



Foundation Document

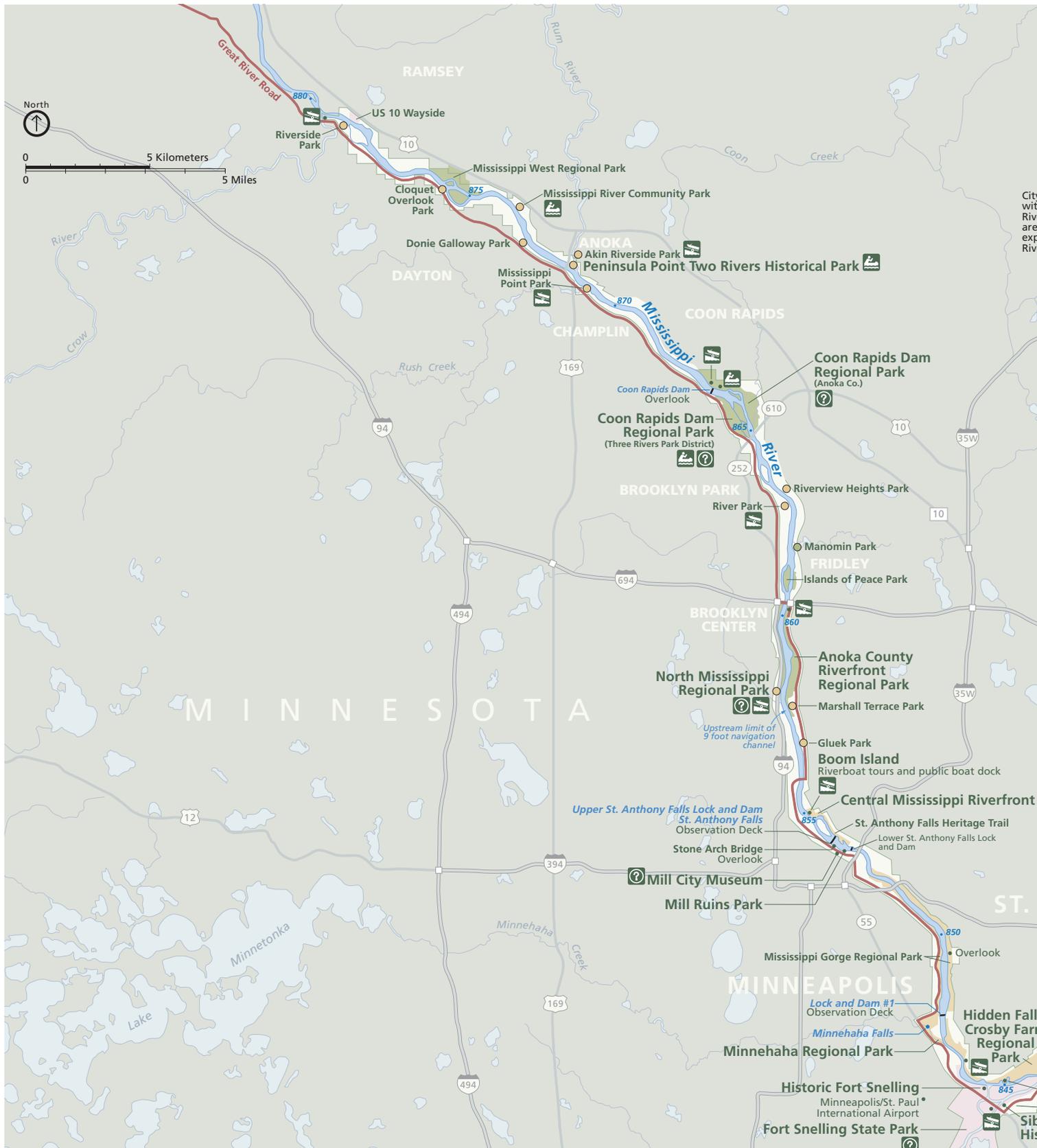
Mississippi National River and Recreation Area

Minnesota

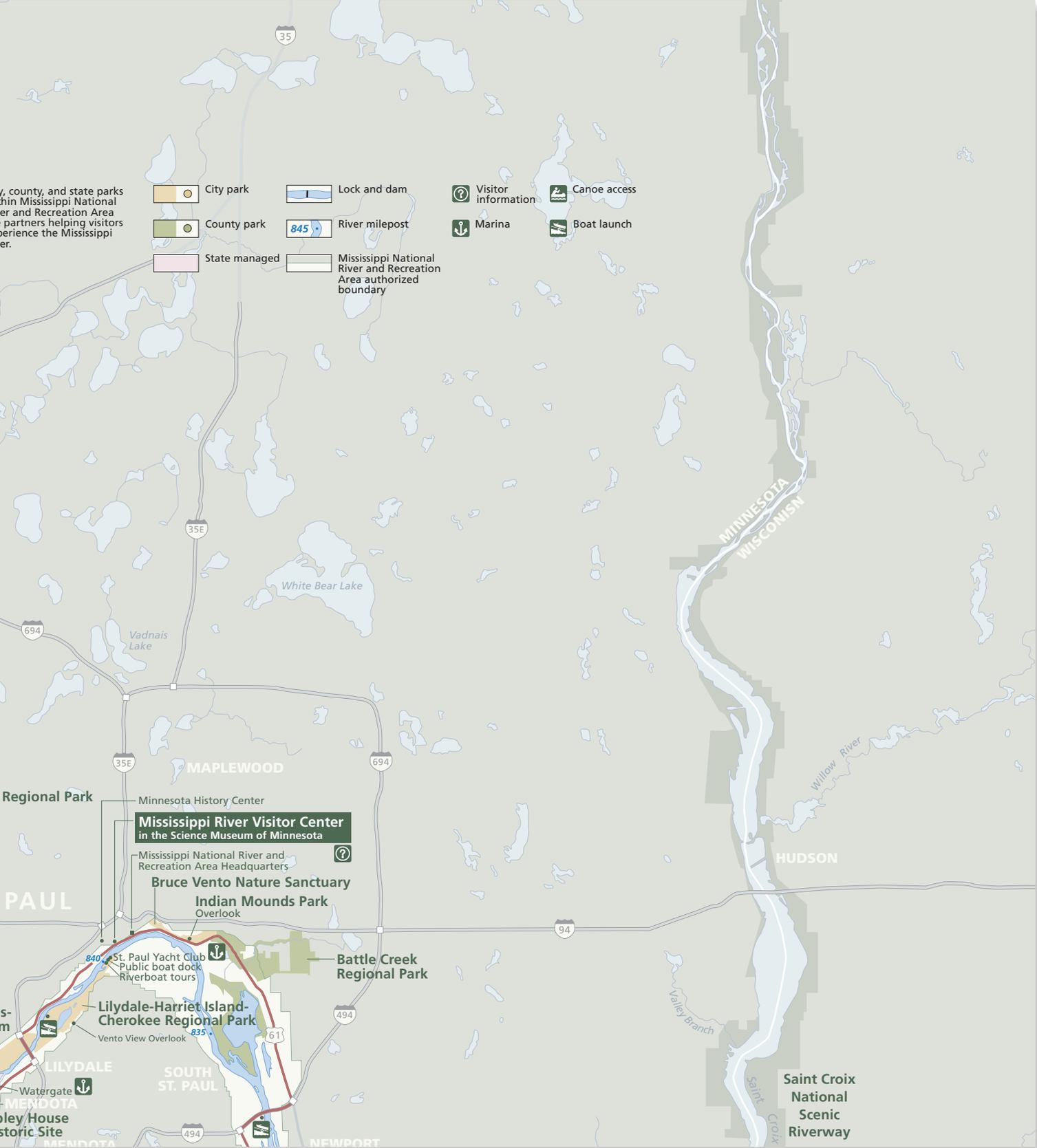
April 2014



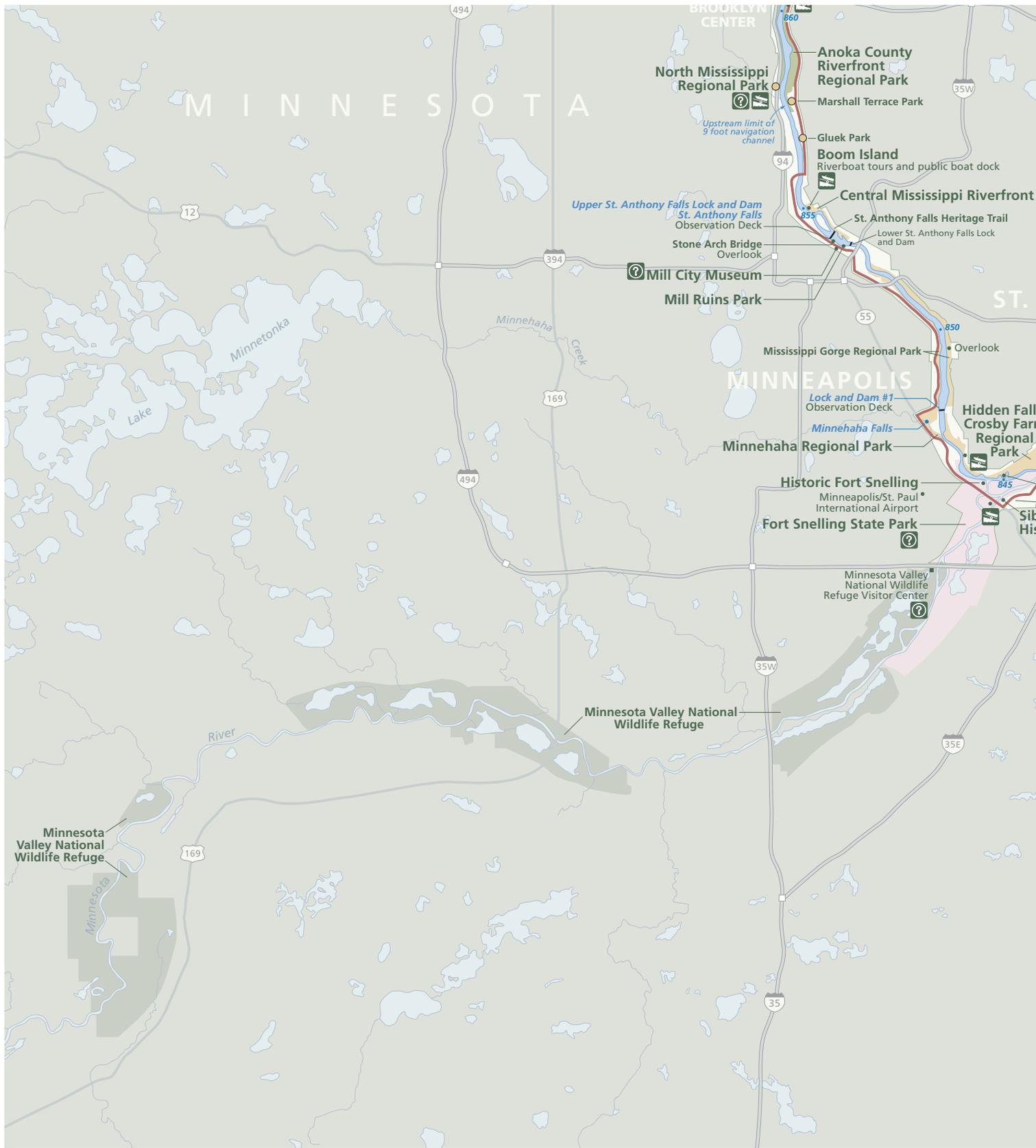
Map of Mississippi National River and Recreation Area

