Program**

Apostle Islands National Lakeshore is a popular attraction for school groups and offers remarkable opportunities for education of visitors. In 1986, Northland

College, in cooperation with Apostle Islands National Lakeshore, began developing the Apostle Islands Outdoor Education School program (also known as "Apostle Islands School"). The program is an upper-level, intensive, month-long outdoor education course at Northland College. It is designed to give the college students practical experience in designing and running an outdoor education program. It also gives area sixth-graders a chance to explore and learn about the national lakeshore. Apostle Islands staff help select Islands School locations, are available to deal with emergency situations, train Northland College students, orient them to park resources, help them prepare and present effective programs, and represent the National Park Service during Islands School sessions in the national lakeshore.

A 1997 National Park Service "Parks-as-Classrooms" grant helped fund the Apostle Islands Leadership Academy, a collaborative service learning effort between the National Park Service and the White Bear Lake School district of White Bear Lake, Minnesota. The academy combined classroom activities for high school students with a five-day field expedition to the Apostle Islands including exploration and adventure activities and a hands-on service project benefiting the national lakeshore. A curriculum for the project is still being developed. In 1998, a Lighthouse Curriculum program was developed with a grant from the National Park Service "Parks-As-Classrooms." A team of Apostle Islands National Lakeshore staff and teachers from the Ashland, Bayfield, and Washburn school districts wrote and implemented the curriculum. A grant from Exxon has allowed the staff from Apostle Islands National Lakeshore to work with teachers from Washburn, Wisconsin, schools and the CESA #12 in Ashland, Wisconsin, to develop and present programs that incorporate National Science Standards into the schools' curriculum. The program presently involves middle school students in a study of Lake Superior's geology and high school students in an Apostle Islands wetland study.

The curriculum based education program will be continued and expanded to enhance educational opportunities. Currently school groups have limited opportunity in May and September to get into the resource due to weather conditions and park closures. The park's education program will involve a combination of on-site and off-site activities, all based on aspects of the primary interpretive themes, to increase opportunities for regional schools to learn about park resources. An education component on the park's website will offer learning experiences to schools worldwide.

Across the country teachers and students are realizing that one of the most powerful ways to learn about America's national parks is through service learning projects. Staff will create opportunities for service-learning projects, as discussed in "Service-Learning in the National Park Service/Advice for Teachers." This publication was made possible by a Parks-as-Classrooms grant.

Partnership resources in and around the lakeshore create potential for a broad-based, multi-faceted program involving numerous agencies and institutions. The program will be aimed at multiple audiences, including children and adults. While most activities will be resource based, some can be developed for access on computer network systems for both school and home use.

Active and direct involvement with cooperating school districts will be necessary to assure a well-coordinated, beneficial education experience for all groups. A cultural education specialist will coordinate the park's program. The coordinator will work to provide opportunities for people to make connections with Ojibwe heritage and to illustrate the connections between that heritage and the land. To achieve this goal, the education specialist will attend faculty meetings, in-service workshops, seminars, and other teacher gatherings. The coordinator and other rangers or volunteers may visit schools within commuting distance to encourage cooperation between the park and school districts.

During school breaks, the education program may be adapted to provide teacher workshops for continuing education credits. Many self-directed activities developed for the education program may be made available to individuals and family groups visiting the lakeshore year-round.

## **Publications**

Publications play an important role in the park's interpretive program. Publication recommendations (photographs and literature or electronic equivalent) can be divided into three types: general publications, general park publications, and "site bulletin" topical publications.

General publications related to Apostle Islands are available through commercial sources. Eastern National, the park's cooperating association, offers an excellent array of high quality products for sale in visitor contact stations. The current product line will be continued and new products sought to improve, augment, or replace existing inventory. Eastern National also provides funds to develop park specific publications.

The primary general park publication, a Harpers Ferry Center produced unigrid folder, should be replaced. A larger folder, Harpers Ferry B-4 type, will include additional space for graphics and text. A larger map will illustrate how Lake Superior reflects park themes. Text presented in the existing folder will be re-written to provide a more balanced coverage of the lakeshore's tangible natural and cultural resources, along with description of the meanings and significance of those resources. The new folder will build from and link to the proposed wayside exhibit system and the new audiovisual program. Folder text and design will

reinforce the visitor experience areas described in **VISITOR EXPERIENCE STATEMENTS**.

The new park folder design will appeal to and be useful for visitors as they travel through the park. Visitor reaction to the revised folder can be gauged continually. Future changes and corrections to the text can be made easily since the new folder will exist as a digital file. The revised unigrid folder will remain the park's core publication supported by site bulletins and other park-produced publications.

A wide range of general park publications and site bulletins cover most of the interpretive opportunities available at all park units. Individual publications already share a basic design approach; what is called for now is fine-tuning. A publications committee composed of interpreters and other staff members should evaluate the entire library of publications, especially in light of the Messaging Project, to see how these various products can be organized into a coherent family. The review should precede any additional changes; the publications can be altered after a uniform design is approved and the individual publications scheduled for reprint. The Chief of Resources Education will review all new project proposals to ensure that they meet standards the park has decided upon. The Superintendent will give final approval.

The park newspaper, printed annually, provides opportunities to present changing programs, trends and current information that is inappropriate for inclusion in the park folder that cannot be revised annually. The publications committee proposed above might recommend a mission for the newspaper to make it more relevant to the park audience and to determine how it fits with other publications. A theme may be established for each edition to connect all articles. The style can follow dynamic newspaper guidelines that less is more so the publication includes only critical, current research, activities and programs. Printing the newspaper biannually could help further refine the focus for articles included in the publication. Content might include rules and regulations, closed areas, construction projects, children programs, what is new in the park, schedules, emergency contacts, and location of activities.

The existing park handbook is informative and colorful, but lacks connectivity among cultural and natural themes and current audiences. When the existing inventory is depleted, the handbook should be revised before reprinting to reflect updated research, themes, and audiences.

## Audiovisuals

A new interpretive film serves as a "virtual" experience for visitors who cannot travel to the islands. A video version of the film may also be sold and distributed to television stations and schools.

The film will be more of a poem than an essay. The primary theme of the film will be: The stories of Apostle Islands National Lakeshore reveal themselves along edges where water meets land and sky, field meets forest, culture meets culture, and past meets future. The film goals are:

- The park film will be an orientation for park visitors, shown at Headquarters and Little Sand Bay.
- The park film will help visitors to make their own emotional and intellectual connections with the meanings of the resource.
- The park film will illustrate the magic in all four seasons.
- The park film will be a visual poem vs. a scientific essay. It will highlight both the tangible and intangible resources of the park.

The film objectives are:

- The park film will be 15 minutes in length
- The park film will be closed- captioned with a message board.
- The park film will be available in large print.
- Visitors viewing the park film will recognize that the Lake acts as the connection between edges.
- Visitors viewing the park film will recognize three ways that edges help to illustrate stories of the Apostle Islands.

A series of short videos on Leave- No- Trace, resource protection, water and recreation safety would be useful at permit issue locations, embarkation points and at commercial liveries. A source and mechanism to develop these programs will be sought.

As staffing allows, the park may produce public service announcements to highlight specific management issues, especially issues significantly affected by adjacent communities. Audio spots can easily be incorporated into travelers information station messages; video and audio spots are adaptable to visitor contact facilities. Both audio and visual spots at gateway communities and urban areas that send visitors to the lakeshore can reach large audiences.

The possibility of an island traveler's information station targeted towards boaters and presented for reception on marine radio will be investigated. The

station could provide messages that introduce park themes and provide safety and resource information.

## Access

Universal design of all media, services, and facilities will provide the highest level of accessibility and use by all people, regardless of age, gender, physical or mental ability, to the greatest extent possible and reasonable without the need for "separate" adaptation or "specialized" design. Accommodation will be made for access to resources and most interpretive media.

The Northern Great Lakes Visitor Center and visitor centers at park headquarters and Little Sand Bay are equipped with accessible parking areas, ramps, elevators, and bathroom facilities. Ramps and boardwalks lead from the dock to accessible vault toilets, a contact station, a campsite, and a well at Presque Isle on Stockton Island.

Accessibility guidelines and regulations are available to assist the park staff and media/facility designers.

Public Law 90-480, the Architectural Barriers Act, and the Americans With Disabilities Act establish standards for physical access. Any new facilities constructed, as a matter of course, will be designed for accessibility of visitors and employees.

All new interpretive media will conform to National Park Service June 1999 Programmatic Accessibility Guidelines for Interpretive Media (see Appendix A).

Specific recommendations for accessibility improvements can be found in a report titled "Accessibility Issues: Apostle Islands National Lakeshore, July 19- 23, 1999" housed in the park library. The report identifies issues pertaining to the Americans With Disabilities Act, state and federal laws and design guidelines for providing services for individuals with disabilities. The recommendations resulted from observation, site visit, and information gathered by JQP, Incorporated, Accessibility Consultants. Park staff can use the summary recommendations in the report to make existing programs and facilities accessible as a high priority.

A few premiere park sites will be considered by interpretive and resource management staff for "Wilderness-on-Wheels" experiences. Creating, in locations where feasible, boardwalks or hard surfaced trails that allow physically challenged visitors a chance to leave the roadway, parking areas and boats will also appeal to other visitors. Short trails into a variety of plant communities and several landscapes will provide most visitors relatively easy access to the diversity of park resources. An accessible loop trail near the Little Sand Bay Visitor Center will

encourage visitors to immerse themselves in the lakeshore environment. Recommendations for improved access at specific park sites will be described in **SITE INVENTORY OF THEMES, RESOURCES, FACILITIES, AND STAFF.**

Areas that cannot be made physically accessible will be interpreted by alternative methods at nearby facilities to enable all visitors to understand and appreciate the resource. For example, basic orientation will be provided at parking lot trailheads for visitors who do not or cannot walk. Wayside exhibits can use photos to present scenes that are otherwise accessible only by a long walk. Access to ice caves and contact with lighthouses that are restricted or not available much of the year can be made available vicariously through the Site Explorer interactive computer program, film, or model exhibits. Such vicarious experiences would be appropriate in visitor centers at Little Sand Bay, Headquarters, and the Northern Great Lakes Visitor Center.

A variety of media are needed at visitor contact stations to assure visitors an opportunity to receive essential information and interpretation when the facilities are closed. Brochure boxes and bulletin boards may distribute information and wayside exhibits can provide interpretation outside buildings.

## **Partnership Opportunities**

The following description of partnership opportunities expresses Apostle Island National Lakeshore's interest in and collaboration with other visitor service providers. Successful team management by park staff to achieve park and mission goals and to implement this comprehensive interpretive plan depends on continuation and expansion of existing internal partnerships and initiation of new ones with external entities, especially with visitor service providers in the immediate vicinity of the park. Positive cooperation among all providers of conservation and tourism services will help each internal and external partner respond to the opportunities and challenges that face them.

Many sites outside the park offer visitor experience opportunities related to Apostle Islands natural and cultural stories. Visitors traveling to the national lakeshore and other sites should find opportunities to participate in an integrated program of interpretive activities produced by the National Park Service and partners to offer a complete, balanced Apostle Islands experience.

Port Superior/Superior Charters: Boaters who depart from the marina are park users. A National Park Service informational kiosk at that site orients users to the park. Park staff will work in partnership with the marina to develop a site bulletin that meets the needs of park and marina users.

Madeline Island Ferry Line: Apostle Islands National Lakeshore staff uses the ferry as transportation to and from Big Bay State Park to present weekly campfire programs during the summer. The Ferry Line also transports school groups to Madeline Island during Island School.

Madeline Island Museum: The State Historical Society of Wisconsin operates a museum at La Pointe. The museum contains many Apostle Islands artifacts (including the Raspberry Island Fresnel lens) and addresses numerous themes that also pertain to the national lakeshore. Museum staff assisted with the development of exhibits at the Northern Great Lakes Visitor Center and serve as a resource for National Park Service staff.

Northern Great Lakes Visitor Center: The National Park Service partners with the United States Forest Service, the United States Fish and Wildlife Service, State Historical Society of Wisconsin, University of Wisconsin Extension and Friends to operate this large regional facility.

Red Cliff: In 1999 Red Cliff Tribal leaders resolved to work more closely with Apostle Islands National Lakeshore to assure accuracy in interpretation and cultural awareness. A representative from the Historic Preservation unit of the tribe has been assigned to work as a liaison with the Chief of Resources Education to move towards further programming.

Bad River tribal members have participated in translation work as well as programming at the Northern Great Lakes Visitor Center.

The Ojibwe today are working hard to bring back the knowledge needed in order to survive on this land. There is a great deal to be learned by everyone about the resources around us, and the stories that go with them. The Ojibwe, National Park Service, and other visitor service organizations and individuals working together can provide visitors and local residents information, museum areas, and interpretation about the ecosystem, history, and the people of the region. All partners can provide interpretation, orientation, and education programs independently yet in cooperation with others. Programs interpreting traditional Ojibwe culture will be developed and presented by the Ojibwe people. Other interpretation related to the Ojibwe will be developed in cooperation with the Ojibwe to assure accuracy.

Chamber of Commerce (Bayfield, Washburn, Ashland, Cornucopia): The Chambers work closely with Apostle Islands National Lakeshore to coordinate joint projects such as the Bayfield Scene, Apple Festival, Cruise Ship arrivals, cultural demonstration, and tourism meetings to share information prior to the beginning of the visitor season.

Counties (Bayfield, Ashland): County Agents with Extension and 4- H programs work closely with park staff as resource aids and facilitators and to establish youth programs in the park.

Forest Service: The National Park Service partners with the U. S. Forest Service at the Northern Great Lakes Visitor Center and shares fire and protection resources as needed.

University of Wisconsin Extension: UW Extension is a partner at the Northern Great Lakes Visitor Center and oversees the educational component there. They present the K- 3 portion of Island School that is mainland based and held at the visitor center.

U. S. Fish and Wildlife Service: The U.S. Fish and Wildlife Service also has a presence at the Northern Great Lakes Visitor Center. The Whittlesey Creek National Wildlife Refuge lies adjacent to the visitor center property.

Schools (Bayfield, Washburn, Ashland): Apostle Islands National Lakeshore provides school programs upon request and provides Island School and the Lighthouse Curriculum as well as research work.

CESA 12: This group provides facilitation services, input on curriculum ideas, grant writing, and contracts with the National Park Service in the writing of curriculum. The National Park Service serves on rating panels for CESA.

Northland College provides a source of interns and seasonal and permanent employees for the national lakeshore. Park staff makes regular presentations for some courses. College staff assists training of the park seasonal staff. Northland College also has a Memorandum of Understanding with the National Park Service to conduct the Apostle Island School partnership.

University of Minnesota- Duluth has served as a source of seasonal and permanent employees for the national lakeshore. The university outdoor program conducts numerous kayak tours of the national lakeshore. The Assistant Chief of Resources Education serves on the university council for environmental education.

LacCourte Oreilles Ojibwa Community College has provided assistance in translating text into the Ojibwa language.

Trek and Trail rents kayaks and provides guided kayak tours for hundreds of park visitors. They also assist Apostle Islands National Lakeshore with seasonal employee training.

The following agencies partnered in 2001 in a Social Science Project to determine word usage and core values at APIS: Red Cliff Tribal Government, Adventures in Perspective, Camp Amnicon, Trek and Trail, Wilderness Inquiry, Bayfield Chamber of Commerce, University of Wisconsin Extension, University of Minnesota/Duluth, Northland College/Sigurd Olson Institute, Adventures in Perspective, and Camp St. Croix.

Apostle Islands Cruise Service, a park concessionaire, operates the Island Princess, Eagle Island, Zeeto, and water taxi service. They provide transportation to the islands and tour services. The owner participates on interpretive and educational planning teams to help the park better serve visitors. Park staff provides the concessionaire informational Facts Book and training to help captains and employees better serve visitors.

Old Rittenhouse Inn: The owner offers step on motor coach tours that bring numerous visitors to the park headquarters visitor center to view the park film and listen to talks.

Camp Amnicon guides numerous groups on tours of the Apostles in voyageur canoes each year.

Chequamegon Bay Area Arts Council helps sponsor the Artist-in-Residence program by providing judges to select artists.

Educational partners include historic societies (Bayfield Heritage Association, Bayfield County Historical Society, Washburn Historical Society, Ashland Historical Society, Northern Wisconsin History Center) and libraries (Bayfield, Washburn, Ashland, Northland College).

Dee Bainbridge provides Ojibwe language translations for park publications. Other potential partners for language translations include German and French in Duluth.

Other partnership opportunities will be explored throughout the region. Partnerships will be sought with regional school districts to encourage education programs, with friends groups to assist interpretation and with professional/educational organizations to conduct research, resource management, and visitor surveys. Activities may include sharing of expertise and funding for training, historical and natural research, special events and seminars, exhibit planning and development, site promotion, and tours. Visitors and regional residents will benefit from expanded, multifaceted visitor experience opportunities. Integration of interpretive themes will present a more complete, balanced story and resources of each partner will be more efficiently utilized.

## Research

Visitor Surveys – A professional, comprehensive evaluation of visitor profiles, activities, and needs will be programmed as soon as possible. A second study should evaluate effectiveness of the existing interpretive program in meeting the needs of the visitor types profiled in the first study. Based on results of studies, the system for collecting and recording data can be re-evaluated and revised as needed.

Wayside Exhibit Plan – A detailed proposal, design, and production plan will be completed as soon as possible to implement wayside exhibit ideas from the park and exhibit planners. The exhibit plan will include label copy, design elements, graphic components, and site development recommendations.

Natural/Cultural History Research – Resource management contracts will include an interpretive needs element to secure appropriate information to improve resource education programs.

## Interpretive References and Resources

The park library is the responsibility of the Resources Education division. A library collection at park headquarters includes more than 600 reference titles catalogued using the Library of Congress system, a collection of bound Apostle Islands specific research reports, periodicals, management documents, a vertical file, and a variety of other published reports. Most of the reference books have been computer cataloged using ProCite bibliographic software. Research and resource management reports are on NRBIB. Small collections of reference books ("Island Libraries") are on long-term loan from the main library. They are stored at the various island duty stations for the use of park staff and volunteers at those locations.

Systematically acquiring new books, cataloging new titles in a timely fashion, finding adequate storage space, organizing the collection, monitoring use of the library, and accounting for missing books are all continuing problems. Irreplaceable titles should be removed from circulation. Individual employees have begun maintaining small reference libraries in their offices.

The park's Image Collection in the main slide file contains more than 4,000 images. About 70% of the images have been duplicated. The master copy is stored separately, a viewing copy is displayed in one of two Multiplex viewing cabinets. Duplicate copies for general use are stored in drawers in the Mutiplex cabinets.

A backlog of slides need to be labeled, added to the collection, and duplicated. The best images should be digitized and stored on photo CDs. Many slides are missing from the collection. Loaning, reshelving, and tracking borrowed images can be a time consuming activity that easily falls through the cracks.

The park has an extensive photo file stored in the historian's office. Many of the images are black and white copies of historical photos. A backlog of photos requires mounting on cards, labeling, and filing. The metal filing drawers do not allow easy viewing of the images. Negatives must also be labeled and added to the negative files. A limited number of photographs have been printed and mounted for interpretive use.

Interpretive Collection maintained by Resources Education has a selection of Masterclips CDs including a tremendous collection of electronic art.

A selection of historic interpretive props for use at the Raspberry Island lighthouse will increase as items are acquired for furnishing the keeper's quarters. A replica lighthouse keeper's uniform is used during living history presentations at Raspberry Island.

Some photos and props for interpretive programs are stored at Little Sand Bay, headquarters, and on Stockton Island.

A variety of art supplies and laminating machines are available for sign production and prop making.

Museum objects are housed in a storage facility and annex at Little Sand Bay, the herbarium collection, at the Hokenson Brothers Fishery at Little Sand Bay, and at the Manitou Island Fish Camp. Curation is primarily the responsibility of Little Sand Bay district interpretive park ranger. The lakeshore museum storage and annex includes 15,732 objects. In 1998, 13,372 had been catalogued. MWAC has over 80,000 park objects. The Checklist for Preservation, Protection and Documentation of Museum Property lists 625 standards to be met. In 1998, 444 standards had been met. An IPM and Collection Management Plan have been completed. They deal with issues of fungus infestation, inventory, Hokenson displays and curation, and staff. Exhibits at Manitou, Little Sand Bay, Headquarters, Stockton, and Raspberry contain artifacts on display.

## Cooperative Association Sales Planning

Eastern National is a critical partner in providing interpretive services and achieving the desired future interpretive program. A *Scope of Sales Statement* defining how the cooperating association's sales operations contribute to the communication of the park's primary interpretive themes was prepared in 1996.

The statement will be updated as part of the comprehensive interpretive planning process. The document will be included in the Interpretive Database.

Funds from Eastern National are spent through donations, yearly – publications, Superintendent's Fund, agency improvements, research requests, publication requests, and employee salaries.

## **Resources Education Staffing Plan**

With limited staffing to implement a complex park operation everyone on the park staff must accept a variety of responsibilities. A full-park team concept of personnel management can fully and effectively implement the proposals in this comprehensive interpretive plan and other resource management and operations plans – and meet the National Park Service objectives of providing for visitor enjoyment and long-term protection of resources.

Everybody on the park staff has a role in visitor service and resource education. Everyone must be involved in identifying and dealing with issues affecting the park. Routine staff meetings will be assembled with all staff to share information and discuss issues. Annual training can include discussing staff's role in interpretation. Cross-divisional consensus on how to involve everyone in resolving issues should be a routine part of management meetings.

To accomplish park goals and recommendations in this comprehensive interpretive plan, staff dedicated to interpretation and education will need to increase.

### Staffing Proposal for Resources Education

Resources Education is primarily focused on visitor services. The staff provides information and interpretive programming to individuals and large groups both in the community and to those visiting from a distance. The staff is also responsible for curriculum based educational programming. Park research, concerns, issues, and policies are communicated to the public through this division. Resources Education produces publications and printed materials for the park and is responsible for the cooperating association sales outlets (currently 4). Resources Education staff are caretakers of the park museum and exhibit pieces as well. The Northern Great Lakes Visitor Center is a prime responsibility of the Chief and Assistant Chief. They participate on the Board, provide supervision, and assure that park staff positions are available to service the Center.

## Existing Staffing

**Chief of Resources Education, GS- 025- 12.** This is a permanent, full-time position. Duties: Management of the Resources Education division and the representation of the National Park Service on the Board of Directors for the Northern Great Lakes Visitor Center.

**Assistant Chief of Resources Education, GS- 025- 11.** This is a permanent, full-time position. Duties: Field supervision, publications, cooperating association oversight, professional assistance to the Chief of Resources Education. In addition this position represents the Midwest Region on the Interpretive Curriculum Planning Team and Certification Board at Harpers Ferry.

**Resources Education Assistant, GS- 5.** This position is a permanent, part time position. Duties: Provide information at the visitor center desk, oversee the camping permit program within the division, provide clerk duties, design, edit and write publications, assist with exhibit design, and serve as team leader for the seasonal Headquarters operation.

**Park Ranger, GS- 025- 9.** This is a permanent, subject-to-furlough position. Duties: Oversight of the Little Sand Bay operation which includes the Meyers Beach area and oversight of volunteers on Devils, Sand, Michigan, and Oak Islands. This position oversees the Artist-in-Residence Program and serves as the park curator.

**Park Ranger, GS- 025- 5/7/9.** This is a permanent, subject-to-furlough position. Duties: Design, oversight, and coordination of curriculum based educational programming. This position specializes in the Ojibwe culture and uses that as a platform for relating cultural and natural resources education. The position is required to build and maintain relationships with tribal groups and elders in Michigan, Minnesota, Wisconsin, and perhaps Canada for the purpose of assuring acceptable, accurate information. This position will serve on the Education Committee at the Northern Great Lakes Visitor Center.

**Museum Technician, GS- 7.** This is a subject-to-furlough position. Currently it is not filled.

**Park Guide, GS- 5.** This is a permanent, full-time position located at the Northern Great Lakes Visitor Center. Duties: Coordination of activities at the front desk and staffing the front desk. The Center's Director, a USFS employee, assigns daily activities.

**Park Guide, GS- 5.** This position is located at the Northern Great Lakes Visitor Center. It is a permanent full-time position although in 2001 it will be filled

seasonally. Duties: Greeting visitors at the front desk and providing formal and informal interpretation. The Center's Director, a USFS employee, assigns daily activities.

**Park Rangers, GS- 025- 5.** There are 8 seasonal park ranger positions located at Headquarters, Little Sand Bay, Stockton Island, Manitou Island, and Raspberry Island. Duties: Provide formal and informal interpretation and assist other divisions with basic cleaning, maintenance, SAR, fire, and other emergency duties.

**Park Guide and/or Visitor Use Assistant, GS- 3/4/5.** This position is hired under the STEP authority and is located at Headquarters. Duties: Staff information desk, prepare camping permits, answer telephones, and receive formal and informal interpretive training.

**Visitor Use Assistant, GS- 1/2/3.** There are 2 positions. These positions are hired under the STEP authority and are located at Headquarters. Duties: Staff information desk, prepare camping permits, answer telephones, and receive formal and informal interpretive training.

**Interns.** These positions are not currently filled. The positions are located at Little Sand Bay. Duties: Staffing visitor center desk at Little Sand Bay, preparing and amending camping permits, receive formal and informal interpretive programming training.

**Volunteers:** The division currently supervises volunteers on the following islands: Raspberry (interpretive and historic garden), Stockton, Manitou, Sand, Devils, and Michigan. In addition volunteers provide assistance at Headquarters, Little Sand Bay, and the Northern Great Lakes Visitor Center.

#### Resources Education Staffing Needs

The following are changes or additions to the current staffing in the Resources Education Division at Apostle Islands National Lakeshore.

