

APPENDICES

APPENDIX A: PLANNING TEAM

Voyageurs National Park (VOYA)

Barbara West	Superintendent, VOYA (1995-2005)
Kate Miller	Deputy Superintendent, VOYA
Kathleen Przybylski	Chief of Interpretation, VOYA
Tawnya Schoewe	Rainy District Naturalist, VOYA
Andrea Schwartz	Namakan District Naturalist, VOYA
Teri Tucker	Biologist (Education Specialist), VOYA
Chris Holbeck	Chief of Resources Management, VOYA
Mary Graves	Cultural Resources Specialist, VOYA
Jim Hummel	Chief Ranger, VOYA
Lee Grim	Biologist, VOYA
Bruce Barrett	Namakan District Maintenance Foreman, VOYA
Lynn Lufbery	Personnel Specialist, VOYA

Harpers Ferry Interpretive Design Center

Wendy Janssen	Interpretive Planner (Team Captain, 2002-2003)
Jack Spinnler	Interpretive Planner (Team Captain, 2004-2005)
Rich Helman	Wayside Exhibit Planner
Ben Miller	Exhibit Planner
Chuck Dunkerly	Audiovisual Producer

Midwest Regional Office

Tom Richter	Chief, Interpretation and Education, Midwest Region
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APPENDIX B:

DRAFT INTERPRETIVE STORIES

For each of the primary interpretive themes, there are many compelling stories to be told. This appendix of the LRIP details some of the ideas that park staff have developed to express the primary interpretive themes to park visitors. Park staff will develop additional stories and refine these draft stories over the next year. The list that follows is a starting point for discussion.

1. Geology

The rocks of Voyageurs reveal a 2.8-billion-year story of plate tectonics, continent building, and glaciation.

Interpretive Stories:

- Many things develop over time. Voyageurs' rocks show evidence of different stages of development that include evidence of 2.8 billion years of volcanism, continent building, and glacial activity.
- The prominent exposed rocks of Voyageurs allow first-hand discovery and connection with the geologic foundation of the earth.

2. Water

Voyageurs is a complex mosaic of interconnected lakes, ponds, and wetlands that shapes and sustains life.

Interpretive Stories:

- At Voyageurs, water defines life — in and around lakes, ponds, and wetlands.
- Water — the essence of Voyageurs National Park — provides outstanding opportunities for recreation that build personal connections and give meanings to places.
- The dams at Kettle Falls and International Falls, which control the water levels of the park's main lakes, illustrate the story of the struggle between industrial development and conservation of the border waters region.
- Travelers of a different kind — exotic species of fish, invertebrates, and plants — threaten Voyageurs' native natural communities and highlight the fragility of our landscapes.
- Along with Quetico Provincial Park and the Boundary Waters Canoe Area Wilderness, Voyageurs was, and is, at the heart of a major conservation effort to protect the boreal forest landscape, its interconnected waterways, and wildlife.

3. Scenery

Throughout the year, the timeless beauty of woods, rocks, water, and sky invite people to renew themselves through a variety of outdoor activities.

Interpretive Stories to be developed at a later date:

- The fur trade involved the global economics of France, Britain, and eventually America. The Ojibwe and voyageurs were pivotal to the process.
- The abundant supply of beavers was the reason why the fur trade came to the area that is now Voyageurs National Park.
- Voyageurs' is a big park with an extensive international story. The lakes of Voyageurs featured a pivotal provisional locale for more than a century of international fur trade. Voyageurs' location within a hemispheric waterway of trade defines the place.

4. Voyageurs and the Fur Trade

The voyageurs who traveled, traded with native people, and wintered here were the strength of a global system of trade that brought change to the people and environment they found here.

Interpretive Stories:

- Voyageurs — the French-Canadian canoemen — demonstrated determination, commitment, and strength as they paddled the waters now in Voyageurs National Park to transport goods and fur pelts from 1732 to 1871.
- The routine of everyone involved in the fur trade followed a seasonal cycle.
- The interconnected waterways of Voyageurs influenced the development of the 3,000-mile transport and supply system of the fur trade, making the region a strategic crossroads and transportation hub. Today, the small segment of the waterway system found in the park offers visitors first-hand discovery of the magnitude of the voyageurs' work.

5. Plants and Animals

Voyageurs is a place of transition, where southern boreal forest and northern hardwood forest meet, resulting in great biological diversity.

Interpretive Stories:

- In Voyageurs, changes in wildlife abundance and diversity reflect natural and human-caused changes to the landscape and waterways.
- Voyageurs National Park has a great diversity of plants and animals living in a variety of distinctive natural communities.
- Winter, a time of extreme cold and long nights, forces wildlife, plants and people to adapt in order to survive.
- Visitors come to Voyageurs in search of large animals — moose, bear, and wolves — and end up discovering birds and other small wildlife that are an amazing and integral part of the park's natural systems.
- Beavers modify the landscape and habitat in which they live to suit their needs, allowing people to discover first-hand how small actions can have big impacts.
- After hundreds of years of being trapped for their lustrous pelts, beavers are back and illustrate the essence of persistence and survival.
- A beaver's life requires ingenuity and determination — it depends on hard work, building and repairing structures, and caring for family, just as many people do.

6. People

The place that is now Voyageurs National Park has attracted, challenged, and sustained people over time, influencing their lifeways, traditions, and beliefs — as it does today.

Interpretive Stories:

- For 10,000 years, the area now in Voyageurs National Park has dramatically shaped the lives of people. Now the landscape offers us an opportunity to consider the powerful and spiritual ties between people and place.
- The names associated with lakes, islands, bays, and points provide opportunities for us to connect places with memories or thoughts of the people who have been attracted, challenged, and sustained by the unique resources of Voyageurs' interconnected waterway system.
- The interconnected waterway system of Voyageurs National Park has attracted and challenged a succession of people for thousands of years, significantly influencing their lifeways, traditions, and beliefs—exemplifying how landscapes shape and influence human societies.

6. People (continued)

Interpretive Stories (continued)

- At Voyageurs, glaciers carved an interconnected waterway that created a major cultural crossroads, resulting in a landscape of special significance to many people over thousands of years.
- Commercial use of the land and water that is now the park has evolved over time from an economy based on resource extraction to an economy based on tourism and recreation, presenting us with the continuing challenge of balancing human use with resource preservation.
- As the last glaciers retreated from the Voyageurs landscape, plants, animals, and people arrived. This area has been the traditional homeland for many indigenous groups, most recently the Ojibwe.
- Mineral resources, especially gold trapped in greenstone formations, lured thousands of people with dreams of wealth to the border lakes in the late 1800s, resulting in profound permanent changes to traditional lifestyles and bringing European settlement.
- Visitors can see the evidence and understand the economic potential of trees and wildlife in northern Minnesota that attracted timber and commercial fishing companies, and hunters and trappers after mining efforts failed.

APPENDIX C: PMIS PROJECTS

Project Management Information System (PMIS) Projects

PMIS Number: 25096

PMIS Title and Description: Repair & Upgrade Existing Park Highway Signs on 2 Major Access Roads (Highways 53 & 11)

Replace 32 large informational/directional signs along major trunk highways leading to the 4 main points of entry into the park (Asset# 59173). Replace 169 smaller symbol signs on gateway county and park entrance roads to Rainy, Kabetogama, Ash River and Crane Lake Visitor Centers (Asset# 73042,59173).38 FCI average.

PMIS Number: 25368

PMIS Title and Description: Rehabilitate Historic Meadwood Lodge and Design Interpretive Media for this Visitor Destination

This project involves rehabilitating the historic 1,605 sq/ft Meadwood Lodge, which serves as the park's Ash River Visitor Center. The project includes installing a hydronic heating system under the floor, storm windows and fireplace insert, adding a walkway and deck and appropriate landscaping, and repairing the stone and mortar chimney. All work would be accomplished according to the Secretary of the Interior's Standards and Guidelines for Historic Preservation and recommendations included in the approved Historic Structures Report for this property. This work is captured under Component A.

This project would also provide funding for a comprehensive plan to replace four (4) inside exhibits and to construct four (4) new outside exhibits at the Meadwood Lodge (Ash River Visitor Center). The project would include planning, design, fabrication, and installation of exhibits. This work is captured under Component B but is not considered eligible for Repair/Rehab funds. The interpretive media component of this project would be contracted to an independent contractor or the National Park Service's Harpers Ferry Center. Park staff would do most of the exhibit text writing with contractor editing. Contractor would produce an exhibit plan with full-color graphic layouts of each exhibit that includes purpose, text, and location. This exhibit plan would be the basis for final exhibit production by a contractor. The exhibits would meet ADA requirements. No permanent salaries would be charged to this project.

The building rehabilitation would occur in Fiscal Year 2008. The exhibit planning and design phase would occur in Fiscal Year 2007. The exhibit fabrication and installation phase would occur in FY 2008.

Project Management Information System (PMIS) Projects

PMIS Number: 37073

PMIS Title and Description: Develop I.W. Stevens Historic Site as Visitor Destination

This project includes documentation of cultural landscape features and preparation of a Site Development Plan to guide treatment, development, and use of one of the park's proposed visitor destinations - the historic I.W. Stevens property. The project would also fund the planning, design, fabrication, and installation of interpretive media at this site.

The cultural landscape inventory and site development plan would be contracted. The exhibit part of the project work would be contracted or accomplished by the National Park Service's Harpers Ferry Center. Park staff would do most of the exhibit text writing with contractor editing. Contractor would produce an exhibit plan with full-color graphic layouts of each exhibit that includes purpose, text, and location. This exhibit plan would be the basis for final exhibit production by a contractor. The exhibits would meet ADA requirements. No permanent salaries would be charged to this project.

The cultural landscape inventory and site development plan would be completed in Fiscal Year 2007. The design of interpretive media would occur in Fiscal Year 2008. The interpretive media fabrication and installation phase would occur in Fiscal Year 2009.