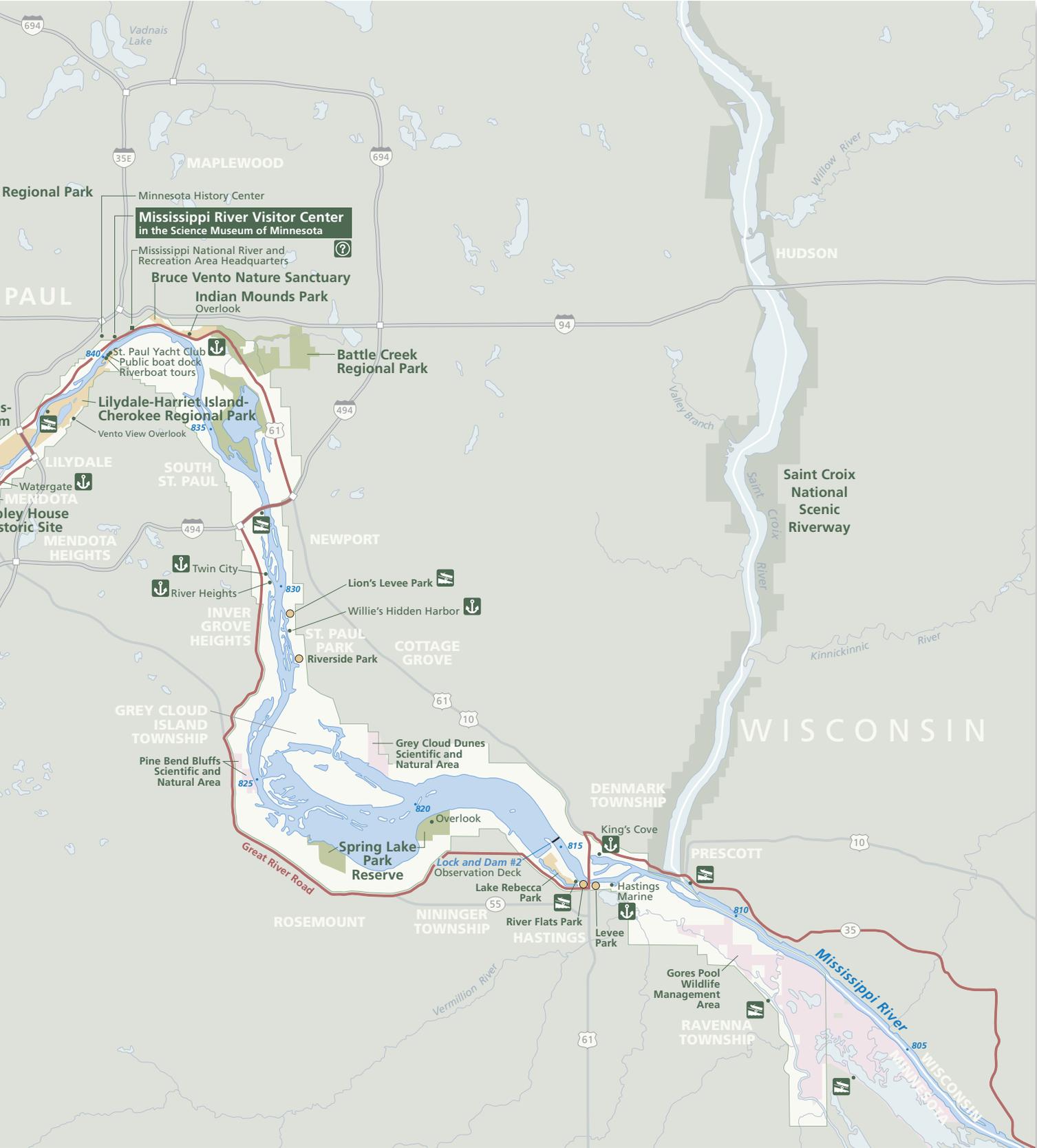


North end of Mississippi National River and Recreation Area



South end of Mississippi National River and Recreation Area continues on next page.





South end of Mississippi National River and Recreation Area



Contents

Mission of the National Park Service	1
Introduction.	3
Part 1: Core Components	4
Brief Description of Mississippi National River and Recreation Area	4
Park Purpose	7
Park Significance	8
Fundamental Resources and Values	10
Interpretive Themes	11
Entire River	11
Geology	13
Cultures	13
Economy	14
Ecology	15
Recreation and Scenery	16
Part 2: Dynamic Components	17
Special Mandates and Administrative Commitments	17
Special Mandates	17
Administrative Commitments	17
Assessment of Planning and Data Needs	19
Analysis of Fundamental Resources and Values	20
Identification of Key Issues and Associated Planning and Data Needs	41
Planning and Data Needs	44
Part 3: Contributors	49
Mississippi National River and Recreation Area	49
Park Partners	49
Midwest Regional Office	49
Appendixes	50
Appendix A: Enabling Legislation.	50
Appendix B: Related Federal Legislation, Regulations, and Executive Orders	60



Mission of the National Park Service

The National Park Service (NPS) preserves unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. The National Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world.

The NPS core values are a framework in which the National Park Service accomplishes its mission. They express the manner in which, both individually and collectively, the National Park Service pursues its mission. The NPS core values are:

- **Shared stewardship:** We share a commitment to resource stewardship with the global preservation community.
- **Excellence:** We strive continually to learn and improve so that we may achieve the highest ideals of public service.
- **Integrity:** We deal honestly and fairly with the public and one another.
- **Tradition:** We are proud of it; we learn from it; we are not bound by it.
- **Respect:** We embrace each other's differences so that we may enrich the well-being of everyone.

The National Park Service is a bureau within the Department of the Interior. While numerous national park system units were created prior to 1916, it was not until August 25, 1916, that President Woodrow Wilson signed the National Park Service Organic Act formally establishing the National Park Service.

The national park system continues to grow and comprises 401 park units covering more than 84 million acres in every state, the District of Columbia, American Samoa, Guam, Puerto Rico, and the Virgin Islands. These units include, but are not limited to, national parks, monuments, battlefields, military parks, historical parks, historic sites, lakeshores, seashores, recreation areas, scenic rivers and trails, and the White House. The variety and diversity of park units throughout the nation require a strong commitment to resource stewardship and management to ensure both the protection and enjoyment of these resources for future generations.



The arrowhead was authorized as the official National Park Service emblem by the Secretary of the Interior on July 20, 1951. The sequoia tree and bison represent vegetation and wildlife, the mountains and water represent scenic and recreational values, and the arrowhead represents historical and archaeological values.

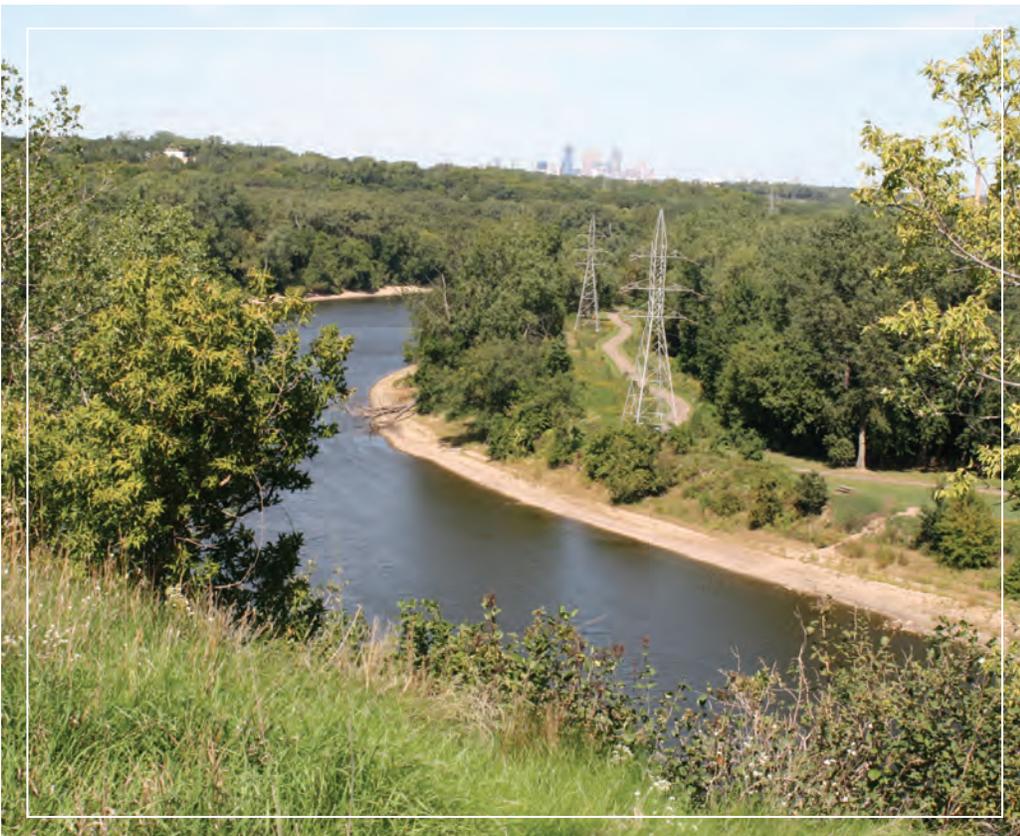


Introduction

Every unit of the national park system will have a foundational document to provide basic guidance for planning and management decisions—a foundation for planning and management. The core components of a foundation document include a brief description of the park as well as the park’s purpose, significance, fundamental resources and values, and interpretive themes. The foundation document also includes special mandates and administrative commitments, an assessment of planning and data needs that identifies planning issues, planning products to be developed, and the associated studies and data required for park planning. Along with the core components, the assessment provides a focus for park planning activities and establishes a baseline from which planning documents are developed.

A primary benefit of developing a foundation document is the opportunity to integrate and coordinate all kinds and levels of planning from a single, shared understanding of what is most important about the park. The process of developing a foundation document begins with gathering and integrating information about the park. Next, this information is refined and focused to determine the most important attributes of the park. The process of preparing a foundation document aids park managers, staff, and the public in identifying and clearly stating in one document the essential information that is necessary for park management to consider when determining future planning efforts, outlining key planning issues, and protecting resources and values that are integral to park purpose and identity.

While not included in this document, a park atlas is also part of a foundation project. The atlas is a series of maps compiled from available geographic information system (GIS) data on natural and cultural resources, visitor use patterns, facilities, and other topics. It serves as a GIS-based support tool for planning and park operations. The atlas is published as a (hard copy) paper product and as geospatial data for use in a web mapping environment. The park atlas for Mississippi National River and Recreation Area is available at: <http://insideparkatlas.nps.gov/>.



Part 1: Core Components

The core components of a foundation document include a description of the park, park purpose, significance statements, fundamental resources and values, and interpretive themes. These components are core because they typically do not change over time. Core components are expected to be used in future planning and management efforts.

Brief Description of Mississippi National River and Recreation Area

The Mississippi River is one of the world’s renowned rivers. While 10 national park units lie along or touch the Mississippi River, only one national park unit has the river as its focus and mission. That park is the Mississippi National River and Recreation Area (NRRRA). Congress established the national river and recreation area to protect, preserve, and enhance the nationally significant historic, cultural, natural, scenic, recreational, scientific, and economic resources of a 72-mile reach of the Mississippi River.

Although the national river and recreation area is only 72 miles long, the Mississippi River’s character changes more here than anywhere else along its 2,350-mile course. The river enters the northern corridor as a free-flowing prairie river and moves downstream to plunge over St. Anthony Falls and into the river’s narrowest gorge. Eight and one-half miles later, the river exits the gorge to become the country’s dominant floodplain river and part of the largest inland navigation system on earth. Through the eight and one-half mile gorge, the Mississippi drops more than 110 feet, the river’s steepest descent anywhere. The river’s rapidly changing character explains why the national river and recreation area has such a unique concentration of nationally significant resources.

The national river and recreation area boasts a concentration of historical and cultural resources central to the American narrative. These resources cover some 10,000 years of human history, including stories and places associated with American Indians, European explorers and traders, and those who settled and developed one of the river’s most important urban areas.



The national river and recreation area features St. Anthony Falls, the Mississippi River's only major waterfall and a place of national and international stories. After his visit in 1680, French missionary Louis Hennepin became the first European to describe the cataract. His published account made St. Anthony Falls "a landmark in the wilderness," a destination for other early European, colonial, and American explorers. As St. Anthony Falls' fame rose, the falls became a destination for tourists, writers, and painters from around the country and the world. Settlers and entrepreneurs saw a different kind of value in the falls. By 1880, St. Anthony Falls gave rise to lumber and flour milling industries that led the nation and, at times, the world in production.

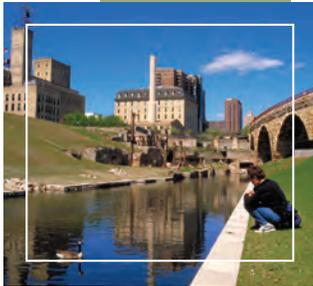
The national river and recreation area includes a critical nexus on the Mississippi Flyway. About one-half of North America's bird species and 40% of waterfowl use this nationally and internationally significant flyway. Birds migrating up the Mississippi River branch off at three key points within the national river and recreation area. Returning up the Mississippi from their wintering grounds, some birds leave the mainstem to follow the St. Croix River and continue on toward Lake Superior. The Mississippi's large floodplain and bottomland forest ecosystem, which the birds have followed for from hundreds to more than two thousand miles, ends at the confluence of the Mississippi and Minnesota rivers, near the middle of the national river and recreation area. Many migrating birds continue up the broad and ecologically diverse Minnesota River valley, the last four miles of which lie in the park. Other birds follow the now much smaller Mississippi River. In the fall, migrating birds converge through the three routes to continue down the great river.

The Mississippi National River and Recreation Area includes, connects, and offers access to an exceptionally large number of nationally and state-designated scenic, natural, and recreational trails, byways, and corridors.

- The national river and recreation area binds together 89 state, regional, and local parks along the river that serve more than 7.9 million visitors. Of the park's 54,000 acres, open water comprises 15,079 acres or 27.9%, and this does not include all the undeveloped islands and floodplains. Parks account for another 14,331 acres, or 26.5%.
- The recreational reach of the state-designated Wild and Scenic Mississippi River extends into the corridor's northern reaches. Also, the recreational reach of the state-designated Wild and Scenic Rum River begins near the Rum's confluence with the Mississippi.
- The Great River Road National Scenic Byway runs the length of the national river and recreation area, sometimes on both sides of the river. The national river and recreation area forms a 9-mile link of the 50.1-mile Grand Rounds National Scenic Byway.
- The Minnesota Valley National Wildlife and Fish Refuge and the national river and recreation area join boundaries on the Minnesota River. The St. Croix National Scenic Riverway and the national river and recreation area join at the mouth of the St. Croix River.
- The national river and recreation area features two Minnesota Scientific and Natural Areas, and the entire national river and recreation area is included in two of the National Audubon Society's Important Bird Areas. Saint Paul has the largest heron rookery in an urban area in the United States.
- In 2012, the national river and recreation area became a National Water Trail, and much of the river is a State Water Trail. Many trails along the river are part of the Mississippi River Trail, a 3,000-mile bicycle route that follows the Mississippi River through 10 states from its source, at Lake Itasca in northern Minnesota, to the Gulf of Mexico. The White House designated this trail a National Millennium Trail in 2000.