**Resources Education Assistant:** This position is currently a GS- 5 and will be reviewed periodically as the program evolves. This position will continue to function in the current capacity while taking on more leadership in the Headquarters operation, more independent publications and editing work.

**Park Ranger, GS- 025- 9.** This position is currently subject- to- furlough. It is not realistic to continue expecting a subject- to- furlough employee to supervise the mainland unit and the museum function. This position will convert to full time.

**Park Ranger, GS- 025- 5/7/9.** This position is the education "ranger" specializing in the Ojibwe culture currently subject- to- furlough. This position will convert to full- time to effectively fulfill duties of travel, building relationships with tribal groups and elders in Minnesota, Michigan, Wisconsin, and Canada, as well as preparing and presenting year- round curriculum based programming and consulting with other national park units in the midwest.

**Park Ranger, GS- 025- 5.** This is a seasonal position that will assist the GS 5/7/9 Ojibwe Educator in the preparation and presentation of programs.

**Museum Technician, GS- 7.** This permanent full- time position will be filled.

**Park Rangers, GS- 025- 5.** Four additional seasonal positions will be filled and duty stationed at Raspberry, Sand, and Sand/Manitou Islands. Three will be duty stationed at Raspberry, Sand, and Sand/Manitou Islands.

**Park Ranger, GS- 025- 11.** This permanent, full- time supervisory ranger position will be placed at the Northern Great Lakes Visitor Center. Duties: Supervision and oversight of the NPS interpretive/educational interests at the center. The center is a gateway for the region so contacts with all NPS sites in the region is essential. This individual will be a member of the management team for the center. The position will supervise two GS- 9 employees.

**Park Ranger, GS- 025- 9.** This permanent, full- time position will be located at the Northern Great Lakes Visitor Center and supervise the front desk operation. The incumbent will be responsible for technical aspects of the computer stations, WEB information, and audiovisual and exhibits cleaning and maintenance. The incumbent will supervise the two permanent GS- 5 park guides currently in the park staffing plan.

**Park Ranger, GS- 025- 09.** This position will be located at the Northern Great Lakes Visitor Center and will be responsible for the formal and informal interpretive and educational efforts for the Center on behalf of the NPS. The incumbent will work closely with other partners presenting educational activities. They will supervise one GS- 5 seasonal.

**Park Ranger, GS- 025- 5.** This is a seasonal position and will be stationed at the Northern Great Lakes Visitor Center. This park ranger will provide interpretive programming.

The park's Business Plan calls for Park Rangers, GS- 5 to be duty stationed on Devils, Michigan, and Outer Islands. (6 positions) Volunteers currently staff these islands. The business plan also calls for a GS- 9 (1 position) supervisor to

oversee these positions. In addition, the Business Plan calls for a Backcountry office to include Camping Permits and a Kayak Program (9 positions).

## SITE INVENTORY OF THEMES, RESOURCES, FACILITIES, AND STAFF



*"...those who have never seen Superior get an inadequate even inaccurate idea, by hearing it spoken of as a lake...Superior is a sea. It breeds storms and rain and fogs, like a sea...It is cold, wild, masterful and dreaded...."*

- Reverend  
George Grant,  
1872

Lake Superior is the northernmost of the Great Lakes and is the most expansive single body of fresh water in the world. It covers 31,800 square miles, measuring 360 miles at its longest span and 160 miles at its widest. The surface is 601 feet above sea level and its deepest point is 1,333 feet below the surface.

In 1970, Congress designated 20 islands and 2,500 acres of land on the northern tip of the Bayfield Peninsula as Apostle Islands National Lakeshore, managed by the National Park Service. In 1986, Long Island was also included. These Apostle Islands dot a 720-square mile area of Lake Superior and were formed nearly 12,000 years ago during the last great Ice Age. Today's islands are the visible tops of tall, rounded hills formed by the virtual oceans of ice that were then gouging southward. Surrounded by mighty Lake Superior, the Apostles have been touched and changed by both natural forces and those of human trade and industry.

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# Northern Great Lakes Visitor Center

## Significance

- The Northern Great Lakes Visitor Center is located in the center of the region including northern Minnesota, northern Wisconsin, and Michigan's Upper Peninsula.
- The Center presents an overview of the historical interaction of human cultures with the land and natural resources of the Northern Great Lakes Region from the Ice Age to the present.
- The Center is a partnership between the U.S. Forest Service, National Park Service, UW Extension, Wisconsin State Historic Society, U.S. Fish and Wildlife Service, and the Friends of the Center LTD.

## National Park Service Role

- Provide 2 FTE at the front desk to orient visitors, operate audiovisual equipment, and provide public lands information.
- Serve on the board of directors
- Provide customer service training
- Oversee operations of the front desk
- Provide expertise in exhibits.
- The NPS may also hire the maintenance foreman, a cost that is funded by the center's common budget.

## Buildings and Grounds

- Owned by the USFS.
- Visitor Center features: restrooms, auditorium, Objects Theatre, Exhibit Hall, front desk, sales area, meeting rooms, temporary exhibit area, wildlife viewing area, amphitheater, tower exhibits, archives, UW Extension offices.

## Trails

- Boardwalk trail

## Natural Features

- Ponds
- Wet meadows
- Fields
- Tamarack/cedar forest
- Aspen forest

## **Cultural Features**

- Farmstead

## **Programs offered**

- Programs are presented by UW Extension and by WCC.

## **Volunteer Needs**

- Front desk
- Exhibit rovers
- Exhibit cleaning
- Clerical
- Trail roving.

## **Staffing Plan**

- GS- 5 permanent Park Guide (2)
- GS- 9 Park Ranger (2)
- GS- 11 Supervisory Park Ranger
- GS- 5 Seasonal Park Guide

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## Mainland

Apostle Islands National Lakeshore's mainland unit includes 2,592 acres and 12 miles of shoreline along the Bayfield peninsula from Saxine Creek to Little Sand Bay.

### Description

The mainland shoreline features an alternating series of protected bays and exposed headlands. The bays are lined with sandy beaches. The headlands feature sandstone cliffs or bluffs of glacial till. Red Cliff Indian Reservation borders the eastern half of the mainland unit, and includes two shoreline enclaves along Sand Bay near the mouth of the Sand River. No trails are currently maintained at Little Sand Bay. Hikers can walk ½ mile or more along the Little Sand Bay beach, depending on wave conditions, water levels, and whether a drainage channel from a slough crosses the beach. A trail traversing the entire length of the park's mainland unit has been in the planning stages for years. A trail has been roughed out about six miles from Meyers Road to Sand Point. Development of the trail with stream crossings, switchbacks, steps and water bars is in progress. As of 2000, the first 4.5 miles of the trail has been completed. This part of the trail passes through northern hardwood forests and offers spectacular views of the lake, several islands, and the mainland shoreline with its trademark sea caves. Hikers must use caution where the trail passes along the edge of the cliffs in the vicinity of the sea caves. (\*Note: Many maps and articles refer to these as the Squaw Bay sea caves. At the time of publication the official name of the body of water adjacent to the sea caves was Squaw Bay. This term is derogatory to Native American women. Recommendations have been made to the U.S. Board on Geographic Names and the Wisconsin Geographic Names Council to change the name to Mawikwe Bay. Mawikwe is the Ojibwe word meaning "weeping woman.")

The islands and the Bayfield peninsula are underlain by three sandstone formations more than one billion years old—the Devils, Chequamegon, and Orienta. The Devils Island Formation is visible in cliffs at this location, as well as on the east shore of Sand Island and on the north end of Devils Island. The thin, poorly cemented layers of this reddish-brown sandstone are readily eroded by wind and wave action. Shoreline cliffs of Devils Island Sandstone are naturally carved into delicate arches and spectacular sea caves with interlocking passageways. The caves can be explored by small boat on calm summer days or by foot in late winter when the surface of the lake is covered by a foot or more of ice. The caves can be enjoyed at a distance from several overlooks along this trail.

## History

The 1854 treaty between the United States and the La Pointe Ojibwe divided the tribe into the Red Cliff and Bad River bands. Roman Catholic members of the tribe settled on the Red Cliff reservation established along the cliffs at the tip of the Bayfield peninsula. Part of the park's mainland unit lies within the boundaries of the Red Cliff reservation.

In 1905, a logging camp was built near the mouth of Saxine Creek. Reports from the Bayfield Press indicate that for the next 25 years the area was heavily logged. Cedar, hemlock, and birch logs were also stored at the camp before being floated in the lake and rafted to nearby mills.

In 1928, the Hokenson family purchased land at Little Sand Bay. Eskel, Leo, and Roy Hokenson built a dock, icehouse, and twine shed at this location to support their commercial fishing business for the next 35 years. Roy and his wife Irene later completed their cottage adjacent to these structures at Little Sand Bay. Declining populations of lake trout, whitefish, and herring led to a closure of commercial fishing seasons and the end of the Hokenson brothers business in the early 1960s.

Herman Johnson Jr. operated a store adjacent to the Hokenson fishery at Little Sand Bay. Johnson's family once operated an independent fishery similar to the Hokensons. He later became involved in tourism activities including boat rides, lodging, and the general store that was also used as a dance hall by locals.

## Significance

- Sandstone cliffs and sea caves
- Sand Point deer yard
- Sand River Slough
- Hokenson Brothers Fishery
- Saxine Creek logging camp
- Nelson cabin at Little Sand Bay
- Headquarters Visitor Center in Bayfield is in the Old Bayfield County Courthouse (a national register site).

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# Bayfield Headquarters

## Primary Interpretive Themes

Headquarters is the primary place to issue permits, maintain the park website, respond to information requests by mail, and provide visitor orientation. The sales area provides visitors opportunities to take home detailed information about subjects pertaining to all primary themes.

### Exhibits:

#### Existing -

- Accordion panels near the information desk introduce visitors to recreational opportunities (sightseeing, sailing, hiking, camping, fishing, and cruises) in the lakeshore. A feature locator map on the wall opposite the information desk uses electronic push buttons to illuminate lights marking various features (docks, beaches, campsites, lighthouses, sea caves) in the park. The exhibit room features a Fresnel lens mounted in what appears to be the lantern room at the top of a lighthouse tower. A black and white image of the view from the Michigan Island light tower wraps around the room's walls. Mounted on this background image are a series of smaller photos and objects relating to the islands. The items on each wall of the room relate to specific subjects. Lighthouse related materials adorn the east wall. Pictures of flora and fauna are on the south wall. Logging covers the west wall and geology the north wall.

#### Proposed -

- Visitor center exhibits will not only provide orientation and safety messages, but will provide visitors with the essence (feeling/mood) of Apostle Islands National Lakeshore. Here, visitors will be introduced to all seven primary interpretive themes. One way to achieve this is by altering the existing lens exhibit to utilize excerpts of log entries from lighthouse keepers, rangers, and VIPs.

### Personal Services:

#### Information desk -

- When issuing camping permits, focus on theme #3 with emphasis on Leave-No- Trace principals.
- With most recreationists, focus on Theme #4.

Lens Talks - Themes #1, #2, and #7 are most appropriate.

Spot Talks (Introduction to film) - Could be based on any of the primary interpretive themes.

Wayside exhibits:

Existing -

- Panels at east entrance describe National Park Service areas around Lake Superior. Kiosks at Bayfield city Dock and Port Superior include an introductory panel, a park map, and a bulletin board. A third kiosk is available for installation at Pike's Bay Marina.

Proposed -

- A panel to orient visitors to mainland opportunities. (Theme #4 or #7)
- A panel to provide a park mainland orientation. It will include a park map to identify the park mainland and islands as comprising a national lakeshore and describing the park's significance. (Theme #4 or #7)
- A panel to identify all the Lake Superior area national park sites. (Theme #6)

Kiosks at the Bayfield City Dock and area marinas will include the following panels:

- A panel to provide a park mainland orientation. It will include a park map to identify the park mainland and islands as comprising a national lakeshore and describing the park's significance. (Theme #4 or #7)
- A panel to identify all the Lake Superior area national park sites. (Theme #6)
- A bulletin case.

Park Film:

Existing -

- A 12-minute introductory film is currently shown on request in the courthouse auditorium. The film was produced in 1985/1986 and provides a basic introduction to the park's natural and cultural resources and an overview of recreational opportunities in the park.

Proposed -

- A new introductory presentation is being filmed in 2000/2001. The primary theme will be #2 (The stories of Apostle Islands National Lakeshore reveal themselves along edges where water meets land and sky, field meets forest, culture meets culture, and past meets future.) Elements of Themes #4 and #6 will be included through images of activities and environment.

## **Significance**

- The Old Bayfield County Courthouse is on the National Register of Historic Places.

## **Facilities**

- Old Brownstone Courthouse is owned by the city of Bayfield.
- Administrative offices
- Visitor contact area features: lens exhibit room, exhibits in contact lobby, Site Explorer, Eastern National Sales Area, information desk, auditorium, payphone, men and women's restrooms.
- Outside area features: 28 car parking lot, lawn with picnic table and benches, flag pole which flies the American flag and the NPS flag, and Apostle Island National Lakeshore sign with NPS arrowhead and bulletin board.
- Library
- Herbarium

## **Historic Sites**

- National Register Site

## **Programs Offered**

- Lens talks
- Film on request
- School groups
- Junior Ranger program
- Motor coach tours
- Informal interpretation
- Information
- Camping permits
- Roving at cruise dock
- Roving town when cruise ships are in (work with Chamber)

## **Volunteer Needs**

- Library
- Front desk
- Slide file
- Research

## **Staffing Plan**

- Chief of Interpretation, GS- 12
- Assistant Chief, GS- 11
- Resources Education Assistant, GS- 5 or GS- 6

- Park Ranger (Ojibwe Educator), GS- 5/7/9
- Seasonal:
  - GS- 5 (2) beginning of May through September
  - GS- 2/3/4/5 Stay in School (or GS 4 Ranger) mid- to- late May through August 19<sup>th</sup> approximately.
  - GS 2/3/4 SCEP (or GS- 4 Ranger) mid- to- late May through August 19<sup>th</sup> approximately
  - GS 1/2/3/4/5 Stay in School (or GS 4 Ranger)mid- to- late May through August 19<sup>th</sup> approximately
  - GS- 5 early May through September
  - 2- 4 VIP's (library, slide file, front desk) early May through September
  - Eastern National employees (2), one to begin in early May and go through September on a part- time basis, one full- time Memorial Day through Labor Day.

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# Little Sand Bay

## Primary Interpretive Themes

### Exhibits:

#### Existing -

- A commercial fishing exhibit features samples of the equipment used at the Hokenson Fishery. A glass exhibit case features items retrieved from the shipwreck LUCERNE. A locator map on the wall opposite the information desk uses electronic push buttons to illuminate lights marking various features (docks, beaches, campsites, lighthouses, sea caves) in the park. A few temporary exhibit panels provide some interactive displays for children.

#### Proposed -

- Future visitor center exhibits will focus on Theme #2 (The stories of Apostle Islands National Lakeshore reveal themselves along edges where water meets land and sky, field meets forest, culture meets culture, and past meets future). Exhibit suggestions include an explanation of the area's geologic story utilizing museum objects in total visible storage to interpret commercial endeavors and immigration.

### Personal Services:

#### Information desk -

- When issuing camping permits, focus on Theme #3 with emphasis on Leave-No- Trace principals.
- With most recreationists, focus on Theme #4.

#### Hokenson Fishery -

- Theme #2
- Theme #5 - the effects of outside forces (exotic species) on the fishery
- Theme #7 - difficulties of dealing with weather conditions

#### Cultural Demonstrations - Theme #2

### Wayside Exhibits:

#### Existing -

- Sevona - Theme #7
- Hokenson Fishery - Theme #2

- Cluster near the dock includes park map, area map, and bulletin board.
- Panel outside visitor center includes LSB map, and map of Lake Superior national parks.

#### Proposed -

- A cluster west of the visitor center to include:
  - Little Sand Bay orientation panel to describe the recreational and interpretive opportunities in the Little Sand Bay area. (Theme #2, #4, or #7)
  - A panel to provide a park mainland orientation. It will include a park map to identify the park mainland and islands as comprising a national lakeshore and describing the park's significance. (Theme #4 or #7)
  - A bulletin case.
- A bulletin case near the dock.
- A panel at the Hokenson Brothers Fishery trailhead to identify the site and its significance. (Theme #2 or #6)
- A new panel at the S.S. Sevona exhibit. (Theme #7)
- A panel at the west visitor center entrance to identify all the Lake Superior area national park sites. (Theme #6)

#### Environmental Education:

- Apostle Islands School programs may include any or all of the seven primary themes.
- Apostle Islands Leadership Academy (Cooperative Extension Services Agency #12) - Development of service learning curriculum relating to any of the primary interpretive themes to facilitate stewardship between high school students/teachers and the national lakeshore.
- EXXON grant programs focus on Theme #5.

#### Facilities

- Visitor contact/Ranger Station - Features: Exhibit area, film viewing area, information desk, Eastern National sales area, Site Explorer, vestibule with brochures, drinking fountain and bench, two unisex restrooms and one external bulletin board.
- Hokenson Brothers Fishery - Twine Shed, Ice House, Herring Shed, and dock
- Housing for seasonals
- Ranger Residence
- Fire Cache
- Museum
- Docks: 2 wooden/harbor
- Picnic Area: 1

## **Trails**

- Trail leading from the Visitor Station to Hokenson Brothers Fishery.
- Lakeshore trail portion - ½ mile accessible loop (proposed)

## **Historic Sites**

- National Register Sites - Hokenson Brothers Fishery

## **Natural Features**

- Sand beach
- Slough
- Hemlock/hardwood forest

## **Cultural Zones**

- Little Sand Bay - 1
- Sand Point - 1

## **Cruise Boat Arrivals**

- No scheduled use, although when lake levels are low, shuttle may run from Little Sand Bay to Sand Island.

## **Programs Offered**

- Ranger Talks
- Roving
- Hokenson Fishery tours
- Junior Ranger program
- Children's program
- Evening programs twice a week, Memorial Day through Labor Day, for campers at Town of Russell Campground
- Ojibwe demonstrations
- Roving kayak ranger
- Hokenson living history (suggested)
- Camping permits
- Exhibits
- Waysides
- Cruise ships (work with Red Cliff and Chamber)

## **Volunteer Needs**

- Front desk
- Hokenson Tours
- Living history
- Roving

- Museum inventory and care
- Maintenance.

### **Staffing Plan**

- GS- 5/7/9 Permanent Park Ranger (2)
- Stay in School (college) 2/3/4/5
- Ojibwe Cultural GS- 4/5
- GS- 5 roving kayak ranger between LSB and Sand and Meyers Road
- Student Intern
- 2- 4 VIPs

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# Meyers Road

## Primary Interpretive Themes:

### Wayside Exhibits:

#### Existing -

- A trailhead cluster features a park map, an area map, and a bulletin board.

#### Proposed -

- Near the stairway leading to Meyer's beach.
  - A panel to orient visitors to recreational opportunities. (Theme #2, #4, or #7)
  - A bulletin case.
- A trailhead cluster.
  - A panel to orient visitors to the Lakeshore Trail. (Theme #3 or #4)
  - A panel to provide a park mainland orientation. It will include a park map to identify the park mainland and islands as comprising a national lakeshore and describing the park's significance. (Theme #4 or #7)
  - A bulletin case.
- On the trail above the sea caves.
  - A panel to describe how the caves were formed. (Theme #2, #6, or #7)

## Significance

- Trailhead for Mainland Trail
- Kayak/canoe launch closest to mainland sea caves
- Winter access to sea (ice) caves
- Saxine Creek logging camp

## Facilities

- Clusters
- Outhouse: double, accessible/family
- Picnic Area: 1
- Parking Lot
- Campsite near Sea Caves, just off mainland trail

## Trails

- Lakeshore Trailhead. Four miles of completed trail, two miles of roughed out trail.

## **Safety Issues**

- Trail
- Ice
- Vandalism
- Dogs on the beach

## **Natural Features**

- Sandstone cliffs
- Sea caves

## **Programs Offered**

- Roving
- Guided tours to ice caves
- Kayak
- TIS
- Clusters/bulletin boards

## **Volunteer Needs**

- Roving
- Guided tours to ice caves
- Kayak roving
- Maintenance
- Trail patrol
- Trail upkeep
- TIS update.

## **Staffing Plan**

- Included in LSB plan.

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## Basswood Island

### Description of the island

Basswood Island, of all the Apostle Islands except Madeline, is the closest island to Bayfield. Basswood is an oval-shaped island, covered with northern hardwood forest. The island features a loop trail, old brownstone quarries, and a historic farm. The island's highest point is 180 feet above the lake. Much of the island's shoreline is steep and rocky, with a few small sandy beaches scattered at the mouths of some small gullies that empty into the lake. A small dock, vault toilets, four campsites, and a group camping area are the only facilities on the island.

### History of the island

*"A mammoth pumpkin weighing 81 pounds... a cucumber four feet long... monster potatoes eight inches in diameter. They are the products of Basswood Island, that wonderful place for farm products of mammoth proportions."* -Bayfield County Press, 1877

In 1865, Richard W. McCloud filed a homestead claim on Basswood Island and began building a farmhouse, which he completed in 1871. With his family he fenced and cultivated five acres, grew many vegetables, including six varieties of onions and ten varieties of corn that he marketed locally. McCloud sold much of the farm in 1878.

A few years later the land came into the hands of Elisha K. Brigham, who expanded the operation further by planting several hundred apple and cherry trees in clearings near the farm. Although his wife and six children preferred living in Bayfield, the family summered on the island with Elisha, and helped tend the garden, orchard, and their 17 cows and numerous chickens. Elisha's death, in 1923, signaled an end to farming on the island.

Logging of pine, hemlock, and cordwood began in the 1880s. Brigham and his five sons began logging the area in 1903. The McCloud/Brigham Farm served as their logging camp, which was occupied by up to 50 loggers and a dozen horses. Trees from the island were used locally to heat Bayfield High School and internationally to build docks in England.

The Bass Island Brownstone Company established the region's first brownstone quarry on the island in 1868. The first stone removed was used in the construction of the Milwaukee County Courthouse. Two quarries can still be seen on the island; one is marked and easy to find, the other is smaller and is difficult to locate.

## Primary Interpretive Themes

### Publications:

- A site bulletin provides basic information about island resources and facilities.
- A proposed self-guided trail brochure for use at the brownstone quarries should focus on theme #1.
- Historic Logging and Farming in the Apostle Islands book fits Theme #2
- Hiker's Guide to Apostle Islands National Lakeshore

### Wayside Exhibits:

#### Proposed -

- A cluster at the dock to include:
  - A panel orienting visitors to Basswood Island. (Theme #1, #2, or #3)
  - An orientation to the islands as being part of a national lakeshore. (Theme #4 or #6)
  - A bulletin case.
- A panel at the McCloud Farm site. (Theme #2)
- Two panels at the brownstone quarry:
  - A panel to describe the significance of the quarry here and elsewhere in the area. (Theme #1)
  - A panel describing how stone was cut and removed from the site. (Theme #1 or #3)

## Significance

- The Bass Island Brownstone Company Quarry is a national register site.
- The present General Management Plan calls for restoring the open landscape at the quarry, rebuilding the old quarry dock, and building self-guiding trails.
- The Breckenridge quarry
- McCloud/Brigham Farmstead. The Resource Management Plan calls for restoring some or all of this cultural landscape. (As the Backcountry Management Plan continues and the Wilderness Feasibility Study continues final decisions will be made by park management.)
- Rudd Farmstead
- Lone Rock (a sea stack off the north end of the island).

## Acreage

- 1,917

## Facilities

- Outhouses: 2 single

- Docks: 1 wooden
- Picnic Area - 1
- Well - 1

### **Campgrounds**

- Four campsites are located at the south end of the island near the brownstone quarry
- Two more campsites are located near a clearing 200 yards from the dock as well as a large group campsite

### **Trails**

- 7.20 miles total
- 5.5 mile loop begins and ends at a clearing up the hill from the dock.

### **Historic Sites**

- In the 1860s, settlers began staking claims under the Homestead Act. Farmers on Basswood and Michigan Islands planted orchards and produce gardens as well as corn, beans, potatoes, cabbage, and oats.
- McCloud Brigham farm and Rudd Farm Site
- Breckenridge Quarry, Bass Island Brownstone Quarry: quarry stone used in rebuilding Chicago after the fire of 1871
- Logging activity until the 1950s, two million board feet of white pine were harvested from the island's northeast side in the 1890s
- National Register Sites: Bass Island Brownstone Company Quarry
- Safety issues/ruins/wells: wells at McCloud Brigham Farm

### **Use and Occupancy**

- None

### **Life Estates**

- None

### **In holdings**

- Tract 11-126, roughly 3400 feet, 4.81 acres of platted rights of way in the southern part of the island. The tract is owned by Ashland County.

### **Natural Features**

- Lone Rock or Honeymoon Rock lies off the island's north tip
- Dense forest of northern hardwood/hemlock - oak, maple, aspen, birch, hemlock, fir, white cedar, red and white pine, basswood.
- Beaver at quarry site, white tail deer, bald eagles

## **Cultural Zones**

- Two quarry sites; three farm sites

## **Cruise Boat Arrivals**

- None

## **Programs Offered**

- Current - None
- Suggested - Snowshoe and ski guided outings by concessionaire or park staff, self-guiding tour of brownstone quarry

## **Volunteer Needs**

- Trail clearing and upkeep
- Tours to historic sites

## **Staffing Plan**

- NPS, VIP or concession staff of 2- 4 to lead winter ski and snowshoe hikes

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## Bear Island

### Description of the island

Bear Island is the second highest of the Apostle Islands, rising nearly 240 feet above the lake surface. Rocky cliffs and steep bluffs ring most of the island with the exception of a sandy cove on the northeast shore and a sandspit on the south end of the island. A 420- acre parcel near the middle of the island makes up the Bear Island hemlocks and perched bog state natural area. This unit features an old-growth hemlock stand. The island has no designated campsites or other facilities, but the northeast beach is popular with wilderness campers.