PMIS Number: 41934

PMIS Title and Description: Revise and Update Visitor Information Brochures

This project would fund the design and printing of four full color, high quality informational brochures that focus on recreational activities, visitor safety, and resource protection information specific to Voyageurs National Park. These brochures would include maps, text and artwork necessary to assist visitors with trip planning.

The brochures would be designed in cooperation with an independent contractor. Printing would be awarded through a Government Printing Office contract. This project would result in the following publications: Camping, Canoeing/Boating, Hiking/Backpacking, and Winter Activities. No permanent salaries will be charged to this project.

Project Management Information System (PMIS) Projects

PMIS Number: 41963

PMIS Title and Description: Site Development Plan for Ingersoll Property

This project includes developing alternatives for use of two historic properties located on Sand Point Lake. The Ingersoll property was determined eligible for the National Register in 1989 and the Casareto property in 2000. The Ingersoll and Casareto properties are designated visitor destinations that will be developed with interpretive and day use facilities. Both properties contain a complex of historic structures and associated landscape features. This project would include documentation of cultural landscape features and preparation of site development alternatives to guide treatment of the structures and associated cultural landscape, while incorporating visitor use facilities.

This project is linked to the park's line item construction project (package 20057: Develop overnight and day use destinations) which is scheduled for 2007.

PMIS Number: 41990

PMIS Title and Description: Develop Interpretive Media for the Kettle Falls Historic District

This project would fund the planning, design, fabrication, and installation of interpretive exhibits in the Kettle Falls Historic District, which includes the Kettle Falls Hotel, Kettle Falls Dam, and the Damtender's cabin. Exhibits may include waysides, photo panels, audio clips, etc.

The project work would be contracted to an independent contractor or the National Park Service's Harpers Ferry Center. Park staff would do most of the exhibit text writing with contractor editing. Contractor would produce an exhibit plan with full-color graphic layouts of each exhibit that includes purpose, text, and location. This exhibit plan would be the basis for final exhibit production by a contractor. The exhibits would meet ADA requirements. No permanent salaries would be charged to this project.

The planning and design phase would occur in Fiscal Year 2005. The fabrication and installation phase would occur in Fiscal Year 2006.

Project Management Information System (PMIS) Projects

PMIS Number: 41997

PMIS Title and Description: Design, Construct, and Install Interpretive Exhibits at an Historic Fish Camp

This project includes three funding components: designing plan specifications for interpretive media; construction and installation of interpretive exhibits; and building a dock for the park's tour boat and visitors at the historic Harry Oveson commercial fishing camp on Rainy Lake. Exhibits may include waysides, photo panels, audio clips, and/or artifacts.

The interpretive media project work would be contracted to an independent contractor or the National Park Service's Harpers Ferry Center. Park staff would do most of the exhibit text writing with contractor editing. Contractor would produce an exhibit plan with full-color graphic layouts of each exhibit that includes purpose, text, and location. This exhibit plan would be the basis for final exhibit production by a contractor. The dock would be contracted or constructed inhouse. The exhibits and dock will meet ADA requirements. No permanent salaries will be charged to this project.

The planning and design for interpretive media and the dock construction would occur in Fiscal Year 2005. The fabrication and installation of exhibits would occur in Fiscal Year 2006.

PMIS Number: 51032

PMIS Title and Description: Replace Rainy Lake Visitor Center Entrance Sign

Replace the deteriorated and failing main entrance Rainy Lake Visitor Center sign with a new unit. New wood sign to match the visitor center sign specifications installed at the Ash River VC entrance road.

Project Management Information System (PMIS) Projects

PMIS Number: 80071

PMIS Title and Description: Volunteers in Parks

This project request would fund the continuation of Voyageurs' volunteer program. Volunteers are essential to the operations of all divisions at Voyageurs National Park. They are critical for interpretive operations, trail maintenance, and resource management.

Volunteers staff visitor center information desks, assist with special events, and may lead programs. Volunteers act as field assistants for a wide range of resource management projects. They help to control invasive plants, restore rare species, inventory and monitor vascular plants, and conduct wetlands research.

Volunteers are the primary workers that perform trail repair and construction. The VIP program has enabled the park to construct and maintain trails under the direction of one paid staff member.

The majority of volunteer work occurs during the summer months from June through August. Overall, volunteers are managed by the volunteer coordinator. Volunteers involved in specific areas are supervised by the area manager.

This project is ongoing. This proposal covers funding requests for Fiscal Years 2003, 2004, 2005, and 2006.

PMIS Number: 81466

PMIS Title and Description: Develop and Fabricate Interpretive Media for Hoist Bay Visitor Destination

This project includes preparation of a Development Concept Plan to guide treatment, development, and use of one of the park's proposed visitor destinations: Hoist Bay. The project would also fund planning, design, fabrication, and installation of interpretive media at this site.

The project work would be contracted to an independent contractor or the National Park Service's Harpers Ferry Center. The contractor would produce an exhibit plan with full-color graphic layouts of each exhibit that includes purpose, text, and location. This exhibit plan would be the basis for final exhibit production by a contractor. The exhibits would meet ADA requirements. No permanent salaries would be charged to this project.

The Development Concept Plan would occur in Fiscal Year 2008. The design of interpretive media would occur in Fiscal Year 2009. The interpretive media fabrication and installation would occur in Fiscal Year 2010.

Project Management Information System (PMIS) Projects

PMIS Number: 81468

PMIS Title and Description: Develop and Fabricate Interpretive Exhibits for the Kabetogama Ranger Station Historic District - draft project, no description yet

PMIS Number: 81469

PMIS Title and Description: Develop and Fabricate Interpretive Media for Camp Marston Visitor Destination

This project includes preparation of a Development Concept Plan to guide treatment, development, and use of one of the park's proposed visitor destinations: Camp Marston. The project would also fund the planning, design, fabrication, and installation of interpretive media at this site.

The project work would be contracted to an independent contractor or the National Park Service's Harpers Ferry Center. The contractor would produce an exhibit plan with full-color graphic layouts of each exhibit that includes purpose, text, and location. This exhibit plan would be the basis for final exhibit production by a contractor. The exhibits would meet ADA requirements where applicable. No permanent salaries would be charged to this project.

The Development Concept Plan would occur in Fiscal Year 2007. The design, fabrication, and installation of interpretive media would occur in Fiscal Year 2008.

PMIS Number: 81472

PMIS Title and Description: Develop and Publish a Watchable Wildlife Guide to Visitor Destinations

This project would fund the development, design, and printing of a Visitor's Guide to Voyageurs National Park's visitor destinations. By Fiscal Year 2008 the park plans to develop 10 visitor destinations with interpretive media and visitor facilities for self-discovery. This guide will direct visitors to the different visitor destinations and provide them with more thorough information about each site.

The publication text would be written by park staff. The design and printing of the publication would be done by contractors. The park would seek cost-share funding from its cooperating associations. This project would occur in Fiscal Year 2008.

Project Management Information System (PMIS) Projects

PMIS Number: 81471

PMIS Title and Description: Build a Visitor Center at Crane Lake Gateway - draft project, no description yet

PMIS Number: 81601

PMIS Title and Description: Develop Exhibits and Visitor Access for Rainy Lake City, A Historic Gold Mine Town

This project includes three funding components: designing plan specifications for interpretive media; developing visitor access and trails; and fabricating and installing interpretive media at the historic gold mine town of Rainy Lake City. The site has been determined eligible for the National Register and designated as a visitor destination in the park's 2002 General Management Plan. Rainy Lake City was incorporated in 1894 after the discovery of gold on Rainy Lake in 1893. The gold rush was brief and the town was virtually abandoned by 1901. However, the archeological and landscape remnants of the city, which eventually reached a population of 500, still exist.

This package includes the design of interpretive media based on an interpretive concepts plan, construction of a dock, clearing vegetation from historic features and former gold town roads, constructing an accessible interpretive trail, and constructing and installing interpretive exhibits. All compliance has been completed for this project and the Finding of No Significant Impact was signed in 2002.

The interpretive exhibits project work would be contracted to an independent contractor or the National Park Service's Harpers Ferry Center. Park staff would select photos and historic information and do most of the exhibit text writing with contractor editing. Contractor would produce an exhibit plan with full-color graphic layouts of each exhibit that includes purpose, text, and location. This exhibit plan would be the basis for final production by a contractor. The exhibits would meet ADA requirements. No permanent salaries would be charged to this project.

The interpretive media design component would occur in Fiscal Year 2004. The visitor access and installation of exhibits components would occur in Fiscal Year 2005.

Project Management Information System (PMIS) Projects

PMIS Number: 111301

PMIS Title and Description: Provide Winter Snowshoe Programs for Children

Winter is a defining season at Voyageurs National Park. This project would provide funds to purchase new children's snowshoes and supplies to repair existing snowshoes that are used to conduct winter programs for elementary school students and youth groups. Voyageurs is requesting \$3847.75 to fund this proposal, which would allow the park to continue and expand on an existing activity.

The park has traditionally provided annual snowshoeing field trips to approximately 300 local and regional students each winter. Snowshoes are fairly durable and can be expected to last for many years, bringing the total number of people served up into the low-thousands.

Participants in the program learn about both the cultural history and recreational aspects of snowshoeing. The park uses traditional wooden snowshoes modeled on those developed by local American Indian tribes and adopted by newcomers during the Fur Trade Period. Field trips provide an outstanding opportunity for students to learn about the natural history of the park. Students also learn that park staff use snowshoes to conduct winter research. Students participating in the program have the opportunity to develop their own snowshoeing skills and learn to recognize common animal tracks in the snowy forests of the park.

APPENDIX D: 'MIDS' SUMMARY

Media information for all NPS areas is listed in the Media Inventory Database System (MIDS). The list of the current media at Voyageurs National Park is on the MIDS website at www.hfc.nps.gov/mids/. The park's 2004 MIDS summary pages on the next page reflect the park's current media information. Park staff need to complete data entry and update their MIDS data whenever new media are installed. MIDS media information includes a determination if the existing media are "acceptable" in condition and/or content.