Six dams define the Mississippi River’s ecosystem in the national river and recreation area. They impound about 59 miles of the Mississippi River and all 4 miles of the Minnesota River in the national river and recreation area, creating pools or reservoirs. Five of the dams have locks and four have hydroelectric power plants. The dam furthest upstream lies above the head of navigation and was built for hydroelectric power only, although the plant closed in 1966. For two short reaches in the northern corridor, the Mississippi River runs free. These are the river’s last two uncontrolled reaches before the Mississippi empties into the Gulf of Mexico. Despite the reservoirs, the Mississippi River possesses a rich, diverse, and abundant array of fish and wildlife. Still, the impounded reaches in the national river and recreation area are suffering from many of the same consequences seen throughout the upper Mississippi River.



Visitors can experience a river that is intensely urban and yet can also escape to primeval backwaters. They can travel on the big river, where they might encounter towboats pushing barges loaded with grain or gravel, large pleasure boats, fishing boats, canoes and kayaks, or they can enjoy a secluded side channel by themselves. They might see bald eagles, herons, pelicans, warblers, and river otters, or catch a trophy walleye or bass.

The economic power of the Twin Cities area derives from its location along the Mississippi River. Historically, Saint Paul lay at the river’s upper end for safe steamboat navigation—the bookend to New Orleans—and became the river’s head of navigation. Minneapolis captured the power of St. Anthony Falls to become the flour and lumber milling capital of the nation as well as a national leader in early hydroelectric technology. The river allowed the Twin Cities to grow into the Mississippi’s largest metropolitan area and one of the largest in the Midwest. The Mississippi is still central to the Twin Cities’ and region’s economy in ways old and new.

For its first 22 years, the Mississippi National River and Recreation Area focused on developing partnerships in the corridor’s 25 communities and 5 counties and spent little time on its own lands. Out of the 54,000 acres encompassed in the NRRRA boundaries, the park owned only 35 acres on 9 islands. Other than removing invasive species and unauthorized camp sites, the park left the islands alone. The park did not need law enforcement or maintenance staff. This changed in January 2010 when the Department of Interior placed the 27.3-acre former Bureau of Mines, Twin Cities Research Center property under the park’s management. Over the next two years, the park completed plans and specifications for removing a dozen buildings and related infrastructure and for restoring the land to park and open space. The site closed in November 2011 for the demolition and restoration project and reopened to the public on September 1, 2012. The property is now the NRRRA Coldwater Spring unit.

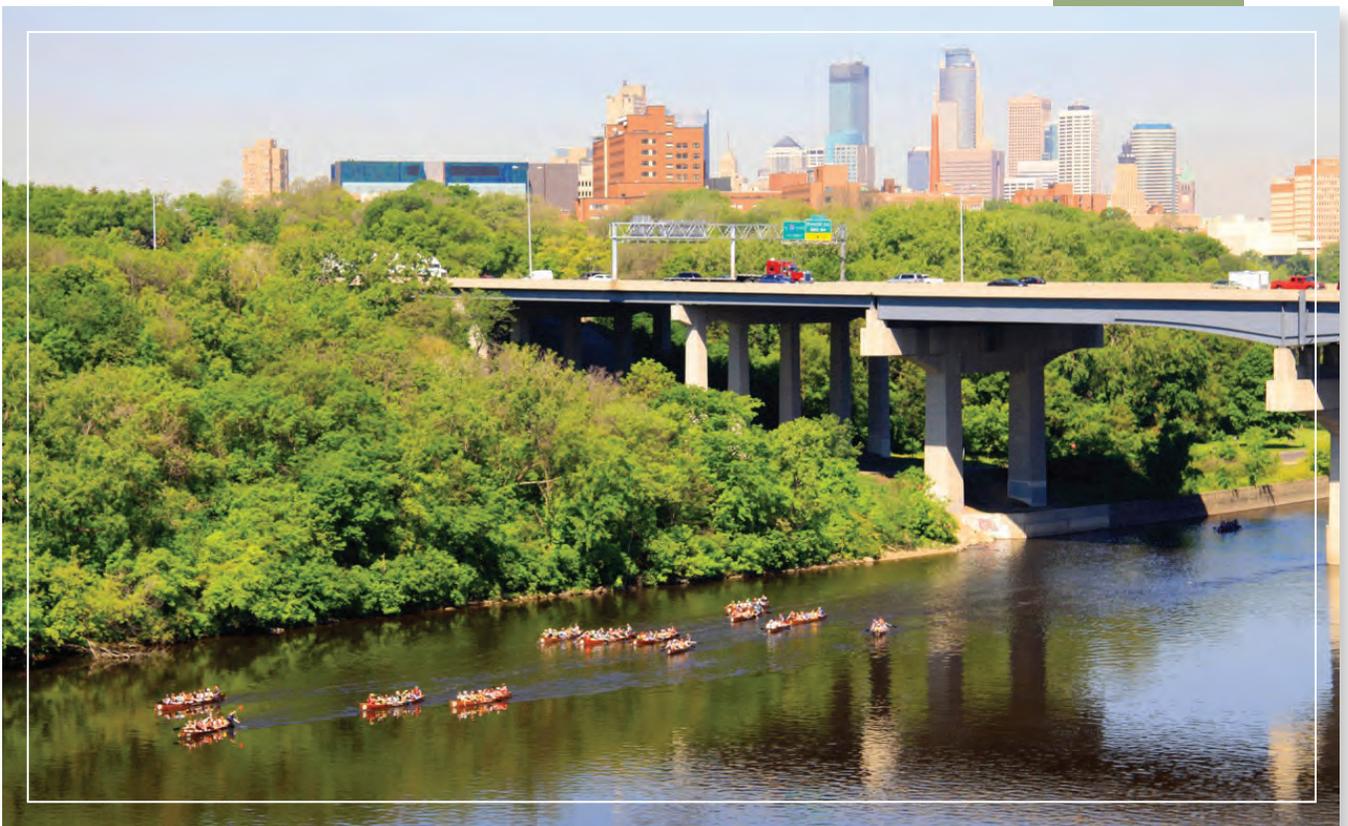
Coldwater Spring has forced the park to establish new priorities. The national river and recreation area now has maintenance and law enforcement needs and is still working to restore an oak savanna and bluff-top woodland on the property. Coldwater Spring could receive tens of thousands of visitors in the next few years. Immediately to the north, Minnehaha Park receives about 1.4 million visitors per year, historic Fort Snelling to the south gets about 80,000, and the nearby Fort Snelling State Park attracts more than 900,000. For the immediate future, the park will need to spend much more time on its own property than elsewhere in the corridor.

Fortunately, the national river and recreation area has developed many partnerships and a robust volunteer program. The Mississippi River Fund, the park’s charitable partner, has provided funding that allows the Mississippi National River and Recreation Area to conduct a wide array of educational, recreational, and environmental programs. Friends of the Mississippi River has joined with the park to engage the public on critical issues. The list of partners is too long to acknowledge here, but at its roots, the national river and recreation area is a partnership park.

Park Purpose

The purpose statement identifies the specific reason(s) for establishing a particular park. The purpose statement for Mississippi National River and Recreation Area was drafted through a careful analysis of its enabling legislation and the legislative history that influenced the park's development. The park was established when the enabling legislation adopted by Congress was signed into law on November 18, 1988. (The enabling legislation is in appendix A.) The purpose statement lays the foundation for understanding what is most important about the national river and recreation area.

The purpose of Mississippi National River and Recreation Area is to promote the protection, preservation, enhancement, and enjoyment of the nationally significant resources and values of the Mississippi National River and Recreation Area through cooperative federal, state, and local comprehensive planning, management, and coordination.



Park Significance

Significance statements express why the resources and values of the park are important enough to merit designation as a unit of the national park system. These statements are linked to the purpose of the park and are supported by data, research, and consensus. Statements of park significance describe the distinctive nature of the park and why an area is important within a global, national, regional, and systemwide context. They focus on the most important resources and values that will assist in park planning and management.

The following significance statements have been identified for Mississippi National River and Recreation Area. (Please note that the sequence of the statements does not reflect the level of significance.)



1. **The Mississippi River.** The Mississippi River is one of the world’s most renowned rivers. Only one national park unit has a specific reach of the great river as its focus and mission, and that park is the Mississippi National River and Recreation Area.
2. **Unique Character.** The Mississippi River’s character changes more in the Mississippi National River and Recreation Area than anywhere else along its 2,350-mile course. The river’s rapidly changing character explains why the national river and recreation area has such a high concentration of significant historic, cultural, natural, scenic, recreational, scientific, and economic resources.
3. **St. Anthony Falls.** The Mississippi National River and Recreation Area features St. Anthony Falls, the Mississippi River’s only major waterfall and a place of national and international stories.
4. **Historical and Cultural Sites and Stories.** The Mississippi National River and Recreation Area boasts a concentration of historical and cultural resources central to the American narrative. These resources cover more than 12,000 years of human history, including stories and places associated with American Indians, European explorers and traders, and those who settled and developed one of the river’s most important urban areas.



5. **Mississippi River Flyway.** In the Mississippi National River and Recreation Area, the nationally and internationally significant Mississippi River Flyway reaches one of its most important intersections.
6. **Scenic and Recreational Resources and Opportunities.** The Mississippi River in the Mississippi National River and Recreation Area includes, connects and offers access to an exceptionally large number of nationally and state-designated scenic, natural, and recreational trails, rivers, byways, and corridors. It binds together 89 state, regional, and local parks along the river that serve more than 7.9 million visitors annually.
7. **Economic Resources.** Anchored by Minneapolis and Saint Paul, the Mississippi River's largest urban area lies within the Mississippi National River and Recreation Area. Saint Paul lay at the river's upper end for safe steamboat navigation and became the river's head of navigation, the bookend to New Orleans. Minneapolis captured the power of St. Anthony Falls to become the flour and lumber milling capital of the nation as well as a national leader in early hydroelectric technology. The Mississippi is still central to the Twin Cities' and region's economy.
8. **Paleontology.** The Mississippi National River and Recreation Area possesses the best Ordovician Period fossil record of any unit of the national park system. The Ordovician Period dates from 488.3 million to 443.7 million years ago.

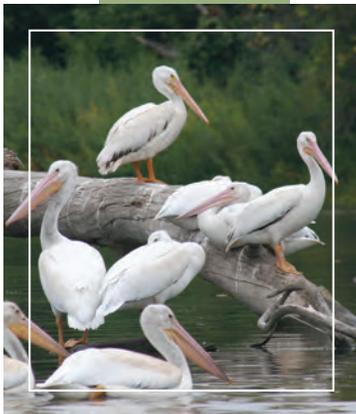


Fundamental Resources and Values

Fundamental resources and values (FRVs) are those features, systems, organisms, processes, visitor experiences, stories, scenes, sounds, smells, or other attributes of the park determined to warrant primary consideration during planning and management processes because they are essential to achieving park purpose and maintaining park significance. Fundamental resources and values are closely related to a park’s legislative purpose and are more specific than significance statements.

Fundamental resources and values help focus planning and management efforts on what is truly significant about the park. One of the most important responsibilities of NPS managers is to ensure the conservation and public enjoyment of those qualities that are essential (fundamental) to achieving the purpose of the park and maintaining its significance. If fundamental resources and values are allowed to deteriorate, the park purpose and/or significance could be jeopardized.

The following fundamental resources and values have been identified for Mississippi National River and Recreation Area:



- Cultural and historic sites that owe their national significance to their presence along the Mississippi River.
- Economic resources supported by the Mississippi River in the national river and recreation area that are integral to the nation’s economy.
- Collaborative relationships with governments, private sector organizations, nonprofits, schools, and individuals that help the park to achieve its purpose.
- Healthy aquatic ecosystems that provide for a rich and diverse assemblage of fish, mussels, macro-invertebrates, and other species, as well as the opportunity for scientific study.
- Healthy terrestrial ecosystems that provide for a rich and diverse assemblage of plants and animals, as well as the opportunity for scientific study.
- Birds that rely on the Mississippi River Flyway in the national river and recreation area to provide nesting, resting, and feeding habitat.
- Scenic views that allow people to experience the distinctive landscapes of the national river and recreation area.
- Outdoor recreation opportunities and experiences that connect visitors with the river and its natural places, its cultural and historic sites, and its scenic vistas.
- The presence of bluffs, caves, waterfalls, and fossil beds that demonstrate the unique geologic character of the Mississippi River in the national river and recreation area.
- Clean water that supports human use of the Mississippi River and vibrant ecosystems in the national river and recreation area.



Interpretive Themes

Interpretive themes are often described as the key stories or concepts that visitors should understand after visiting a park. These themes define the most important ideas or concepts communicated to visitors about a park unit. Themes are derived from, and should reflect, park purpose, significance, resources, and values. The set of interpretive themes is complete when it provides the structure necessary for park staff to develop opportunities for visitors to explore and relate to all of the park significance statements and fundamental resources and values.