### History of the island

Commercial fishermen operated a fishing camp at the south sandspit. The remains of a 1930s logging camp can be found near the northeast side of the island. The sandspit is part of a life lease, so that beach is temporarily off limits to the public.

### Significance

- Along with Oak, one of the two highest islands in the archipelago.
- The Bear Island Hemlocks and Perched Bog Unit is a 420- acre state natural area.
- A 1930s logging camp with remains of log buildings is on the northeast side of the island

### Acreage

- 1,824

### Facilities

- Outhouses: None

### Campgrounds

- None

### Trails

- None

### Historic Sites

- Logging Camp
- Safety issues: ruins, wells

## **Use and Occupancy**

- None

## **Life Estates**

- Masotas, 10.50 acres

## **Natural Features**

- The reddish cliffs common on the western side of the island are composed of glacial drift, mostly till.
- Virgin stand of hemlock
- Bog at the 800 foot elevation
- Logging camp

## **Cultural Zones**

- 1

## **Cruise Boat Arrivals**

- None

## **Programs Offered**

- None

## **Volunteer Needs**

- None

## **Staffing Plan**

- No staffing planned

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## Cat Island

### Description of the island

Cat Island is a low island rising only about 80 feet above the lake. The north end of the island features wave-washed rocky ledges. A bay on the northeast side has a narrow sand beach; a sandspit makes up the south tip. The island is covered with northern hardwood forest. A single campsite is located near the south end of the island.

### History of the island

As is the case with most of the islands, Cat Island has been the site of commercial fishing and logging operations. A logging camp was established along the west side of the sandspit in the 1880s or 1890s. Commercial fishing camps operate on the east side of the sandspit since about 1900.

### Significance

- A cabin has been built at an old fish camp on the south end of the island to be available as an emergency shelter.
- Sandstone cliffs at north end of island.

### Acreage

- 1,348

### Facilities

- Outhouses: 1 single
- Well -1 (targeted for removal)

### Campgrounds

- Site 1 near sandspit at south end of island

### Trails

- None

### Historic Sites

- Historic logging camp
- Safety issues: ruins, wells

### Use and Occupancy

- None

## **Life Estates**

- None

## **Natural Features**

- Northern hardwood forest
- Sandstone cliffs

## **Cultural Zones**

- (1 Logging Camp) - Sandspit Camp and East Coast Site

## **Cruise Boat Arrivals**

- None

## **Programs Offered**

- None

## **Volunteer Needs**

- None

## **Staffing Plan**

- No interpretive staffing of this island is planned.

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# Devils Island

## Description of the island

Devils Island is the northernmost point in the state of Wisconsin. The island is small and low, but has several outstanding features. The northern two-thirds of the island is covered by one of the best examples of boreal forest in the state. The dominant trees include balsam fir, white cedar, white and black spruce, and white birch with a scattering of large white pines and eastern hemlocks. This part of the island is underlain by the Devils Island Formation, a one billion-year-old, 300-foot thick layer of thinly bedded red sandstone. Shoreline outcroppings of this sandstone on the north side of the island have been sculpted into a dramatic series of interconnected sea caves for which the island is famous. The semi-shaded cliffs dripping with water are also one of the foremost botanical attractions of the island. It is one of the few places in the state where butterwort, bird's-eye primrose, and several other sub-arctic plants are found.

## History of the island

The final jewel was placed in the necklace of lights around the Apostle Islands when the beacon on Devils Island was lit in 1891. The original structures at the light station on the north tip of the island include a red brick Queen Anne-style keeper's dwelling and a building for the steam fog signal. A brick and shingle house for the assistant keeper was built in 1897, and the 82-foot tall steel tower was added in 1898. This is the only one of the six Apostle Islands light stations that still has the original Fresnel lens mounted in the tower. The U.S. Coast Guard staffed Devils Island until 1978. It was the last of the Apostle Islands lights to be automated.

## Primary Interpretive Themes

Exhibits:

Existing -

- Portable "portfolio" of historic photos and information about the lighthouse and temporary makeshift exhibits in visitor contact room of keeper's quarters.

Proposed -

- This is the best place to discuss the "dynamic, uncontrollable" nature of the lake (Theme #7). Devils Island is a long way off shore, has lots of physical evidence (sea caves) of nature's power, and visitors feel vulnerable to forces of nature.

#### Personal Services:

- Themes #1, #2, and #7 are appropriate at any Apostle Islands lighthouses.
- Theme #5 is appropriate at lighthouses with a former lighthouse reservation (old growth forest).

#### Wayside Exhibits:

##### Proposed –

- A panel near the lighthouse describing its significance. (Theme #1)
- A panel near the cliff edge describing formation of the sea caves. (Theme #2 or #5)
- A panel at the edge of the old growth boreal forest. (Theme #5)

#### Publications:

- “Lights of the Apostles” site bulletin provides information/interpretation about the lighthouse and relate to Theme #1.
- Hiker’s Guide to Apostle Islands National Lakeshore.

#### Significance

- Northernmost of Apostle Islands
- Sandstone cliffs and sea caves
- Nesting of bald eagles
- The Devils Island Cliff Unit is a 5- acre state natural area containing exposed cliff and cliff top boreal forest plant communities. Rare plants associated with these cliffs include the state endangered butterwort.
- The Devils Island Forest Unit is a 303- acre state natural area featuring old-growth boreal forest and northern hardwood forest.
- Devils Island Light Station is on the National Register of Historic Places
- Devils Island is the only light in the Apostle Islands that still has the original Fresnel lens in the tower. The lens was repaired and reinstalled in the tower in 1992.

#### Acreage

- 318

#### Facilities

- Visitor contact area with makeshift exhibits in front room of keepers quarters.
- Housing: volunteers are housed in keepers quarters
- Outhouses: 2 single
- Docks: 2 wooden

- Well: 1
- Lighthouse: built in 1891

### **Campgrounds**

- Site 1 located at the south end near the dock

### **Trails**

- 1.75 total
- 1.2 mile historic road links the light station to the dock
- .05 mile trail connects light station and east landing
- .5 mile trail runs from light station to the west rock landing

### **Historic Sites**

- National Register Sites: Lighthouse Complex
- Safety issues/ruins/wells: old cistern, tram rails, bluff edge

### **Natural Features**

- Devil's Island supports a fine example of old growth boreal forest, the mixed coniferous forest that spreads northward from here to the tree limit of the Arctic. The boreal forest of balsam, white spruce and paper birch was the first to colonize Apostle region after the glaciers retreated.
- Exposed cliff plant community supports arctic plants not found elsewhere in Wisconsin.
- The sandstone of the Devils Island Formation was first described and named for this location.
- Sea caves form where the Devils Island sandstone is exposed on the shoreline.
- Nesting bald eagles and a diverse community of nesting forest birds.

### **Cultural Zones**

- Lighthouse
- Harbor

### **Cruise Boat Arrivals**

- Grand Tour passes close to lighthouse and sea caves on a daily basis
- Special visits during lighthouse celebration.

### **Programs Offered**

- Current - Guided tours of the light tower are offered by volunteers upon request
- Junior Ranger program

## **Volunteer Needs**

- Serve as light keepers and provide guided tours
- Greet boats
- Maintain yards and small maintenance projects

## **Staffing Plan**

- Volunteers to staff the lighthouse and provide tours, greet boats, and maintain yards.

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## Eagle Island

### Description of the island

This small rocky outcrop is the westernmost point of the Apostle Islands. It is heavily forested with a dense understory of Canada yew. The entire island is part of a state natural area. The island is home to nesting colonies of herring gulls, double-crested cormorants, and great blue herons. As the name would indicate, bald eagles also occasionally (1998 and 2000) nest on the island. To protect all these nesting birds, the island plus a 500-foot buffer zone is closed to the public from May 15 to September 1.

### Significance

- Westernmost point of Apostles
- Uncut forest, dense stands of Canada yew
- The 28-acre Eagle Island state natural area includes an important nesting site for herring gulls and double-crested cormorants, and a great blue heron rookery. In 1999, 404 herring gull nests, 77 double-crested cormorant nests, and 17 great blue heron nests were counted on Eagle Island. Eagle and Gull Islands support 80% of herring gulls that breed along the entire Wisconsin shore of Lake Superior.

### Acreage

- 24

### Facilities

- Outhouses: None

### Campgrounds

- None

### Trails

- None

### Volunteer Needs

- Assist with bird counts

### Staffing Plan

- No staff is planned.

---

# Gull Island

## Description of the island

The smallest of the Apostle Islands is primarily a collection of boulders and pebbles that rises just a few feet above the lake. Gull and Eagle Islands are part of the Apostle Islands Critical Species state natural area. Colonies of herring gulls and double-crested cormorants build their nests among the cobbles on the island. Gull Island plus a 500-foot buffer around it are closed to the public from May 15 to September 1 to protect the birds. A navigational light atop a metal skeleton tower helps to mark the island.

## Significance

- Smallest Apostle Island
- Consists of pebbles and boulders, sparsely covered with grasses and shrubs
- The 3-acre Gull Island state natural area includes the primary nesting site of herring gulls, and double-crested cormorants on the Wisconsin shore of Lake Superior. In 1999, 606 herring gull nests and 651 double-crested cormorant nests were counted on Gull Island. Gull and Eagle Islands support 80% of the herring gulls that breed on the entire Wisconsin shore of Lake Superior.
- The light tower on Gull Island is potentially eligible for the National Register of Historic Places.

## Acreage

- 3

## Volunteer Needs

- Assist with census counts of gulls and cormorants

## Staffing Plan

- No staff is planned.

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# Hermit Island

## Description of the island

The shoreline of Hermit Island is primarily composed of rocky cliffs and steep bluffs. Small beaches can be found along the southwest shore and at the mouth of a drainage midway along the north shore. Sandstone cliffs rim the northeast third of the island. These cliffs are popular nesting sites for herring gulls. A number of cut sandstone blocks are piled near a quarry site along the southeast shore of the island, where they have awaited shipment for more than a century.

## History of the island

A cooper named Wilson is said to have moved to this island from Madeline Island in the 1840s following an argument with his employer in the La Pointe settlement. Wilson, the "hermit," lived a reclusive existence on the island until he was found dead in his cabin in the early 1860s. Locals still refer to the island as Wilson's Island.

In the early 1890s, Frederick Prentice was known as the "father of the brownstone industry" in the Chequamegon region. Prentice operated the Excelsior Quarry along the south shore of Hermit Island. He built a mansion next to the quarry, the Cedar Bark Lodge, as a home for his new wife. According to a 1892 *Ashland Daily Press* article, the lodge was large enough to accommodate 20 guests and boasted all modern conveniences. The quarry went bankrupt in 1897 and the lodge was abandoned. The lodge was later operated briefly as a resort called "the Hermitage," but by the 1930s the building was demolished.

## Primary Interpretive Themes

Wayside Exhibits:

Proposed -

- Waysides at brownstone quarries at Basswood, Hermit, and Stockton should focus on Theme #1.

## Significance

- Sandstone cliffs on the east side of the island support a small nesting colony of gulls.
- Excelsior Brownstone Company Quarry and the adjacent Cedar Bark Lodge site. This landscape will be kept cleared to improve the view of the quarry from the tour boat.
- Hermit Wilson's home site.

- Historic Farm Site 0.5 miles northeast of quarry

### **Acreage**

- 778

### **Facilities**

- Outhouses: None

### **Trails**

- None

### **Historic Sites**

- Brownstone quarry
- Cedar Bark Cottage/Lodge

### **In- holdings**

- Tract 12- 131 consists of 3.26 miles (15- 16 acres) of platted right- of- way. These rights- of- way are owned by Ashland County.

### **Cultural Zones**

- Quarry
- Cedar Bark Lodge
- Historic Farm Site

### **Cruise Boat Arrivals**

- No

### **Programs Offered**

- None

### **Volunteer Needs**

- None

### **Staffing Plan**

- No interpretive staff is planned.

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# Ironwood Island

## Description of the island

Ironwood Island is a relatively low island, rising only about 80 feet above the lake. It is covered with second growth northern mesic forest. A sandy cusplate foreland is found on the south tip of the island. This is the location of the island's only designated campsite.

## History of the island

The cusplate foreland was the site of a logging camp during 1950s logging operations on the island.

## Significance

- Sandspit at south end of the island is the site of an old logging camp
- Ironwood Island is said to be the site of American Fur Company buildings from early 19th-century. However, no remains have been located.

## Acreage

- 659

## Facilities

- None

## Campgrounds

- Site 1 located at sandspit at the south end of island

## Trails

- None

## Cultural Zones

- Logging camp

## Volunteer Needs

- None

## Staffing Plan

- No interpretive staffing is planned.

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## Long Island

### Description of the island

Long "Island" is not currently an island. It is part of a long sandy barrier spit that extends from southeast to northwest across the mouth of Chequamegon Bay. The "island" has been a contiguous part of a long narrow peninsula since a 1975 storm sand-filled the channel that had separated the island from the mainland. The island features grassy dunes, pine forest, and bog habitats. It is lined with miles of sand beaches. Long Island is an important rest stop for migratory birds and provides nesting habitat for a high diversity of breeding birds, bald eagle, and the Federally endangered piping plover. A dock is located on the north side of the island near La Pointe Light.

### History of the island

A 17th-century French fur trade outpost is believed to have been located on Long Island. La Pointe Light was established on the island in 1858. The original light was replaced by a metal tower in 1897, the same year that the Chequamegon Point Light was established on the west tip of the island. The schooner LUCERNE sank in a November 1886 storm off the north side of Long Island. The Lebel family operated a commercial fish camp near Chequamegon Point for more than 75 years, ending in the 1940s. The Coast Guard staffed a station at the La Pointe Light until 1964. In 1986, the island became part of Apostle Islands National Lakeshore.

### Primary Interpretive Themes

Exhibits:

Proposed -

- The lighthouse triplex could be a good place for exhibits based on Theme #6. The island/peninsula is an interesting example of a barrier spit. Development and growth of the spit has forced the re-location of the island's lighthouses.

Wayside Exhibits:

Proposed -

- A cluster of exhibits near the dock to include:
  - A panel describing the human interaction with the island, beginning with the Ojibway. (Theme #1)
  - A panel describing how lighthouses are located where they are. (Theme #2)

- A panel describing the formation of the island. (Theme #2, #5, or #6)
- A panel describing the islands as part of the national lakeshore. (Theme #3 or #4)

#### Personal Services:

- Themes #1, #2, and #7 are appropriate at any Apostle Islands lighthouse.

#### Publications:

- Lights of the Apostles site bulletin provides information/interpretation about the lighthouse and relates to Theme #1.

### Significance

- Geologically significant example of a barrier spit/island
- Possible nesting habitat for Federally endangered piping plover. Unit WI- 2: Long Island/Chequamegon Point. This unit encompasses approximately 25.3 km (15.7 mi) of Lake Superior shoreline in Ashland County, Wisconsin. It includes areas currently occupied by piping plovers. Nesting occurred in this unit in 1998 and 1999. Approximately 11.2 km (6.9 mi) are part of the Apostle Islands National Lakeshore, approximately 9.0 km (5.6 mi) are private land, and the remaining 5.1 km (3.2 mi) are Tribal lands belonging to the Bad River Band of Lake Superior Tribe of Chippewa Indians. This unit extends from the base of Chequamegon Point (where it meets the mainland) to Chequamegon Point Light. An active piping plover nest with four eggs was found on June 5, 2001. The nest location was just north of where they nested in 1998 and 1999. An enclosure was placed around the nest as well as closure signs.
- Important migratory and breeding bird habitat, including bald eagle
- La Pointe Light Station is listed on the National Register of Historic Places. The historic Chequamegon Point light tower is also on the island.

### Acreage

- 300

### Facilities

- Potential visitor/contact areas
- Potential Housing
- Outhouses
- Dock: 1 steel and concrete
- Lighthouse: 1895

### Campgrounds

- None

## **Trails**

- None

## **Historic Sites**

- Shipwrecks: Schooner Lucerne (a National Register Site) lies just outside lakeshore boundary off the north coast
- Lighthouse Complex
- National Register Sites: La Pointe Light Station
- Safety issues: ruins, wells, shallow water

## **Use and Occupancy**

- None

## **Natural Features**

- Outstanding habitat and staging area for sensitive shorebirds, including the endangered piping plover
- Dynamic barrier spit – island is moving

## **Cultural Zones**

- Lighthouse Complex

## **Cruise Boat Arrivals**

- Lighthouse celebration in September.

## **Programs Offered**

- Current: Guided tours during the lighthouse celebration in September.
- Suggested: Complex should be staffed by NPS personnel or volunteers offering guided hikes and lighthouse tours as well as extensive roving efforts

## **Volunteer Needs**

- Four VIPs needed to provide tours of lighthouse and provide roving duties.

## **Staffing Plan**

- 4 VIPs
- Seasonal GS-5 Ranger

## **Management Concerns**

- Housing Assessment does not include any units on Long Island. If this island is staffed housing or transportation will need to be addressed. This assessment is before congress and cannot be amended or altered.

- Development of Long Island visitor facilities should follow necessary archeological, ethnographic, and natural resource surveys of the island.

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# Manitou Island

## Description of the island

Manitou Island is 13 miles northeast of Bayfield. The island is rectangular and its highest elevation is 118 feet above Lake Superior. Low sandstone cliffs border the northern, eastern, and southeastern shorelines. The remaining shoreline consists of low clay bluffs and narrow sand and gravel beaches.

The pre-settlement forest on Manitou Island was mainly hemlock, white cedar, red and white pine, white birch, and red and sugar maple. This mix was somewhat altered by logging. White cedar, yellow and white birch, red and sugar maple, balsam and hemlock dominate the present forest. Second growth stands of hemlock are present on the southwest half of the island. A stand of hemlock nearly 200 years old is located along the hiking trail midway between the historic fish camp and the campsite.

## History of the island

Native Americans used the southeast point of Manitou Island as a fishing camp during the Woodland Period more than 250 years ago. Archaeological excavations in the 1970s and 1980s unearthed stone tool fragments, thousands of fish bones, trade beads, and ceramic fragments in this site. (This is a protected and unmarked site.)

Logging began in the 1890s, peaked in the first decade of the 1900s, and continued sporadically until 1970. However, the island was not clear-cut.

The historic fish camp on the southwestern shoreline was established in the early 1900s. Fish camps like this were established on many of the islands. The camp was often most active in winter, when fishermen would set their nets below the ice. The rustic camp on Manitou Island was most used from the 1920s until the mid-1950s. It has been restored to its 1930s appearance. The camp consists of two cabins (used as bunkhouses), one tin-covered ice fishing cabin (pulled onto the lake during the winter for fishing, and used as a residence during other seasons), two twine sheds (used to store nets and gear, but also as primitive housing), a small smoke house (used for smoking fish and bear meat), net reels, and other artifacts. Park rangers and volunteers reside at the camp and provide tours of the site from early June through Labor Day weekend.

## Primary Interpretive Themes

### Exhibit/Personal Services:

The tools, equipment, and artifacts at the camp are useful in communicating Theme #1 (At the center of the continent, Lake Superior has long served as a highway of commerce connecting the Apostle Islands region to a global economy, thereby transforming the landscape and its people). They also support Theme #2 (The stories of Apostle Islands National Lakeshore reveal themselves along edges where water meets land and sky, field meets forest, culture meets culture, and past meets future).

### Wayside Exhibits:

#### Proposed -

- A panel at the dock describing island fish camps. (Theme #1 or #2)

#### Publications:

- Manitou fish campsite bulletin provides orientation to the site and helps communicate Themes #1 and #2.
- Hiker's Guide to Apostle Islands National Lakeshore

## Significance

- The Manitou Fish Camp is on the National Register of Historic Places.
- P- flat archeological site is on the National Register of Historic Places.

## Acreage

- 1,363

## Facilities

- Housing: converted building from fish camp
- Outhouses: 1 double
- Docks: 1 wooden
- Picnic Area: 1
- Well: 1
- Historic Fishing Camp

## Campgrounds

- Site 1 located at beach area 2 miles north of fish camp

## Trails

- 2.75 total

- 2.0 miles from dock to campsite
- 0.75 miles from dock to archeological site

### **Historic Sites**

- National Register Sites: Manitou Camp, P- Flat Site

### **Natural Features**

- Second growth hemlock/hardwood forest

### **Cultural Zones**

- Fish camp
- Archeological site

### **Cruise Boat Arrivals**

- Daily mid- June through Labor Day

### **Programs Offered**

- Current - Guided tours of historic fish camp, living history

### **Volunteer Needs**

- Provide weekend relief for park ranger at fish camp

### **Staffing Plan**

- GS- 4 Park Ranger
- GS- 4/5 relief from LSB – Ojibwe cultural person
- VIP relief

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# Michigan Island

## Description of the island

Michigan Island is the southeastern-most outpost of the Apostle Islands archipelago. The island is shaped a bit like a goose with its wings folded and legs tucked underneath. The head points northeast to Michigan's Keweenaw Peninsula, while its tail is rakishly directed toward neighboring Madeline Island to the southwest.

Glacial till completely covers the island's sandstone bedrock. Red colored bluffs of sand and clay rise abruptly from the water line. A prominent sandspit containing the island's only campsite tips the western end of the island. This sandy shore holds a forest of bleached driftwood.

A concrete public dock is located near the light station complex on the south side of the island. A stairway with 123 steps leads from the dock up to the grounds of the light station.

## History of the island

It might appear that the name Michigan Island is the only vestige of explorer Henry Schoolcraft's 1820 scheme to call these the Federation Islands and name each island in the archipelago after individual states. Schoolcraft's name for this island, however, was Indiana Island. The island was also once known as Passage Island. Maps from 1871 refer to the island as Michigan Island.

Michigan Island hosts two lighthouse towers that provided aid to navigation. The United States Coast Guard still maintains a light in the taller of the two towers. Though initially intended for Long Island, the first lighthouse in the Apostle Islands was built on Michigan Island due to a misunderstanding in 1856. The light was closed after its first year of operation, then rebuilt and firmly established in 1869. The second light, a 118 foot- tall skeletal and cylindrical tower was originally built in 1880 for service on the Delaware River just outside Philadelphia. It was shipped to Michigan Island in 1919 and erected in 1929 at its present site. It is the last major light tower erected in the Apostles.

The 3-1/2 Order Fresnel Lens that originally signaled from the lantern room of the 1869 tower with a mineral oil lamp was moved to the new tower in 1929 and given an electric lamp. In 1972, two years after the National Park Service assumed stewardship of the island, the lens was dismantled and removed from the tower. It is now on display at the Apostle Islands National Lakeshore's Visitor Center in Bayfield. The story of the two different towers, and the story of the lighthouse

keepers' family life, fortunes, and misfortunes is a delightful study that is well worth the effort for anyone to pursue.

## Primary Interpretive Themes

### Personal Services:

- Themes #1, #2, and #7 are appropriate at any Apostle Islands lighthouse.

### Exhibits:

#### Proposed -

- Exhibit suggestions for the old lighthouse include maritime history and the story of the first Apostle light (Theme #1) or the dynamic uncontrollable force of the lake and the story of Anna Carlson (Theme #7)
- Exhibits in the new tower might explain the need for a taller tower (Theme #3).

### Wayside Exhibits:

#### Existing -

- A routed wood sign near the lighthouse provides a few basic facts about the history of the lighthouse.

#### Proposed -

- A panel near the lighthouse explaining the two towers. (Theme #1)
- A bulletin case.

### Publications:

- Lights of the Apostles site bulletin provides information/interpretation about the lighthouse and relates to Theme #1.
- Hiker's Guide to Apostle Islands National Lakeshore

## Significance

- The Michigan Island Light Station was the first in the Apostle Islands and is on the National Register of Historic Places.
- A fish camp and railroad logging camp and landing were located on the sandspit at the west end of the island.
- The sandspit and lagoon are among the largest and most pristine in the islands.
- Old-growth hemlock on the northwest tip of the island.
- Shipwreck R. G. Stewart is on the National Register of Historic Places
- Bald eagle nesting

## **Acreage**

- 1,581

## **Facilities**

- Visitor/contact areas
- Housing: Volunteers are housed in Keepers quarters
- Outhouses: 1 single
- Dock: 1 concrete
- Two light towers

## **Campgrounds**

- Site 1, .9 miles west of light station on sandspit

## **Trails**

- 1.50 miles

## **Historic Sites**

- In the 1870s, settlers began staking claims under the Homestead Act. Farmers on Basswood and Michigan Islands planted orchards as well as corn, beans, potatoes, cabbage, and oats.
- Logging camps
- Fishing camps
- National Register Sites: Michigan Island Lighthouse

## **Natural Features**

- The reddish cliffs common on the western side of the island are composed of glacial drift, mostly till.
- Large sandspit on west end
- Lagoon
- Virgin stand of hemlock on northern tip
- Eagle nesting site on northern tip

## **Cultural Zone**

- Lighthouse Complex

## **Cruise Boat Arrivals**

- Lighthouse Celebration

## **Programs Offered**

- Current - Volunteer gives tours of lighthouse complex upon request

## **Volunteer Needs**

- Lighthouse is staffed by VIPs

## **Staffing Plan**

- 2- 4 VIPs
- Trail VIPs
- Maintenance VIPs

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## North Twin Island

### Description of the island

This small island rises barely 50 feet above the lake. It is rimmed with rocky ledges and bluffs, making access difficult. The island has never been logged commercially and is covered by an old-growth boreal forest. Camping is not permitted on the island.

### History of the island

The Congdon family of Duluth owned a cabin on the north end of the island. The cabin has been used occasionally to house researchers on the island and is scheduled for removal.