Listing for Park VOYA, Region MWR, Media Wayside

Inventory Listing: Records 1 to 11 of 11

Select the Media Title link to view a detailed record.

Park	Media Last Update	Media Title	Content/ Condition Acceptable	Install Date	HFC Produced
VOYA WAY	03/31/2004	Agents of Change	Yes / Yes		Yes
VOYA WAY	10/04/2002	Ellsworth	Yes / Yes		No
VOYA WAY	03/31/2004	Getting the Gold	Yes / Yes		Yes
VOYA WAY	10/04/2002	How Clean is the Air	Yes / Yes	2002	Yes
VOYA WAY	10/04/2002	How Clean is the Air	Yes / Yes		Yes
VOYA WAY	03/31/2004	Kabetogama Lake	Yes / Yes		Yes
VOYA WAY	03/31/2004	Little American Mine	Yes / Yes		Yes
VOYA WAY	03/31/2004	The Rainy Lke Gold Gields	Yes / Yes		Yes
VOYA WAY	06/05/2003	The Voyageurs	Yes / Yes	2003	Yes
VOYA WAY	03/31/2004	Voyageurs Forest	Yes / Yes		Yes
VOYA WAY	10/04/2002	Welcome to Voyageurs NP	Yes / Yes		Yes

[Refine Search](#) [New Search](#) [Park Summary Report](#)

Listing for Park VOYA, Region MWR, Media AV,Exhibit,Furnishings,Interpretive Planning,Publications

Inventory Listing: Records 1 to 3 of 3

Select the Media Title link to view a detailed record.

Park	Media Last Update	Media Title	Content/ Condition Acceptable	Install Date	HFC Produced
VOYA INTRP	12/18/2001	General Management Plan	Yes / Yes		Yes
VOYA AV	08/12/1999	Voyageurs National Park	No / Yes	1987	Yes
VOYA PUBL	11/19/2003	Voyageurs Official Park Map and Guide	Yes / Yes		Yes

[Refine Search](#) [New Search](#) [Park Summary Report](#)

APPENDIX E: VISITOR DESTINATION INFO

Anderson Bay

Natural History: The bluffs of Anderson Bay rise abruptly 80 feet from the water and provide spectacular views of the bay and Rainy Lake. It is one of the most photographed areas of the park. The stunning series of rounded bare rock cliffs were polished smooth by glaciers thousands of years ago. It is the superlative lake country scenery, vivid reminders of the glacial age, and the many small bays and hidden coves that give Voyageurs its dramatic appearance.

Cultural History: Anderson Bay was named for "Crazy" Anderson, who hauled fish for one of the commercial fishermen on Rainy Lake. He had a long white beard and lived year round in a shack in Saginaw Bay. Anderson traveled Rainy Lake in a flat bottom green boat powered with a Model T engine that broke down often. He was frequently seen in the middle of the lake trying to get his motor started. A Rainy Lake resident recalls camping in tents one night and about midnight Anderson showed up, rolled out a piece of canvas and slept on the rocks. Anderson Bay was one of his favorite places to stay — he liked it there because he said it was the only place where the rocks were soft enough to sleep on.

Interpretive Resources:

- Park geology book
- Geological samples
- Oral histories

Camp Marston

Natural History: A portage trail from Browns Bay provides access to the Kabetogama Peninsula and three of the park's 26 interior lakes—Fishmouth, Brown, and Oslo. The interior lakes were created by glaciers thousands of years ago. As the glaciers moved, they scoured the land, removing soil, rounding off hills and creating future lake basins. As the glaciers melted, water filled the gouges created by the glacier, forming the lakes and rivers of the border country. Fishmouth and Brown Lake are about 25 feet deep and Oslo is about 34 feet deep. Northern pike and perch are found in all 3 lakes.

Cultural History: From 1922-1940, Iowa State University operated a summer camp for civil engineering students at Camp Marston in Browns Bay on Rainy Lake. The topography of Rainy Lake offered the technical challenges desired by the University to train students. The remoteness of the area offered fewer distractions than camps located

Camp Marston

in urban areas. Students not only received an intense educational experience, but also made important contributions to the surveying and mapping of Rainy Lake. In 1937, a conference of surveying instructors held at the camp led to the formation of national standards for land survey practices and establishment of the American Congress on Surveying and Mapping in 1941.

When the camp closed in 1940, the State divided the property into state lease lots. Today the property consists of the cabin known as "Polaris," where the camp professors stayed, and the foundation/chimneys from other former camp structures.

Interpretive Resources:

- MNDNR Interior Lake Charts from the 1970s
- Interviews and correspondence with former students, faculty and children of the camp director
- Annual reports, yearbooks, physician reports, etc. describing students, faculty, equipment, curriculum, food, expenses, special trips and projects, personal experiences, list of books in the camp library, etc.
- Maps of the camp and areas of Rainy Lake prepared by students
- Original surveying camp booklet describing the camp for students
- Itemized invoice from wholesale grocer in Chicago for camp mess
- Newspaper articles
- Descriptions and coordinates for triangulation stations
- Photograph album and papers presented at first surveying teachers conference
- Article about the John S. Dodds award for land surveyors
- Historic film footage of the camp
- Two books by Professor Dodds: Original Instructions Governing Public Land Surveys 1815-1855 and Original Instructions Governing Public Land Surveys of Iowa
- Door from the camp privy with student graffiti
- Camp storage box
- Camp Marston video
- Large collection of black and white prints depicting travel to camp, camp buildings, student and faculty activities, recreational activities,

Casareto Cabin

Natural History: The Casareto cabin is located on a sand beach in a stand of large white and red pine trees. Logging and associated fire control from the 1880s until 1972 had a major influence on forests. Red and white pine were two species favored by logging companies until these species became difficult to find or less economical to harvest. Trees were cut over large enough blocks that a significant proportion of the stock of red and white pine seed sources in some areas of the park has been lost. In 1932, a land and timber deal among the State, the International Lumber Company and a private land owner resulted in the preservation of a large stand of virgin white and red pine on Crane and Sand Point Lakes. Stands were reserved from logging along King William Narrows and near the Mukooda-Sand Point portage and at the Mukooda campground. The reserved trees along the lake shore screened a nearly barren cutover background. Some of these trees are still visible on the shore today.

Cultural History: Although tourists recognized the area's recreational potential as early as the late 1890s, it was the advent of improved roads in the late 1930s that gave the border lakes nationwide prominence as a tourist destination. Despite the effects of the Depression, significantly more cabins were built in the future Voyageurs area in the 1930s than in previous years. Jacob Casareto, a physician from Worthington, Minnesota, hired local carpenters to construct a log cabin on Crane Lake in 1934. It is one of 3 cabins that survive in the park that represent the mid-period (1930-1939) of recreational history. The greatest influx of seasonal residences came during the 1960s when over 200 cabins were built on the large lakes for summer use.

Interpretive Resources:

- 1 historic photo of the cabin
- Engineering study showing architectural evolution of the cabin
- Vegetation maps
- Fire and logging history of Voyageurs National Park
- “*Historic Context for Tourism and Recreational Development in the Minnesota Northern Border Lakes from the 1880s through the 1950s*”

Ellsworth Rock Gardens

Natural History: Between the greenstone and granite of the far northwestern corner of the park and the Vermilion Granitic Complex of the far southern fringe of the park, there is a mixture of granite and biotite schist that includes most of the Kabetogama Peninsula. In places the schist and granitic magma became mixed to form "migmatite" --sort of a chocolate-revel rock. Examples of migmatite can be seen at Ellsworth Rock Gardens. Ancient glacial activity is evident in nearby Clyde Creek. A 4-foot high glacial erratic left by the glaciers sits perfectly balanced on a slab of bare rock near the entrance of the stream. The creek is an impressive sight with water tumbling down between walls of sheer rock. Cutover Island, which is visible from the gardens, gets its name from 20th century logging activities. Logging altered wildlife habitat to favor more second-growth forests. More recently, the park conducted a prescribed burn on the island to reduce hazard fuels that can result in catastrophic wildfires. A short distance from the Gardens, Sucker Creek flows into Kabetogama Lake. White suckers wriggle into tiny creeks to spawn in the spring, attracting bears and other wildlife.

Cultural History: Jack Ellsworth, a Chicago contractor who spent summers on Kabetogama Lake from 1944-1965, built the Ellsworth Rock Gardens on a sixty-foot granite outcrop. Eventually the site grew to approximately 62 flowerbeds, which were accented with nearly 200 stone sculptures. The garden became known regionally as the "Show Place of Lake Kabetogama." In the mid-late 1960s, thousands of visitors came each August to see the gardens. The Ellsworth Rock Gardens is an outstanding and unique example of an "outsider" or vernacular art environment. Although Mr. Ellsworth was not a formally trained artist, the garden represents his unique creative expression and attitudes toward beauty and nature. The uniqueness and magnitude of Mr. Ellsworth's creation, the garden's importance as a recreational destination, and its rarity in the region, establish its exceptional importance.

Interpretive Resources:

- Large collection of historic photographs of the gardens
- Potential for sale items (e.g. Ellsworth bird houses)
- Potential to connect with other artists
- Historic photographs of logged-over islands in the park

Grassy Bay

Natural History: The rugged granite cliffs of Grassy Bay were created by glaciers. Granite and biotite schist are the predominant rock types in the park, underlying more than 95% of its area. Voyageurs lies in a geologic transition zone between the granitic and metamorphic rocks of the Vermilion batholith on the far southern fringe of the park, and a complex greenstone belt of metamorphosed sedimentary and volcanic rocks that crosses the international boundary in the Rainy Lake area. The Vermilion Batholith is a body of granite 35 miles wide and 80 miles long, the result of magma that intruded into other rocks and cooled. Staege Bay, which branches off from Grassy Bay, was a lake before the construction of the dams at Kettle Falls. The growth rate of fish from Staege Bay is faster than on Sand Point Lake because the productivity, or nutrient supply, is good. Exotic fish, including smallmouth bass and bluegill, also appear to thrive in Staege Bay.