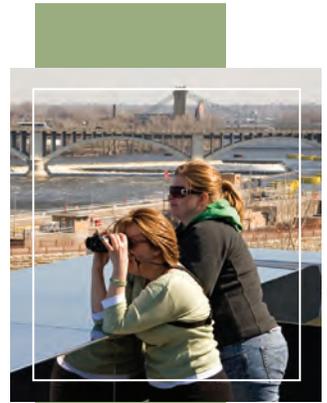
Interpretive themes are an organizational tool that reveal and clarify meaning, concepts, contexts, and values represented by park resources. Sound themes are accurate and reflect current scholarship and science. They encourage exploration of the context in which events or natural processes occurred and the effects of those events and processes. They go beyond a mere description of the event or process to foster multiple opportunities to experience and consider the park and its resources. Themes help explain why a park story is relevant to people who may otherwise be unaware of connections they have to an event, time, or place associated with the park.

The following interpretive themes have been identified for Mississippi National River and Recreation Area:

Entire River

The Mississippi is recognized globally as one of the world's great rivers. Within the Mississippi National River and Recreation Area are landscapes, stories and resources that represent those of the entire river and that have awed and inspired people for centuries.

- The Mississippi River Basin gathers waters that flow from more than 40 % of the continental United States, making it the nation's largest river system. The waters of the river system connect, sustain, and sometimes threaten people's lives across the basin.



- The Mississippi National River and Recreation Area receives waters from diverse watersheds of Minnesota, including forested, agricultural, and urban lands. Each watershed connects people upstream and downstream, linking livelihoods and health.
- Nowhere else on the river's length does the river's character change so much in so short a distance as it does in the national river and recreation area. The river enters the corridor as a free-flowing prairie river and leaves it as part of the country's dominant floodplain river and largest inland navigation system.



Geology

Powerful geologic forces over vast timeframes gave shape to the Mississippi in the national river and recreation area, providing for the distinctive character and geography of the Twin Cities area.

- The river valley in the national river and recreation area reveals sedimentary strata and a high-quality assemblage of Ordovician fossils that are approximately 454–460 million years old, offering a glimpse of life long past.
- A torrent of meltwater from retreating glaciers 10,000–12,000 years ago shaped the landscape of the upper Mississippi River, including the national river and recreation area, and must have awed the area's first peoples.
- Saint Anthony Falls and the landscape created by its retreat have drawn people to the river for 12,000 years and are responsible for shaping human relationships to the Mississippi River, from ancient times to the present. From spiritual awe and artistic inspiration to industrial power and economic ambition, such relationships continue today, sometimes in conflict.
- The corridor's geologic character and resources have been shaped and used for glassmaking, mushroom cultivation, cheese making, brewing, brick manufacture, and storage.
- The river's geologic character continues to change, along with our relationship to the river's geologic features and resources.

Cultures

The stories of human life along the Mississippi River have unfolded over 12,000 years and are intimately connected to the resources provided by the river. People of different cultures have interacted with each other—sometimes cooperatively, sometimes in conflict—as a result of common relationships to the river and its resources.

- Archeological evidence in the Mississippi National River and Recreation Area documents the choices early people made to settle near the food resources and transportation opportunities the river provided. This evidence also shows that trade and cultural relationships among native peoples have taken place for thousands of years.
- Powerful international economic ambitions and opportunities brought native people together with European American traders from France, Britain, and the United States through the fur trade for an exchange of cultures, goods, and sometimes intermarriage.
- The confluence area of the Minnesota and Mississippi rivers and other sites in the national river and recreation area hold cultural importance and are part of the ancestral homeland for Dakota and other Americans Indians.
- Fort Snelling established the presence and authority of the United States on the Upper Mississippi, providing a sense of safety and security to increasing numbers of settlers and an uncertain future for many native people.
- The river has attracted numerous immigrant groups over the years and remains a place of cultural interaction today.

Economy

The Mississippi's economic value is broad, and its influence extends far from its shoreline. This economic value includes hydropower, navigation, scenery, recreation, natural resources, cultural resources, and municipal water supply. Economic activity has shaped the river historically and continues to do so today.

- Using the hydropower of Saint Anthony Falls, the Minneapolis lumber milling industry was once the largest in the nation. Driven by rapidly changing technology together with economic ambition and opportunity, it transformed the landscape of the Mississippi River watershed upstream of the city.
- The flour milling industry in Minneapolis changed the way food was grown, processed, and marketed around the world, and still affects how we eat today. Saint Anthony Falls led the nation, and at times the world, in flour production for 50 years.
- Saint Paul's historic position as head of navigation led to its early growth.
- The river has been highly engineered to create a channel deep enough for barges that transport agricultural and other bulk commodities. The Mississippi's commercial navigation channel begins in the national river and recreation area.
- Since the 1830s, the NRRA's scenic, natural, and cultural resources, as well as river transportation, have supported a tourism industry and that industry continues to thrive today.
- Recreational opportunities and enjoyment of natural amenities provided by the river have encouraged economic development compatible with conservation and historic preservation, while also supporting quality of life and property values.
- The Mississippi River in the national river and recreation area provides drinking water for nearly one million people, sustaining the lives of area residents daily.



Ecology

The Mississippi River supports diverse ecosystems. Despite running through a large urban area and being intensively managed, the river is a place with many natural areas that are a refuge and home for wildlife.

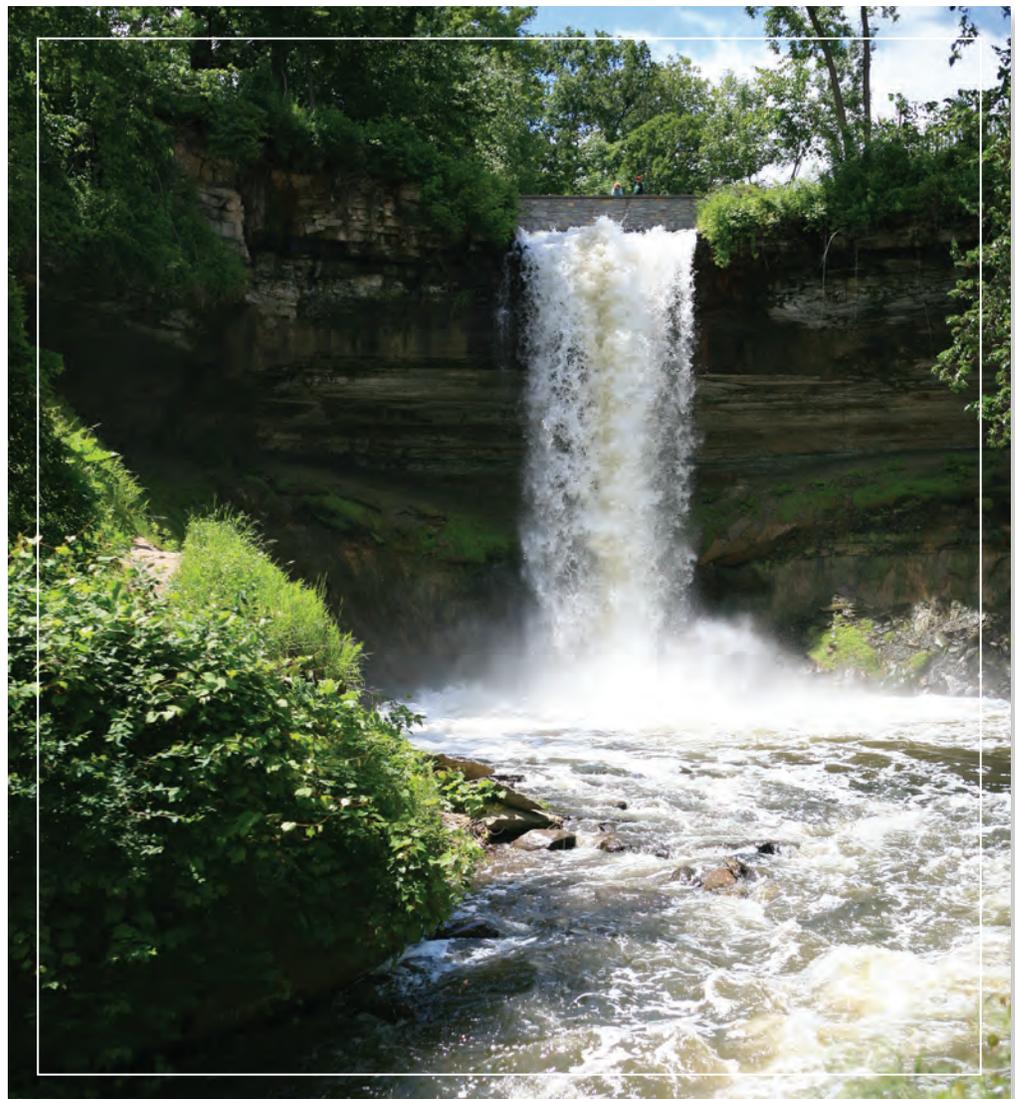
- The national river and recreation area includes vital aquatic, terrestrial, and avian habitats that support a robust diversity of fish, aquatic invertebrates, mammals, and birds. The Mississippi River Flyway supports more than half the bird species in the United States, and the national river and recreation area features a key reach of the flyway. Riparian areas are especially rich habitats that may be readily explored in the national river and recreation area.
- The river's ecosystems have rebounded following periods of intensive river pollution; disruption from engineering, urban, and agricultural runoff; and stress from invasive species. They have also benefited from the efforts of people working together to control pollution, preserve and restore habitat, manage invasive species, and restore threatened and endangered native species.
- Modern threats to the river's health in the national river and recreation area include invasive carp, zebra mussels, new chemical contaminants, bacteria, nutrients, increased flow, and climate change.
- Climate change threatens river ecology and people alike as it can lead to increasing floods, droughts, sedimentation, and water temperature, decreasing oxygen levels in the water, and disruptions of river's natural cycles.
- The river's ecological health depends on collaborative actions to care for the river. The river's health and people's health are connected.



Recreation and Scenery

River recreation and scenery provide opportunities for all people to enjoy the national river and recreation area, experience its stories, and find their own connections to the river and its meanings.

- Scenic, social, and recreational values of the river provided reasons to establish 19th century parklands that later became part of the Grand Rounds National Scenic Byway, a portion of which is within the national river and recreation area, where thousands of people hike and bike every day.
- Scenic river views attract interest, create connection, and inspire caring for the river.
- Recreation on and along the river—including boating, paddling, fishing, biking, bird watching, hiking, picnicking, and more—actively engages visitors with river resources, places, and stories, creating a renewed sense of place and a foundation for river stewardship.
- The Mississippi River in the national river and recreation area has long been, and remains today, a place for journeys. Going on a river journey, by day trip or expedition, provides a quintessential river experience that creates a bond between visitor and river.



Part 2: Dynamic Components

The dynamic components of a foundation document include special mandates and administrative commitments and an assessment of planning and data needs. These components are dynamic because they will change over time. New special mandates can be established and new administrative commitments made. As conditions and trends of fundamental resources and values change over time, the analysis of planning and data needs will need to be revisited and revised, along with key issues. Therefore, this part of the foundation document will be updated accordingly.

Special Mandates and Administrative Commitments

Many management decisions for a park unit are directed or influenced by special mandates and administrative commitments with other federal agencies, state and local governments, utility companies, partnering organizations, and other entities. Special mandates are requirements specific to a park that must be fulfilled. Mandates can be expressed in enabling legislation, in separate legislation following the establishment of the park, or through a judicial process. They may expand on park purpose or introduce elements unrelated to the purpose of the park. Administrative commitments are, in general, agreements that have been reached through formal, documented processes, often through memorandums of agreement. Examples include easements, rights-of-way, arrangements for emergency service responses, etc. Special mandates and administrative commitments can support, in many cases, a network of partnerships that help fulfill the objectives of the park and facilitate working relationships with other organizations. They are an essential component of managing and planning for Mississippi National River and Recreation Area.

Special Mandates

- **Authorizing Legislation.** Sec. 704(b)(1) requires that the national river and recreation area review any action by other federal agencies within the corridor.
- **Fort Snelling.** The General Services Administration transferred the properties known as the Upper and Lower Posts to the State of Minnesota under the Historic Surplus Property Program but retained an oversight role in how the properties are treated. The National Park Service implements the oversight role through the national river and recreation area.
- **Coldwater Spring Property.** Under the Record of Decision signed January 15, 2010, the Secretary of the Interior placed ownership of this property under the national river and recreation area and directed that it be managed it as park and open space.

Administrative Commitments

- **Memorandums of Understanding.**

Veterans Administration—This memorandum of understanding is awaiting comments from the Veterans Administration. It will establish the national river and recreation area as the manager of 18 acres of a 22-acre parcel north of and adjacent to the Coldwater Spring property. The understanding is that the National Park Service and Veterans Administration will work toward an eventual transfer of 18 acres to the National Park Service.

Minnesota Historical Society (MHS)—This memorandum of understanding is under development with the Minnesota Historical Society. It will give the national river and recreation area permission to

manage trails and natural and cultural resources on the 25.5 acres of MHS property east of and adjacent to the Coldwater Spring property as needed.

Minnesota Department of Natural Resources—The national river and recreation area plans to develop a memorandum of understanding similar to the those with the Veterans Administration and Minnesota Historical Society concerning an area of land to the south of the Coldwater Spring property.

- **Agreements.**

All the agreements can readily be accessed through the park’s chief administrative officer. Only the key current agreements are presented here.

Fort Snelling Joint Powers Agreement—In September 2012, the national river and recreation area signed a joint powers agreement with the Minnesota Department of Natural Resources, Hennepin County, the Minnesota Historical Society, and the Minneapolis Park and Recreation Board to jointly work on the restoration and adaptive reuse of the fort.