### Significance

- Included in the national lakeshore's "protected natural area subzone" to protect its ecological values with minimal human intrusion.
- Good examples of relatively undisturbed boreal forest

### Acreage

- 175

### Facilities

- Cabin
- Outhouses: None

### Campgrounds

- None

### Trails

- None

### Use and Occupancy

- Formerly one tract

### Natural Features

- Old growth forest
- Bald eagle nesting
- Thick understory of Canada Yew

### **Cultural Zone**

- None

### **Cruise Boat Arrivals**

- None

### **Programs Offered**

- None

### **Volunteer/Staff Needs**

- None

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# Oak Island

## Description of the island

Oak Island is the tallest of the Apostle Islands, reaching an elevation of 1,081 feet above sea level (480 feet above surface of the lake). It was the first island to emerge from Glacial Lake Duluth about 10,000 years ago. Ancient beach lines, the remnants of different lake stages, can be seen in several places on the island. The glaciers gave Oak Island a rugged topography with many hills and valleys. Wind, waves, and ice have sculpted the cliffs of glacial till, sandstone outcroppings, and sandy beaches that form Oak Island's shoreline. Two of the island's most distinctive features are the high bluffs on the north tip and the "hole in the wall" sea arch northeast of the bluffs.

The island is covered with a northern hardwood forest. Dominant tree species include red and sugar maple, white and yellow birch, red oak, large toothed aspen, basswood, and balsam fir. The forest understory includes bracken fern, wild sarsaparilla, corn lily, large leaved aster, and numerous maple seedlings. The island supports small populations of both black bear and white-tailed deer. Campers must use bear-proof food storage lockers provided at each campsite. A special deer hunt occurs on the island during October for hunters using muzzle-loading firearms. This special season provides the unique opportunity to camp and hunt under primitive conditions in an outstanding backcountry area. In general, State of Wisconsin hunting laws apply to the hunt. Hunters must complete a "Muzzle Loader Deer Season" application form and submit it to the park between June 15 and July 15. Oak Island has a public dock, five individual campsites, and two group campsites.

## History of the island

Native people have camped and harvested food on Oak Island for centuries. Nineteenth-century land surveys note the location of a maple "sugar bush" used by the Ojibwe on the island. In the 1850s, an Alabama native named Benjamin Armstrong built a cabin on the island and lived there for about six years. He learned the Ojibwe language and served as translator and adviser to tribal elders, accompanying them to Washington to meet with Presidents Fillmore and Lincoln.

As early as the 1850s, a cordwood business flourished on Oak Island, supplying fuel to passing steamships. The island was subsequently logged for pine in the 1880s and 1890s, and for hemlock and hardwoods throughout the 1920s. As many as six lumber camps, including those of the Schroeder and R. D. Pike lumber

companies, once dotted the shores of Oak Island. Some of the clearings and remnants of these camps are still evident today.

During and after the Great Depression, commercial fishermen used parts of the island as base camps. One of these men, Martin Kane, took up permanent residence near the sandspit, where he lived for over 25 years as the friendly "King of Oak Island."

A chimney spark is believed to have been the cause for a large fire on Oak Island in 1943 that burned nearly 4,000 acres.

## Primary Interpretive Themes

### Wayside Exhibits:

#### Existing -

- Wayside orientation cluster at the dock includes a park map, island map, and bulletin board.

#### Proposed -

- A cluster of panels at the dock to include:
  - A panel orienting visitors to Oak Island and its trails. (Theme #3)
  - A panel describing the islands as part of the national lakeshore. (Theme #4, #6, or #7)
  - A bulletin case.
- A panel identifying the old logging camp near the dock. (Theme #1)
- A panel at the sandspit describing the fragile nature of sandscapes. (Theme #5)

### Publications:

- Oak Island site bulletin provides basic resource and orientation information on the island.
- Hiker's Guide to Apostle Islands National Lakeshore

## Significance

- Oak is the highest island in the archipelago, 1081 feet above sea level. Old beach lines are located on the higher elevations of the island.
- There are at least five old logging campsites on the island including a camp operated by Benjamin Armstrong, the first in the Apostles.
- An historic Native American sugar bush and some old-growth sugar maple/oak forest are found on the island.
- Hole-in-the-Wall sea arch is part of sandstone cliffs along the northwest side of the island.

- The overlook at the north tip of the island is the tallest bluff on Wisconsin's Lake Superior shoreline.

### **Acreage**

- 5078

### **Facilities**

- Ranger Station/Housing
- Outhouses: 3 single
- Dock: 1 wooden
- Well: 1 solar and 1 artesian

### **Campgrounds**

- Five individual sites
- Two group sites
- Campsites may be temporarily closed to prevent disturbance of nesting bald eagles
- Winter camping

### **Trails**

- 11.85 miles total
- Loop Trail, 5.2 miles
- Northwest Beach Trail, 1.6 miles
- Overlook Trail 1.8 miles
- North Bay Trail, 1.1 miles
- Sandspit Trail, 1.5 miles

### **Historic Sites**

- Remains of 5 Logging Camps, 1850s- 1920s for cordwood, pine, hemlock, hardwoods...Schroeder and R.D. Pike Lumber Companies
- Commercial Fishermen...Martin Kane - permanent residence near the sandspit where he lived for over 25 years as "King of Oak Island"
- Benjamin Armstrong home site is near the sandspit
- Safety issues: ruins, wells

### **Natural Features**

- The reddish cliffs common to the western side of the island are composed of glacial drift, mostly till.
- The highest cliffs on Wisconsin's Lake Superior Shoreline are found on the north tip of the island.
- Hole in the Wall, a sea arch is located along the northeast shore.

- Oak Island is covered with mature northern hardwood – hemlock forest: including red oak, eastern hemlock, balsam fir, sugar maple, and yellow birch.
- In 1943, a fire burned most of the island but many large trees survived.
- The topography is drier and you do not see the density of understory that you do on other islands.
- Black bear, deer. Bald eagle nesting.

### **Cultural Zone**

- 5 logging camps
- Schroeder Lumber Company Camps, 1,2,3,5 and 6. See “Historic Logging Sites in the APIS” by Kate Lidfors, November 1984, pages 22- 26, 34- 43, and 61- 67.

### **Cruise Boat Arrivals**

- Provides daily access for campers and day hikers from late June to Labor Day

### **Programs Offered**

- Current - None
- Suggested - Oak is an appropriate location for Island School and other outdoor education focus study groups. Guided walks could be offered for day users.

### **Volunteer Needs**

- Campground host
- Trail maintenance
- Research/monitoring

### **Staffing Plan**

- No interpretive staffing is planned

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# Otter Island

## Description of the island

Otter Island is a lopsided, oval-shaped island that gently slopes from the central interior down to the shore. The north and northwest shores are low sandstone cliffs; the remaining shores are clay bluffs. Cliffs along the northwest shoreline are a popular nesting area for herring gulls. To protect these birds, visitors may not approach within 500 feet of the north and northwest shores of Otter Island from May 15 to September 1. There is a rock landing on the north side of the island and a small sandspit on the southeast end. The island's only campsite is located at this sandspit. A dock at the same southeast corner provides access to this campsite and the adjacent picnic area.

Logging removed most of the large yellow birch and hemlock. The island's forest is now predominately yellow birch, sugar maple, and white birch; small balsam fir and white cedar are common near the shore. Moderate-sized hemlock, red oak, and red maple are found in the north-central part of the island. The understory includes Canada yew, mountain maple, and beaked hazelnut. Commonly seen herbaceous plants are wood fern, shining clubmoss, rose-twisted stalk, smooth white violet, wild lily of the valley, and Clintonia.

## History of the island

Otter was heavily logged from 1903-1904 and again in 1957-1958. A cabin, near the south end of the trail, is a reminder of the logging and fishing that occurred in the past. (This cabin is currently a private residence.) In June 1960, between 1,500 and 2,000 Boy Scouts participated in a Camporee on Otter Island. The scouts developed a network of camping areas and trails that are now overgrown.

## Primary Interpretive Themes

Wayside Exhibits:

Proposed -

- Wayside orientation cluster at the dock would include:
  - A panel orienting visitors to Otter Island and its trails. (Theme #3)
  - A panel describing the islands as part of the national lakeshore. (Theme #4, #6, or #7)
  - A bulletin case.

## **Significance**

- The 36- acre Otter Island Cliffs state natural area provides habitat for the endangered butterwort and nesting sites for herring gulls.
- A logging camp and Boy Scout camporee site are located near the dock.

## **Acreage**

- 1,333

## **Facilities**

- Outhouses: 1 single
- Docks: 1 wooden
- Picnic Area: 1
- Well: 1

## **Campgrounds**

- Site 1 at sandspit near dock

## **Trails**

- 1.90 miles

## **Historic Sites**

- Nineteenth-century fishing or logging camp currently under Use and Occupancy
- Archeological site near trail head
- Safety issues: ruins, wells

## **Use and Occupancy**

- Sanders, .91 acres until 1/03/2002

## **Natural Features**

- Rock cliffs
- Gulls nest on north side of island
- Cuspate foreland

## **Cultural Zone**

- None

## **Cruise Boat Arrivals**

- No

## **Programs Offered**

- None

### **Volunteer Needs**

- None

### **Staffing Plan**

- No interpretive staffing is planned.

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## Outer Island

### Description of the island

Outer Island, located 20 miles north of the mainland, presents the visitor with breathtaking sand beaches, sandstone ledges, clay banks and an inland mix of young and old forest. The south end of the island is a long narrow sandspit. Sand beaches on both sides of the sandspit protect dunes, wetlands, and a stand of red and white pine trees. The remains of the abandoned tug "Faithful" are engulfed in the dune on the west edge of the sandspit. There is a campsite on the eastern edge of the sandspit, as well as a trailhead for the trail that extends the length of the island.

The eastern sand beach extends north for approximately one mile, turning into clay banks and then into extensive sandstone cliffs and ledges extending most of the length of the island. This sandstone can be seen at the northern tip of the island where it then tapers off into a sandy beach. A narrow sand beach, with clay banks rising behind it, extends approximately three-quarters of the way up the west side of the island. As the western shoreline approaches the northern tip of the island, the sand beaches become stone beaches. The intersection of sand and stone occurs near the northern dock used for access to the Outer Island Lighthouse.

The interior of Outer Island is a mixture of forest and wetland with slight rise and fall in elevation. Beaver activity is responsible for many of the island's wetlands. Forest type varies from south to north due primarily to the type and amount of historic logging activity. A 300-acre reserve near the lighthouse features old growth forest that is among the best remaining examples of hemlock/hardwood forest in the upper Midwest. A trail, following an old railroad line, runs the length of the island past beaver dams and an old logging camp. Another trail can be walked from the lighthouse to a more recent and more intact logging camp on the eastern side of the island.

### History of the island

Outer Island's history resonates with logging, shipping, and the lighthouse. Logging activity on the island went through several distinct phases. In the late 1920s, the Schroeder lumber company constructed a narrow gauge railroad through the southern half of the island. This half of the island was clear-cut, and later burned. In the 1940s, the Lullabye lumber company built a logging camp on the northeast shore of the island to facilitate a selective harvest of hardwoods from much of the island's northern half. Evidence of both these logging efforts is visible today in the form of the old railroad grade and remains of the logging

camps. Varying effects of fires and logging have left forests on the south end of the island distinctively different than those to the north.

The Outer Island Lighthouse was established in 1874 to help mark shipping lanes for boats traveling around the Apostle Islands to and from the head of the lake. The station, consisting of an 86-foot tall tower, keepers quarters, and a fog signal building, was staffed by lighthouse keepers until it was automated in 1961. The importance of the station was highlighted in 1905, when the schooner Pretoria ran aground and sank off the northeast corner of the island. Five seamen were saved by the heroic efforts of keeper John Irvine. Today, volunteer lighthouse keepers perform some of the traditional duties at the station (i.e., grounds keeping and guiding visitors on tours) while caring for the historic structures.

## Primary Interpretive Themes

### Personal Services:

- Themes #1, #2, and #7 are appropriate at any Apostle Islands lighthouse.
- Theme #5 is appropriate at lighthouses with a former lighthouse reservation (old growth forest).

### Wayside Exhibits:

#### Existing -

- Routed wood panel at the lighthouse provides historic facts.

#### Proposed -

- A panel describing the significance of the Outer Island lighthouse. (Theme #1)
- A bulletin case.

### Publications:

- Outer Island site bulletin and Lights of the Apostles site bulletin provides information/interpretation about the lighthouse and relates to Theme #1.
- Hiker's Guide to Apostle Islands National Lakeshore

## Significance

- The Outer Island Hemlock Unit is a 300-acre state natural area of undisturbed old-growth hemlock/hardwood forest.
- The Outer Island Sandspit Unit is a 232-acre state natural area which features northern dry forest, Pine Barrens, lake dunes, beach, open bog and lagoon. The sandspit provides habitat for rare plants and is an important staging area for migrating birds in spring and fall.
- The Outer Island Light Station is on the National Register of Historic Places.

- The Schroeder logging camp (1930s) and the Lullabye logging camp (1950s) illustrate two different eras of logging.
- The abandoned fish tug *Faithful* is partly buried in a sand dune on the sandspit.

### Acreage

- 7,999

### Facilities

- Housing: volunteers are housed in lightkeepers portion of the lighthouse
- Outhouses: 2 single
- Dock: 1 concrete
- Lighthouse: built in 1874 – equipped with a 3<sup>rd</sup> order lens.

### Campgrounds

- One site at the southern tip of the island on the sandspit

### Trails

- 8.7 miles total
- 7- mile trail connects light station with sandspit and takes the hiker past the Schroeder Lumber Company Camp.
- 1.7- mile trail to the Lullabye logging camp.

### Historic Sites

- Shipwrecks: The schooner Pretoria wrecked off Outer Island in 1905. The fish tug *Faithful* was abandoned on the Outer Island sandspit.
- Schroeder Lumber Company camp (1928- 1930)
- The Lullabye logging camp
- The Outer Island Light Station
- Safety Issues: ruins

### Natural Features

- High quality Sandspit/Lagoon
- Old growth hemlock forest- 300 to 500 year old trees
- Beaver
- Bald eagle nesting area
- Large population of amphibians
- Stop over point for one of the largest fall peregrine falcon and Merlin migrations in the upper Midwest.
- 92 species of forest breeding birds

### **Cultural Zone (4)**

- Lighthouse Complex
- Lullaby Lumber Camp
- Schroeder Lumber Camp

### **Cruise Boat Arrivals**

- During Lighthouse Celebration

### **Programs Offered**

- Current - Volunteers offer guided tours of the lighthouse and tower as requested.

### **Volunteer Needs**

- Volunteers staff the lighthouse, perform routine maintenance to grounds and are needed for trail work.

### **Staffing Plan**

- 4 VIPs

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# Raspberry Island

## Description of the island

Raspberry Island is located two miles off the northern tip of the Bayfield Peninsula. Despite its small size, Raspberry has an impressive diversity of landforms and habitats. Much of its shoreline is composed of clay bluffs, deep fissures, and sandstone outcroppings. A cusped foreland (referred to as the "sandspit") on the island's southeast corner features a sandy beach, grass covered dunes, and a small bog. The island plant community ranges from cultivated lawns and gardens to old growth forest.

The Raspberry Island light station includes the lighthouse, fog signal building, fuel storage building, three wooden sheds, two docks, a boathouse, and two historic outhouses. Picnic facilities and outhouses for visitors are also located at the light station.

## History of the island

Shipping traffic on Lake Superior increased dramatically following the opening of the locks at Sault Ste. Marie in 1855. Lighthouses became necessary to guide traffic between the port cities that developed around the lake. The Raspberry Island Lighthouse was constructed in 1862 and illuminated in 1863 to help mark the west channel through the Apostle Islands. A brick fog signal building was added to the station in 1903, followed by expansion of the lighthouse to its present configuration in 1906. The island was set aside as a lighthouse reservation for use by the lighthouse keepers. With the exception of the lawns, gardens, and the cleared area around the lighthouse, the forest covering the bulk of the island was left untouched. This old growth forest provides a glimpse of how the area appeared to its early inhabitants.

## Primary Interpretive Themes

Exhibits:

Existing -

- Temporary exhibits in the lighthouse provide an overview of the history of lighthouses (upstairs bedroom) and a history of the Raspberry light (dining room).

Proposed -

- Both the furnished lighthouse and any potential maritime history exhibit will focus on theme #1 (At the center of the continent, Lake Superior has long

served as a highway of commerce connecting the Apostle Islands region to a global economy, thereby transforming the landscape and its people.)

#### Personal Services:

- Themes #1, #2, and #7 are appropriate at any Apostle Islands lighthouse.
- Theme #5 is appropriate at lighthouses with a former lighthouse reservation (old growth forest).

#### Environmental Education:

- The Apostle Islands Lighthouse Curriculum covers Themes #1 and #2.

#### Publications:

- Lights of the Apostles site bulletin provides information/interpretation about the lighthouse and how it relates to Theme #1.
- Hiker's Guide to Apostle Islands National Lakeshore

#### Wayside Exhibits:

##### Proposed -

- A cluster of panels at the lighthouse to include:
  - A panel orienting visitors to the light station. (Theme #1 or #2)
  - A panel describing the lightkeepers' life at the station. (Theme #1 or #2)
  - A bulletin case.
- A panel at the trailhead describing the trail and the old growth forest. (Theme #5)
- A panel at the sandspit describing the trail and explaining the fragility of sandscapes. (Theme #2 or #5)

#### Significance

- The Raspberry Island Light Station is on the National Register of Historic Places.
- The Raspberry Island Forest Unit is a 277-acre state natural area of old-growth mesic forest and northern wet mesic forest.
- The Raspberry Island Sandspit Unit is an 11-acre state natural area featuring beach, lake dune, and open bog.
- 66 species of breeding birds.

#### Acreage

- 296

#### Facilities

- Visitor/contact areas

- Housing: Seasonal Rangers housed in outbuilding, assistant keepers quarters will become housing
- Outhouses: 3 single
- Docks: 2 wooden
- Picnic Area: 1
- Well: None
- Lighthouse: 1863, guided traffic bound to and from the lake's west end.

## **Campgrounds**

- None

## **Trails**

- 1.50 miles total
- .75 mile trail connects the light station with the sandspit
- .75 mile trail to West Bay and north end of the island

## **Historic Sites**

- National Register Sites: Lighthouse Complex
- Safety issues: associated structures

## **Natural Features**

- Old growth mesic forest
- Cuspate foreland and bog

## **Cultural Zone**

- Light Station Complex

## **Cruise Boat Arrivals**

- Twice daily from late June to Labor Day. Lighthouse celebration.

## **Programs Offered**

### **Current -**

- Rangers offer guided tours of lighthouse and grounds
- Living history
- Junior Ranger program
- Historic garden program- produce of which is donated to the Red Cliff tribal elderly nutrition program
- Apostle Islands Lighthouse Curriculum
- Rangers rove to sandspit as well as trails

Suggested -

- A maritime museum be placed in the outbuilding currently used for housing
- Refurnish keeper's quarters as it was in the 1920s.

### **Volunteer Needs**

- Landscape maintenance, trails, historic gardens, interpretation, roving, occasional evening coverage of station.

### **Staffing Plan**

- 2 GS- 5 seasonal rangers
- 2 VIP interpreter relief to give tours of lighthouse, assist with crowd controls, provide hikes to old growth forest, rove trails
- 2 VIPs to provide grounds maintenance
- 2 VIPs or 4- H group/garden club to care for historic gardens and provide interpretation for that effort

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# Rocky Island

## Description of the island

Rocky Island is shaped like a ladle, with the bulk of the island being just over 1.5 miles long and 1 mile wide. The handle extends to the northeast and ranges in width from 0.1 to 0.3 mile. The island has sand beaches on the east and northwest shores, a sandspit and bog on the southeast coast, a rocky shoreline of cobbles and pebbles on the south, and clay bluffs along the west and northern shores. The island features a public dock, three trails, and the ruins of a commercial fishing camp. Other amenities include a well, vault toilets, and 7 campsites.

## History of the island

Logging and fishing have altered the face of Rocky Island. The first logging efforts took place in the 1890s. The main logging period occurred from 1928- 1931 following the establishment of a logging camp. The camp buildings included a dock, an office, a blacksmith shop, a horse barn, and a cook shack. The lumber cut from the island was used to make railroad ties and veneer. Most of the island's present forest has grown up in the years since this logging ended.

The first commercial fishing stations operated on Rocky and South Twin Islands during the 1870s and 1880s. The Booth Fisheries Company ran a tugboat operation on the sand point near the southern end of Rocky Island from about 1888 to 1908. Some independent fishermen, mostly Scandinavian immigrants, also set up fish camps on the island during this period. Many of the island's fish camps were established during the late 1930s and 1940s, after the owner of South Twin Island increased the amount of rent he charged for his properties. The fishermen simply moved their cabins across the ice from South Twin to Rocky Island during the winter. Most of the families quit fishing commercially during the 1950s and 1960s, due to dramatic declines in populations of whitefish and lake trout caused by the arrival of sea lamprey in Lake Superior. The same families continue to spend part of their summers at some of these cabins.

Tourism and recreation have long played a role in the life and economy of the region. The Nourse family opened a restaurant in the 1940s near the site of the present National Park Service dock. The restaurant served hunters, sport fishermen, and visitors touring the islands on excursion boats until the mid-1970s. The restaurant and a series of guest cabins were known as the Rocky Island Air Haven Resort.

## Primary Interpretive Themes

### Wayside Exhibits:

#### Existing -

- A routed wood panel at the Nies fish camp provides basic historical information.

#### Proposed -

- A cluster of panels near the dock to include:
  - A panel orienting visitors to Rocky Island, its trails, and its historic use by fishermen. (Theme #1 or #2)
  - A panel describing the islands as part of the national lakeshore. (Theme #3, #4, or #7)
  - A bulletin case.

## Significance

- The Rocky Island Cuspate Foreland Unit is a 20-acre state natural area featuring beach, lake, dune, and open bog.
- The Hadland Fishing Camp is on the National Register of Historic Places.
- The remnants of the Nies Fish Camp are interpreted with a wayside exhibit.
- Bald eagle nesting.

## Acreage

- 1,099

## Facilities

- Ranger Quarters/housing
- Outhouses: 2 single, 2 double
- Docks: 1 wooden
- Picnic Area: 1
- Well - 1

## Campgrounds

- Site one at sandspit located .5 mile south of NPS dock
- Sites 2- 7 within .25 mile of NPS dock

## Trails

- 1.9 miles of trail

## Historic Sites

- Nies fish camp

- National Register Sites: Hadland fish camp
- Safety issues: ruins, wells

### **Use and Occupancy**

- Benson, 1.84 acres until 4/7/2006

### **Life Estates**

- Chaplin, 4.3 acres
- Nelson, 7.26 acres
- Erickson, 4.5 acres

### **Cultural Zone**

- Nies Fish Camp
- Hadland Fish Camp
- Logging

### **Cruise Boat Arrivals**

- None

### **Programs Offered**

- None

### **Volunteer Needs**

- None

### **Staffing Plan**

- No interpretive staffing is planned.

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# Sand Island

## Description of the island

Sand Island lies at the western edge of the Apostle Islands archipelago, opposite Sand River and Sand Bay on the mainland. Sand is an appropriate name for the island, with its lovely beaches at Lighthouse Bay on the north shore, Justice Bay and East Bay on the east shore. Wave action has exposed sandstone at several places along the island's shoreline. Low cliffs and sandstone shelves surround the lighthouse at the north tip of the island. Swallow Point on the east side of the island has one of the most spectacular sets of sea caves found in the park. The island is flat and has several large wetland areas. Several old farm fields on the eastern and southern parts of the island attest to historic agricultural activity. Much of the island is covered in a northern hardwood forest of maple, white and yellow birch, balsam fir, and cedar. The forest at the northern tip of the island was preserved as part of a lighthouse reservation for the use of the lighthouse keepers. Most of the reserve was never logged. This stand of old growth forest includes several massive white pine trees that are well over 200 years old.

Sand Island has a public dock, well, two individual campsites, two group campsites, and a volunteer campground host residence at East Bay and another individual campsite on Lighthouse Bay.

## History of the island

The settlement of Sand Island began in the 1870s when Francis Shaw built a fish camp at the southeast corner of the island. Shaw's fish camp expanded into a settlement with a farm, several houses, Camp Stella (a rustic summer resort operated from 1886 to 1910), and even a post office. Meanwhile, the land around East Bay was cleared and settled, primarily by immigrants from Norway. Nearly 100 fishermen and farmers were here between 1911 and 1918, when the population was at its peak. A road connected the Shaw settlement with East Bay. Children attended the island's school, open from 1910 to 1928. A Norman Gothic-style lighthouse was constructed of locally quarried brownstone on the north end of Sand Island in 1881. It was staffed from 1881 to 1920-29 of those years by lighthouse keeper Emmanuel Luick. Keepers and their families participated in the island's social functions, with frequent trips back and forth for mail, music, and visits with neighbors.

Today, the southeast corner of the island is still privately occupied, as are a few houses in East Bay. The West Bay Club lodge, built as a clubhouse in 1912, also remains in private use. Please respect the privacy of these summer residents.

## Primary Interpretive themes

### Personal Services:

- Themes #1, #2, and #7 are appropriate at any Apostle Islands lighthouse.
- Theme #5 is appropriate at lighthouses with a former lighthouse reservation (old growth forest).

Exhibits: Limited exhibit space in the lighthouse as long as it is a residence.

### Wayside Exhibits:

#### Existing –

- Routed wood sign at the lighthouse provides basic historic information.