Cultural History: The Grassy Bay Portage connects Grassy Bay on Sand Point Lake with Namakan Lake. The portage probably dates to the fur trade era or earlier and part of the "Mine Center Mail Route" during the 1890s. This was a winter travel route from Crane Lake to Mine Center in Ontario and was used as a transportation route by contract mail carriers, gold seekers, freighters, and timber producers. Iver Mittet, an immigrant from Norway, homesteaded at the entrance to Staege Bay in 1920. He was known as a "shacker." Shacklers were bachelor men who did their own housekeeping and cooking and lived by hunting, fishing, trapping and guiding. The 1931 census records 29 shacklers living in Kabetogama State Forest.

Interpretive Resources:

- Aquatic Synthesis for Voyageurs National Park
- Geology Guide to Voyageurs National Park
- Homestead records
- Stories about shacklers

Hacksaw Pass

Natural History: Gold Portage creek connects Kabetogama Lake with Black Bay in Rainy Lake. A stretch of rocky rapids is located toward the Rainy Lake end of the creek. Normally the creek is a wide, slow-moving water route. In 1916, heavy rains caused record high water levels, forcing water over the top of both dams at Kettle Falls and bringing raging flood waters through Gold Portage. Gold Portage resembled the path of a tornado with a mass of uprooted trees as water rushed into Black Bay. In January 2000, the International Joint Commission issued a new order for the management of water levels in the Rainy Lake and Namakan Reservoirs. Under the new order, the number of days that water is anticipated to flow through Gold Portage is between 325 and 365 days per year. This is an increase from 253 days under the previous order. A USGS gaging station was established at Gold Portage in 1984 to record stream flow. The ice leaves the Gold Portage area early in the spring. The moving water attracts hundreds of ducks and other waterfowl.

Cultural History: A portage trail connecting Kabetogama and Rainy lakes probably has its origins in the fur trade era or even earlier. A trail was well established by 1894 when it was called the Black Bay Portage. Bois Forte families lived on both ends of Gold Portage by this time. During the gold rush, the portage became part of two winter travel routes from Tower and provided access for contract mail carriers, gold seekers, freighters and timber producers. It also provided access to the gold fields in the summer. A steamboat landing was located at the entrance of Gold Portage on Kabetogama. There have been various efforts through the years to improve access between Kabetogama Lake and Black Bay. The portage route likely changed in 1896 when the Ray township board contracted for a new road to be cut across what had by then become known as Gold Portage. In 1904, the Kabetogama Canal Co. attempted to cut a canal through the portage for the transport of timber. Sometime in the teens, 2 crib and earth-filled dams were constructed to close escape channels when lake levels reached their upper limits. One was constructed at Bear Creek near Kettle Falls and the other at Gold Portage. As late as the 1960s, the Kabetogama Boosters Club had a plan to dynamite Gold Portage.

Interpretive Resources:

- E.S. Shepard's Map showing steamboat landing at Gold Portage
- International Joint Commission map showing proposed dam sites including Gold Portage Dam Site
- Architectural drawings of Gold Portage Dam
- Aquatic Synthesis for Voyageurs National Park

Hoist Bay

Natural History: The bottom of Hoist Bay is covered with a thick layer of bark—a result of millions of logs being floated into the bay. This condition makes the bay unproductive. Some benthic organisms that are part of the foundation of the aquatic system cannot burrow into the dense layer of bark. In some years, cisco (also known as tullibee) die in large numbers in Hoist Bay in the fall. The reason for the die-off is unknown. During the die-off, eagles gather to feed on the fish. The eagle concentration may be an indication that the die-off has been happening for a long time.

Cultural History: Two periods of history are represented at Hoist Bay—logging and recreation. The arrival of railroads in the early 1900s signaled the second phase of logging on the border lakes. The first phase of logging was unmechanized. Railroads permitted logging to occur on a much larger scale. This second phase lasted from 1907 to 1937 and was dominated by the Virginia & Rainy Lake (V&RL) lumber company and the International Lumber Co. Hoist Bay was a large railroad camp. Most of the V&RL company logs from camps in the park were hauled to Hoist Bay in large booms and then taken by rail to the sawmill in Virginia. From 1912 to 1929, the company transported 202,734,720 board feet of timber through Camp 75 on Hoist Bay.

Ted and Fern Monson acquired the Hoist Bay property in 1938. The Monson's eventually sold the resort to Mr. and Mrs. Herbert Hood who operated the resort until 1973, when it was acquired by the park. Hoist Bay Resort represents an important change in the expectations and activities of tourists to the area. It represents a middle class becoming accustomed to the independence and adventure that the automobile offered. The lakes in the park became accessible by improved highways during the 1930s and many resorts were constructed during that period. Large year-round resorts offering more luxurious accommodations are slowly replacing the small, traditional, rustic "ma and pa" resorts like Monson's.

Interpretive Resources:

- Large collection of photographs, objects, and oral history interviews related to logging period and specifically Hoist Bay
- Drawings of the logging camp
- 1927 aerial photograph—camp, roads, railroad, log booms, landscapes are very visible
- Receipts from Hoist Bay Resort
- Large photo collection from the Monsons showing development and operation of the resort
- Landscape drawings showing logging, resort and current conditions

I.W. Stevens Pine Grove Resort

Natural History: The Virginia & Rainy Lake lumber company chose not to cut the red pines on the island they sold to I.W. Stevens in 1930. Many of the now very large pines are still standing. Red pine, also known as Norway pine, is identified by its reddish scaly bark and long green needles in clusters of two. The red pine often reaches a height of 70-80 feet with a diameter of 27-45 inches. Voyageurs National Park, the Boundary Waters Canoe Area Wilderness and Quetico Provincial Park together encompass the last large remnants of virgin red and white pine old-growth forests on the continent within fully protected reserves large enough to perpetuate this vanishing ecosystem through natural processes, including fire.

Cultural Resources: Ingvald Walter Stevens was born in Norway in 1885 and came to America at age nineteen. He lived in Hibbing for sixteen years and came to northern Minnesota on his vacations. In 1930, because of poor health, he left the city life and bought an island on Namakan Lake. The 400-acre island was a former headquarters for the Virginia & Rainy Lake lumber company.

"Steve," as he became known, re-used some of the V&RL buildings and built additional cabins to operate a fishing lodge, but retired from that business in 1959. He was a prolific writer, keeping a daily journal, writing articles for outdoor magazines and answering fan mail. His solitary, year round life on Namakan Lake became legendary after numerous radio stations, newspapers and magazines related stories of his experiences. Steve lived on the island until 1973 and died in 1989 at the age of 104. One cabin and the sauna are meticulously constructed in Finnish log architecture style. I.W. Stevens' house is thought to date to the logging period. The fireplace from the logging company lodge also remains on the site.

Interpretive Resources:

- Large collection of historic photos from I.W. Stevens
- Personal belongings from I.W. Stevens such as the yoke he used to carry water
- I.W. Stevens' journals
- LSIA publication "*Fifty Years in the Minnesota North Country*"
- Articles published by I.W. Stevens in outdoor magazines
- Oral history interviews
- Resources on Finnish immigrants, log architecture, settlement on Kabetogama

Ingersoll Island

Natural History: Ingersoll Island is typical of the many rocky islands found in Sand Point Lake. Sand Point contains the deepest spot of all the lakes in the park at 184 feet, mid-way between Ingersoll Island and Burnt Island. Sand Point receives most of its inflow from the southeast via the Vermilion and Loon Rivers. On the steep rocky shores of Sand Point Lake, marks of lichens preserve a visual record of previous stages of water levels. Over 400 taxa of lichen have been found in the park, including some rare species. Lichens are sensitive species and good indicators of air quality.

Cultural History: Seasonal estates, such as the Ingersoll Estate, were generally the first recreational cabins built in the park area. They are different from seasonal cabins in that they contained substantial structures built as summer homes for wealthy owners. The buildings are more likely architect-designed, constructed by experienced craftsmen, and built of higher-grade materials. Other examples in the area include the E.W. Backus property (now known as Wind Song) and Bror Dahlberg's "Redcrest" (most recently known as the Musket Inn), both located outside the park on Rainy Lake. William P. Ingersoll was a wealthy philanthropist from Canton, Illinois who acquired his wealth through the family-owned International Harvester Company.

Ingersoll was also an inventor and very interested in the latest technology. This was reflected in his choice of vacation cabins. Ingersoll acquired the island on Sand Point in 1927 and erected a pre-fabricated Hodgson house in 1928. The Hodgson Company was established in Dover Massachusetts in 1892 and is the oldest building prefabricating company in the United States. Hodgson houses were built in 6-foot, prefinished sections at the factory and assembled on site using the "wedge key bolt," a Hodgson invention. The Hodgson houses differed from other prefabricated buildings in that they did not have a set number of plans or designs. Ingersoll's friend from Illinois, Senator Robert Chipfield, accompanied Ingersoll on many of his trips north and occupied another prefabricated building located on the island. This building is thought to have been moved from a Civilian Conservation Corps camp in the King Williams Narrows.