Mississippi River Fund—The park’s friends group, the Mississippi River Fund, has had a formal agreement with the National Park Service since 2007. This agreement covers certain fundraising and philanthropic activities that are intended to benefit the national river and recreation area.

Nice Ride Minnesota—This agreement is for implementing a multimodal alternative transportation plan for the national river and recreation area. The alternative transportation plan outlines a strategy for developing a seamless and recognizable alternative transportation system that gets visitors to the river without a car. It includes more than 50 Nice Ride Minnesota bike share stations that connect to existing transit facilities (bus, light and high speed rail) and water access. More than \$2.33 million was provided by the Paul S. Sarbanes Transit in Parks Program and federal Park Roads and Parkways Program funds to implement this project.

The University of Minnesota’s Bell Museum of Natural History—This memorandum of understanding is under development with the Bell Museum in the form of a custodianship agreement. It gives the museum permission to house and manage natural resource collections obtained from NPS-owned properties in perpetuity.

Memorandum of Agreement with Freshwater Society – FarmWise Program—In 2011, the Freshwater Society and the National Park Service received initial seed funding for the Minnesota FarmWise program, which the two parties developed in partnership. The details of the program have been developed by the partner organizations as it has continued to evolve. The goals of this program are to increase the voluntary adoption of water-friendly farming practices in Minnesota, including through the promotion of farmer-to-farmer networking and education. The organizations have a memorandum of agreement to assure that each party’s goals continue to be met by participation in the program—and that each party has clear roles—as the program continues to mature.

Science Museum of Minnesota—The park has had a cooperative agreement with the Science Museum of Minnesota since 2000. The cooperative agreement was used to fund the Mississippi River Gallery, Mississippi River Visitor Center, exhibit work, and joint programming opportunities. The park and the museum are currently revisiting the appropriateness of the cooperating agreement and considering replacing it with a memorandum of agreement.

Wilderness Inquiry—The national river and recreation area and Wilderness Inquiry have a cooperative agreement used to help fund the partnership program called the Urban Wilderness Canoe Adventures, which puts kids on and teaches them about the Mississippi River in the national river and recreation area.

Assessment of Planning and Data Needs

Once the core components of part 1 of the foundation document have been identified, it is important to gather and evaluate existing information about the park's fundamental resources and values, and develop a full assessment of the park's planning and data needs. The assessment of planning and data needs section presents planning issues, projects that will address these issues, and the associated information requirements for planning, such as resource inventories and data collection, including GIS data.

There are three sections in this assessment:

1. analysis of fundamental resources and values
2. identification of key issues and associated planning and data needs
3. identification of planning and data needs (including spatial mapping activities or GIS maps)

The analysis of fundamental resources and values and the identification of key issues leads to and supports the identification of planning and data collection needs.



Analysis of Fundamental Resources and Values

The fundamental resource or value analysis table includes current conditions, potential threats and opportunities, planning and data needs, and selected laws and NPS policies related to management of the identified resource or value.

Fundamental Resource or Value	Cultural and historic sites that owe their national significance to their presence along the Mississippi River
Related Significance Statement(s)	<ul style="list-style-type: none"> The Mississippi River Historical and Cultural Sites and Stories
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> Archeological resources – Condition is unknown for most archeological resources. Cultural landscapes – Only one nationally significant landscape has been evaluated in the corridor. Historic structures and sites – Most of the nationally significant historic structures and sites in the corridor need preservation and restoration work. Ethnographic resources – No survey for such resources has been completed other than for the Coldwater Spring area. The national river and recreation area has completed three major studies of the Coldwater Spring site and is continuing to work with Dakota tribes and others to protect and improve this site. <p>Trends</p> <ul style="list-style-type: none"> The trends for archeological resources, ethnographic resources, and cultural landscapes are unknown as the park has little data regarding them and no cultural resources staff person to gather and assess what data exist. Many historic structures and sites are deteriorating and need significant preservation and restoration efforts. Some key nationally significant structures and sites are getting attention—such as Fort Snelling’s Upper Post—but the long-term success of this attention is not yet certain. More detail on the condition and trends of cultural and historic sites is provided in the 2013 <i>State of the Park Report</i>. http://www.nps.gov/stateoftheparks/miss/index.cfm
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> A key threat is the lack of knowledge about the nature, significance, and condition of most of the cultural and historic sites in the corridor. Urban expansion and development. The difficulty in getting funding to preserve and repair the nationally significant sites is also a threat, especially because most of these sites are large and require millions of dollars for maintenance and restoration. <p>Opportunities</p> <ul style="list-style-type: none"> Public interest in archeological and historic sites is strong, and the metropolitan area has people and organizations dedicated to historic preservation work. The potential for adaptively reusing historic buildings is high due to the availability of state and federal tax credits of 20% each.
Data and/or GIS Needs	<ul style="list-style-type: none"> Comprehensive mapping of all the cultural resources in the corridor, with multiple layers of data for each of the nationally significant sites. A corridorwide survey for archeological sites. An update to the historic resources study archeological and historic site inventory. A cultural landscape assessment for the corridor. An ethnographic resources assessment for the corridor. An archeological survey of the lands bordering on Coldwater Spring.

Fundamental Resource or Value	Cultural and historic sites that owe their national significance to their presence along the Mississippi River
Planning Needs	<ul style="list-style-type: none"> • Cultural resources management plan for the Coldwater Spring unit and surrounding lands. • A cultural resources strategy for lands not under the national river and recreation area's control. • An interpretive plan for the Coldwater Spring unit.

Fundamental Resource or Value	Economic resources supported by the Mississippi River in the national river and recreation area that are integral to the nation's economy
Related Significance Statement(s)	<ul style="list-style-type: none"> • The Mississippi River • Economic Resources
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • The Mississippi is a working river. • The Mississippi River is an economic driver of development in the corridor. • The river is a tourism destination. <p>Trends</p> <ul style="list-style-type: none"> • Commercial use of the river for navigation above Lock and Dam 1 is declining. • Industrial uses along the river are declining. • Park, recreational, and preserved land within the national river and recreation area is increasing, resulting in <ul style="list-style-type: none"> » increased property values and tax base » increased recreational opportunities » increased tourism opportunities » increased wildlife diversity and abundance » increased private investments spurred from public investments » reduced emissions and impacts on park resources
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • Asian carp and other aquatic and terrestrial invasive species threaten fishing, boating, and other activities that provide economic benefits. • Inappropriate development and use within the corridor threaten the positive economic trends noted above and the ability of the river to remain an economic driver. <p>Opportunities</p> <ul style="list-style-type: none"> • The Minneapolis Park and Recreation Board adopted the RiverFIRST master plan in 2013. This plan looks to strengthen Minneapolis's identity as a river city, leveraging the Mississippi's renown as a source for economic development and community and cultural vitality. • Saint Paul adopted the Great River Passage Master Plan in 2013 to accomplish the same end. • Increased public awareness and connections to the river. • Continued acquisition, preservation, and restoration of land along the river. • The Mississippi River Corridor Critical Area rules are being updated and could result in positive changes for the economy of the river's communities and protect and preserve the river's fundamental resources and values.

Fundamental Resource or Value	Economic resources supported by the Mississippi River in the national river and recreation area that are integral to the nation’s economy
Data and/or GIS Needs	<ul style="list-style-type: none"> • Quantifiable data on economic benefits of the river with regard to <ul style="list-style-type: none"> • public lands • river access • fishing • boating • shipping • taxes • tourism • recreation • private investment • ecosystem services • Updated zoning information for the Mississippi River corridor, including a comprehensive map. • A comprehensive map of existing and projected future land use.
Planning Needs	<ul style="list-style-type: none"> • Create a “Riverfront Development Model Ordinance” to guide development along the river. (Update comprehensive management plan “Appendix C: Sample Design Guidelines.”)



Fundamental Resource or Value	Collaborative relationships with governments, private sector organizations, nonprofits, schools, and individuals that help the park to achieve its purpose
Related Significance Statement(s)	<ul style="list-style-type: none"> All the significance statements apply here
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> The national river and recreation area has developed many strong partnerships in all the arenas in which it works. A core of approximately 20 local partners (agencies, nonprofits, schools, and educational groups) are led by the national river and recreation area to connect school children to the science, heritage, and stewardship of the Mississippi River and its watershed, serving more than 10,000 students per year. More than 70 local groups (cities, watershed groups, state agencies, and nonprofits) collaborate as the Metro WaterShed Partners to conduct public outreach for clean water and preventing pollution. The national river and recreation area serves on the steering committee of this partnership. The national river and recreation area plays a lead coordinating role in the Trails and Open Space Partnership, which is a coalition of more than 50 agencies and organizations that are working together to achieve a continuous land- and water-based recreation trail, open space, and an alternative transportation system. Depending on the issue, project, or program, the national river and recreation area is able to bring together or participate in broad collaborations. The Mississippi River Fund was created in 2003 and is the national river and recreation area's official friends group. The Mississippi River Fund has invested \$1.5 million to support the NRRRA mission and programs. The Friends of the Mississippi River (FMR), a nonprofit group focusing on the NRRRA corridor, shares many of the same management goals and objectives and carries out preservation and restoration activities and engages in land use policy advocacy. <p>Trends</p> <ul style="list-style-type: none"> The number of partners collaborating on formal educational efforts has remained constant or grown modestly overall in recent years, while the number of students served overall continues to increase. The number of participating groups in the Metro WaterShed Partners has increased somewhat in recent years, indicating healthy collaborative relationships. The Mississippi River Fund continues to increase its visibility and strengthen its relationship to the national river and recreation area in name and administratively by nurturing volunteer programming, grant seeking for NRRRA-identified projects, and staff support. The FMR influence in the NRRRA corridor has grown significantly since its inception in 1993 and now stands at 1400 members and 9 full-time staff. The Friends of the Mississippi River continues to grow programming that supports the NRRRA mission and management goals in land stewardship, watershed protection, and land conservation.

Fundamental Resource or Value	Collaborative relationships with governments, private sector organizations, nonprofits, schools, and individuals that help the park to achieve its purpose
<p>Threats and Opportunities</p>	<p>Threats</p> <ul style="list-style-type: none"> • Maintaining all the partnerships the national river and recreation area has developed is hard as the staff size decreases. • Funding that sustains community relationships and collaborative projects is a challenge to find and is persistently uncertain. The NRRRA authorizing legislation provides for a grants program, but it has never been funded. • Due to reductions in federal spending, the national river and recreation area has had to cut back its support for some programs and cannot engage on key projects. The Mississippi River Fund and the Friends of the Mississippi River have had to pick up the slack. Work the national river and recreation area should be doing is now being funded and led by its partners or not being done. This is causing an imbalance in programmatic responsibility. <p>Opportunities</p> <ul style="list-style-type: none"> • As the NRRRA's reputation and visibility have increased, more organizations and agencies are seeking park help and participation. • Many of the park's partnership initiatives have received national attention, creating the potential to leverage more funding and expand partnerships. • The Mississippi River Fund is available to help with funding or leveraging funding for creative programs and projects. • Working more closely with the Friends of the Mississippi River could help the national river and recreation area engage in more resource management and protection.
<p>Data and/or GIS Needs</p>	<ul style="list-style-type: none"> • An online database for notification and tracking development proposals in the corridor.
<p>Planning Needs</p>	<ul style="list-style-type: none"> • A strategic plan more clearly defining the specific roles played by the NRRRA, the Mississippi River Fund, and the Friends of the Mississippi River.



<p>Fundamental Resource or Value</p>	<p>Healthy aquatic ecosystems that provide for a rich and diverse assemblage of fish, mussels, macro-invertebrates, and other species, as well as the opportunity for scientific study</p>
<p>Related Significance Statements</p>	<ul style="list-style-type: none"> • The Mississippi River • Unique Character • Mississippi River Flyway
<p>Current Conditions and Trends</p>	<p>Conditions</p> <ul style="list-style-type: none"> • River <ul style="list-style-type: none"> • Reservoirs created by locks and dams – Fifty-nine miles of the Mississippi River and all four miles of the Minnesota River in the national river and recreation area are impounded by dams. Due to the reservoirs created by the dams, the aquatic ecosystems are not characteristic of the once free-flowing river. This has changed the population mix and abundance of fish, mussels, and other species. • Free-flowing river – Thirteen miles of the Mississippi River, all in the northern part of the corridor, represent the last free-flowing reaches of the Mississippi River between the national river and recreation area and the Gulf of Mexico. Many more fish species are found in the free-flowing river than in the reservoirs. • Plants <ul style="list-style-type: none"> • Migrating waterfowl feed on tubers of wild celery (<i>Vallisneria Americana</i>) and arrowhead (<i>Sagittaria latifolia</i>). • Fish species tend to occur in backwater areas that are typically composed of Coon’s-tail or Hornwort (<i>Ceratophyllum demersum</i>) and Canada waterweed (<i>Elodea Canadensis</i>). • Due to impacts from the aging reservoirs, submerged aquatic plants are not as abundant as they should be, thus limiting habitat utility for many vegetation- and backwater-dependent species. • Wildlife <ul style="list-style-type: none"> • Macro-invertebrates are good indicators of climate change and healthy aquatic ecosystems. These insects have increased with improvements in water quality. • There is little research on macro-invertebrates to date in this stretch of river. • Turtle populations are stable, although in much lower numbers than in pools immediately below the boundary. • River otter populations are rebounding, and the park is currently trying to determine population size and genetic diversity. • Frogs are excellent indicators of climate change and water quality. Little is currently known about the NRRRA’s frog species. The park will be installing frog call recording to increase this knowledge. • Mussels – Several rare and endangered mussel species have been re-introduced to the national river and recreation area. The first species introduced are successfully reproducing. • Birds –See the FRV table for “Birds that rely on the Mississippi River Flyway to provide nesting, resting, and feeding habitat.”