#### Proposed –

- A cluster of panels at East Bay to include:
  - A panel orienting visitors to Sand Island, its trails, and its historic community. (Theme #1 or #2)
  - A panel describing the islands as part of the national lakeshore. (Theme #3, #4, or #7)
  - A bulletin case.
- A panel identifying the site of the Sand Island School. (Theme #1 or #2)
- A panel at the East Bay trailhead to the lighthouse describing the trail. (Theme #2)
- A panel at the Hansen farm site describing the significance of farming on the island. (Theme #2 or #3)
- Two panels at the Justice Bay overlook:
  - A panel describing the sea caves at Swallow Point. (Theme #2)
  - A panel describing the second growth forest. (Theme #2 or #3)
- A panel at the edge of the old growth pine forest. (Theme #2 or #5)
- A panel describing the significance of the lighthouse. (Theme #1)
- A panel near the lighthouse describing the wreck of the S.S. Sevona. (Theme #7)

### Publications:

- Sand Island site bulletin provides basic resource and orientation information
- “Lights of the Apostles” site bulletin provides information/interpretation about the lighthouse and how it relates to Theme #1.
- Historic Logging and Farming in the Apostle Islands book fits Theme #2.
- Hiker’s Guide to Apostle Islands National Lakeshore.

#### Environmental Education:

- Apostle Islands School programs will include any or all of the seven primary themes.

#### Significance

- Only island in the national lakeshore that once had a year- round community.
- The Sand Island Forest Unit is a 90- acre state natural area featuring a northern wet mesic forest with old- growth white pines.
- The Swallow Point sea caves are one of the three outstanding sea cave areas in the national lakeshore.
- The Sand Island Light Station is on the National Register of Historic Places.
- The Shaw Farm and the Sevona Cabin are on the National Register of Historic Places.
- 79 species of breeding birds.

#### Acreage

- 2949

#### Facilities

- Visitor/contact areas: none
- Housing: VIP's are lodged in the Ranger quarters at East Bay and the keeper's quarters of the lighthouse.
- Outhouses: 3 single, 1 double
- Docks: 2 wooden (Ranger cabin and East Bay.)
- Well: 1
- Lighthouse: Built in 1881 and staffed until 1920, built to aid in growing eastbound traffic. This is the only lighthouse in the Apostles constructed of locally quarried brownstone.

#### Campgrounds

- Near the dock at East Bay there are two individual campsites and a group campsite.
- Another group site is located 200 yards south of the dock.
- One individual campsite is located at the west end of the Lighthouse Bay beach.

#### Trails

- 2.60 miles total
- Two mile trail connects campground at East Bay with the Sand Island Lighthouse
- 1/3 mile trail leads from East Bay campground to Noring Farmsite

## Historic Sites

- Year- round community existed from 1870 to 1940, island school open until 1928
- Shaw Farm
- Sevona cabin
- Camp Stella
- Shipwrecks: The Sevona went down within sight of Sand Island Lighthouse in 1905
- Noring Farm
- National Register Sites: Sand Island Lighthouse, Shaw House, Sevona Cabin
- Safety issues: ruins, wells

## Use and Occupancies

- Westhagen, 9 acres until 4/21/2006
- Jensch, 1.35 acres until 4/19/2006
- Jensch, 3.17 acres, until 4/19/2006
- Jensch, 7.74 acres, until 4/19/2006

## Life Estates

- Peters, 2 acres
- Jensch, 7.74
- Rice, 49.69

## In Holdings

- Tract 06- 132 is a 1.79- acre parcel located at East Bay.

## Natural Features

- Swallow Point Sea caves
- Old growth pine
- Sand beaches
- Bald eagle nesting

## Cultural Zone

- Light Station Complex
- Noring Farm
- Shaw Farm
- Sevona Cabin

## Cruise Boat Arrivals

- Daily late June to Labor Day, if water levels at dock allow (not in use in 2001).  
Lighthouse celebration in September.

## **Programs Offered**

Current - Volunteers offer guided tours of lighthouse and tower

Suggested - Guided hikes revolving around community life

## **Volunteer Needs**

- Lighthouse tours and interpretation
- Guided walks
- Roving
- Grounds maintenance

## **Staffing Plan**

- 4 VIPs to provide interpretation at lighthouse and on trails (roving and guided hikes to old growth and cultural sites)
- 2 VIPs to care for the grounds and provide trail work
- 1½ GS- 5 Ranger

---

## South Twin Island

### Description of the island

South Twin Island lies about one mile east of Rocky Island. The protected channel between the islands provides a popular anchorage for boaters. The west shore of the island features a sandy cusped foreland bordered by a clearing. Most of the island is covered with second growth forest. The forest is reclaiming a strip of land that at one time served as an airplane landing strip.

The island has a dock, well, picnic area, and four campsites.

### History of the island

Commercial fishermen began establishing fishing camps on South Twin Island about 1900. In 1931, fisherman Lenus Jacobson purchased the island and alienated his neighbors by raising the rent they paid for operating their fishing camps. When these fishermen moved their operations to other islands, Jacobson turned the abandoned shacks into overnight accommodations for sport fishermen. The "Troller's Home" resort operated through the 1930s and 1940s. In the late 1950s, John Atwood, a private pilot, acquired the island and bulldozed a landing strip for his use. In 1970, the island became part of the national lakeshore.

### Primary Interpretive Themes

Exhibits:

Existing -

- Currently focus is on the geologic story (Theme #2 or #6) of erosion and deposition in the Apostles.

Proposed -

- The contact station has not been open to the public for several years and is scheduled for removal.

Wayside Exhibits:

Existing -

- Wayside orientation cluster at the dock includes a park map, island map, and bulletin board.

### Proposed -

- A cluster of panels near the dock to include:
  - A panel orienting visitors to South Twin Island and its historic fish camp/resort operation. (Theme #4)
  - A panel describing the islands as part of the national lakeshore. (Theme #3, #4, or #7)
  - A bulletin case.

### Significance

- Site of Trollers Home sport fishing resort in 1930s and 1940s.
- Cuspate foreland on west side of the island

### Acreage

- 360

### Facilities

- Contact station
- Seasonal housing
- Outhouses: 1 single, 2 double
- Docks: 2 wooden (one is not being maintained)
- Well: 1

### Campgrounds

- Sites 1- 4 at sandspit near dock

### Trails

- .35 total
- .25 mile trail to abandoned airstrip
- Boardwalks connect dock with fire ring, interp center, and housing

### Cultural Zone

- None

### Cruise Boat Arrivals

- None

### Programs Offered

- None

### Volunteer Needs

- None

## Staffing Plan

- No interpretive staffing planned.

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# Stockton Island

## Description of the island

Stockton Island is the largest, most diverse island in the national lakeshore. The south side of the island features three protected bays (Quarry Bay, Presque Isle Bay, and Julian Bay) that are popular with boaters. These bays also feature some of the most beautiful sand beaches in the national lakeshore. Much of the island's north side is lined with bluffs of glacial till. Sandstone cliffs are found along the southwest and northeast shores. The northeast shore is particularly striking with a series of sandstone pillars, or "sea stacks", standing apart from the cliffs. The island features a long, narrow peninsula on its south side. About 5,000 years ago, Presque Isle (French for "almost an island") was a small island separated from its larger neighbor by a mile of open water. Wave-action carried sand southward from the larger island forming underwater sandbars that eventually contacted the smaller island. A series of drops in lake levels exposed this bridge of sand connecting the two islands. This sand bridge is called a "tombolo" (Italian for "mound"). While much of Stockton Island is covered with a hemlock /hardwood forest, the tombolo supports a pine forest, pine savanna, sand dunes, bogs, and a lagoon.

No description of the island would be complete without mention of its bear population. Between 1984 and 1992, the number of black bears on the island grew from as few as three to as many as 31 individuals...one of the most concentrated populations of black bears in the world. The numbers have declined from this peak, but the island still supports a sizeable population. Tracks on the beach, scratched posts, and berry-filled droppings are a few of the commonly seen signs that the bears leave behind.

Public docks are located at Quarry Bay and Presque Isle Bay. Quarry Bay has several group campsites, an individual campsite, vault toilets, and a well. Presque Isle has a visitor contact station, picnic area, vault toilets, a well, and a 19-site campground that stretches for  $\frac{3}{4}$  mile along the tombolo.

## History of the island

People have been visiting Stockton Island for hundreds of years. It is the site of a prehistoric hunting camp dating from as much as 1,000 years ago. An 1857 survey map of the island shows an American Fur Company post located there. Loggers first came to the island in the 1880s and 1890s to harvest the pine. The Schroeder lumber company returned for the island's hemlock and hardwoods. They established several large logging camps that operated between 1910 and 1920. The Ashland Brownstone Company quarry that opened on Stockton Island in 1889

was active for less than a decade, but grew to be the largest quarry in the islands. Berry gatherers and commercial fishermen have used the island as a base. Now it attracts sailors, kayakers, anglers, campers, and hikers to enjoy the recreational opportunities it offers.

## Primary Interpretive Themes

### Exhibits:

#### Existing -

- Temporary exhibits presently focus on:
  - Effects of climate and weather on island wildlife.
  - History of the NOQUEBAY shipwreck.

#### Proposed -

- Future exhibits could focus on Theme #5 (The Apostle Islands' protected plant and animal communities, remote yet not removed from outside influences, serve as indicators to help measure the pulse of the planet.) through discussion of scientific studies relating to bears and/or birds and why they are important.

#### Or

- Focus on Theme #6 (Lake Superior defines the Apostle Islands, shapes its ecosystems, and sustains life in the region.) through discussion of the shaping of the tombolo and its living communities.

### Personal Services:

#### Information desk -

- When issuing camping permits, focus on Theme #3 with emphasis on Leave-No-Trace principals.
- With most recreational users, focus on Theme #4.

#### Roving (campground, beach, kayak) -

- Focus on Themes #3 and #4, safety, and regulations.

Evening Programs/Conducted Activities - relate to any of the primary interpretive themes, but primarily Themes #3- #7.

### Environmental Education:

- Apostle Islands School programs will include any or all of the seven primary themes.
- EXXON grant programs focus on Theme #5.

#### Publications:

- Julian Bay Trail Guide - Theme #3 or #6
- Stockton Island site bulletin provides basic resource and orientation information.
- NOQUEBAY site bulletin
- Hiker's Guide to Apostle Islands National Lakeshore

#### Wayside Exhibits:

##### Existing -

- Wayside orientation cluster at the Presque Isle dock includes a park map, island map, and bulletin board.

##### Proposed -

- A wayside orientation cluster of panels at the Quarry Bay dock will include:
  - A panel orienting visitors to hiking opportunities at Stockton Island Quarry Bay. (Theme #1 or #2)
  - A panel describing the islands as part of the national lakeshore. (Theme #3, #4, or #7)
  - A bulletin case.
- A wayside orientation cluster of panels at Presque Isle to include:
  - A panel orienting visitors to hiking opportunities at Stockton Island Presque Isle. (Theme #3)
  - A panel describing the islands as part of the national lakeshore. (Theme #3, #4, or #7)
  - A bulletin case.
- A panel at the Julian Bay trailhead. (Theme #3 or #6)
- A panel at Julian Bay beach describing the fragile sandscape. (Theme #2 or #5)
- A panel at the quarry describing the extent of the quarrying operation. (Theme #1)
- A panel of the camp and logging operation on Stockton Island. (Theme #1)

#### Significance

- The largest, most diverse island in the national lakeshore.
- The Stockton Island Tombolo Unit is a 680- acre state natural area featuring open bog, lake dune, beach, northern wet forest, northern wet mesic forest, northern dry forest, and pine savannah. It provides habitat to several state threatened species and is one of the most heavily visited areas in the lakeshore.
- Sandstone cliffs with sea stacks are found along the northeast edge of the island.
- An ancient bog is located in the north central part of the island.
- Supports the largest population of black bears in the Apostles.

- The Ashland Brownstone Company quarry is on the southwest edge of the island.
- Quarry Bay is an important cultural area including archeological sites, an 1857 fur trade camp, logging camp, and a commercial fishing camp.
- Five logging camps
- Trout Point and the Morty archeological sites are on the National Register of Historic Places.
- 105 species of breeding birds, the highest number and diversity of breeding species in the lakeshore.

### Acreage

- 10,054

### Facilities

- Visitor contact station (accessible) and Ranger storage/work area
- Housing: Seasonal housing at Presque Isle accommodates 4. Ranger/volunteer/Maintenance cabin at Quarry Bay.
- Outhouses: 3 single, 4 double, 1 quadruple (accessible)
- Docks: 1 wooden at Quarry Bay, 2 concrete at Presque Isle
- Picnic Area: 1
- Well: 2

### Campgrounds

- 3/4 mile waterfront campground, with 19 sites at Presque Isle Bay (1 is accessible)
- Three group campsites and one individual site at Quarry Bay
- Individual site at Trout Point

### Trails

- 14.50 miles total
- Julian Bay Trail, .4 miles
- Anderson Point Trail, 1.4 miles
- Tombolo Trail, 2.8 miles
- Quarry Bay Trail, 3.6 miles
- Quarry Trail, 1.5 miles
- Trout Point Trail, 4.7 miles

### Historic Sites

- Shipwrecks: schooner barge Noquebay in Julian Bay.
- Trout Point, 1890- 1920, logging camp on northeast corner of the island, at one point two bunkhouses housed 100 men

- Historic logging camps are also located at Quarry Bay, in the clearing on the north end of Presque Isle Bay and on the north and northwest coasts. All five camps are remains from the Schroeder Lumber Company operations.
- The Morty site includes remains of an 800- 1000 year old Woodland period hunting camp.
- National Register Sites: Trout Point and Morty Site archeological sites
- Commercial fishing camps at Quarry Bay, Gonia Bay, and Presque Isle.

### **Natural Features**

- Double Tombolo
- Northern Hardwood/Hemlock Forest
- Pine Savanna
- Dune
- Bog: pitcher plants and sundew
- Lagoon
- Sandscapes
- At least 429 species of plants are found here
- Black bear, sandhill cranes.

### **Cultural Zone: 6**

- Trout Point
- Quarry
- Fish Camps
- Logging Camps

### **Cruise Boat Arrivals**

- Daily from late June to Labor Day

### **Programs Offered**

Current -

- Rangers offer guided hikes
- Roving of campground and trails
- Evening programs
- Junior Ranger programs
- Roving kayak ranger

### **Volunteer Needs**

- Programs at Quarry Bay group sites
- Guided walk to Quarry
- Longer guided hikes
- Additional staffing at contact station.

## **Staffing Plan**

- Two GS- 5 Rangers, at least one with kayaking skills.

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# York Island

## Description of the island

An 1824 survey of the area by British Naval Lieutenant Henry Bayfield shows two islands here. A bridge of sand (tombolo) has developed to link the two islands. This sand deposit creates a long sweep of beach in the bay on the island's north side. Three campsites are located behind this beach. The rest of the island is covered with second growth forest including some scattered white pines at the east and west ends of the island. Bald eagles regularly nest in these pines.

## History of the island

Some logging took place as late as the 1970s on York Island. The family that once owned property here placed a stone memorial on the island. The memorial is for their son who was Missing In Action in Vietnam.

## Significance

- York Island was once two islands that are now connected by a low stretch of sand (tombolo).
- Wetland

## Acreage

- 320

## Facilities

- Outhouses: 1

## Campgrounds

- Sites 1- 3 located on the beach at the north side of island

## Trails

- None

## In- holdings

- Tract 07- 102 is a 2- acre site with a small memorial to the formal owner's son, who was listed as MIA in Vietnam. The memorial is unobtrusive and does not affect recreational opportunities. Local sentiment strongly precludes the Township from using the tract in any manner other than as a memorial.

## Natural Features

- Sandscapes; sandspit, double tombolo, dune/wetland

- Active bald eagle nest

### **Cultural Zone**

- None

### **Cruise Boat Arrivals**

- None

### **Programs Offered**

- None

### **Staffing Plan**

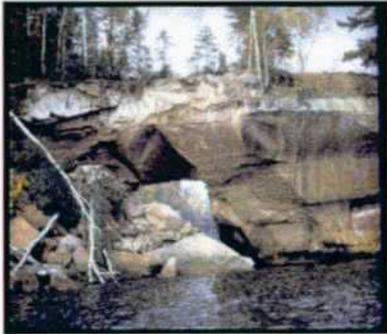
- No interpretive staff planned

# IMPLEMENTATION PLAN

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## INTRODUCTION



It is the policy of Harper's Ferry Center Interpretive Planning to exclude cost estimates from published interpretive plans. All estimates for proposed projects that may be completed by Harpers Ferry Center can be requested through the Managers Office, Harpers Ferry Center, after review of the final draft comprehensive interpretive plan. A separate document may be provided to the park manager to identify estimates for audiovisual, museum exhibits, publication, and wayside exhibit advanced planning, design, production, and equipment costs.

The following list summarizes proposals presented in this plan, establishes priorities, identifies possible funding strategies, describes some design and production considerations and recommends evaluation methods. The park staff will develop necessary funding requests to begin the federal funding process. They will also initiate contacts with potential partnership organizations to implement projects well suited to alternative funding.

## PRIORITIES/PHASES



*"There are certain values in our landscape that ought to be sustained against destruction or impairment, though their worth cannot be expressed in money terms. They are essential to our "life, liberty, and pursuit of happiness." This nation of ours is not so rich it can afford to lose them; it is still rich enough to afford to preserve them."*

- Newton Drury, 1951

- Complete wayside exhibits plan, fabricate, and place exhibits
- Rehab Little Sand Bay Visitor Center, plan, and fabricate exhibits
- Rehab exhibits at Headquarters
- Rehab exhibits at Stockton Island Contact Station
- Write PMIS statement to plan, fabricate, and install exhibits at Devils Island Light
- Write PMIS statement to plan, fabricate, and install exhibits at Sand Island Light
- Write PMIS statement to furnish Raspberry Island
- Write PMIS statement to design and furnish Maritime Museum on Raspberry Island
- Build education program using cultural educator position
- Increase cultural demonstrations at Little Sand Bay
- Increase kayak roving contacts at Stockton Island and mainland unit
- Increase mainland trail roving contacts
- Implement data from Social Science Project regarding core values and language into interpretive media
- Write PMIS statement to construct accessible interpretive trail for ½ mile at Raspberry Island
- Write PMIS statement to construct accessible interpretive loop trail for ½ mile on mainland trail, Little Sand Bay trailhead
- Increase professional NPS staffing at the Northern Great Lakes Visitor Center
- Construct Museum Storage at Little Sand Bay
- Staff programs that relate the Apostle Islands National Lakeshore at the Big Top Chautauqua

- Write OFS statements to address base increase needs. These statements will be in line with the recently published Apostle Islands National Lakeshore Business Plan.

## FUNDING SOURCES



*"No pessimist ever discovered the secrets of the stars, or sailed to an uncharted land, or opened a new doorway for the human spirit."*

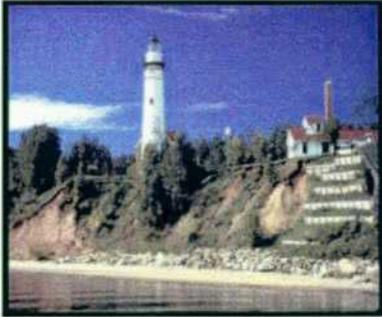
- Helen Keller, 1913

- Fee Demonstration
- Federal Highway Funds
- Friends Groups
- Grants
  - Kellogg Foundation
  - Wal- Mart
  - Target
- National Parks Foundation (offer grants but also serve as middleman for large corporations such as Wal- Mart and Target)
- Challenge Cost Share
- National Center for Technology and Training
- Save America's Treasure grants
- Federal tribal grants
- Cultural Resource Training Initiative
- Endowment for Humanities (through cooperating organization)
- Lake Superior Groups
- Boating/Diving Organizations
- Lighthouse Groups/Societies
- Chamber
- Casino
- Lumber Companies
- National Association of Sports Fishermen

Lighthouse Foundation  
P.O. 889  
Wells, Maine 04090

Lighthouse Antiques  
Kenrick A. Claflin and Son  
30 Hudson Street  
Northborough, MA 01532

# MEDIA DESIGN/PRODUCTION CONSIDERATIONS



*"To see a world in a grain  
of sand and a heaven in a  
wildflower, hold infinity in  
the palm of your hand and  
eternity in an hour."*

- William Blake

A media strategy determines *who* will do the work, what *processes* they will use, and in what *time sequence*. Today there are many options for parks. Harpers Ferry Center, park staff, region staff, contractors, architectural firms, friends groups, associations and partners can do the work. Processes may also vary. Development processes tend to be related to the persons and organizations that use them.

Considerations should include determination of the best process through value analysis. Parks understandably desire exhibits that are fast, cheap, and good. The conventional wisdom is that only one or two of those criteria might be achieved. Interpretive managers should consider planning projects that are timely, solid investments, and effective.

# ANNUAL IMPLEMENTATION PLAN



*"We are reformers in the spring and summer, but in autumn we stand by the old. Reformers in the morning and conservers at night."*

- Ralph Waldo  
Emerson

The Annual Implementation Plan, a separate component of the Comprehensive Interpretive Planning process, is based on the Long-Range Interpretive Plan. It is a park document completed in accordance with the park's budget cycle. This plan can be brief and adapted to park needs. Consideration will be given to including the following sections in the Annual Implementation Plan.

The **Summary of Annual Plan** section might be termed an executive summary of the park's interpretive program for the coming year. It is a narrative overview of programs and other activities and should be no more than one page in length. This should be all that anyone should have to read to attain a basic understanding of what interpretation plans to do and why.

**Analysis of Current Program** reviews the successes and failures of the past year's program as a basis for planning for the coming year. Factors to be considered would include cost, audiences served, interpretive and resource objectives achieved, linkages to park-wide management objectives, and success at reaching expected outcomes. It may be in narrative or chart form, and could contain an analysis using data gathered for the Annual Interpretive Program Report.

**Management Issues Facing Interpretation** is a brief summary of the current issues and concerns (resource management, maintenance, safety, special anniversaries) which interpretation needs to address in the coming year.

**Annual Work Plan** section will vary from park to park. Most division chiefs submit goals and work plans for each year to the superintendent. Normally, such work plans

include actions to be taken, responsibility for each, and due dates. If the division has responsibility for more than one program area, goals for those areas should be included as well. This is a critical element that links the long-range interpretive plan to the annual operation.

**New Individual Program Plans** outline new interpretive activities for the coming year. After the first year the program is offered these plans should be shifted to the Interpretive Database. Parks may use the Individual Service Plan format found in DO- 6 or develop a new format to meet park needs.

**Status of Implementation Plan** is an update of the **PRIORITIES/PHASES** chart found in the long-range interpretive plan. It shows what parts of the Implementation Plan will be completed in the coming year. This is a critical element of the plan.

# INTERPRETIVE DATABASE



"Visitors to the Apostle Islands can gain a unique perspective of the natural forces that shaped the islands and an appreciation of how people have tried to adapt to this harsh environment."

- APIS General Management Plan

The interpretive database, a third but separate component of the Comprehensive Interpretive Planning process, is a compilation of plans, inventories, and reports that are gathered together in one place to facilitate planning. The database should include the following materials and any other information that may be useful to plan and evaluate future interpretive programs.

**Apostle Islands National Lakeshore Business Plan, 2002**

**Annual Media Inventory** includes a printed copy of the park's portion of the servicewide computerized database describing the condition of interpretive media.

**Visitor Survey Data** should include any survey information that has been gathered about visitors and visitor use of the park.

**Media Evaluation** includes any evaluations or other analysis of programs or media as applicable.

**Annual Interpretive Program Report**

**Annual Volunteers- In- Parks Report**

**Individual Media Plans** (museum exhibits, wayside exhibits, audiovisual, publications) may be included by reference as applicable.

**Basic Park Reading List** includes a list of the information resources most important for a beginning interpreter to know in order to understand the park story.

## Guiding Documents

General Management Plan

DO- 6, Interpretation and Visitor Services

DO- 7, Volunteers- In- Parks

DO- 31, Cooperating Associations

DO- 28, Cultural Resources Management

Museum Handbook

Museum Scope of Collections, 1993

Museum Collection Management Plan, 1985

Conservation Assessment and Collection Condition Survey, 1990

Backcountry Plan (Draft)

Historic Furnishings: Raspberry

# EVALUATION



*"We need contrast to make us know we are really alive."*

- Sigurd Olson

Evaluation is an essential part of planning and operating a park interpretive program. Over the years it has become increasingly evident that interpretive facilities, media and activities benefit from evaluation during planning and development and following implementation of interpretive program components. A variety of evaluation activities tailored to specific tasks and questions to be answered should be an ongoing process.

## Three Cycles of Evaluation

Front End Evaluations are appropriate when conceptual planning considers themes, story lines, and program ideas.

Formative Evaluations are done during a process, such as early fabrication of exhibits and test run of activities. Formative evaluations are increasing in the Park Service, especially with the implementation of GPRA and value analysis.

Summative or Remedial Evaluations are performed at the end of a process. Summative evaluations have been more common in government agencies. Performance is measured and assessed at the end of a fiscal year. Achievement of media objectives is determined after the media are installed for a period of time. Achievement of short-term educational goals is measured at the conclusion of a program.

## National Park Service Evaluation Program

Visitor Services Project assesses visitor backgrounds, preferences, activities, and opinions through surveys. The Cooperative Park Study Unit (CPSU) at the University of Idaho coordinates the program.

Government Performance and Results Act (GPRA) holds offices and parks accountable for defining and assessing desired outcomes. Park staff conducts evaluation of goal accomplishment annually.

Value Analysis Program assesses the cost effectiveness of design and construction projects in excess of \$500,000.

Post Occupancy Evaluation Program (POE) assesses the effectiveness of interpretive facilities and media. The program is coordinated by Denver Service Center and Harpers Ferry Center and may be applied following implementation of media proposals.

Post Construction Evaluation coordinated by Denver Service Center looks at the quality of construction of facilities built by DSC.

Park Initiated Evaluations are conducted or contracted by parks with assistance from regional offices, service centers, and the Washington Office of Interpretation and Visitor Services.