Interpretive Resources:

- Lichen collection
- Clifford Wetmore studies on lichens in the park
- Reports on lichens and air quality
- Collection of photographs from Ingersoll
- Oral history interviews with family, friends and neighbors of Ingersoll
- Collection of Hodgson Co. catalogs

Kettle Falls Historic District

Natural History: The surface waters in the Minnesota-Ontario border country drain generally in a westerly and northerly direction toward Hudson Bay. A long list of lakes drains out of Namakan Lake via two falls, now called Kettle Falls and Squirrel Falls, but historically referred to as Chaudiere Falls. The normal drop from Namakan Lake to Rainy Lake is about 10 feet. Below Rainy Lake, the watershed continues as part of a still larger system and eventually into Hudson Bay. The Minnesota and Ontario Paper Company built a hydroelectric dam at the outlet of Rainy Lake and two regulatory dams at Kettle Falls and Squirrel Falls between 1905 and 1912, thus artificially controlling the levels of the big lakes in the park. The water regulatory system is controlled by the International Joint Commission (IJC). Three water management programs, called "rule curves," developed by the IJC, have all used larger than natural fluctuations on the Namakan Reservoir to maintain less than natural fluctuations on Rainy Lake. The change and timing of fluctuations has had a great impact on aquatic biota. In 2000, the IJC instituted a new hydrologic regime more closely approximating that with which the species and communities in these waters evolved. The park and other agencies are conducting long-term monitoring to determine whether the 2000 rule curves are providing the anticipated biological effects.

Cultural History: The falls were well-known to American Indians, early fur traders, explorers, gold miners, commercial fishermen and loggers who had to circumvent this transportation barrier when traveling between Namakan and Rainy lakes. There have been accommodations at Kettle Falls since the late 1890s when travelers on their way to the gold fields rested overnight at the "stopping house" at Kettle Falls. In 1910, E.W. Backus' Minnesota and Ontario Power Company began construction on the dams at Kettle Falls, which were completed in 1914. During this period, an estimated 200 people lived at Kettle Falls. Recognizing the potential for business from lumbermen and tourists, timber estimator Ed Rose and madame Nellie Bly constructed the Kettle Falls Hotel around 1910. Robert Williams acquired the hotel in 1918 for \$1,000 and four barrels of whiskey. The Williams family operated the hotel until 1992. The good food and hospitality offered by the Williams' became legendary. A couple of the more famous visitors included Charles Lindbergh and John D. Rockefeller.

In 1925, E.W. Backus, who had become the second largest paper producer in the world, announced at a public hearing before the IJC at International Falls a proposal to develop an extensive series of industrial dams that would convert all the main boundary lakes to the east into a series of great storage basins, drastically altering the border lakes and inundating much of the forest. It was the most ambitious private

Kettle Falls Historic District

for hydro-electric development ever launched in America. Ernest Oberholtzer, who lived next to Backus on Rainy Lake, and other conservationists countered with a proposal to preserve the natural beauty of shore lines for recreation, and to preserve resources area Indians depended on for their traditional lifestyle including wild rice, wild hay, game and fish. The debate was a long and bitter battle. A number of congressional tours of the boundary waters occurred during this period—either to engage in fact-finding associated with the Shipstead-Newton-Nolan Bill or the Rainy Lake Reference (proposals to the IJC are called References). Many of these tours came through Kettle Falls, often spending the night at the Kettle Falls Hotel. Meetings were followed with hearty fish dinner cooked by Lil Williams.

The debate culminated with passage of the Shipstead-Newton-Nolan Act of 1930. The act prohibited construction of dams without Congressional approval, restricted logging near waterways, and ended homesteading in some areas. However, passage of the act marked only the beginning of a long line of bitter clashes between the conflicting needs of industrial, commercial and recreational users and the goals of conservationists.

Interpretive Resources:

- Large amount of information and publications about the history of water level management from 1905 to the present including recent park research
- Draft special history study on history of water level management
- Case files concerning International boundary flowage 1908-1942 (including flooding from Kettle Falls dam and International Falls dam) MHS collection
- 1910 sketch map of the Rainy Lake watershed
- architectural drawings of the dams
- photographs of Kettle Falls, pre and post-dam
- Horace Winchell papers related to Koochiching Company development of water power on Rainy River
- Superior National Forest files 1925-1934 about IJC, Backus controversy, Namakan Lake
- 1941 Fisheries Research Investigational Report (includes photographs of extremely low water conditions in park)
- Oral history interviews related to water level regulation
- 1928 International Joint Commission maps
- Historic photographs of the effects of the construction of the dams

Kettle Falls Historic District

- Information about Backus and Oberholtzer
- Oral history interviews with members of the Williams family, friends, and hotel guests
- Williams family photo collection and other historic photos of the hotel and area from 1902 to the present
- Kettle Falls Hotel guest registers beginning in 1918
- Stories about events at Kettle Falls (Mando parties, weddings, anniversaries, honeymoons, meetings)
- Artwork, poetry, songs about Kettle Falls
- Potential access to Hamm's Beer archives
- Historic furnishings for the hotel
- Collection of jugs from moonshine still at Kettle Falls
- LSIA publication: "*Kettle Falls: Crossroads of History*"

Little American Island

Natural History: The quartz veins on Little American Island contain pyrite, chalcopyrite and tourmaline in addition to gold. The vein is one of many veins and pods of quartz found along a major fault zone in schists. The fault extends for 200 kilometers to the east in Canada and 80 kilometers to the west. It is known as the Rainy Lake fault in the U.S. and the Seine River fault in Canada.

Cultural History: Little American Mine, located on Little American Island on Rainy Lake, was one of the more famous mines in the 1894 Rainy Lake gold rush. It was owned by the Duluth Bevier Mining and Milling Co. It was on Little American that the gold rush began in 1893 when George W. Davis was panning for quartz and discovered gold.

Interpretive Resources:

- Little American Island was developed with exhibits in trails in 1993.

Moose River Indian Village

Natural History: Before construction of the dams at Kettle Falls, Moose River was a small, trickling creek. Moose Bay was a large, grassy meadow where logging companies hunted moose for the camps. Before about 1880, the principal large herbivores in the border lakes were the moose, woodland caribou and beaver. White-tailed deer were present but apparently rare. Logging created more favorable habitat for white-tailed deer and the species expanded northward until it became common in the 1920s. Currently moose are in their peripheral range in the park and occur in low numbers. Their habitat is primarily disturbed forest. In the spring and early summer, submerged plants in lakes and bogs become important food sources. Although the dams created a change in water levels, Moose Bay is still a shallow bay. When water levels are high enough, Moose River is a significant northern pike spawning area.

Cultural History: During the period from about 1736 through 1941, the sole Native American inhabitants in the park were the Ojibwe. The primary local group, the Bois Forte Band of the Ojibwe, occupied a number of small sites in the Moose Bay area during the late nineteenth and early twentieth centuries. At a time when Minnesota's Ojibwe Indians were being concentrated on reservations, the Bois Forte at Moose Bay continued to live off the reservation and follow many of their traditional subsistence and religious activities. Three other bands of the Bois Forte lived in other areas of the park. Despite direct pressures exerted through government Indian policies, water level management, timber cutting, and opening of the area to settlement, the community persevered until the last documented inhabitant, Joe Whiteman, moved to the Nett Lake Reservation about 1940. Many of the place names in the park reflect the presence of the Bois Forte Band of the Ojibwe -- Blind Indian Narrows, Big Sky Island, Wigwam Island, Woodenfrog Island, and Nashata Point. Descendants of the bands that once lived in the park, still live at Nett Lake or surrounding communities.

Interpretive Resources:

- Large collection of historic photographs
- Census, allotment, annuity and homestead records for the Bois Forte bands in the park
- Oral history interviews including interview with Peter Adams who was born at Moose River
- Newspaper articles
- Indian Agent records for Nett Lake
- Archeological collections and site maps

Moose River Indian Village

Interpretive Resources:

- Photographs of some objects from archeological collections
- Beaded garments, birch bark baskets, ricing sticks and other Ojibwe items
- 2 skeletons of Indian ponies found on Kabetogama Lake (at Science Museum)
- "*People of the Thick Fir Woods: Two Hundred Years of Bois Forte Chippewa Occupation in Voyageurs National Park Area*," Richner, 2002
- "*Traditional Ojibway Resources in the Western Great Lakes*," University of Arizona, 2001
- Large collection of books, papers and articles about history and culture of the Ojibwe
- MHS collection: Monroe Killy photodocumentation of traditional activities at Nett Lake in the 1940s
- Koochiching County Museum: film footage of Nett Lake 1949-1963 showing duck hunting, trapping beaver, wild ricing, sturgeon fishing, people, homes, etc.
- Roland Reed postcard collection
- "*Some Stories of the Ojibwe People*," (Przybilla, 2004)

Oveson Fish Camp

Natural History: Rainy Lake is the largest body of water lying within the park, even though the greater part of it is outside the park boundaries in Canada. The big lakes-Rainy, Kabetogama, Namakan and Sand Point-constitute 96% of the surface water in the park. The lakes are linked and therefore share the same species of fish. There are about 54 fish species in the park; up to 40 are found in the big lakes. Walleye, a game fish sought by thousands of anglers each year, is an important predator, feeding on yellow perch and other small fish, as well as invertebrates such as dragonflies. The walleye is distinguished by a milky white, translucent eye that enables it to see in murky, dark waters. Northern pike are aggressive predators that spawn in shallow weedy bays in spring. They are the most common large game fish inhabiting these lakes, sometimes exceeding 20 pounds. Other prominent fish are less well-known because people rarely fish for them. Among these are the white sucker, whitefish and burbot.

Oveson Fish Camp

The largest fish of these waters is the lake sturgeon. Lake sturgeon attain their great size by scouring the bottom for clams, snails, aquatic insects and other invertebrates. The park's fish populations and communities, because of their ecological importance as well as their utilization by park visitors, have been and continue to be the most intensively studied and monitored biological community.

Cultural History: Large-scale commercial fisheries, primarily interested in the production of sturgeon caviar, began in this area in the 1890s, but were short-lived because of the long distance to market, the lack of refrigerated transit and increasing regulation of the industry through time. Small-scale family fishing operations, however, reached a peak in 1910 when the number of licensed fishermen in the area reached forty-eight. After 1910, commercial fishing steadily declined with competing pressure from sportfishermen and additional regulations. By 1942, only ten licensed fishermen operated on Rainy and Namakan Lakes.