<p>Fundamental Resource or Value</p>	<p>Healthy aquatic ecosystems that provide for a rich and diverse assemblage of fish, mussels, macro-invertebrates, and other species, as well as the opportunity for scientific study</p>
<p>Current Conditions and Trends</p>	<ul style="list-style-type: none"> • Invasive species <ul style="list-style-type: none"> • Asian carp – Bighead carp were caught near the mouth of the St. Croix River in 2012 and 2013, and grass, silver, and bighead were caught near Winona, Minnesota, in early 2013. A grass carp was caught in Pool 2 (the reservoir behind Lock and Dam No. 2) in June 2013. eDNA tests, while needing refinement, suggest silver carp are present in the corridor. • Zebra mussels – These mussels are found in the national river and recreation area but are not yet a serious problem. • Invasive aquatic plants – These are not currently a big problem within the national river and recreation area; however, several species are heading upriver that could become a major concern. • Purple loosestrife populations seem to have stabilized with the introduction of leaf-feeding beetles. Trends <ul style="list-style-type: none"> • River <ul style="list-style-type: none"> • Reservoirs created by locks and dams – Reservoirs are filling with sediment, taking away critical habitat. • Free-flowing river – No study of the trends for aquatic species for the two reaches has been undertaken. • Plants <ul style="list-style-type: none"> • Research (both inventory and monitoring) is needed to determine the trends for aquatic plant populations in different river reaches. • Wildlife <ul style="list-style-type: none"> • Macro-invertebrate populations vary depending on rainfall levels. • Turtle populations need more research. • Otters are returning to the corridor. • Many contaminant levels have been decreasing in the NRRRA’s bald eagle population over the last six years, although there are areas of elevated levels of perfluorooctane sulfonate (PFOS), DDT, and lead. • The park lacks data on trends for frog populations, but will begin to acquire this in Fiscal Year 2014. • Mussels are increasing within the national river and recreation area. • Invasive species <ul style="list-style-type: none"> • Asian carp – Bighead, silver, and grass carp are showing up more frequently in the national river and recreation area or close to it. • Zebra mussels – These mussels are slowly increasing in the national river and recreation area but currently do not pose a problem. • Need more information on the trends for invasive aquatic plant species. • Climate change <ul style="list-style-type: none"> • Climate change-related precipitation is increasing, which contributes to changes in the flow regime in the national river and recreation area.

Fundamental Resource or Value	Healthy aquatic ecosystems that provide for a rich and diverse assemblage of fish, mussels, macro-invertebrates, and other species, as well as the opportunity for scientific study
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • River <ul style="list-style-type: none"> • Reservoirs created by locks and dams <ul style="list-style-type: none"> ▪ Sedimentation in the reservoirs. ▪ Island and shore erosion is a terrestrial issue but also affects the overall aquatic ecosystem. • Free-flowing river – Some homes and businesses along this reach and above the Coon Rapids Dam have manicured their lawns to the river's edge, which can lead to nutrient runoff into the river and takes away edge habitat. • Wildlife <ul style="list-style-type: none"> • An increasing numbers of frogs have been found with deformities, with no general consensus as to cause. • Fish have elevated PFOS concentrations. • Fish – Seventy-three percent of smallmouth bass near the Pigs Eye Sewage Treatment Plant outlet exhibit intersex characteristics, probably due to concentrations of contaminants of emerging concern. This percentage represents the highest rate discovered in a national U.S. Geological Survey study. • Invasive species <ul style="list-style-type: none"> • Asian carp: Bighead, silver, and grass carp threaten other fish, mussels, and aquatic vegetation. • Water lettuce and water hyacinth have recently been found in Pool 5 of the Mississippi River. As few as 25 individual plants can expand to cover 10,000 square meters of water surface in one growing season, creating a thick, impenetrable mat of vegetation that prevents waterfowl from foraging. • Parrot feather, also known as Brazilian water milfoil, was recently discovered in Pool 5. Parrot feather is even more aggressive than Eurasian water milfoil and can quickly fill in an area and choke out native species. • Climate Change <ul style="list-style-type: none"> • Climate change is contributing to changes in water flow, volume, and temperature, all of which will affect the river's plant and animal life. <p>Opportunities</p> <ul style="list-style-type: none"> • River <ul style="list-style-type: none"> • Reservoirs Created by Locks and Dams – The Audubon Society and others are planning for a drawdown in Pool 3 to simulate pre-dam conditions. • Plants <ul style="list-style-type: none"> • The ability to do Pool 2 drawdowns would greatly increase the potential for native aquatic plant reoccurrence.

<p>Fundamental Resource or Value</p>	<p>Healthy aquatic ecosystems that provide for a rich and diverse assemblage of fish, mussels, macro-invertebrates, and other species, as well as the opportunity for scientific study</p>
<p>Threats and Opportunities</p>	<ul style="list-style-type: none"> • Wildlife <ul style="list-style-type: none"> • Macro-invertebrates – additional research in partnership with the University of Minnesota would give the park a good baseline on what species occur within the national river and recreation area, and these species could serve as good indicators of climate change. • Mussels – Continued reintroduction and monitoring of these populations will enhance their numbers throughout the national river and recreation area. • Otters – Additional research on this species could lead to a far better understanding on population levels, genetic diversity, and area of origin. • Frogs – Additional research will provide data on population size, diversity, and health as well as insights into possible causes of the deformities found in these amphibians. • Invasive Species <ul style="list-style-type: none"> • Asian carp – The University of Minnesota, U.S. Geological Survey, and others are conducting research to stop or slow these fish. • Saint Croix National Scenic Riverway and the National Park Service are working together on a research project to better understand key aquatic resources before the carp arrive. • Plants – The new species found in Pool 5 have not yet arrived in the national river and recreation area, so there is still the opportunity to stop these species from moving upriver.
<p>Data and/or GIS Needs</p>	<ul style="list-style-type: none"> • River <ul style="list-style-type: none"> • More research is needed to detail the continuing impacts of the river’s impoundments on its ecosystems. • Mapping of current aquatic habitat types throughout the national river and recreation area, including detailed aquatic plant inventories and data on species diversity, population size, and threats. A comparative study of the impounded and unimpounded reaches. • Plants <ul style="list-style-type: none"> • Mapping of areas that would most benefit aquatic plants if pool drawdowns are conducted in Pools 2 and 3. • Wildlife <ul style="list-style-type: none"> • Species diversity, population size, and threats for the majority of the individual species discussed above are needed. • Invasive species <ul style="list-style-type: none"> • Asian carp – The national river and recreation area needs to know more about where reproducing populations of each species are established on the Mississippi River. • Zebra mussels – A study to determine population extent and distribution within the corridor. • Invasive plant species need to be tracked and their movement recorded. • Climate change <ul style="list-style-type: none"> • Climate change trends related to the aquatic ecosystem.

Fundamental Resource or Value	Healthy aquatic ecosystems that provide for a rich and diverse assemblage of fish, mussels, macro-invertebrates, and other species, as well as the opportunity for scientific study
Planning Needs	<ul style="list-style-type: none"> • River – Ecosystem restoration planning for the various reaches of the river in the national river and recreation area. • Plants – Planning for impacts on aquatic populations resulting from a drawdown in Pool 2 would help with future park planning. • Wildlife – Strategies to cooperatively manage the species discussed, as well as strategies for future habitat improvement, would significantly benefit the majority of species listed. • Invasive species – Strategies on how to deal with the advance of invasive species is crucial to maintaining the habitat quality of the national river and recreation area.

Fundamental Resource or Value	Healthy terrestrial ecosystems that provide for a rich and diverse assemblage of plants and animals, as well as the opportunity for scientific study
Related Significance Statements	<ul style="list-style-type: none"> • The Mississippi River • Unique Character • Mississippi River Flyway
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • Terrestrial ecosystems <ul style="list-style-type: none"> • Floodplain – Due to the reservoirs created by the dams, many floodplains have been permanently inundated, islands have eroded, and the mix of tree and vegetation species has changed and is still changing. This has affected the diversity and abundance of wildlife. • Islands – Most islands lie in Pools 2 and 3; only two islands lie in the gorge (an NPS-owned former island, now only an island at high water, is one); the river above St. Anthony Falls also has a good number of islands. • Uplands – The national river and recreation area has three distinct reaches that define the uplands. These are the large floodplain river, gorge, and prairie river. • Parks and protected areas <ul style="list-style-type: none"> • Numerous municipal parks and other protected areas within the boundary of the national river and recreation area provide habitat for diverse vegetation communities and wildlife. • Plants <ul style="list-style-type: none"> • Some tree species show good regeneration and snags provide habitat for a variety of wildlife. • Silver maples and cottonwoods are not doing well. • Wildlife <ul style="list-style-type: none"> • Bats – There are a number of caves within the national river and recreation area containing significant bat populations. White-nose fungus has been found in northern Minnesota, so these populations may soon be in peril. • Coyotes, beaver, red fox, turkeys, and other wildlife are coming back in the national river and recreation area, some in the urban core itself. We know little about their populations. <ul style="list-style-type: none"> ▪ The national river and recreation area and the Mississippi River Fund are gearing up to begin an initial study of coyotes.

<p>Fundamental Resource or Value</p>	<p>Healthy terrestrial ecosystems that provide for a rich and diverse assemblage of plants and animals, as well as the opportunity for scientific study</p>
<p>Current Conditions and Trends</p>	<ul style="list-style-type: none"> • Invasive species <ul style="list-style-type: none"> • There are an estimated 100 plant species in the park that are nonnative to the area and an additional 181 plant species that are encroaching. • High populations of buckthorn and other invasives significantly reduce wildlife and bird habitat corridorwide. Trends <ul style="list-style-type: none"> • Terrestrial ecosystems <ul style="list-style-type: none"> • Floodplain – The long-term trends suggest that the aging reservoir system is continuing to impact the terrestrial ecosystem’s health. There is little floodplain in the gorge or above St. Anthony Falls, and we do not know what the trends are for these reaches. • Islands – Island erosion in Pools 2 and 3 is a great concern. The islands above St. Anthony Falls seem stable. • Uplands – In the large floodplain river reach, development projects threaten some uplands. The gorge reach is largely protected by parkways or already developed. The prairie reach is experiencing significant development pressure. • Floodplain silver maples and cottonwood trees are no longer regenerating successfully within the national river and recreation area due to hydrologic changes associated with an impounded river system. • Parks and protected areas – The amount of park, recreational, and preserved land within the national river and recreation area is increasing. • Plants <ul style="list-style-type: none"> • Most terrestrial populations are relatively stable in the corridor. • Cottonwood and silver maple populations appear to be declining. • Wildlife <ul style="list-style-type: none"> • Bat populations are currently stable within the national river and recreation area; however, with the approach of white-nose syndrome these populations need to be closely monitored. • The trends for coyotes, beaver, red fox, turkeys, and other wildlife that are coming back in the national river and recreation area are unknown. The increased sightings of these species indicate their populations are on the rise. • Invasive species <ul style="list-style-type: none"> • Both quantity and variety are increasing corridorwide.

Fundamental Resource or Value	Healthy terrestrial ecosystems that provide for a rich and diverse assemblage of plants and animals, as well as the opportunity for scientific study
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • Terrestrial ecosystems <ul style="list-style-type: none"> • Floodplain <ul style="list-style-type: none"> ▪ Continuing impacts of the navigation system. ▪ Inappropriate development. • Islands – Erosion in the impounded reaches. • Uplands – Development projects. • Parks and protected areas – Urban population growth and development, as well as overuse. • Plants <ul style="list-style-type: none"> • Cottonwood and silver maple populations are declining, which has negative implications for ecosystem diversity and bald eagle habitat. • Wildlife <ul style="list-style-type: none"> • Bats – With the approach of white-nose syndrome these populations are in danger. • Limited habitat for coyotes, beaver, red fox, turkeys, and other wildlife means these species are more frequently entering suburban and urban neighborhoods, leading to conflicts. <ul style="list-style-type: none"> ▪ The public will tolerate some of the species less than others. • Invasive species <ul style="list-style-type: none"> • There are an estimated 100 invasive plant species in the park and an additional 181 are encroaching. Several species are highly invasive and are known to adversely affect native habitat. • Emerald ash borer has been found at Fort Snelling, in the center of the Twin Cities. <p>Opportunities</p> <ul style="list-style-type: none"> • Terrestrial ecosystems <ul style="list-style-type: none"> • Floodplain <ul style="list-style-type: none"> ▪ Restoration of large riparian tree species (e.g., cottonwood and silver maple) could be enhanced via research into causes of seedling failure and into different planting techniques. ▪ The Mississippi River Fund recently secured a grant to further research the loss of cottonwood trees in the national river and recreation area, identify regeneration methods, and to create public outreach materials and lead related volunteer restoration events. • Islands <ul style="list-style-type: none"> ▪ Island stabilization and rebuilding would significantly improve habitat conditions throughout the national river and recreation area, particularly in Pool 2. Ongoing partnerships to further these efforts are possible. • Upland <ul style="list-style-type: none"> ▪ Invasive species control and bluffland protection are key opportunities in this area.