## Techniques

The following techniques are recommended for consideration as **Park Initiated Evaluations** for implementation at the Park. This is not intended as an all-inclusive list. These methods were selected because they can be applied with relative ease and because they represent techniques with low to moderate cost and time commitments that yield moderate to high value/benefits. A Field Guide for Evaluating National Park Service Interpretation, by Brett Wright and Marcella Wells, provides a complete description of these and other techniques.

### Importance/Performance Analysis

Cost - Low

Time - Moderate

Value/Benefit - High

This analysis, more quantitative than qualitative, is an empirical test used to obtain assessments of visitor satisfaction. The analysis helps determine which areas of a program require the most resources and attention, which resources could be reduced or eliminated from particular areas of a program, or which efforts should be maintained. This technique is easily understood, easily displayed, easily interpreted to obtain data that can be applied readily to program decisions. It can be used to evaluate both overall program as well as single activities.

## Auditing

Cost - Moderate                      Time - Moderate      Value/Benefit - Moderate/High

Auditing helps supervisors guide development of interpretive activities and interpreters improve their performance. The auditor and interpreter set and discuss objectives prior to the audit. The auditor then conducts the formal audit using checklists adapted to the program being audited. A post-audit conference, a direct two-way communication, must take place as soon as possible after the formal audit. It provides prompt feedback to the interpreter being audited and provide basis for follow-up coaching. The evaluator is able to assess interpreter's actual performance in terms of content and technique. Coaching aspects of the audit lessen the intimidation of the evaluation process and provide the opportunity to correct inconsistencies before they become habit.

## Interviewing

Cost - Low/Moderate      Time - High                      Value/Benefit - High

There are three approaches to interviewing. In each a single interviewer facilitates the conversation to gather data that reveals the interviewees perspective by allowing them to express their understanding of a situation in their own words. The **Informal Conversational Interview**, or unstructured interview, presents open-ended questions in spontaneous, free-flowing conversation. The **Interview Guide Approach**, or semi-structured interview, uses predetermined questions or issues, but the interviewer adapts wording and sequence flexibly during the interview. This approach may be used effectively for group interviews where the facilitator focuses the conversation. The **Standardized Open Ended Interview** presents the same carefully worded questions in the same sequence to all interviewees. This method reduces interviewer bias and makes data analysis easier than other methods. Regardless of the approach to interviewing, response rates for interviews are usually higher than with a questionnaire and more complex issues can be addressed.

## Focus Groups

Cost - Low                              Time - Moderate                      Value/Benefit - High

Focus groups are small groups formed specifically to discuss a particular question, concern or problem and led by a well-trained discussion leader who uses a study guide to facilitate the topic of discussion. Focus groups are helpful as formative and summative evaluations. They capitalize on the value of group

dynamics to assure high level of validity while examining issues and concerns in a social context. This technique yields qualitative information often missed in statistical studies. It can be used to evaluate the message transmitted, determine visitor perceptions, measure strengths and weaknesses, or anticipate visitor needs for both personal and non-personal interpretation. Focus Groups: A Tool for Evaluating Interpretive Services, a National Park Service training package, describes procedures for conducting focus group evaluations.

Focus group evaluations at Apostle Islands can be effective to determine the expectations, wants and needs of categories of visitors, such as boaters, and to gauge how effective park programs are in meeting visitor needs and presenting park themes.

### Observation

Cost - Low                      Time - Moderate/High                      Value/Benefit- Moderate/High

This qualitative technique can effectively evaluate interpretive episodes as they occur. Observing people in a natural setting can reveal high quality information not revealed by more quantitative techniques. Observational data helps understand the impacts of interpretive programs without encumbering visitors. It can be applied to interpretation in a variety of overt and covert observation strategies (direct, indirect, unobtrusive, interactive) to gather observational data. The evaluator might observe **Statistical Evidence** such as program attendance and other visitor use data. **Physical Evidence** of tile and carpet wear around exhibits, trail wear and wear on exhibit material can expose visitor interests and desires. **Archival Evidence** includes permits, sales records, number of complaints and compliments and trail logs. **Participant Observation** of non-participation, time dedicated to a particular activity, body language and language and conversation reveals interests. Use of video or audiotape, still photography of time-lapse photography illustrate **Contrived Observation** techniques.

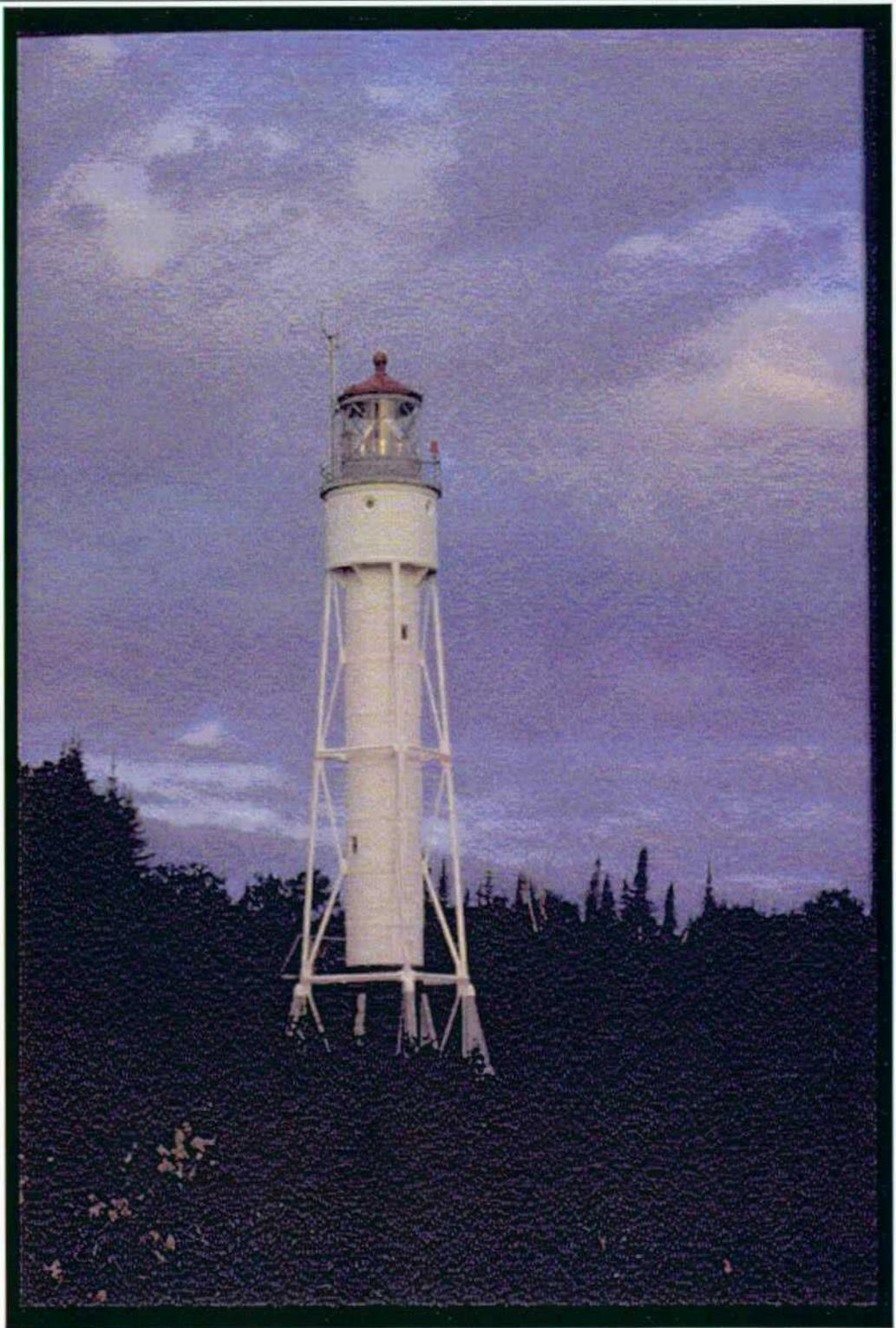
### Connoisseurship and Criticism

Cost - Moderate                      Time - Low/Moderate                      Value/Benefit - Moderate

The strength of this technique lies in its capability to turn trained observation into statements about interpretive quality through interpretation and evaluation of what is observed. This qualitative method yields valuable information about content, quality, and presentation of interpretive activities. An evaluator with training, experience, and refined perceptual capabilities conducts the evaluation and prepares a critical narrative to help interpreters see, understand, and appraise situations being critiqued. The written critique includes three components. A descriptive section presents a vivid and factual description of the

situation. An interpretive section accounts for the interactions perceived in the situation by interpreting processes observed. The evaluator presents value judgements based on criteria related to the specific situation and the needs of the creator or presenter of the interpretive experience.

## APPENDICES



# APPENDIX A:

## Programmatic Accessibility Guidelines for Interpretive Media

National Park Service, Harper's Ferry Center, June 1999  
Prepared by Harper's Ferry Center Accessibility Task Force

### Statement of Purpose

This document is a guide for promoting full access to interpretive media to ensure that people with physical and mental disabilities have access to the same information necessary for safe and meaningful visits to National Parks. Just as the needs and abilities of individuals cannot be reduced to simple statements, it is impossible to construct guidelines for interpretive media that can apply to every situation in the National Park System.

These guidelines define a high level of programmatic access that can be met in most situations. They articulate key areas of concern and note generally accepted solutions. Due to the diversity of park resources and the variety of interpretive situations, flexibility and versatility are important.

Each interpretive medium contributes to the total park program. All media have inherent strengths and weaknesses, and it is our intent to capitalize on their strengths and provide alternatives where they are deficient. It should also be understood that any interpretive medium is just one component of the overall park experience. In some instances, especially with regard to learning disabilities, personal services, that is one-on-one interaction, may be the most appropriate and versatile interpretive approach.

In the final analysis, interpretive design is subjective, and dependent on aesthetic considerations as well as the particular characteristics and resources available for a specific program. Success or failure should be evaluated by examining all interpretive offerings of a park. Due to the unique characteristics of each situation, parks should be evaluated on a case-by-case basis. Nonetheless, the goal is to fully comply with NPS policy:

"...To provide the highest level of accessibility possible and feasible for persons with visual, hearing, mobility, and mental impairments, consistent with the obligation to conserve park resources and preserve the quality of the park experience for everyone."

NPS Special Directive 83, Accessibility for Disabled Persons

## **Audiovisual Programs**

Audiovisual programs include video programs, and audio and interactive programs. As a matter of policy, all audiovisual programs produced by the Harper's Ferry Center will include some method of captioning. The approach used will vary according to the conditions of the installation area and the media format used, and will be selected in consultation with the parks and regions.

The captioning method will be identified as early as possible in the planning process and will be presented in an integrated setting where possible. To the extent possible, visitors will be offered a choice in viewing captioned or uncaptioned versions, but in situations where a choice is not possible or feasible, a captioned version of all programs will be made available. Park management will decide on the most appropriate operational approach for the particular site.

## **Guidelines Affecting Visitors with Mobility Impairments**

1. The theater, auditorium, or viewing area should be accessible and free of architectural barriers, or alternative accommodations will be provided. UFAS 4.1.
2. Wheelchair locations will be provided according to ratios outlined in UFAS 4.1.2(18a).
3. Viewing heights and angles will be favorable for those in designated wheelchair locations.
4. In designing video or interactive components, control mechanisms will be placed in accessible location, usually between 9" and 48" from the ground and no more than 24" deep.

## **Guidelines Affecting Visitors with Visual Impairments**

1. Simultaneous audio description will be considered for installations where the equipment can be properly installed and maintained.

## **Guidelines Affecting Visitors with Hearing Impairments**

1. All audiovisual programs will be produced with appropriate captions.
2. Copies of scripts will be provided to the parks as a standard procedure.

3. Audio amplification and listening systems will be provided in accordance with UFAS 4.1.2(l 8b).

### **Guidelines Affecting Visitors with Learning Impairments**

1. Unnecessarily complex and confusing concepts will be avoided.
2. Graphic elements will be chosen to communicate without reliance on the verbal component.
3. Narration will be concise and free of unnecessary jargon and technical information.

### **Exhibits**

Numerous factors affect the design of exhibits, reflecting the unique circumstances of the specific space and the nature of the materials to be interpreted. It is clear that thoughtful, sensitive design can go a long way in producing exhibits that can be enjoyed by a broad range of people. Yet, due to the diversity of situations encountered, it is impossible to articulate guidelines that can be applied universally.

In some situations, the exhibit designer has little or no control over the space. Often exhibits are placed in areas ill suited for that purpose, they may incorporate large or unyielding specimens, they may incorporate sensitive artifacts that require special environmental controls, and room decor or architectural features may dictate certain solutions. All in all, exhibit design is an art that defies simple description. However, one central concern is to communicate the message to the largest audience possible. Every reasonable effort will be made to eliminate any factors limiting communication through physical modification or by providing an alternate means of communication.

### **Guidelines Affecting Visitors with Mobility Impairments**

Note: The Americans with Disabilities Act Accessibility Guidelines (ADAAG) is the standard followed by the National Park Service and is therefore the basis for the accessibility standards for exhibits, where applicable.

1. Height/position of labels: Body copy on vertical exhibit walls should be placed at between 36" and 60" from the floor.
2. Artifact Cases:

- a. Maximum height of floor of artifact case display area shall be no higher than 30" from the floor of the room. This includes vitrines that are recessed into an exhibit wall.
- b. Artifact labels should be placed so as to be visible to a person within a 43" to 51" eye level. This includes mounting labels within the case at an angle to maximize its visibility to all viewers.
3. Touchable Exhibits: Touchable exhibits positioned horizontally should be placed no higher than 30" from the floor. Also, if the exhibit is approachable only on one side, it should be no deeper than 31".
4. Railings/barriers: Railings around any horizontal model or exhibit element shall have a maximum height of 36" from the floor.
5. Information desks: Information desks and sales counters shall include a section made to accommodate both a visitor in a wheelchair and an employee in a wheelchair working on the other side. A section of the desk/counter shall have the following dimensions:
  - a. Height from the floor to the top: 28 to 34 inches. (ADAAG 4.32.4)
  - b. Minimum knee clearance space: 27" high, 30" wide and 19" deep of clearance underneath the desk is the minimum space required under ADAAG 4.32.3, but a space 30" high, 36" wide and 24" deep is recommended.
  - c. Width of top surface of section: at least 36 inches. Additional space must be provided for any equipment such as a cash register.
  - d. Area underneath desk: Since both sides of the desk may have to accommodate a wheelchair, this area should be open all the way through to the other side. In addition, there should be no sharp or abrasive surfaces underneath the desk. The floor space behind the counter shall be free of obstructions.
6. Circulation Space:
  - a. Passageways through exhibits shall be at least 36" wide.
  - b. If an exhibit passageway reaches a dead- end, an area 60" by 78" should be provided at the end for turning around.

- c. Objects projecting from walls with their leading edges between 27" and 80" above the floor shall protrude no more than 4" in passageways or aisles. Objects projecting from walls with their leading edges at or below 27" above the floor can protrude any amount.
  - d. Freestanding objects mounted on posts or pylons may overhang a maximum of 12" from 27" to 80" above the floor. (ADAAG 4.4.1)
  - e. Protruding objects shall not reduce the clear width of an accessible route to less than the minimum required amount. (ADAAG 4.4.1)
  - f. Passageways or other circulation spaces shall have a minimum clear head room of 80". For example, signage hanging from the ceiling must have at least 80" from the floor to the bottom edge of the sign. (ADAAG 4.4.2)
7. Floors:
- a. Floors and ramps shall be stable, level, firm and slip- resistant.
  - b. Changes in level between 1/4" and 1/2" shall be beveled with a slope no greater than 1:2. Changes in level greater than 1/2" shall be accomplished by means of a ramp that complies with ADAAG 4.7 or 4.8. (ADAAG 4.5.2)
  - c. Carpet in exhibit areas shall comply with ADAAG 4.5.3 for pile height, texture, pad thickness, and trim.
8. Seating - Interactive Stations/Work Areas: The minimum knee space underneath a work desk is 27" high, 30" wide and 19" deep, with a clear floor space of at least 30" by 30" in front. The top of the desk or work surface shall be between 28" and 34" from the floor. (ADAAG 4.32, Fig.45)

### Guidelines Affecting Visitors with Visual Impairments

- 1. Tactile models and other touchable exhibit items should be used whenever possible. Examples of touchable exhibit elements include relief maps, scale models, raised images of simple graphics, reproduction objects, and replaceable objects (such as natural history or geological specimens, cultural history items, etc.).
  - 1. Typography - Readability of exhibit labels by visitors with various degrees of visual impairment shall be maximized by using the following guidelines:
    - a. Type size - No type in the exhibit shall be smaller than 24 point.

- b. Typeface - The most readable typefaces should be used whenever possible, particularly for body copy. They are: Times Roman, Palatino, Century, Helvetica and Universe.
  - c. Styles, Spacing - Text set in both caps and lower case is easier to read than all caps. Choose letter spacing and word spacing for maximum readability. Avoid too much italic type.
  - d. Line Length - Limit the line length for body copy to no more than 45 to 50 characters per line.
  - e. Amount of Text - Each unit of body copy should have a maximum of 45-60 words.
  - f. Margins - Flush left, ragged right margins are easiest to read.
3. Color:
- a. Type/Background Contrast - Percentage of contrast between the type and the background should be a minimum of 70%.
  - b. Red/Green - Do not use red on green or green on red as the type/background color combination.
  - c. Do not place body copy on top of graphic images that impair readability.
4. Samples: During the design process, it is recommended that samples be made for review of all size, typeface and color combinations for labels in that exhibit.
5. Exhibit Lighting:
- a. All labels shall receive sufficient, even light for good readability. Exhibit text in areas where light levels have been reduced for conservation purposes should have a minimum of 10 foot- candles of illumination.
  - b. Harsh reflections and glare should be avoided.
  - c. The lighting system shall be flexible enough to allow adjustments on- site.
  - d. Transitions between the floor and walls, columns or other structures should be made clearly visible. Finishes for vertical surfaces should contrast clearly with the floor finish. Floor circulation routes should have a minimum of 10 foot- candles of illumination.

6. Signage: When permanent building signage is required as a part of an exhibit project, the ADAAG guidelines shall be consulted. Signs, which designate permanent rooms and spaces, shall comply with ADAAG 4.30.1, 4.30.4, 4.30.5, and 4.30.6. Other signs, which provide direction to or information about functional spaces of the building, shall comply with ADAAG 4.30.1, 4.30.2, 4.30.3, and 4.30.5. Note: When the International Symbol of Accessibility (wheelchair symbol) is used, the word "Handicapped" shall not be used beneath the symbol. Instead, use the word "Accessible".

#### **Guidelines Affecting Visitors with Hearing Impairments**

1. Information presented via audio formats will be duplicated in a visual medium, such as in the exhibit label copy or by captioning. All video programs incorporated into the exhibit, which contain audio, shall be open captioned.
2. Amplification systems and volume controls should be incorporated with audio equipment used individually by the visitor, such as audio handsets.
3. Information desks shall allow for Telecommunication Devices for the Deaf (TDD) equipment.

#### **Guidelines Affecting Visitors with Learning Impairments**

1. The exhibits will present the main interpretive themes on a variety of levels of complexity, so people with varying abilities and interests can understand them.
2. The exhibits should avoid unnecessarily complex and confusing topics, technical terms, and unfamiliar expressions. Pronunciation aids should be provided where appropriate.
3. Graphic elements shall be used to communicate non-verbally.
4. The exhibits shall be a multi-sensory experience. Techniques to maximize the number of senses used in the exhibits should be encouraged.
5. Exhibit design shall use color and other creative approaches to facilitate comprehension of maps by visitors with directional impairments.

## Historic Furnishings

Historically refurnished rooms offer the public a unique interpretive experience by placing visitors within historic spaces. Surrounded by historic artifacts visitors can feel the spaces "come alive" and relate more directly to the historic events or personalities commemorated by the park.

Accessibility is problematical in many NPS furnished sites because of the very nature of historic architecture. Buildings were erected with a functional point of view that is many times at odds with our modern views of accessibility.

The approach used to convey the experience of historically furnished spaces will vary from site to site. The goals, however, will remain the same, to give the public as rich an interpretive experience as possible given the nature of the structure.

## Guidelines Affecting Visitors with Mobility Impairments

1. The exhibit space should be free of architectural barriers or a method of alternate accommodation should be provided, such as slide programs, videotaped tours, visual aids, dioramas, etc.
2. All pathways, aisles, and clearances shall (when possible) meet standards set forth in UFAS 4.3 to provide adequate clearance for wheelchair routes.
3. Ramps shall be as gradual as possible and not exceed a 1" rise in 12" run, and conform to UFAS 4.8.
4. Railings and room barriers will be constructed in such a way as to provide unobstructed viewing by persons in wheelchairs.
5. In the planning and design process, furnishing inaccessible areas, such as upper floors of historic buildings, will be discouraged unless essential for interpretation.
6. Lighting will be designed to reduce glare or reflections when viewed from a wheelchair.
7. Alternative methods of interpretation, such as audiovisual programs, audio description, photo albums, and personal services will be used in areas, which present difficulty for visitors with physical impairments.

### **Guidelines Affecting Visitors with Visual Impairments**

1. Exhibit typefaces will be selected for readability and legibility, and conform to good industry practice.
2. Audio description will be used to describe furnished rooms, where appropriate.
3. Windows will be treated with film to provide balanced light levels and minimize glare.
4. Where appropriate, visitor-controlled rheostat-type lighting will be provided to augment general room lighting.
5. Where appropriate and when proper clearance has been approved, surplus artifacts or reproductions will be utilized as "hands-on" tactile interpretive devices.

### **Guidelines Affecting Visitors with Hearing Impairments**

1. Information about room interiors will be presented in a visual medium such as exhibit copy, text, pamphlets, etc.
2. Captions will be provided for all AV programs relating to historic furnishings.

### **Guidelines Affecting Visitors with Learning Impairments**

1. Where appropriate, hands-on participatory elements geared to the level of visitor capabilities will be used.
2. Living history activities and demonstrations, which utilize the physical space as a method of providing multi-sensory experiences, will be encouraged.

### **Publications**

A variety of publications are offered to visitors, ranging from park folders, which provide an overview and orientation to a park, to more comprehensive handbooks. Each park folder should give a brief description of services available to visitors with disabilities, list significant barriers, and note the existence of TDD phone numbers, if available.

In addition, informal site bulletins are often produced to provide more specialized information about a specific site or topic. It is recommended that each park produce an easily updateable "Accessibility Site Bulletin" which could include detailed information about the specific programs, services, and opportunities available for visitors with disabilities and to describe barriers that are present in the park. A template for this site bulletin will be on the Division of Publications website for parks to create with ease, a consistent look throughout the park service. These bulletins should be in large type, 16 points minimum and follow the large- print criteria below.

### **Guidelines Affecting Visitors with Mobility Impairments**

1. Park folders, site bulletins, and sales literature will be distributed from accessible locations and heights.
2. Park folders and Accessibility Site Bulletins should endeavor to carry information on the accessibility of buildings, trails, and programs by visitors with disabilities.

### **Guidelines Affecting Visitors with Visual Impairments**

1. Publications for the general public:
  - a. Text
    - (1) Size: the largest type size appropriate for the format.  
(preferred main body of text should be 10pt)
    - (2) Leading should be at least 20% greater than the font size used.
    - (3) Proportional letter spacing
    - (4) Main body of text set in caps and lower case.
    - (5) Margins are flush left and ragged right
    - (6) Little or no hyphenation is used at ends of lines.
    - (7) Ink coverage is dense
    - (8) Underlining does not connect with the letters being underlined.
    - (9) Contrast of typeface and illustrations to background is high (70% contrast is recommended)
    - (10) Photographs have a wide range of gray scale variation.
    - (11) Line drawings or floor plans are clear and bold, with limited detail and minimum 8 pt type.
    - (12) No extreme extended or compressed typefaces are used for main text.
    - (13) Reversal type should be minimum of 11 point medium or bold sans serif type.
  - b. The paper:

- (1) Surface preferred is a matte finish. Dull- coated stock is acceptable.
- (2) Has sufficient weight to avoid "show- through" on pages printed on both sides?

2. Large- print version publications:

a. Text

- (1) Size: minimum 16 point type.
- (2) Leading is 16 on 20pt.
- (3) Proportional letter spacing
- (4) Main body of text set in caps and lower case.
- (5) Margins are flush left and ragged right.
- (6) Little or no hyphenation is used at ends of lines.
- (7) Ink coverage is dense.
- (8) Underlining does not connect with the letters being underlined.
- (9) Contrast of typeface and illustrations to background is high (70% contrast is recommended)
- (10) Photographs have a wide range of gray scale variation.
- (11) Line drawings or floor plans are clear and bold, with limited detail and minimum 14 pt type.
- (12) No extreme extended or compressed typefaces are used for main text.
- (13) Sans- serif or simple- serif typeface
- (14) No oblique or italic typefaces
- (15) Maximum of 50 characters (average) per line.
- (16) No type is printed over other designs.
- (17) Document has a flexible binding, preferably one that allows the publication to lie flat.
- (18) Gutter margins are a minimum of 22mm; outside margin smaller but not less than 13mm.

b. Paper:

- (1) Surface is off- white or natural with matte finish.
- (2) Has sufficient weight to avoid "show- through" on pages printed on both sides?

3. Maps:

- a. The less clutter the map, the more visitors that can use it.
- b. The ultimate is one map that is large- print and tactile.
- c. Raised line/tactile maps are something that could be developed in future, using our present digital files and a thermoform machine. Lines are distinguished by line weight, color and height. Areas are distinguished by color, height, and texture.