Harry Oveson constructed a camp in Cranberry Bay in the late 1950s and had a license to fish whitefish in fifteen sections of Rainy Lake. The ice house at Oveson's is located at water's edge. The thick double walls were insulated with wood shavings and chips, and the floor pit was filled with sawdust. Oveson cut ice from the lake in winter and layered the blocks with sawdust in the ice house, where it would keep for up to two years. Next to the ice house is the fish house, where Oveson filleted the fish to prepare it for packing into wood-plank boxes. Perched on an island on the inside channel of Rainy Lake, the camp has a maritime aspect, especially in foggy or blustery weather, another reminder of Rainy's size.

Interpretive Resources:

- Newspaper accounts of commercial fishing activities
- Oral history interviews with Harry Oveson and other commercial fishermen
- Harry's commercial fishing tools
- Series of slides showing Harry's fishing operation
- Larry's fish scales
- Draft Special History Study about commercial fishing
- Home movie 1940s-1963 of commercial fishing, ice harvesting, mink farming, deer hunting on Lake of the Woods (MHS collection).

Rainy Lake City

Natural History: Rainy Lake City is located on the east side of the strait between Rainy Lake and Black Bay. Black Bay is a large shallow bay that used to be called Wazusk-ku-tabe or Rat Root Lake, a reference to the roots eaten by muskrats. It is now called Black Bay because the water is stained a dark color from surrounding peat swamps. Most of the shallow bays and backwaters of the park's major lakes and streams of the park supported stands of wild rice before construction of the dams. The combination of increased water levels and fluctuating lake levels annually decimated the wild rice population and eventually it disappeared from the aquatic zone. As early as 1940, attempts were made to restore wild rice on Rainy Lake to attract waterfowl for hunting. As a result of these efforts, wild rice populations were reestablished on Black and Cranberry Bays. The Gold Portage Wildlife Management Area, which includes 1,000 acres in Black Bay, is managed by the Minnesota Department of Natural Resources for waterfowl hunting and other recreational activities.

Cultural History: Rainy Lake City was platted in May of 1894 in response to the gold rush of the time. A stamp mill was built at the city to crush ore from the Little American Mine. At its peak, the city boasted a population of 500 and supported a variety of stores, hotels, restaurants and saloons, a post office, customs office, and a school. Rainy Lake City did not survive long and was virtually abandoned by 1901. Closing of the town resulted in the majority of the citizens vacating and moving to Koochiching (now International Falls) where the falls made possible the use of water power for milling operations.

Rainy Lake City contains archeological evidence of 8,000 years of Native American history. Sha Sha Point, across the bay from Rainy Lake City, is named for the former chief of the Black Bay band of the Bois Forte Ojibwe. Black Bay was home to a band of Bois Forte when the gold rush of 1893 brought thousands of people to Rainy Lake, setting in motion a string of major events that would forever change the lives of Indian people in the area.

Although the exact construction date is unknown, the Rainy Lake City saloon appears to have been in place by 1910. This was a time of renewed interest in Rainy Lake City after the initial gold rush of the 1890s. By 1922, the building functioned as a "blind pig" for the illegal sale of liquor. For a brief time during the 1930s, the building served as a dining facility for the Rainy Lake City Resort. After World War II, the building was used as a vacation cabin.

Rainy Lake City

Interpretive Resources:

Interpretive Resources

- Birth and death records for Rainy Lake City
- Rainy Lake City Incorporation papers
- Photos: Half-way house on stage route, gold mines, Rainy Lake City (MHS collection), Indians of Black Bay
- E.S. Shepard's map from border to Vermilion Lake showing some gold mines, winter and summer routes to the mines, steamboat landing at Gold Portage
- 1894 and 1913 Rainy Lake City Plats
- Map of Rainy Lake Gold District ca1894
- Rainy Lake City newspapers from the 1890s (on microfilm)
- Archeological maps of landscape features and city streets
- "*People of the Thick Fir Woods: Two Hundred Years of Bois Forte Chippewa Occupation of the Voyageurs National Park Area*" provides information about Bois Forte Band at Black Bay
- Archeological collections
- Early surveyors maps of Black Bay

Surveyor's Island

Natural History: There are more than 1,000 islands in the park. They come in all shapes and sizes. The largest, Big Island on Rainy Lake, is over 800 acres in size. Many islands, such as Surveyors, are less than an acre in size. Many of the park's small islands have been severely impacted by recreational use. Firewood gathering has eliminated much of the understory herb and shrub layers, seedlings and saplings, dead standing trees, down logs, and many live overstory trees have been cut.

Cultural History: The international boundary follows the customary canoe route of the fur trade. As the voyageurs entered Rainy Lake (or Lac la Pluie) after leaving the protected channel coming out of Kettle Falls, they often met strong northwesterly winds on Rainy Lake. The stretch of water from Surveyor's Island to Brule Narrows was known as the "Grand Traverse," or grand crossing. If the winds were in their favor, the voyageurs ate their breakfast at the Detroit (or strait) at Brule Narrows and paddled another five hours to Fort Lac la Pluie. If the wind was too strong, they camped at the Detroit. Early maps

Surveyor's Island

show two islands, on each end of Rainy Lake named "Lob Stick Island." The mai was a maypole or lob stick used as a landmark or more frequently to honor a passenger of importance. A tall pine, standing out on a point in the lake, was climbed by one of the voyageurs, who cut off all the branches except for a tuft at the top. As the crew paddled off, the lob stick was saluted with three cheers and the discharge of guns. The honored passenger was expected to acknowledge the compliment with a treat of high wine.

The Webster-Ashburton Treaty of 1842 settled sixty years of controversy over the location of the international boundary between Minnesota and Ontario, which it defined as the "customary waterway" of the voyageur. However, it took until the mid-1920s to resolve all disputes regarding the boundary and to map the location. Fieldwork to mark the boundary through the park was completed by the International Boundary Commission in 1913 and 1914. The survey crews became familiar sights as they moved their camps and equipment along the boundary.

Barely above the water line on Surveyors Island is a red smudge that was once a pictograph in the form of two hands. Pictographs, or aboriginal rock paintings, are very difficult to date but appear to have some antiquity. Bi na wa nise (or James Gawboy) of the Bois Forte band had an off-reservation allotment immediately southwest of Surveyors Island. The Gawboy family retained ownership of Bi na wa nise's allotment until the NPS purchased one of the four tracts in the allotment. The other Gawboy parcels are the only lands within the park owned by Ojibwe individuals.

Interpretive Resources:

- International Boundary Commission Report (contains many photographs and detailed descriptions of surveying activities)
- Photographs of topographic party camped on Surveyors Island and at Brule Narrows (in the IBC report)
- International Boundary Commission maps (artwork in their own right)
- Narratives of early fur traders and explorers describing voyageur route
- Photographs, correspondence, allotment records, etc. related to Gawboy family
- Talking Rocks: Geology and 10,000 Years of Native American Tradition in the Lake Superior Region by Carl Gawboy and R.L. Morton (Carl Gawboy is also an artist)

APPENDIX F: VISITOR STUDIES

The 2002 GMP/EIS noted that one of the park's "issues and concerns" was "inadequate visitor use data." The paragraph describing this issue states that "reliable information about numbers of visitors, use patterns, visitor experience, and visitor needs is lacking for both summer and winter visitors. There are numerous entries to the park, both from private and public access points, making it difficult to track visitor use patterns. Without sufficient support data and systematic, reliable methods for gathering baseline visitor use information, management decisions that affect the public are difficult to substantiate."

The GMP further notes that estimating total park visitation at Voyageurs National Park is methodologically challenging. Variance in annual park attendance is generally a product of seasonal influences that include snow accumulation, frozen lake surface conditions, annual size of fisheries, and weather variables. The NPS established an estimation protocol based on a computerized manipulation of several data sources such as aerial surveys, visitor counts, and trail and road counts for assessing visitation levels. The current methodology for tracking park visitors provides limited visitor use information for aiding in park management decision making. A comprehensive database of visitor use patterns, visitor needs, and visitor experiences is unavailable.

Visitor surveys conducted by the University of Idaho during recent years provide one means of quantifying some visitor use and recreation participation levels. In 1995, 1996, 1997 and 1998, visitor studies were conducted to help the park staff understand more about the park's visitors. Below and on the next pages are summaries of those surveys.

Visitor Study by Lime and Lewis, Univ. of Minnesota

A 1995 study by Lime and Lewis of the University of Minnesota indicated that winter visitors include a greater percentage of Minnesota residents than summer visitors. Of visitors who participated in this snowmobile survey, approximately 86% were state residents; about 29% were local/regional visitors; about 13% were from the remainder of northern Minnesota; and nearly half (44%) reported residence from the Twin Cities area or southern Minnesota. Only 14% were out-of-state residents, mostly from neighboring states as well as Canada.

A 1996 study by Lime and Lewis showed that over two-thirds (68%) of the respondents reported no previous visit to the park during the summer use season. By contrast, the duration of stays during winter differs significantly from the summer season. While most local and regional snowmobile participants are day users, other visitors reported an average of 2 to 3 days snowmobiling in the park.

Visitor Study by Vlaming, Univ. of Minnesota-Duluth

In 1996, a visitor study by Jonathan Vlaming of the University of Minnesota-Duluth noted that visitation to Voyageurs primarily comprises residents from a four-state region that includes Minnesota (60%) and Illinois/Iowa/Wisconsin (20%). These patterns are substantiated by other park surveys of houseboat renters and resort patrons. Less than 1% were international visitors (Vlaming 1996).