<p>Fundamental Resource or Value</p>	<p>Healthy terrestrial ecosystems that provide for a rich and diverse assemblage of plants and animals, as well as the opportunity for scientific study</p>
<p>Threats and Opportunities</p>	<ul style="list-style-type: none"> • Parks and protected areas <ul style="list-style-type: none"> • Communities along the river now recognize the significance of these areas to their quality of life and are working to protect and expand such areas. • Plants <ul style="list-style-type: none"> • Many research opportunities are available to address the above terrestrial issues, including an ongoing research project into riparian tree regeneration. • Reduction of invasive species on key sites within the national river and recreation area can lead to reestablishment of threatened and endangered species, as demonstrated in Riverside Park in the City of St. Paul Park. • Wildlife <ul style="list-style-type: none"> • The recovery of coyotes, beaver, red fox, turkeys, and other wildlife is encouraging, and an opportunity may exist to learn how to encourage stable populations in the appropriate areas. • Invasive species <ul style="list-style-type: none"> • Research into biocontrol and other methodologies is ongoing through a variety of partner organizations. Many of these research projects have potential to work well within the national river and recreation area. • A natural resource condition assessment will be completed for the national river and recreation area in 2014, which will help focus efforts.
<p>Data and/or GIS Needs</p>	<ul style="list-style-type: none"> • Terrestrial ecosystems <ul style="list-style-type: none"> • Floodplain – Mapping of the locations of mature cottonwood and silver maple stands and of areas where these species are regenerating is needed. Mapping of the historic locations of these species would also help. • Islands – Mapping of island shrinkage due to channelization and erosion within the national river and recreation area would help planning efforts. • Mapping of possible island rebuilding locations within Pool 2 could increase the chances of partners and funding for this effort. • Uplands – High-quality natural areas need to be updated to reflect current conditions within the corridor. • Detailed vegetation cover data. • Parks and protected areas <ul style="list-style-type: none"> • Develop a comprehensive map showing the location of protected/natural areas versus active use areas in all parks and open spaces within the national river and recreation area. • Plants <ul style="list-style-type: none"> • Detailed plant inventories on public lands are needed to find local unique and rare species assemblages. This effort was initiated four years ago but has not continued due to lack of staffing. • Wildlife <ul style="list-style-type: none"> • Information on population size and presence throughout the corridor of coyotes, beaver, red fox, turkeys, and other wildlife that are coming back in the national river and recreation area. • Invasive species <ul style="list-style-type: none"> • Data on the presence and expansion of emerald ash borer.

Fundamental Resource or Value	Healthy terrestrial ecosystems that provide for a rich and diverse assemblage of plants and animals, as well as the opportunity for scientific study
Planning Needs	<ul style="list-style-type: none"> • Terrestrial ecosystems <ul style="list-style-type: none"> • Islands – A plan for island stabilization in the corridor, especially for the NRRRA's islands. • Upland – A plan for protecting and enhancing sensitive and high-quality natural areas with the national river and recreation area. • Parks and Protected Areas – A plan to work toward more interconnected stretches of habitat along the river corridor. • Plants – A terrestrial resource stewardship strategy. <ul style="list-style-type: none"> • Cottonwood and silver maple – A plan for restoring cottonwood and silver maple trees to ensure necessary population sizes. • Wildlife <ul style="list-style-type: none"> • A plan for the nurturing the recovering populations of coyotes, beaver, red fox, turkeys, and other wildlife that are coming back in a way that minimizes conflict with the more settled areas of the corridor. • Invasive species – A plan for how to handle this issue on a corridorwide basis, given all the ownership constraints. • Climate change scenario planning.



<p>Fundamental Resource or Value</p>	<p>Birds that rely on the Mississippi River Flyway to provide nesting, resting, and feeding habitat</p>
<p>Related Significance Statements</p>	<ul style="list-style-type: none"> • The Mississippi River • Unique Character • Mississippi River Flyway
<p>Current Conditions and Trends</p>	<p>Conditions</p> <ul style="list-style-type: none"> • Migratory species – Neotropical migrants, including forest warblers and thrushes, depend on the Mississippi River Flyway. • Waterbirds – Sixty percent of North America’s waterfowl use the Mississippi Flyway. Canvasbacks and common mergansers use this stretch of river in large numbers, with 70% of the world’s common merganser populations migrating through each year. These numbers are remaining relatively stable. • Bald eagles – The Mississippi Flyway is the country’s premier bald eagle migration route, and it provides breeding and overwintering areas. These birds are both a migratory as well as a resident species. • Herons – Pigs Eye Scientific and Natural Area rookery is the Upper Midwest’s largest and most diverse urban colonial nesting site. In addition to great blue herons and great egrets, little blue herons, black-crowned and yellow-crowned night herons, and double-crested cormorants nest in this area. • The national river and recreation area has two National Audubon Society Important Bird Areas. <p>Trends</p> <ul style="list-style-type: none"> • Migratory song bird populations are considered relatively stable. • The number of waterbird species found in Pool 2 and upper Pool 3 has remained stable. • Ground and aerial surveys have shown a slight increase in puddle/dabbling ducks in Pools 2 and 3. • Herons and egret rookeries are remaining stable within the corridor. • Bald eagle populations have been rising quickly in the national river and recreation area.
<p>Threats and Opportunities</p>	<p>Threats</p> <ul style="list-style-type: none"> • Environmental contaminants remain a pervasive threat to bird populations. While many existing chemicals are declining, “hot spots” remain in some areas. Many of these chemicals have been removed from the market; however, they will continue leaching from a multitude of products and disposal sites for many years. • Habitat fragmentation. • Loss of important bottomland forest habitat. • Continuing effects of the impoundments created by dams on the river. • Invasive species such as Asian carp, emerald ash borer, and invasive plants. <p>Opportunities</p> <ul style="list-style-type: none"> • The Audubon Society is working with the national river and recreation area and other partners to conduct a pool “draw down” in Pool 3 to restore habitat for migratory waterfowl. • Water bird surveys done in partnership with other agencies provide the park with current data which will enable populations of these species to be tracked. • Migratory bird surveys can to be done in partnership with Audubon and others. These surveys will enable the park to monitor populations. • Eagle survey and testing will continue to be done with the NPS Inventory and Monitoring Program in partnership with the Minnesota Pollution Control Agency and others. This is providing the national river and recreation area invaluable information on contaminants and how biomagnification may be impacting these and other species.

Fundamental Resource or Value	Birds that rely on the Mississippi River Flyway to provide nesting, resting, and feeding habitat
Data and/or GIS Needs	<ul style="list-style-type: none"> • Additional data are needed to better understand the status and trends in migratory and resident songbirds. • A comprehensive understanding of how waterbirds, songbirds, and other migratory bird species use the national river and recreation area. This study would include an assessment of the habitat conditions. • Corridor-specific breeding bird and migratory bird census • Data on migratory bird mortality due to hitting bridges, buildings, and other urban structures.
Planning Needs	<ul style="list-style-type: none"> • A migratory flyway stewardship strategy, which would include habitat enhancement/evaluation strategies. • Climate change scenario planning. • A plan for annual comprehensive birds surveys, as well as strategies on how to acquire research into flyway use and how the large metro area impacts bird migration.

Fundamental Resource or Value	Scenic vistas that allow people to experience the distinctive landscapes of the national river and recreation area
Related Significance Statements	<ul style="list-style-type: none"> • The Mississippi River • Unique Character • St. Anthony Falls • Scenic and Recreational Resources and Opportunities
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • The Mississippi River and its landscapes in the national river and recreation area provide scenic views, ranging from largely natural to highly urban. • Many views provide opportunities to interpret the NRRRA's visual character, including its geology, history, and natural environments. • Overgrown vegetation and previous development block views. <p>Trends</p> <ul style="list-style-type: none"> • Urban growth and development are steadily taking away or diminishing the quality of scenic views. • Overgrown vegetation—in areas that could be managed—is blocking more views.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • Continued urban growth and development. • Unmanaged vegetation in areas where it can be managed. • Protecting the park's scenic resources is difficult because the park does not own much land and has very little regulatory authority. <p>Opportunities</p> <ul style="list-style-type: none"> • The national river and recreation area is developing a visual resource protection plan that will identify important scenic views for protection or enhancement. • An important revision to the state critical area rules is underway and could encourage the protection of scenic views.
Data and/or GIS Needs	<ul style="list-style-type: none"> • The visual resource protection plan establishes a GIS database of the park's important scenic views. The park needs to monitor these views. • The initial visual resource protection plan identified and assessed 50 views. Additional scenic views need to be identified and scenic assessments conducted.

Fundamental Resource or Value	Scenic vistas that allow people to experience the distinctive landscapes of the national river and recreation area
Planning Needs	<ul style="list-style-type: none"> • A scenic views protection strategy based on the visual resource protection plan.

Fundamental Resource or Value	Outdoor recreational opportunities and experiences that connect visitors with the river and its natural places, cultural and historic sites, and scenic vistas in the national river and recreation area
Related Significance Statements	<ul style="list-style-type: none"> • All significance statements
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • Outdoor recreational opportunities in the national river and recreation area are exceptional and varied. • Approximately 7.9 million visitors annually use the parks within the national river and recreation area. • Paddling and riverboat cruises have become hallmark educational and visitor experiences in the national river and recreation area, but many visitors are not aware of these opportunities. • The national river and recreation area has a diverse, high-quality, urban and natural trails network that leads visitors to natural and historic resources and scenic views. • The Twin Cities area was recently ranked in first place for bicycle commuting in the nation. • Public programs offered by the national river and recreation area and partners provide many ways to experience the Mississippi River and learn of its significance <ul style="list-style-type: none"> • Big River Journey, Journey to the Falls, and Urban Wilderness Canoe Adventures—NRRA programs—provide experiences on the Mississippi River for more than 10,000 school children each year. • Multimodal recreational opportunities exist in the national river and recreation area and are being developed into a system that will enable visitors to get to the river without a car. • A bike share system has been established and is expanding in the national river and recreation area to get visitors to river destinations. • Partners are working to promote the national river and recreation area as a major, international tourist destination. <p>Trends</p> <ul style="list-style-type: none"> • The outdoor recreation opportunities within the national river and recreation area are expanding. • Increasing numbers of visitors are experiencing the river’s nature, culture, and history through active recreational pursuits such as paddling and cycling (or a combination of one or more modes). • Public opportunities to experience the Mississippi River through historic, natural, and recreational programming have increased. • The nationally recognized system of interconnected trails and green spaces is expanding. • Involvement of school groups in outdoor river experiences and programs continues to increase. • The bike-friendly communities along the Mississippi River Trail are attracting more visitors and increasing tourism along the river. • More outfitters are providing river recreation opportunities to visitors.

Fundamental Resource or Value	Outdoor recreational opportunities and experiences that connect visitors with the river and its natural places, cultural and historic sites, and scenic vistas in the national river and recreation area
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • Opportunities to fill gaps in the land- and water-based trail system are threatened by urban development and a lack of federal funding. • Asian carp may restrict and discourage recreational use of the river. • Constrained school budgets are making field trips difficult for many schools. • The elimination or lack of funds will make it difficult to complete the NRRRA's alternative transportation system. <p>Opportunities</p> <ul style="list-style-type: none"> • Partners can help fill the gaps in the trail system. • There are opportunities to work with partners to develop a world-class water trail for the national river and recreation area. • The restoration of the Coldwater Spring unit to native habitat will provide the opportunity for the more than two million people who visit the immediate area to experience nature, history, and culture at this NPS site. • Saint Paul, Minneapolis, and other communities in the national river and recreation area are working to implement master plans for their riverfronts that will provide more opportunities for people to experience the river and its resources. • When completed, the NRRRA's alternative transportation system will provide visitors with more opportunities to experience the river through multimodal recreational experiences. • The park's new online mapping tool (www.rivertripplanner.org) will guide visitors to alternative transportation options. • Designation of the Mississippi River Trail as a "National Millennium Trail" and the Mississippi River as a "National Water Trail" could bring more visitors to the national river and recreation area. • School and partner interest in river learning experiences is strong.
Data and/or GIS Needs	<ul style="list-style-type: none"> • A research poll to determine how the public perceives the Mississippi River in the national river and recreation area as a recreational opportunity and what they would like to see offered that would get them to recreate on or along it more. • GIS data featuring recreational and scenic resources needs to be updated regularly. • Annual bicycle counts to determine if infrastructure improvements are increasing access to the river. • An Americans with Disabilities Act study of accessibility to land- and water-based recreation facilities. • A visitor shuttle study. • A five-year alternative transportation system plan is under development and will need to be updated annually.
Planning Needs	<ul style="list-style-type: none"> • A recreation management plan for the corridor. • A five-year alternative transportation implementation plan. • A sign plan.