- d. The digital maps are on an accessible web site.
  - e. Same paper guides as above.
  - f. Contrast of typeface background is high. (70% contrast is recommended)
  - g. Proportional letter spacing
  - h. Labels set in caps and lower case
  - i. Map notes are flush left and ragged right.
  - j. Little or no hyphenation is used as ends of lines.
  - k. No extreme extended or compressed typefaces are used for main text.
  - l. Sans- serif or simple- serif typeface.
4. The text contained in the park folder should also be available on audiocassette, CD and accessible web site. Handbooks, accessibility guides, and other publications should be similarly recorded where possible.
  5. The official park publication is available in a word processing format. This could be translated into Braille as needed.

#### **Guidelines Affecting Visitors with Hearing Impairments**

1. Park site bulletins will note the availability of such special services as sign language interpretation and captioned programs.

#### **Guidelines Affecting Visitors with Learning Impairments**

1. The park site bulletin should list any special services available to these visitors.
2. Publications:
  - a. Use language that appropriately describes persons with disabilities.
  - b. Topics will be specific and of general interest. Unnecessary complexity will be avoided.
  - c. Whenever possible, easy to understand graphics will be used to convey ideas, rather than text alone.
  - d. Unfamiliar expressions, technical terms, and jargon will be avoided. Pronunciation aids and definitions will be provided where needed.
  - e. Text will be concise and free of long paragraphs and wordy language.

## Wayside Exhibits

Wayside exhibits, which include outdoor interpretive exhibits and signs, orientation shelter exhibits, trailhead exhibits, and bulletin boards, offer special advantages to visitors with disabilities. The liberal use of photographs, artwork, diagrams, and maps, combined with highly readable type, make wayside exhibits an excellent medium for visitors with hearing and learning impairments. For visitors with sight impairments, waysides offer large type and high legibility.

Although a limited number of NPS wayside exhibits will always be inaccessible to visitors with mobility impairments, the great majority is placed at accessible pullouts, viewpoints, parking areas, and trailheads.

The NPS accessibility guidelines for wayside exhibits help insure a standard of quality that will be appreciated by all visitors. Nearly everyone benefits from high quality graphics, readable type, comfortable base designs, accessible locations, hard-surfaced exhibit pads, and well-landscaped exhibit sites.

While waysides are valuable on-site "interpreters," it should be remembered that the park resources themselves are the primary things visitors come to experience. Good waysides focus attention on the features they interpret, and not on themselves. A wayside exhibit is only one of the many interpretive tools that visitors can use to enhance their appreciation of a park.

### Guidelines Affecting Visitors with Mobility Impairments

1. Wayside exhibits will be installed at accessible locations whenever possible.
2. Wayside exhibits will be installed at heights and angles favorable for viewing by most visitors including those in wheelchairs. For standard NPS low-profile units the recommended height is 30 inches from the bottom edge of the exhibit panel to the finished grade; for vertical exhibits the height of 6-28 inches.
3. Trailhead exhibits will include information on trail conditions that affect accessibility.
4. Wayside exhibit sites will have level, hard surfaced exhibit pads.
5. Exhibit sites will offer clear, unrestricted views of park features described in exhibits.

## **Guidelines Affecting Visitors with Visual Impairments**

1. Exhibit type will be as legible and readable as possible.
2. Panel colors will be selected to reduce eyestrain and glare, and to provide excellent readability under field conditions. White should not be used as a background color.
3. Selected wayside exhibits may incorporate audio stations or tactile elements such as models, texture blocks, and relief maps.
4. For all major features interpreted by wayside exhibits, the park should offer non-visual interpretation covering the same subject matter. Examples include cassette tape tours, radio messages, and ranger talks.
5. Appropriate tactile cues should be provided to help visually impaired visitors locate exhibits.

## **Guidelines Affecting Visitors with Hearing Impairments**

1. Wayside exhibits will communicate visually, and will rely heavily on graphics to interpret park resources.
2. Essential information included in audio station messages will be duplicated in written form, either as part of the exhibit text or with printed material.

## **Guidelines Affecting Visitors with Learning Impairments**

1. Topics for wayside exhibits will be specific and of general interest. Unnecessary complexity will be avoided.
2. Whenever possible, easy to understand graphics will be used to convey ideas, rather than text alone.
3. Unfamiliar expressions, technical terms, and jargon will be avoided. Pronunciation aids and definitions will be provided where needed.
4. Text will be concise and free of long paragraphs and wordy language.

## APPENDIX B:

# Planning Team and Consultants

National Park Service staff, representatives of partnership organizations, and consultants completed this long- range interpretive plan.

### Apostle Islands National Lakeshore

Myra Dec	Chief of Resource Education
Neil Howk	Assistant Chief Resource Education
Jerry Banta	Superintendent
Susan Mackreth	Park Ranger
John Scott	Chief of Resource Management
Rusty Rawson	Chief of Maintenance
Jim Nepstad	Management Assistant
Jeff Hepner	Supervisory Park Ranger
Bob Mackreth	Cultural Resource Management Specialist
Linda Gordon	Purchasing Agent
Margaret Ludwig	Administrative Assistant
Geof Smith	Resource Management Specialist
Heidi Armstrong	Apostle Islands NL Volunteer

### Partners

Liz Montano	Red Cliff
Julie Quarve- Peterson	JQP Inc. (ADA)
Sue Masterson	CESA #12
Dave Strzok	Apostle Islands Cruise Service
Ted Gostomski	Sigurd Olson Environmental Institute
Nancy Franz	University of Wisconsin - Extension
Susan Nelson	U. S. Forest Service
Carol Demars	Bayfield Chamber of Commerce
Andrew Slade	Great Lakes Aquarium
Scott Nesvold	Trek and Trail
Harvey Hoven	Wisconsin Sea Grant Institute
Francis Graves	Area Economic Development
Bobby Nelson	Wisconsin Conservation Corps
Gary Russell	Madeline Island Ferry Line
Michelle Schreider	Superior Charters
Sheree Peterson	Bayfield Heritage Association
Beta Bodin	Area businesses
Susan Ward	Bayfield Elementary School
Kathy Techman	University of Wisconsin - Extension
Larry MacDonald	Mayor of Bayfield

Steve Bade

Fred Schlichting  
Mary Hemshrot  
Simon Gretton

Wisconsin Department of Natural  
Resources  
CESA #12  
University of Wisconsin - Extension  
Camp Amnicon

**Harpers Ferry Center**

Anne Tubiolo  
Terry Lindsay  
Keith Morgan

AV Producer- Director  
Wayside Exhibit Specialist  
Park Ranger - Planner

**Midwest Region Office**

Tom Richter  
Abby Sue Fisher

Interpretation Planner  
Cultural Resources Specialist

# APPENDIX C:

## PMIS Project Statements

**Project Title:** Restore Raspberry Island Light Station

**PMIS Number:** 19687

**Description:**

This package provides for restoration at the Raspberry Island Light Station, including the keeper's quarters and the assistant keepers quarters, to an adaptive furnished exhibit and seasonal employee housing, respectively. The restorative work includes: replacing historic stamped sheet metal shingles and associated wood trim; replacing historic clapboard siding and miscellaneous wood surfaces; repointing masonry; reconstructing porches, flooring, steps, handrails and balustrades, window sills, sashes, and through-wall flashing; repairing the tower's sheet metal deck, handrail, glass, and roofing. The interiors of both sides of the lighthouse will be renovated for adaptive use, with the north half serving as seasonal employee quarters, and the south half adapted for interpretive uses. Sanitary facilities, water needs for fire suppression and domestic needs, and remote electrical utilities will be developed under this project to meet the needs of the restored station. Currently, the light station is not handicap accessible, however, the resulting renovation of the lighthouse will meet minimum handicapped accessibility standards. The light station's location on the bluff of Lake Superior's Raspberry Island increases the logistical burdens of the project. The site has been certified as suitable for an on-site passive sanitary sewer system. The Historic Furnishings Report was completed in 1990 and the Historic Structures Report was completed in 1995. This package is a revision of Package #154. Historic Structures affected are APIS- 08102B (Fog Signal) and APIS- 08103A (Lighthouse). RMP#APIS- C- 444, C- 445, 905.

**Project Title:** Plan/Design/Construct/Install Wayside Exhibits

**PMIS Number:** 25772

**Description:**

Design and fabricate 25 - 50 lexan embedded wayside exhibits and install in locations park wide. Wayside exhibits will reflect the themes and goals of the Comprehensive Interpretive Plan. Planning and designing the wayside exhibits will occur in the first year of the project. Construction and installation will take place in subsequent years. This project can be phased.

**Project Title: Rehabilitate Stockton Island Contact Station Exhibits**

**PMIS Number: 73478**

**Description:**

Stockton Island Contact Station (576 square feet) is the only island station accessible to visitors with mobility challenges. By means of a ramped boardwalk, visitors are able to gain access to the contact station, restrooms, and an accessible campsite. The Contact Station is open from Memorial Day through the last week in September. It is staffed 1 1/2 hours per day mid-June through Labor Day. The Comprehensive Interpretive Plan (CIP) for APIS targets Stockton as the location to address the following themes: #5 - the Apostle Islands' protected plant and animal communities, remote yet not removed from outside influences, serve as indicators to help measure the pulse of the planet. #6 - Lake Superior defines the Apostle Islands, shapes its ecosystems, and sustains life in the region.

The exhibits will provide essential safety information to visitors regarding wildlife and lake conditions. Examples: a) Stockton Islands is home to the largest concentration of black bears per square mile in WI. B) the uncommon tick borne disease Ehrlichiosis has been noted on the island. C) Anchorages are not absolutely safe near Stockton and boaters should be aware of this. The campground is exposed to SW storms. In addition, channels between Hermit/Stockton and Michigan/Stockton can be treacherous.

**Project Title: Rehab Headquarters Visitor Center Exhibits**

**PMIS Number: 25787**

**Description:**

The main visitor center for APIS will be renovated in 2001. This renovation project involves all floors of this National Register historic brownstone structure, including the visitor contact area and a dedicated exhibit room. The CIP targets the visitor contact exhibits area (325 square feet) as a prime opportunity to provide critical safety information to visitors planning and preparing to go to the islands. This is one of two contact stations on the mainland and is the only one open year round.

Lake Superior is a major factor in trip experience and safety for all visitors. The combination of the islands and the cold, unforgiving lake can make its own weather. The lake can appear calm in Bayfield, yet once on her waters and committed, kayakers and boaters may face large storm squalls that seemingly come out of nowhere, large seas and channels that cause heavy wave action wrapping around the islands. In winter, visitors flock to the mainland sea caves. Traveling on the shifting ice of Lake Superior can be extremely hazardous.

HQ exhibits will also provide interpretation of cultural and natural resources that are fragile and threatened. Resources such as the piping plover, fragile landscapes, old growth forests and the most inclusive collection of historic lighthouses in the National Park Service will be interpreted.

The dedicated exhibit room (325 square feet) within these exhibits is the singular opportunity for visitors with mobility challenges to view a 3 1/2 order Fresnel lens and learn of the treasures these historic landscapes hold. The concessionaire can accommodate mobility challenges on their vessels, however once at a lighthouse the numerous steps to the lighthouse grounds prohibit accessibility. The lens room at HQ meets critical ADA needs.

**Project Title: Interpret Great Lakes Resource Management and Research**

**Project Number: 38401**

**Description:**

**Year 1**

Convene a workshop of approximately 25 interpretive managers, educators and researchers from around Lake Superior. The workshop could be hosted by Apostle Islands National Lakeshore and Sigurd Olson Institute. The outcome of the meeting would be: A) Establishment of a Lake Superior-wide research and education information network; B) Development of interpretive/education strategies for meeting agency objectives and public education needs (an action plan) with agency or unit-specific assignments; C) Identification of potential funding sources to implement strategies.

**Year 2**

- A) Based on workshop results, develop and produce curricula, publications and other media (travelling exhibits, etc.) to address critical ecosystem management strategies for Lake Superior.
- B) Lake Superior National Park Service areas will collaborate with other interpreters and researchers on brochures and exhibits highlighting research and ecosystem management activities from around the lake.
- C) A short-term duty station swap for an APIS interpretive staff member and Canadian counterpart will take place. Such coordination between governments and agencies will help meet the goals of the Binational Program and those of the National Park Service as a cooperator, as well as the interpretive and management objectives of Apostle Islands National Lakeshore.

**Project Title: Develop Interactive Computer Education Program**

**Project Number: 38574**

**Description:**

Develop interactive multimedia computer program software for use by science students in high schools and colleges. Program would allow users to explore models and simulations of predator/prey relationships, contaminant transfer within Lake Superior, geologic change within the Lake Superior basin and Isle Royale, air quality of the region, and Great Lakes weather dynamics and patterns. Software would be developed by the University of Wisconsin in conjunction with Michigan, Wisconsin, and Minnesota schools and distributed to them on CD-ROM. The program would be open to the involvement of all Lake Superior National Park sites.

**Project Title: Rehabilitate Park Wayside Exhibits**

**Project Number: 52497**

**Description:**

Upgrade existing and outdated wayside exhibits at 11 sites throughout the park. The new wayside exhibits would be constructed of embedded fiberglass panels and exhibit base. They will be low maintenance and contain information important to visitors in reference to safety and park information.

**Project Title: Study Visitor Dispersion and Use Trends**

**Project Number: 37716**

**Description:**

Complete Social Science study linking the definition of seven common terms used by the National Park Service and associated core values. Focus groups will be interviewed from the NPS regional office, park management team, field rangers, maintenance, biologists and historians, local community members, tribal members and sister agencies.

**Project Title: Replace outdated park films.**

**Project Number: 22755**

**Description:**

This project replaces two outdated park films. One film is 26 minutes in length and one is 12 minutes in length. The new films will be on laser disk and be accessible to visitors with special needs. These productions will reflect themes targeted in the CIP. Audio-visual capabilities will also be upgraded through this project. To be completed in 2002.

**Project Title: Conserve Museum Collection**

**Project Number: 37041**

**Description:**

The Apostle Islands collection consists of approximately 13,000 objects. Of this total, 29 % are metal, 26 % are paper, and 24 % are wood, with the balance a mixture of photographs, glass, cloth, plastic, and rubber. Natural history objects total less than one percent. At this time, only one collection condition survey has been done for 300 items, or 2.5 % of the collection. This package includes collection condition surveys for approximately 4,000 items (30 % of the collection), accomplished over a five-year period, based on two-week surveys each year. In addition, it provides for the cleaning, application of barriers, and preparation for storage or exhibition of these objects.

**Project title: Museum Collection Storage Plan**

**Project Number: 62731**

**Description:**

This project will result in an approved Collection Storage Plan that will provide recommendations and specifications for a dedicated museum storage area with adjacent curatorial office, work space and research room. When completed, this plan will provide a cost estimate; floor plan and structure size, quantities and kinds of furnishings needed (museum cabinetry, shelving, etc.) and recommended building materials to support preservation of the collection. This proposal will provide the park with detailed recommendations to support a proposal to fund construction. This project will be accomplished through a contract either to an A&E firm or a preservation specialist with expertise in museum collection storage facilities.

## APPENDIX D: Job Safety Analysis Sheets

Apostle Islands National Lakeshore  
Job Safety Analysis

Date: 6/2/2001

Job Title: Hand Tools

Job Location: General

Safety Equipment: gloves, goggles/safety glasses if appropriate, hardhat, chaps, steel toe boots, breathing apparatus.

Key Step	Hazard	Safety Procedure	Responsibility
Shovel	Slivers, broken handle, back strain	Wear gloves, check handle before use, keep shovel sharp, when lifting use legs, keep back straight, and get help.	All personnel
Wrenches and screwdrivers	Electric shock, bruised knuckles, eye injury, cuts	Use proper size and type of tool for job. Use insulated handles for electrical. Replace or repair worn or damaged tools. Do not use for prying.	All personnel
Car jacks and hoists	Slipping, load falling on personnel	Select jack heavy enough to hold load. Inspect jack for proper operation. Lubricate jacks at least twice a year. Always secure, chock or block load on vehicle before lifting. Securely block load up on jack stands before someone gets under an object supported by a jack or hoist. Know where other folks are at all times.	All personnel
Hand cutting tools, handsaw, file, chisel, axes, and nippers.	Injuries, cuts, punctures, eye injury, potential amputation.	Keep all tools clean, keep cutting edges sharp, repair damaged or worn tools promptly, and use proper weight, size, and type of tool to fit the job. Use all guards for axes and where available for other tools. (Keep clean at work, work safe, use correct Personal Protective Equipment.)	All personnel

## Apostle Islands National Lakeshore Job Safety Analysis

Date: 6/2/2001

Job Title: Janitorial and cleaning routines

Job Location: General

Safety Equipment: goggles, rubber gloves, long pants.

Key Step	Hazard	Safety Procedure	Responsibility
	Visitors in area during cleaning operations.	Post "closed for cleaning" sign.	All personnel
	Slippery or wet floors.	Post "caution wet floor" signs when appropriate.	All personnel
	Danger from caustic cleaning compounds, inhalant/liquid, germs from toilets and urinals.	Review MSDS sheets. Always wear rubber gloves when using cleaning compounds or cleaning urinals and toilets. (Always wear Personal Protective Equipment.)	All personnel
	Danger of back strain from lifting heavy boxes of supplies and constant bending over.	Get help for heavy loads. Use proper lifting methods. Minimize twisting when performing cleaning procedures.	All personnel
	Danger of contracting communicable disease.	Always use good hygiene and wash hands. Have current hepatitis B shot. Attend yearly blood-borne pathogen training. (Always use Personal Protective Equipment.)	All personnel Supervisor

## Apostle Islands National Lakeshore Job Safety Analysis

Date: 6/2/2001

Job Title: Lawn Mowing

Job Location: General

Safety Equipment: goggles, gloves, steel-toed boots, long pants, carry radio

Misc: Read all safety manuals and operators manuals.

Key Step	Hazard	Safety Procedure	Responsibility
Pre-check	Operating	Read all safety manuals and operators manuals. Insure that all safety kill switches, blades etc. are operating properly.	All personnel
	Gas leaks.	Inspect mower for leaks.	All personnel
	Blade could fly off or old clumps of grass could fly out.	Inspect to make sure blade is undamaged and tight. Check under carriage for foreign objects. Do these prior to starting mower.	All personnel
	Improper size or damaged collection bag could come off during operation.	Inspect bag prior to operation.	All personnel
	Rocks or other objects could be thrown from mower and injure someone.	Observe area being mowed for the presence of rocks, glass, branches, etc.	All personnel
	Potential injuries while emptying collection bag.	Shut off mower and wear gloves to empty bag.	All personnel
	Potential injuries cleaning clogged mower or making	Shut off mower and wear gloves to clean or adjust.	All personnel

	minor repairs.		
	Tripping hazard from clippings left in area mowed.	Remove clippings when finished with mowing.	All personnel
	Danger from lightning.	Do not mow during an electrical storm.	All personnel
	Potential hearing loss from prolonged exposure to loud noises.	Wear ear protection.	All personnel
	Low limbs on trees and bushes may injure operator.	Allow additional clearance between limbs, branches and operator. Prune or cut hazardous branches and limbs. Wear goggles.	All personnel
	Visitor distract operator and get in the way of mowing operation.	Be especially vigilant when visitors are present. Try and accomplish work when visitation is low. If necessary, cone off work area.	All personnel
	Potential cuts to hands when sharpening blades.	When sharpening, remove blade from mower.	All personnel
	Inexperienced operator may injure self or others.	Make sure mower operator is adequately trained on new mower controls and safety.	All personnel
	Personal injury caused by operation of mower.	Wear proper clothing, do not wear loose jewelry and use personal safety equipment. Make sure all belt and blade guards are in place.	All personnel
	Fire or explosion.	Always fill tank outside with engine off. The engine should be cold/not hot.	All personnel
	Mower out of control on steep bank.	Do not mow side to side on steep hill. Disengage machine going down hill. Mow going uphill.	All personnel

Operation of Lawn Mower	Obstacles in mow way.	Specify safe work procedures and personal protective equipment. Wear protective boots, eye and ear protection. Check lawn before running mower over to eliminate hazards, wear protective foot, ear, eye and hand protection. Use caution with sharp blades and use gloves. Check in well-ventilated area with no open flames. Do not refuel hot engine. Do not refuel a running engine.	All personnel
All mowers, wee eaters, chainsaws etc.	Injury to hand, feet.	Do not attempt to unclog unit with engine running.	All personnel
Push Mower	Flying Objects	Use guards on mowers, sharpen blades, keep mower height high, and look for branches, rocks, etc., wear gloves, eye protection. Be aware of where other folks are at all times. Flying objects could hit someone. Be aware of steepness.	All personnel
	Foot and finger cuts	Use mower guard; don't get hands or feet near mower. Don't pull mower backward. Wear steel-toed boots.	All personnel
	Muffler burns	Don't touch muffler – wear gloves	All personnel
	Heat exhaustion, back strain	Use caution, don't overexert, take frequent breaks, drink plenty of water, use proper lifting procedure, and see JHA for Proper Lifting Procedures.	All personnel
	Bee Stings	Check area, flag area, spray, have sting kits available. If allergic to stings, tell supervisor.	All personnel
Refueling	Starting fire or foot injuries	Keep feet outside protective shields. Check oil or oil/gas mixture. When refueling, cool engine for 5 minutes before refueling. Move mower at least 10 feet from fueling point before restarting.	All personnel
	Injuries while cleaning or repairing	Turn off power before cleaning or repair	All personnel

Riding Mower	Falling off mower, causing mower to run over or fall on rider or others.	Don't try to go too fast, sharpen blades, don't make sharp turns, and don't mow on steep inclines. Be aware of steepness of area. Use caution; watch out for trees, etc. Allow only driver on mower. Be aware of other folks and where debris is going.	All personnel
	Injuries while cleaning or repair.	Turn off power (1) If the mower must be left (2) Before cleaning (3) Before repairs.	All personnel
Refueling	Gasoline fire	Cool engine for 5 minutes before refueling. Move at least 10 feet from fueling point before restarting.	All personnel
	Flying object or other injuries to others.	Area should be clear of all people for 110 feet. Avoid hitting fixed obstructions, curbs, walls, walks, posts, and pipes with blade.	All personnel
	Finger, toe cuts etc.	Keep people clear. Keep mower in good condition with all protection shields and other safety equipment is in place.	All personnel
	Burns, eye injuries.	Wear gloves and safety glasses.	All personnel
	Hearing damage.	Wear earplugs and/or earmuffs.	All personnel
Preparation		Sharpen blades, check oil or check oil and gas mixture.	All personnel

**Apostle Islands National Lakeshore  
Job Safety Analysis**

Date: 6/15/2001

Job Title: Personal Safety

Job Location: General

Safety Equipment: Radio, Cell Phone

Key Step	Hazard	Safety Procedure	Responsibility
Park provide training in Module III, Personal Safety	Incidents of aggression and violence from opportunistic people, those under the influence of drugs or alcohol, stressed visitors and others.	Provide Module III which includes: Personal Assessment, Risk Assessment, Threat Assessment, Awareness Techniques, Communication, Verbal Judo, Facility Assessment and Professional Behavior.	Supervisors
Provide working communication devices.	In the event of an incident or threat of incident, injury or death could occur.	Provide radios, batteries, cell phones and someone on the other end to send help.	Supervisors, Park Management Team.
Facility Assessment	The potential exists for facilities, which include structures and other locations, to provide opportunities for	Conduct a facility assessment at each location where staff is stationed or frequents.	Supervisors, Law Enforcement, Maintenance

	perpetrators of crime.		
Practice	Without mental and physical preparedness an employee might be overcome by fear and panic in the event of an incident.	STOP, THINK, OBSERVE, PLAN. Practice techniques everyday. Be aware. Role- play. Ask questions of supervisors, maintenance and law enforcement. Be sure your batteries are charged and your radio/cell phones work. Know your escape routes. Have a safe harbor. Do not conduct tours if you feel it unsafe.	All personnel.
Provide assistance if injury or threat occurs.	Even if everything is done right, the possibility still exists for threat or personal injury.	Provide access to park debriefing team and professional medical staff/counselors.	Supervisors, Park Management

**Apostle Islands National Lakeshore  
Job Safety Analysis**

Date: 6/14/2001

Job Title: Operating trams

Job Location: Raspberry, Michigan and Outer Islands

Safety Equipment: gloves

Key Step	Hazard	Safety Procedure	Responsibility
Michigan Island Tram operation	Injury to hands, feet, tripping and injury caused by cables, out of control tram, fire within fog signal building, explosion from generator, fuel spillage, electrical shock, back injury, cart running over person, injury by straddling cable, breaking/snapping/jerking of cable	<p>Generator:</p> <ul style="list-style-type: none"> <li>• Check engine oil level</li> <li>• Check radiator fluid level</li> <li>• Check fuel: leveling tank by gauge, do not allow to get under ¼ tank of fuel. Notify someone immediately that fuel is needed.</li> <li>• Do not overfill any fluid levels.</li> <li>• Ensure all circuit breakers at the electrical panel are shut off.</li> </ul> <p>Engine Start UP:</p> <ul style="list-style-type: none"> <li>• Hold down on engine preheat switch 30 seconds to 1 minute.</li> <li>• Attempt to start: use the three positioning switch – remote, on/off, start. Flip switch into the upward start position.</li> <li>• Allow to crank for 1- 2 minutes. If engine starts: allow to warm up and continue onto electrical start up.</li> <li>• If engine will not start: return to step 4 and continue Steps 4,5, &amp; 6. If engine still fails to start – notify Maintenance Marine Mechanic</li> </ul>	All personnel Supervisors assure training