The following list is found in the 2002 Visitor Use and Facilities Plan and as an addendum to the General Management Plan. It summarizes common visitor uses and current facilities inside the park as follows:

Summer Visitor Use

- motorboating (different-sized boats)
- houseboating
- paddling (canoe and kayak)
- boats on interior lakes program
- fishing
- swimming
- sailing & windsurfing
- water skiing
- floatplanes
- tent camping
- sightseeing
- seeking solitude
- berry picking
- hiking
- day use
- wildlife watching, especially birding

Winter Visitor Use

- snowmobiling
- snowshoeing
- cross-country skiing
- ice road
- ice fishing
- winter camping
- skiplanes

Visitor Services Project by the Univ. of Idaho

A 1997 summer Visitor Services Project visitor study coordinated by Margaret Littlejohn of the University of Idaho indicated that people come to Voyageurs National Park for the following reasons:

Reason for current visit (702 visitor groups)

- 79% sightseeing
- 77% viewing wildlife
- 66% fishing (without a guide)
- 57% visiting a visitor center
- 51% photography
- 42% hiking
- 38% picnic
- 36% camping
- 32% visit historic site
- 15% use park watercraft
- 12% attend ranger program
- 4% fish with a guide
- 11% other

Reason for past visits (406 visitor groups)

- 86% fishing (without a guide)
- 81% sightseeing
- 79% viewing wildlife
- 62% visiting a visitor center
- 60% camping
- 56% picnic
- 53% photography
- 52% hiking
- 50% visit historic site
- 21% snowmobile
- 19% use park watercraft
- 17% attend ranger program
- 11% cross-country ski/snowshoe
- 11% fish with a guide
- 14% other

Visitor Services Project by the Univ of Idaho

In 1998, another summer visitor use study by Littlejohn noted that the park and the surrounding communities offer a full range of high-quality recreational opportunities that cater to families. The majority of visitors travel in family (60%) or peer groups. Most visitor groups consisted of two to four people (66%). During a week in July or August the principal user group includes persons 36-50 years old (34%), while only 19% of users are in the 21-36 age group (Littlejohn 1998).

Many summer visitors have come to the park before. Of the summer visitors surveyed, 66% had visited during the previous five years (Littlejohn 1998). Of winter season snowmobilers surveyed, about one-third were characterized as repeat visitors. An additional third (29%) were visiting the park for the first time.

Given the somewhat isolated location of the park, the nature of recreational opportunities, and packages offered by resort and houseboat companies, the typical length of stay at Voyageurs is several days. One survey revealed that 55% of visitors stay three or more days in the park, and 21% spent seven or more days in the park. In contrast to visitors that remain in the park for a longer duration, approximately one-third (35%) of summer visitors spent one day or less in the park. Of this group, about half (47%) spent less than a half day (4 hours or less).

GPRA Visitor Surveys (by NPS & Univ. of Idaho)

In order to measure management's goals for interpretation (on page 10) set in each park's GPRA Strategic Plan, the National Park Service and the University of Idaho Cooperative Park Studies Unit devised a Visitor Survey Card system for all units of the National Park System in 1998. Each year, each NPS unit gives visitor survey cards to randomly selected visitors during a certain time period—based on social science criteria—to gather data on how well the NPS is meeting its GPRA goals.

From July 1-31, 2003, GPRA visitor survey cards were distributed to a random sample of visitors to Voyageurs National Park. Of all the survey cards distributed, 18% were returned to the University of Idaho.

In response to the survey question, "What is the national significance of this park?" comments from the 2003 Visitor Survey included:

- *No words to describe; the best place I have ever gone.*
- *Boating, primitive camping, fishing*
- *To preserve and maintain wildlife and to teach youth*
- *To preserve the land and to stop development within the park.*
- *Glacial shield lakes, beautiful scenery*
- *Accessible, wild northern lake country*
- *Has good example of northern Minnesota forests*
- *More for Canada (French Canadians were voyageurs). Beauty worth it.*
- *Important historical passageway; downstream from BWCA*
- *VNP - along with the BWCA - must be preserved as these are two areas in Minnesota that today are what they have been for thousands of years*
- *Very important - more than historical significance is the importance of keeping this area pristine*
- *It represents the history of the fur trade and our nation and an opportunity for future generations to learn and observe.*
- *Wilderness and wildlife and usually very good fishing*
- *Attempt to preserve the history of the early trappers and loggers and Indian culture. To show the vastness of our lakes as they were in the past.*
- *Logging era, preservation of natural resources and wilderness areas*
- *Place where wolves and muskies survived the 'dark days' of near extinction. Historic interaction between Natives and settlers.*
- *Big water, endless skies, wildlife and immense beauty make it significant*
- *To preserve for future generations while providing for the present generation*

GPRV Visitor Survey -- 2004 Survey Data

In July 2004, Voyageurs National Park distributed GPRV Visitor Survey cards for the seventh year, and the data was compiled by the University of Idaho. The survey reflects visitor opinion about the park facilities, services, and recreational opportunities during the survey period. The survey data is expected to be accurate within +/-6% with 95% confidence. The results of the 2004 Visitor Survey are summarized below:

2004 Overall quality of facilities, services, and recreational opportunities

Very good: 69%

Good: 27% (96% satisfaction: combined Very Good and Good)

Average: 4%

2004 Specific ratings of facilities, services, and recreational opportunities

<u>Category</u>	<u>Approval Ratings</u>				
	<u>Very Good</u>	<u>Good</u>	<u>Average</u>	<u>Poor</u>	<u>Very Poor</u>
Park Facilities:					
Visitor Centers	72%	24%	3%	1%	0%
Exhibits	57%	29%	12%	1%	2%
Restrooms	63%	26%	9%	1%	0%
Walkways, Trails, Roads	64%	21%	11%	2%	1%
Camp/Picnic Areas	<u>64%</u>	<u>19%</u>	<u>9%</u>	<u>8%</u>	<u>0%</u>
Combined Facilities:	64%	24%	9%	2%	1%

<u>Visitor Services:</u>	<u>Very Good</u>	<u>Good</u>	<u>Average</u>	<u>Poor</u>	<u>Very Poor</u>
Employee Assistance	78%	15%	5%	1%	1%
Interpretive Programs	66%	20%	11%	2%	0%
Park Map or Brochure	65%	25%	10%	0%	0%
Commercial Services	<u>47%</u>	<u>31%</u>	<u>16%</u>	<u>5%</u>	<u>2%</u>
Combined Visitor Services:	65%	22%	10%	2%	1%

<u>Recr. Opportunities:</u>	<u>Very Good</u>	<u>Good</u>	<u>Average</u>	<u>Poor</u>	<u>Very Poor</u>
Learning about ...	60%	30%	8%	1%	1%
Outdoor Recreation	66%	24%	8%	1%	0%
Sightseeing	<u>63%</u>	<u>24%</u>	<u>10%</u>	<u>2%</u>	<u>0%</u>
Combined Recreation Ops:	63%	26%	9%	2%	0%

APPENDIX G: VISITATION DATA

Parkwide Annual Visitation, 1983-2004

1983: 146,454	1988: 223,554	1993: 228,143	1998: 231,958
1984: 154,723	1989: 209,626	1994: 224,181	1999: 228,898
1985: 183,984	1990: 223,554	1995: 210,938	2000: 227,371
1986: 172,137	1991: 221,857	1996: 246,588	2001: 243,374
1987: 201,727	1992: 227,498	1997: 223,418	2002: 238,227
			2003: 236,812
			2004: 251,620

Source: NPS Public Use Reports on “Inside NPS” website, 2004

General Patterns of Annual Visitor Use

Park visitation generally rose from 1983 through 1987, reaching just over 200,000 in 1987. For the following 15 years, 1988-2002, visitation rose slightly and leveled off to an estimated 240,000 visitors per year (see chart above). Fluctuations during this period were attributed to low snowfall at Voyageurs and other parts of Minnesota, which affected snowmobile activity in the park. Although the method of estimating the number of annual visitors has been revised several times since 1976, it has been consistent since 1992 although the data is still not particularly accurate. The park is currently in the process of re-examining and refining its methods for counting visitors.

Visitation Data (continued)

Parkwide Monthly Visitation, 2004

January: 12,320	May: 27,656	September: 26,094
February: 14,002	June: 44,579	October: 10,909
March: 13,431	July: 49,169	November: 2,568
April: 1,551	August: 48,695	December: 647
Total Visitation in 2004: 251,620		

Source: NPS Public Use Reports on “Inside NPS” website, 2004

General Patterns of Monthly/Seasonal Visitor Use

Promoted as an all-season park, Voyageurs is open year-round, yet it has a strong seasonal attendance pattern. On average, approximately 60% of annual visitation occurs between May and September. Winter visitation is less, but has been increasing in recent years, especially on weekends. Visitation is lowest during shoulder seasons, when access to the park is curtailed by freeze-up in late fall and ice-out in early spring.

Visitation Data (continued)

Visitation at Rainy Lake Visitor Center, 2004

January: 202	May: 821	September: 1,464
February: 357	June: 2,136	October: 566
March: 325	July: 2,965	November: 131
April: 272	August: 2,928	December: 127

Total Visitation at Rainy Lake Visitor Center in 2004: 12,294

Visitation at Ash River VC at Meadwood Lodge, 2004

January: closed	May: 420	September: 1,046
February: closed	June: 1,548	October: closed
March: closed	July: 1,945	November: closed
April: closed	August: 2,336	December: closed

Total Visitation at Ash River Visitor Center in 2004: 7,295

Visitation at Kabetogama Visitor Center, 2004

January: closed	May: 501	September: 995
February: closed	June: 2,270	October: closed
March: closed	July: 3,002	November: closed
April: closed	August: 2,608	December: closed

Total Visitation at Kabetogama Visitor Center in 2004: 9,376

Visitation Data (continued)

Visitation at Crane Lake VC/area, 2004

January: closed	May: closed	September: closed
February: closed	June: closed	October: closed
March: closed	July: closed	November: closed
April: closed	August: closed	December: closed

Total Visitation at Crane Lake in 2004: 0

APPENDIX H: Special Populations' Programmatic Accessibility Guidelines for Interpretive Media

Harpers Ferry Center, National Park Service

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 every National Park Service (NPS) area.