		<p>immediately.</p> <p>Electrical Start UP:</p> <ul style="list-style-type: none"> <li>• Do not stand in water</li> <li>• Turn on main switch if equipped</li> <li>• Turn on light switch</li> <li>• Turn on hoist/tram switch</li> <li>• Turn on outlets if needed: i.e. only works in Fog Signal building only</li> <li>• Turn on constavolt charging switch</li> </ul> <p>Constavolt Panel:</p> <ul style="list-style-type: none"> <li>• Charges 12 volt system</li> </ul> <p>Tram Use:</p> <ul style="list-style-type: none"> <li>• Wear gloves</li> <li>• Use control box: up, down, stop</li> <li>• Be sure all visitors and staff are cleared from the track and the dock below</li> <li>• Push on cart or pull back on cart at all times (insuring that the cable stays tight at all times)</li> <li>• Roll to tram to top: insure that all 4 wheels are on the rails properly before allowing to go down</li> <li>• Do not straddle cable</li> <li>• Push - keep pressure and allow to go over and down</li> <li>• Do not jerk on cables; this can cause wear and breakage</li> <li>• Stop at bottom of tram</li> <li>• Load/unload</li> <li>• Reverse sequence to bring to top of hill</li> <li>• DO NOT ALLOW TRAM CART TO HIT</li> </ul>	
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		<p>FOG SIGNAL BUILDING.</p> <ul style="list-style-type: none"> <li>Do not allow jerking motion or sudden stops of tram.</li> <li>Do not operate tram if you have not been trained or do not feel confident to do this task.</li> </ul>	
Raspberry Island Tram Operation	Same as with Michigan	<p>Operating pre- Checks:</p> <ul style="list-style-type: none"> <li>Check engine oil level</li> <li>Check radiator fluid level</li> <li>Check fuel: Level in tank by gauge. (Do not allow to get under ¼ tank of fuel) Notify someone in maintenance immediately that fuel is needed.</li> <li>Do not overfill any fluid levels.</li> <li>Ensure all circuit breakers at the electrical panel are shut off.</li> </ul> <p>Engine Start UP:</p> <ul style="list-style-type: none"> <li>Hold down on engine preheat switch 30 seconds to 1 minute.</li> <li>Attempt to start: use the three positioning switch- remote, on/off, start. Flip switch into the upward start position.</li> <li>Allow to Crank for one to two minutes. If engine starts: allow to warm up and continue onto electrical start up.</li> <li>If engine will not start: return to step 4 and continue steps 4,5 &amp; 6. If engine still fails to start – notify the Maintenance Marine Mechanic immediately.</li> </ul> <p>Electrical Start Up:</p> <ul style="list-style-type: none"> <li>Turn on main switch if equipped</li> </ul>	All personnel and supervisors

		<ul style="list-style-type: none"> <li>• Turn on light switch</li> <li>• Turn on hoist/tram switch</li> <li>• Turn on outlets if needed: i.e. only works in Fog Signal building</li> <li>• Turn on Constavolt Charging Switch</li> </ul> <p>Constavolt Panel:</p> <ul style="list-style-type: none"> <li>• Charges 12 volt system</li> <li>• Turn on white switch: center right of panel</li> <li>• Do Not Touch Switch: center top of panel – i.e. Float Switch</li> <li>• Check gauges and take reading: insure that charging is at least 13 volts and 25 to 30 Amps. If not notify Maintenance Marine Mechanic</li> <li>• Allow to charge for 1- 2 hours at a time.</li> </ul> <p>Tram Use:</p> <ul style="list-style-type: none"> <li>• Use control box: reverse – forward buttons.</li> <li>• Push on cart or pullback on cart at all times (insuring that the cable stays tight at all times)</li> <li>• Roll to top of tram: insure that all 4 wheels are on the rails properly before allowing to go down</li> <li>• Push – keep pressure and allow to go over and down</li> <li>• Stop at bottom of tram</li> <li>• Load/unload</li> <li>• Reverse sequence to bring to top of hill</li> <li>• Do Not allow tram cart to hit fog signal building.</li> <li>• Do not operate the tram unless you have been well trained and feel confident in this procedure.</li> </ul>	
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**Apostle Islands National Lakeshore  
Job Safety Analysis**

Date: 6/15/2001

Job Title: Operating Propane Appliances

Job Location: General

Safety Equipment:

Key Step	Hazard	Safety Procedure	Responsibility
Operation of appliances (range, furnace/space heater, refrigerator)	Gasses, fire, explosion, carbon monoxide and asphyxiation.	<ul style="list-style-type: none"> <li>• Provide training of operations during quarters check- in.</li> <li>• In an emergency turn off gas valve at the rear of the appliance, and to include the Main Shut Off Valve at Propane tank.</li> <li>• Notify maintenance immediately. Do not attempt to relight pilot.</li> </ul>	Supervisor All personnel

**Apostle Islands National Lakeshore  
Job Safety Analysis**

Date: 6/15/2001

Job Title: Tying and Untying Boat Lines to Docks and Cleats

Job Location: General

Safety Equipment: life jacket, approved foot gear (boat shoes)

Key Step	Hazard	Safety Procedure	Responsibility
Untying lines from dock or cleats	Being pulled into water, tripping over lines, finger/hand injury, back injury, boat could drift and cause accident	<ul style="list-style-type: none"> <li>• Receive instruction in untying lines prior to doing so</li> <li>• Wait for boat operator (captain) to give instructions.</li> <li>• Untie in order directed by captain</li> <li>• Throw lines into the boat as directed by captain</li> <li>• Use extreme caution to be sure that no lines are in position to tangle in the prop</li> </ul>	Boat operators All personnel
Getting off boat to tie lines	Rough seas, stepping to dock from boat, getting off boat in rough waters, falling between boat and dock	<ul style="list-style-type: none"> <li>• Pay attention to surfaces</li> <li>• Don't assist if you are not trained and confident</li> <li>•</li> </ul>	
Tying lines	Finger/hand injury, being jerked in the water by lines, back injury from pulling on lines, tripping over lines, back strain,	<ul style="list-style-type: none"> <li>• Do not let fingers get between rope and cleat, or boat and dock</li> <li>• Tie lines in order directed by captain</li> <li>• Do not secure lines until directed, rather loop line lightly around cleat and hold snug so that you can release if directed. You can hold a</li> </ul>	All personnel

	failure to control boat	<p>boat without much strength if the line is looped around the cleat. Do not hold the rope using muscle alone, take advantage of cleats.</p> <ul style="list-style-type: none"> <li>• All boat operations use rule of thumb – three point contact or more all the time.</li> </ul>	
Getting on boat	Falling in water, falling in boat, getting on boat in rough waters	<ul style="list-style-type: none"> <li>• Be sure lifejacket is on, on the dock. Use survival work suit as ordered by captain.</li> <li>• Step carefully to tread of boat, holding hand rail</li> <li>• Do not carry line on with you, toss it on board before you</li> <li>• Be aware of slippery surfaces and tripping hazards such as lines</li> </ul>	
Assisting Private Boats tying and untying lines (including Cruise Boat	Pulling cleat from dock creating a missile that can kill, being jerked into water, back injury, line parting(breaking)	<ul style="list-style-type: none"> <li>• Only assist in the manner you are asked and if you feel confident and the action is safe. Being asked does not obligate you and you should do so only if trained and the action is safe.</li> <li>• Ranger should stay well away from private boats while they are docking and keep the public back as well.</li> <li>• Do not secure or tie a line on a moving boat!! Loop the line around the cleat and hold it so that you can release if necessary.</li> <li>• Keep all bystanders clear whenever possible especially if in inclement weather and especially with Cruise Boat.</li> </ul>	

**Apostle Islands National Lakeshore  
Job Safety Analysis**

Date: 6/15/2001

Job Title: Loading/Off- Loading Boats (Gear)

Job Location: General

Safety Equipment: lifejacket, gloves, kidney belt, boat shoes

Key Step	Hazard	Safety Procedure	Responsibility
All personnel	Back injury, slipping, falling, cuts to hands, injury to feet, gear falling into water	<ul style="list-style-type: none"> <li>• Wear lifejacket</li> <li>• Wear gloves</li> <li>• If gear is light, hand it to someone already on the boat.</li> <li>• If gear is heavy but can be lifted by one individual, place the gear on the edge of the dock near the boat. Be sure the person lifting it from the dock to the boat is capable and the gear is not too heavy. Lift with your knees and not your back.</li> <li>• Do not straddle boat/dock while loading/unloading.</li> <li>• If one individual cannot safely lift the gear get help or do not load.</li> <li>• Two people will place heavier gear on dock near boat, two individuals will lift to boat and stow.</li> <li>• Stow gear as directed by the captain.</li> <li>• Do not throw or fling items. This may cause damage to the boat, your back, or feet.</li> <li>• When loading gear onto a small boat use special caution to avoid upsetting the boat.</li> </ul>	
Stowing Gear	Back Injury,	<ul style="list-style-type: none"> <li>• Heavy gear can be difficult to stow due to small</li> </ul>	All personnel

	injury to feet	<p>quarters. Be sure that enough help is available. Never lift if it is beyond your ability. Do not tug or jerk on objects.</p> <ul style="list-style-type: none"> <li>• Notify the captain if there are flammables in your baggage and abide by the captain's direction regarding same.</li> </ul>	
Off Loading Gear	Back Injury	<ul style="list-style-type: none"> <li>• Place gear on foot tread of boat, then to dock. If gear is heavy be sure there are enough folks lifting so that the lift is safe. Follow proper lifting procedures – lifting from the knee and not with the back.</li> <li>• Wear kidney belt if appropriate.</li> </ul>	All personnel

**Apostle Islands National Lakeshore  
Job Safety Analysis**

Date: 6/15/2001

Job Title: Person Boat Travel

Job Location: General

Safety Equipment: life jacket, survival suit, hat

Key Step	Hazard	Safety Procedure	Responsibility
Getting on the boat (including small boats such as Zodiacs and the Coot)	Slip and fall onto the dock, into the boat, or into the water, slip on boat ladder or wet surface, tipping small boat over	<ul style="list-style-type: none"> <li>• Wait for the captain to signal that you may get on.</li> <li>• Be sure your feet are clean.</li> <li>• Hold the handrail and place your foot on the tread. Step into the boat. Do not jump.</li> <li>• Do not carry items as you step on. Hand your gear on first.</li> <li>• Put your lifejacket on immediately.</li> <li>• Use caution on wet surfaces.</li> <li>• When getting on a small boat use caution to avoid unbalancing the boat, step to the center and not on the gunwale.</li> </ul>	All personnel
Once on the boat	Falling into water, washed overboard, falling on boat, sunburn, hypothermia, hearing damage, distracting captain	<ul style="list-style-type: none"> <li>• Do not sit on edges of boat. You may sit on the engine cover or in seats provided. Stand with permission of captain.</li> <li>• The sun reflecting off the water may cause sunburn even on cloudy days – it is advisable to wear sunscreen.</li> <li>• Follow captain's directions regarding moving about on the boat. Check before you change</li> </ul>	

		<ul style="list-style-type: none"> <li>positions.</li> <li>• Follow captains directions regarding survival work suits</li> <li>• During docking let the captain concentrate, avoid any form of distraction, set still unless asked to assist, be sure to physically stay out of the captain's way (the captain may need to move quickly to get to the dock to tie off lines)</li> <li>• NEVER try to fend off the boat from the dock or rocks etc. with your hands or feet.</li> <li>• Use provided ear protection on boats with high noise levels. Captain will direct you. (Gavia and Pelican)</li> </ul>	
In emergency	High seas, washed over board, wind, hail, lightning	<ul style="list-style-type: none"> <li>• Follow instructions from captain. This may include putting on your survival suit, assisting the captain in various ways. Remember while on the boat the captain is always your authority. The things requested are not optional.</li> </ul>	All personnel
Getting Off Boat	Slipping and falling on boat, into water, onto dock	<ul style="list-style-type: none"> <li>• If you are not helping with lines, remain seated until the boat is docked and tied. Wait for the captain's approval to leave the boat.</li> <li>• Grab the handrail, place your foot on the tread and step off. If the dock is too high, place your knee on the dock and crawl forward. Hand gear off before or after but do not carry it off.</li> <li>• Keep your lifejacket on until you are off the boat. Hand it to someone on the boat or toss it onto the engine cover.</li> </ul>	All personnel
Once off the boat.	Tripping, falling.	<ul style="list-style-type: none"> <li>• Do not step on the lines. Walk away from lines or objects taken off boat.</li> </ul>	All personnel

		<ul style="list-style-type: none"> <li>• In windy conditions be aware that hats etc. may fly into the water, do not overextend to reach these.</li> </ul>	
Beaching On/Off	Fall into water	<ul style="list-style-type: none"> <li>• To get off the boat, when beached sit down on the bow and swing your feet forward, lower your body down.</li> <li>• To get on the boat, when beached- back up to the bow, sit and swing legs over.</li> </ul>	
Bowing Off (last resort)	Slip and fall on boat, dock, rocks, jump to land and fall.	<ul style="list-style-type: none"> <li>• Notify captain of obstructions, distance from landing point etc.</li> <li>• Follow captain's instructions carefully.</li> <li>• Know your ability, this requires agility and confidence, ability to absorb weight with knees while getting off boat.</li> <li>• If two people are available, assist each other.</li> <li>• Have your lifejacket on at all times.</li> <li>• Have your gear assembled and ready to go in light bundles. Avoid unnecessary delay.</li> <li>• Plan island excursions and schedules so that you are prepared to stay on the island rather than risking a hazardous loading/unloading situation.</li> </ul>	

## Apostle Islands National Lakeshore Job Safety Analysis

Date: 6/15/2001

Job Title: Kayak patrol

Job Location: Stockton Island, Little Sand Bay/Meyers Road area

Safety Equipment:

Mandatory: dry suit/wet suit, lifejacket, two paddles, appropriate foot wear, paddle float, whistle, strobe light, watertight flashlight, distress flares, park radio(in dry bag), extra radio battery, bilge pump, throw bag, first-aid kit, fire starter, duct tape, lake chart, spray skirt.

Suggested: hat, compass, survival blanket, knife, air horn, sun screen, dry bag for misc. gear, gloves, paddle jacket, high energy food.

Key Step	Hazard	Safety Procedure	Responsibility
Lifting kayak – getting it to the lake.	Back injury	Lift with legs, get help, use dolly/wheels provided.	All personnel
Spot checks. Adjust seat and foot rests, check hatch covers, rudder, spray skirt, emergency gear	Loss of buoyancy, possible handling difficulty.	Check rudder, check cables, check pegs in pedals, check for holes in the kayak and other damage, secure spray skirt.	All personnel
Getting In the kayak	Flipping boat, head injury, back injury, cuts.	Launch from beach (flat surface) or stabilize boat near a rock ledge or another kayak. Use both hands for balance.	All personnel
Paddling	Sunburn, flip the kayak, hypothermia, muscle strains, cramps, poor circulation, get	Wear sunscreen and wetsuit, properly adjust seat and foot rests, improve conditioning	All personnel.

	lost, and be hit by another boater.	by slowly increasing length of use, stay close to shore, practice correct paddling technique, try to get out of boaters way, blow your air horn or whistle. Only operate boat during daylight hours. Inter- island travel only allowed when accompanied by other boaters. Put reflective tape on vests and kayak.	Supervisor
Contact with other (large) boats on water.	Flip the kayak due to wake of motorboat or tour boat. Hypothermia, drowning, crashing into shore.	Be alert to presence of large boats and their wake. Wear bright colors to increase visibility. Position your kayak so wake will not hit you broadside.	All personnel.
Paddling in large waves.	Flipping the kayak could lead to hypothermia or drowning. Slamming into cave wall could cause injury to head.	Check weather forecasts. Regularly monitor conditions. Stay on shore or head for shore when winds begin to increase. Avoid sea caves and shoreline cliffs during rough weather. Practice rescue procedures for righting and reentering the kayak	All personnel.
Getting Out of the Kayak	Flip the kayak, head injury, drowning, cuts.	Practice the wet exit used when kayak capsizes. To exit	All personnel.

		the kayak on shore, pull up to beach, put paddle behind you under the spray skirt and slide your bottom to back of deck using paddle as handrail, slip one leg out and then the other.	
Putting kayak on vehicle.	Back injury. Loss of kayak on highway.	Lift with legs. Load with a partner. If you have back problems or do not feel strong enough do not lift, get help. Use step stool option. Slide kayak to center of vehicle before securing. Tie down securely -Ropes: one in bow, one in stern, and two in the center.	All personnel.

## APPENDIX E:

# Kayak Program Standard Operating Procedures

### *Introduction*

Kayaks can be an important tool for contacting visitors and managing resource use at Apostle Islands National Lakeshore. They provide an efficient and wilderness friendly means for a ranger to perform the duties of his/her job. Due to Lake Superior's cold waters and open sea conditions kayaking demands sound judgment, self-responsibility, and technical competence. This plan establishes park policy on the use of kayaks that are owned by Apostle Islands National Lakeshore or operated by park personnel in an official capacity. It sets a standard for operation, required equipment, maintenance, and training. The underlying goal of this plan is to ensure that all kayaks are operated in a safe, professional manner that sets an example to the boating public.

### *Objectives*

Identify appropriate, official uses for government owned kayaks

1. To ensure that all kayaks are operated in a safe, professional manner that sets an example to the boating public.
2. To ensure that all kayak users possess adequate survival skills for the area and conditions in which they will be working.
3. To ensure that kayakers are trained, skilled, and qualified.
4. To identify proper PPE and safety equipment and ensure its use.
5. To provide a check-in procedure to report open water crossings, daily float plans, and law enforcement contacts.
6. To provide a plan of action in the event of an accident or for when an individual fails to check-in, or fails to respond to status checks in a high-risk situation.
7. To ensure that park kayaks are clean, mechanically reliable, and properly equipped.

### *Definitions*

**Primary Boat Operator:** The park employee who was hired for the area where the boat(s) is assigned.

- Operator:** The person who has immediate responsibility for the operation, maintenance, and safety of the kayak.  
(Person currently using the kayak.)
- Solo Operation:** Operation of a kayak by a person without the immediate or visual companionship of another trained, proficient boater.
- Supervisor:** An employee whose position description is so classified or otherwise authorized by the park Superintendent.
- Training Officer:** Individual(s) trained and/or experienced in the use of kayaks or who have been authorized by the Superintendent to research safe kayaking practices, attend available training in the use of kayaks, and conduct in-park training sessions.
- Check-in:** Making radio contact within a specified time frame, or conditions with a Ranger Station or Patrol Ranger.
- Status Checks:** Status Check (10- 47) made to the operator upon request at a specified time interval.

*Appropriate Uses of Government Owned Kayaks:* Kayaking has become a very popular recreational activity at Apostle Islands National Lakeshore. Patrolling by kayak is a non-threatening, wilderness friendly way to contact paddlers, campers, hikers, and other boaters. Kayaking can also be an efficient and effective method to reach areas that are either difficult or undesirable to reach by motorboat. Examples of appropriate use of park owned kayaks:

Patrol of Lake Superior near shore bays, harbors and shorelines; or inter-island patrol (when accompanied by another boat or group of kayakers) for:

1. Educating the public of the park's resources, maritime and wilderness values, and visitor use safety practices
2. The monitoring of park regulations.
3. Gaining access to shore to provide emergency services.
4. Shoreline litter clean up.
5. Wildlife monitoring.

Training and experience building. During off duty time, those that have passed the basic course can use park kayaks to practice their skills. (These same guidelines apply when using park owned kayaks during off- hours.)

## Kayak Training

Training is the first step to becoming a competent, safe kayaker. In order to function in solo kayak operations a person must have successfully completed kayak training, including successfully demonstrating sea kayaking skills.

1. Demonstrate knowledge of the following:
  - Knowledge of the area (weather and water conditions, topography)
  - Radio use
  - Emergency survival procedures
  - Maintenance
  - Boating safety
  - Applicable boating laws and regulations
  - Emergency repair
  
2. Demonstrate the following skills:
  - Wet exit
  - Swim with kayak
  - Wet entry using paddle floats
  - Proper set- up of the kayak and required equipment
  - A safe method of loading and storing gear, tools, or cargo
  - Basic strokes and braces
  - Maneuvering - - turning with a rudder (if available) and without in calm and rough conditions
  - Beach landing in rough and calm conditions
  - Launching in rough and calm conditions

A training record will be maintained.

Annual refresher will be attained prior to the season.

Only the park boat safety officer may authorize the use of park kayaks.

## Equipment

### *Required Personal Protective Equipment for Patrol:*

1. PFD (Red) or a bright color when on Lake Superior
2. Strobe light
3. Farmer John Wet Suit/Dry Suit
4. Spray Skirt
5. Wetsuit booties or smooth boots (sandals are not authorized as they can be a safety hazard)

6. Extra clothing (packed to stay dry, such as polypro turtle neck, long johns, knit hat, and socks)

### *Required Equipment for Patrol*

1. Paddle
2. Spare Paddle (accessible on deck)
3. Paddle Float (accessible on deck)
4. Bilge Pump (accessible on deck)
5. Throw Bag
6. Radio (in Dry Bag on deck or in cockpit)
7. Extra Radio Battery
8. First Aid Kit
9. Fire Starter
10. Duct Tape
11. Flares (on PFD)
12. Whistle (on PFD)
13. Lake Chart of area, and Park Topo map

### *Additional Suggested Equipment for Solo Patrol*

1. Flashlight
2. Knife (accessible)
3. Compass
4. Paddle leash, or carabineer
5. Air horn
6. Sponge
7. Rain Gear and Extra Clothing stored in a dry bag
8. Dry bag(s)
9. Shoes or boots for hiking
10. Sunscreen
11. Paddle Jacket
12. Paddle Gloves
13. Energy food
14. Survival blanket

### *Tools for the Job*

1. Park information (park newspaper, brochures, BC zone map, XC permit and camping permit, map of quiet/no- wake zones, etc.)
2. Report forms (nature observation cards, patrol log, minor incident log)
3. Camera
4. Binoculars
5. Tools such as shovel, folding handsaw
6. Garbage bags (for trash, emergency dry bag)

## Check- ins and operating conditions

### *Patrol Check- ins and operating conditions*

When a ranger is departing on a kayak patrol, the operator is required to call "boat control" with the following information:

1. Operator radio call number
2. Departure Point
3. Destination Point

Rangers will also notify boat control when the kayak patrol has arrived at its destination.

Any time that a ranger on kayak patrol desires that his/her boat movements be more closely monitored, the dispatcher will be contacted with the report of boat movement. If a dispatcher is not on duty, the ranger on kayak patrol can have his/her movements monitored by another ranger on duty.

A Float Plan will be prepared by the patrol ranger and left with rangers at Little Sand Bay, Stockton Island, or Bayfield.

Additional procedures for officer safety check- ins should be established listing examples of activities that warrant status checks, appropriate time intervals of status checks, etc.

A plan of action for rescuers should be provided in the event of a missed check- in or failure to respond to status check(s)

Consider time lapse prior to response

Consider individuals capable of immediate response and callout procedures and the equipment to be used

A plan of action should be provided to the solo operator in the event of radio problems or non- emergency situations, which make him/her incapable of checking in or responding to status checks

Consider radio dead spots and alternatives (going to high ground or use of marine radio)

Predesignated meeting places, routes to travel, trailheads to travel to, etc.

Consider radio procedures in the event of an accident - - information to convey, etc.

Kayak use will be limited to daylight hours when weather conditions feature winds of less than 15 miles per hour and wave heights of less than three feet. Visibility must be at least three miles. Kayaks will not be operated when thunderstorms are in the area. Kayaks cannot be launched until at least 30 minutes after a thunderstorm has passed.

Open- water crossings will only be made in the company of other kayaks/boats.

## **Accidents**

### ***Capsize***

In the event of a capsize, the patrol ranger should:

1. Exit the boat (unless proficient and successful in the use of a roll)
2. Perform the solo wet entry using the paddle float, if unsuccessful in two attempts, perform step no. 3 (priority is reducing hypothermia as much as possible).
3. Make a blind radio call indicating your location that you have capsized, repeat twice.
4. When successful with re- entry, paddle to shore.
5. Notify the dispatcher that you have successfully re- entered the boat and are on the shore
6. Document the incident and the circumstances that led to the capsizing.

Upon notification of the capsize, the dispatcher will:

1. Notify the patrol ranger's supervisor(s)
2. Before the paddler continues with the trip a determination will be made between the supervisor and the paddler whether the trip should be continued, put in standby, or aborted based on: 1) Current and predicted local weather conditions, 2) The paddlers physical and mental condition, 3) Environmental risks on the next leg of the route, 4) Availability of backup assistance, and 5) Others factors or ongoing operations that may affect the trip.

## **Cleaning & Maintenance of Kayaks**

Before the season begins and at least once during the season, the patrol ranger and his/her training officer(s) will make a full inspection of all kayaks used for patrols. A full inspection will ensure the following:

1. The hull of the boat has no leaks, cracks or separated seams in its construction
2. The bulkheads (if equipped) are secure and watertight. If the kayak was not constructed with bulkheads, assure flotation is adequate to keep the boat afloat while loaded, and swamped
3. The rudders (if equipped) work in a smooth manner and can be adjusted properly for the patrol ranger

4. The hatches (if equipped) have the proper covers and are not ripped, cracked, or torn
5. The seats function according to design (securely fastened to prevent lateral movement)
6. The spray skirts provided properly fit the boat
7. The deck bungee straps are available, tight and in good condition
8. Any equipment mounted to the kayak is in good and operable condition (compass, rescue set up, etc.)
9. All required equipment is available and in serviceable condition (paddle floats, paddles, PFDs, flares, waterproof bag for sensitive gear, etc.)

If the kayak fails the inspection on any of the above items (with the exception of the rudder assemblies), it will be taken out of service until repairs can be made. During the course of the season the patrol ranger will continue to make these inspections and make repairs as needed. In addition, the patrol ranger will routinely clean the boat (inside and out).

A before use and after use checklist, which includes cleaning and proper care, will be utilized.

Superintendent	Date
Boating Safety Officer	Date
Division Chief	Date
Kayak Ranger	Date