These guidelines do, however, define a high level of programmatic access which can be met in most NPS situations. They articulate key areas of concern and note generally accepted solutions. Because of 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 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. Because of the unique characteristics of each situation, parks should be evaluated on a case by case basis. 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 83-3, Accessibility for Disabled Persons

Audiovisual Programs

Audiovisual programs include video, audio, and interactive programs. As a matter of policy, all audiovisual programs produced by the Harpers 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 park and regional office staffs.

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 each particular site.

Guidelines Affecting Visitors with Mobility Impairments

1. Theater, auditorium, or viewing area should be 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 standard procedure.
3. Audio amplification and listening systems will be provided in accordance with UFAS 4.1.2(18b).

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, because of 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 which require special environmental controls, or they may be within certain room decor or architectural features that dictate certain solutions. Exhibit design is an art which 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 factors limiting communication through physical modification or by providing an alternate means of communication.

Guidelines Affecting Visitors with Mobility Impairments

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)

*Exhibits (continued)***Guidelines Affecting Visitors with Mobility Impairments (cont.)**

b. Minimum knee clearance space: 27" high, 30" wide, and 19" deep of clearance underneath 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 sign's bottom edge. (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 desk top or work surface shall be between 28" and 34" from the floor. (ADAAG 4.32 Fig.45)

Exhibits (continued)

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.).
2. **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 where light levels have been reduced for conservation purposes should have a minimum of 10 footcandles of illumination.
 - b. Harsh reflections and glare should be avoided.
 - c. The lighting system shall be flexible enough to allow adjustments.

Exhibits (continued)**Guidelines Affecting Visitors with Visual Impairments (continued)**

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 footcandles 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, like 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 refurbished 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, and dioramas.
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.

Historic Furnishings (continued)

Guidelines Affecting Visitors with Visual Impairments

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 audiovisual programs relating to historic furnishings.

Guidelines Affecting the 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 updatable "Accessibility Site Bulletin" which could include detailed information about the specific programs, services, and opportunities available for visitors with disabilities and to describe barriers which are present in the park. A template for this site bulletin will be on the HFC Department 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 on the next page.

Publications (continued)

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 10 point)
- (2) Leading should be at least 20% greater than the font size used.
- (3) Proportional letterspacing
- (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 point type.
- (12) No extreme extended or compressed typefaces 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 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 20 point type.

Publications (continued)**Guidelines Affecting Visitors with Visual Impairments (continued)****2. Large-print version publications:****a. Text**

- (3) Proportional letterspacing
- (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 point type.
- (12) No extreme extended or compressed typefaces 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 cluttered the map, the more the 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 thermaform machine. Lines are distinguished by lineweight, color and height. Areas are distinguished by color, height, and texture.

Publications (continued)

Guidelines Affecting Visitors with Visual Impairments (continued)

3. Maps (continued)

- d. The digital maps are on an accessible web site.
- e. Same paper guides as above.
- f. Contrast of typeface background is high. (at least 70% contrast is recommended)
- g. Proportional letterspacing
- h. Labels set in caps and lower case
- i. Map notes are flush left and ragged right.
- j. Little or no hyphenation is used at ends of lines.
- k. No extreme extended or compressed typefaces 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 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

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 are 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 which 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 which 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.

Wayside Exhibits (continued)

Guidelines Affecting Visitors with Visual Impairments (continued)

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 I:
NON-PERSONAL MEDIA TYPES
AND PERSONAL SERVICES TYPES**

Non-Personal Services/Media Types

Non-personal services are interpretive products that provide information and interpretation to park visitors. Voyageurs National Park uses a variety of non-personal services to orient visitors to the park, to provide basic information, and to interpret park resources. The following is a list of the types of media used to provide non-personal services.

Audiovisual (AV)

Audiovisual is the term used to describe media that allows visitors to see and hear information or interpretive material. Examples include the park orientation film and the computer-based PIX system.

Bulletin Boards (BB)

The park maintains a system of bulletin boards that provide visitors with written information, maps, and images that help to orient them and provide information about the park.

Education Trunks (ET)

The park has compiled lesson plans and support materials that inform students about the history of the fur trade, and the biology and ecology of wild wolves. These lesson plans and support materials are stored in containers that may be borrowed by educators to use in their classrooms. Park naturalists and the park education specialist may also present these materials on request.

Exhibits (EX)

Exhibits are both two and three dimensional displays of informational and/or interpretive material that may include text, maps, images, models, replicas, artifacts, or interactive components. The museum display at the Rainy Lake Visitor Center is an example of an exhibit at Voyageurs National Park.

Interactive Materials (IM)

Interactive materials are stand-alone items that help to convey information and resource meaning to park visitors. Examples include voyageur clothing, interactive touch-tables, children's tables, and animal pelts, antlers and skulls.

Non-Personal Services/Media Types (cont.)

For Fee Publications (PUB\$)

For-Fee Publications are written materials available for sale. Examples include the Ellsworth Trail Guide and book on I.W. Stevens.

Free Publications (PUB)

Free publications are written materials that are available at no charge to the public. Examples include: park map and brochure, *Living with Black Bears* brochure, and park fact sheets.

Historic Furnishings (HF)

Historic furniture and other furnishings at the Kettle Falls Hotel help park visitors to see and understand what the area may have looked like to people that visited or lived in the area in the past.

Wayfinding (WF)

The park provides park visitors with maps and signs to help them navigate through the park. Wayfinding materials may be placed at centralized locations like trailheads and launch ramps. They may also be placed in some remote locations to help people orient themselves and remain on trails.

Wayside Exhibit (WE)

Wayside exhibit is a term used to describe a free-standing exhibit, generally outdoors, that provides information and interpretive material, usually in the form of text, maps, or other images. Examples of wayside exhibits at Voyageurs include the voyageurs display located on the Kettle Falls Dam and those along the Ash River Trail at the Voyageurs Forest Overlook and Beaver Pond.

Website (WEB)

The park maintains a Park Profiles website [www.nps.gov/voya] and an In-Depth website [www.nps.gov/voya/home.htm]. The websites contain information and interpretive materials related to Voyageurs National Park that are accessed by a large number of people each year.

Personal Services

Personal services are interpretive programs and services provided to park visitors by park staff. Voyageurs National Park provides a variety of personal services to orient visitors to the park, to provide basic information, and to interpret park resources, including:

Boat Tour (BT)

The park provides guided boat tours departing from the Rainy Lake and Kabetogama Lake Visitor Centers each summer. These tours provide an important service to park visitors that do not have access to their own boat. Tours are conducted by district naturalists, seasonal interpreters, volunteers, and other appropriate park staff and partners. Boat tours allow exploration of the park and provide opportunities to view park wildlife and visit historic areas within Voyageurs.

Canoe Trip (CT)

Canoe trips provide visitors the opportunity to explore the park in a non-motorized boat. The park provides canoes, paddles, life jackets, and a guide. Canoe trips provide an opportunity for visitors without their own boat to experience and enjoy the park while learning about park resources.

Community Programs (CP)

Community Programs are scheduled programs and activities that occur off-site that help area residents to learn about and enjoy park resources while building understanding and support within the community that results in the shared stewardship of park resources. Examples include participation in community fairs and festivals, and outreach programs to interested community groups.

Costumed Interpretation (CI)

North Canoe Programs are an example of costumed interpretation at Voyageurs. Park staff or volunteers in period dress take visitors on a paddling trip in a 25 foot long north canoe. The program helps visitors to learn first-hand about the life and times of the voyageurs through direct experience.

Personal Services (continued)

Education Program (ED)

Education programs are curriculum-based walks, talks, tours, lectures, and other activities that help students to form ideas, learn about and appreciate park resources, and facilitate caring within a broader context of learning. Education programs connect park interpretive themes to state and national learning standards.

Evening Program (EP)

Evening programs are talks, slide shows, and other presentations that interpret park resources, management issues, and other appropriate topics. Talks are given by resource specialists, guest speakers, and park staff. Evening Programs are typically given at the Woodenfrog State Campground in the Refectory building.

Information Desk (ID)

Voyageurs provides orientation, information, and informal interpretation to park visitors in several locations, including the Rainy Lake, Kabetogama Lake, and Ash River Visitor Centers. Information is also provided at the Orr Visitor Center and Crane Lake Ranger Station. Visitors typically are in need of maps, directions, and information about where to go and what to do. Information desk staff also help visitors to complete camping permits, sign-up for the Boats on Interior Lakes Program, and register for other park interpretive programs.

Interpretive Walk (IW)

Interpretive walks are guided explorations of the park's trails that provide the opportunity for park visitors to enjoy a walk on a trail while learning more about park resources from a naturalist or interpreter.

Roving (R)

Park employees and volunteers make unscheduled visitor contacts out in the field to interact with visitors, helping to provide orientation, information, and informal interpretation. Roving is an effective way for the park to communicate with park visitors that do not come into park visitor centers or attend scheduled interpretive programs. Roving provides an opportunity for park staff to help visitors to better enjoy the park by providing personalized information relevant to the needs and interests of the people being contacted.

Personal Services (continued)

Site Hosts (SH)

Site hosts are volunteers that live remotely in the park to provide visitor services, basic caretaking, and facility maintenance at visitor destinations like the Ingersoll and Casareto properties. Site hosts provide information to park visitors, as well as informal interpretation. They will also rove at their assigned site to monitor resource conditions and make informal visitor contacts.

Special Event (SE)

Special Events are scheduled programs and activities that take place at the park and provide opportunities for park visitors to interact with park staff to enjoy, experience, and learn about park resources. Examples include the Spring Birders Rendezvous and National Park Week Open House.

Winter Program (WP)

Winter Programs are scheduled talks, walks and other activities that occur in the park during the winter season. Winter programs are typically based out of the Rainy Lake Visitor Center and may be given by park naturalists, volunteers, or community members.