<p>Fundamental Resource or Value</p>	<p>The presence of bluffs, caves, waterfalls, and fossil beds that demonstrate the unique geologic character of the Mississippi River within the national river and recreation area</p>
<p>Related Significance Statement</p>	<ul style="list-style-type: none"> • The Mississippi River • Unique Character • Scenic and Recreational Resources and Opportunities
<p>Current Conditions and Trends</p>	<p>Conditions</p> <ul style="list-style-type: none"> • Paleontological resources – At numerous locations along the bluffs, limestone and shale outcrops contain fossils from the Ordovician Period. The condition of these resources is largely unknown. • Caves and mines – Most of the caves in the corridor are really mines, as they are cavities excavated into the sandstone layer of the bluffs. Historically they served a variety of purposes, including beer storage, mushroom growing, cheese curing, and glass making. Most of these mines have been sealed or obstructed. Some of the principal natural caves have also been closed. • Bluffs – No assessment of the condition of bluffs as a resource has been done, but the visual resource protection plan will be including them from a scenic perspective. • Waterfalls – St. Anthony and Minnehaha falls are the principal waterfalls in the park. Smaller waterfalls run down from the bluffs in the national river and recreation area, but many more once existed. No assessment of the condition of the smaller falls has been done. <p>Trends</p> <ul style="list-style-type: none"> • Paleontological resources – Unknown. • Caves and mines – The pattern has been to seal up caves and mines in the metro area to prevent accidental injury and death. • Bluffs – Slowing of the economy limited development on the bluffs, but as the economy picks up, the bluff-top development could become an issue. • Waterfalls – St. Anthony Falls and Minnehaha Falls change little. The condition of the smaller falls is unknown.
<p>Threats and Opportunities</p>	<p>Threats</p> <ul style="list-style-type: none"> • Paleontological resources – Lack of knowledge makes it hard to know the condition of the best fossil sites and what protection they might need. Public safety concerns could prevent access to key fossil sites. • Caves and mines – Public safety concerns require that most of these be sealed off, which limits public access and interpretation and is a potential habitat loss for bats. • Bluffs – Development projects. • Waterfalls – Changes in precipitation due to climate change could lead to more times with little or no flow over falls in the national river and recreation area. Minnehaha Falls went dry in 2012. <p>Opportunities</p> <ul style="list-style-type: none"> • Paleontological resources – WASO has identified the national river and recreation area as a potentially premier paleontology park, and the national river and recreation area undertook a survey of these resources in the summer and fall of 2013. Fossil hunting is extremely popular with school groups and others. • Bluffs – The state legislature approved legislation calling for the development of new rules for lands within the critical area (the NRRRA's boundaries), which could help protect or diminish the protection of bluffs.

Fundamental Resource or Value	The presence of bluffs, caves, waterfalls, and fossil beds that demonstrate the unique geologic character of the Mississippi River within the national river and recreation area
Threats and Opportunities	<ul style="list-style-type: none"> • Caves and mines – The caves and mines of the national river and recreation area have played a significant role in NRRRA history. • Waterfalls – If funded, a proposed study of the Coldwater Spring groundwatershed could help the park understand the flow to other small streams and waterfalls in the corridor.
Data and/or GIS Needs	<ul style="list-style-type: none"> • Paleontological Resources – A comprehensive paleontological survey of the park would allow a greater understanding of the resources that exist within the park. • Bluffs – Mapping of bluff conditions throughout the corridor, looking at extent of development. • Caves and Mines – The national river and recreation area has had a Project Management Information system request in for many years to study the corridor's caves and mines. • Waterfalls – Identification and assessment of the smaller waterfalls in the national river and recreation area, both existing and lost.
Planning Needs	<ul style="list-style-type: none"> • Paleontological resource preservation and interpretation strategy. • Caves and Mines – With adequate information, the park could develop a plan to deal with public safety, education, and habitat issues related to these resources. • Bluffs – A bluff protection plan, especially if the critical area rules are not completed or are not strong enough. • Climate change scenario planning.

Fundamental Resource or Value	Clean water that supports human use of the Mississippi River and vibrant ecosystems in the national river and recreation area
Related Significance Statement(s)	<ul style="list-style-type: none"> • The Mississippi River • Scenic and Recreation Resources and Opportunities
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • Due to sewage treatment, the Clean Water Act, and other laws and regulations, water quality has improved greatly, and many fish, mussels, and other species have recovered from earlier low points. • Several river contaminants remain a concern, and there are a host of contaminants of emerging concern. • Fish consumption advisories are in place for sections of the Mississippi River within the park, due to mercury, PCB, and PFOS contamination. • The park is a leading facilitator of groups influencing Mississippi River water quality. Examples include the Mississippi River Forum and Watershed Partners. • More visitors are coming to and getting on the river because they are finding it clean, safe, and accessible. • Increased understanding of contaminants of emerging concern has led to concerns about their known and potential impacts on fish and wildlife. • Excess sediment loads are filling backwaters and reducing water clarity, adversely affecting aquatic plant growth and aquatic habitat for many species. • Phosphorus and nitrogen pollution from agriculture is causing excessive algae growth, reducing water clarity, and depleting oxygen levels.

Fundamental Resource or Value	Clean water that supports human use of the Mississippi River and vibrant ecosystems in the national river and recreation area
Current Conditions and Trends	<p>Trends</p> <ul style="list-style-type: none"> • Some aspects of water quality have improved dramatically since the 1930s. • Due to improvements in water quality, the park is once again home to abundant fish and wildlife that contribute to the river’s value as a recreational resource and make it more inviting. • The volume of river flow, which affects water quality, has increased significantly (25%) over the past 30 years, which is harming some of the river’s fish and wildlife. We are also seeing changes in the timing and intensity of rain and snow events. • Several contaminants persist in the river and are cause for concern for the river’s fish, wildlife, and the people who use the river. • The PFOS concentration in fish and bald eagles is high in the lower portion of the national river and recreation area but is declining. • PCB levels in the river’s fish peaked in the 1970s, but fish consumption guidelines are in place because PCB levels in fish tissue remain too high here. • Levels of mercury in the river’s fish peaked in the 1960s, but fish consumption guidelines are in place because levels of mercury in fish tissue remain too high. Research shows recent increases in mercury accumulation in loons in Wisconsin, and in fish in Minnesota, suggesting a similar trend could be possible in the national river and recreation area. • Sediment deposition just downstream of the national river and recreation area roughly doubled from 1930 to 1960 and is currently taking place at 10 times the natural rate. • Nitrate concentrations have increased by 47% in the national river and recreation area from 1976 to 2005.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • Farm-related water pollution continues to increase in the Mississippi River. • Contaminants of emerging concern threaten the aquatic ecosystem at a number of points within the food chain. • Silver, bighead, and grass carp are poised to invade the corridor’s southern reaches, if they have not already. These fish threaten the river’s water quality. • Climate change is expected to create a number of pollution- and recreation-related challenges in the park, and the lack of precise information about these threats complicates management decisions. • Fish consumption advisories are in place in the national river and recreation area due to elevated mercury, PCB, and PFOS concentrations. • Increased river flow, tied to a number of factors including agricultural drainage and climate change, threatens to destabilize the NRRRA’s resources with increased erosion, sedimentation, and pollution. • Many of the NRRRA’s most significant water quality problems are connected to non-point pollution, which is not addressed by the Clean Water Act. <p>Opportunities</p> <ul style="list-style-type: none"> • The <i>State of the River Report</i> has raised awareness about how pollution is impacting the river’s health and recreational use and about how the community can begin solving these problems. • The Inventory and Monitoring network is conducting studies that help the park understand its water quality issues, including <ul style="list-style-type: none"> • monitoring of the river’s water quality every other year from 2006 to 2013—the Metropolitan Council will be taking over this monitoring. • diatom study on a 3–5 year schedule. • persistent contaminants study with bald eagles from 2006 to 2013.

Fundamental Resource or Value	Clean water that supports human use of the Mississippi River and vibrant ecosystems in the national river and recreation area
Threats and Opportunities	<ul style="list-style-type: none"> • The Minnesota Pollution Control Agency is developing nitrate and phosphorus standards that will apply to the Mississippi River, with the intent of protecting aquatic life. • The Minnesota Pollution Control Agency is working on low-impact development standards, which are intended to minimize the amount of pollution entering the Mississippi River (and other surface water bodies in the state).
Data and/or GIS Needs	<ul style="list-style-type: none"> • Research on the potential environmental and human health impacts of a number of contaminants of emerging concern within the Mississippi River. • Better scientific information is needed about Asian carp in order to most effectively prevent their establishment within the park. • Research on sedimentation in Pool 2, within the national river and recreation area, similar to that being done for Lake Pepin, downstream of the national river and recreation area. • Mercury accumulation research (in fish, aquatic birds) within the national river and recreation area. • Macro-invertebrate research within the national river and recreation area, both as water quality indicators and to help build “baseline” conditions for the park’s emerging climate change planning and study. • Research on the water quality and flow impacts of agricultural drain tile. • Comprehensive understanding of the groundwater of the Coldwater Spring unit, in order to better manage its water quality and related aquatic habitat. • A more comprehensive state of the river study.
Planning Needs	<ul style="list-style-type: none"> • Climate change scenario planning. • Water quality research and public engagement strategy.

Identification of Key Issues and Associated Planning and Data Needs

This section considers key issues to be addressed in planning and management and therefore takes a broader view over the primary focus of part 1. A key issue focuses on a question that is important for a park. Key issues often raise questions regarding park purpose, significance, and fundamental resources and values. For example, a key issue may pertain to the potential for a fundamental resource or value in a park to be detrimentally affected by discretionary management decisions. A key issue may also address crucial questions not directly related to purpose and significance, but still indirectly affect them. Usually, a key issue is one that a future planning effort or data collection needs to address and requires a decision by NPS managers.

The following are key issues for Mississippi National River and Recreation Area and the associated planning and data needs to address them.

General Planning.

- Prioritizing staff time. Now that the Mississippi National River and Recreation Area owns 29.5 acres at the Coldwater Spring unit and may soon oversee another 18 to 43.5 acres adjacent to it, the park has to determine how to prioritize staff time between the new property and the rest of the corridor. The park is increasingly sought after by others as an active player on key issues. The challenge will be to determine how to maintain our current level of engagement and outreach while growing strategically.

Natural Resources.

- Fish and Wildlife. For the NRRRA’s 72 miles of the Mississippi River and 4 miles of Minnesota River, the park does not have a good handle on the numbers and distribution of fish and wildlife species or their condition. Many herptile populations are struggling. Due to warming temperatures, increasing precipitation, and the growing number of invasive species, native species are losing ground. The national river and recreation area needs to find a way to quantify and address these issues.
- Restoring the Mississippi River’s water quality. The Mississippi National River And Recreation Area has no control over what flows into the Mississippi and Minnesota rivers before they enter the park, and taking action to fix key problems facing these rivers is a challenge. Meaningful improvements will require changes in both upstream agricultural activities and non-point source urban runoff. River flow to and within the park has increased significantly over the past 30 years. Increased flow has led to excessive nutrient loads.
- The ability of the national river and recreation area to protect significant resources on the land within the park’s 54,000 acres is also limited, as it owns only 64 acres.
- Contaminants of emerging concern. A number of newer chemicals and their byproducts are present in the river and its associated environment. Many of these substances are not tracked in the same way that other contaminants are, making it difficult to know the extent of their presence, how they operate throughout the food chain, and their potential cumulative impacts.
- Invasive species. The emerald ash borer and three different species of Asian carp threaten to change the ecosystem of the river and of the lands along it in the coming decades.
- Protecting key visual resources is difficult because the national river and recreation area does not own much land and has very little regulatory authority.

Cultural Resources.

- Coldwater Spring. While three archeological surveys have been completed for the Coldwater Spring property, the lands immediately adjacent to it have not been surveyed. These lands hold archeological resources tied to the property’s history.
- Archeological sites corridorwide. A comprehensive archeological survey is needed for the Mississippi National River And Recreation Area corridor.
- Historic sites. While state and local entities have completed standing structure surveys for most of the corridor’s communities, many of these are out of date. This makes it harder to protect historic sites and to educate people about them.
- Fort Snelling National Historic Landmark. This national historic landmark, with its 27 standing buildings, is one of the most important cultural and historic resources in the national river and recreation area, and most buildings are in very poor condition. The fort’s buildings need adaptive reuses, which will cost millions of dollars. There is some hope that projects on the horizon may help save it, but reviewing these projects will require significant cultural resources staff time and the national river and recreation area does not have cultural resources staff.
- Cultural landscapes and ethnographic sites. No general surveys have been conducted of cultural landscapes or ethnographic sites in the corridor. Given the pace of urban expansion, the corridor could lose sites fitting both categories before we know they exist.

Visitor Experience.

- Park visibility remains a challenge in this partnership-based park. Visits to the lands and waters within the national river and recreation area often leave no impression that the visit has occurred in a national park.
- Creating a seamless and recognizable multimodal alternative transportation system in the national river and recreation area to protect resources, improve the visitor experience, and create recreational access to and along the Mississippi River is a complex challenge.
- The park, in collaboration with more than 50 entities, is trying to complete the Mississippi River Trail, a continuous land- and water-based trail along the Mississippi River in the Twin Cities metro area for the National Park Service Centennial in 2016, but challenges with available federal funding remain a concern.
- Key partner exhibits for the park at the Science Museum of Minnesota in the Mississippi River Gallery are slated for removal, potentially leaving the park with only small exhibits at other partner sites to go along with the park's orientation exhibits.
- The Mississippi National River And Recreation Area has no education center or facility of its own for use by school groups and other organized groups, but instead relies on partner-owned facilities with limited access and accommodation for NPS-led groups.
- Volunteer involvement must be coordinated with a complex array of local partners and often occurs on partner sites, requiring significant planning, coordination, and formal agreements.
- Meaningful evaluation of visitor satisfaction and understanding remains difficult because of the nature of a partnership park.
- The park remains without a comprehensive interpretive plan to strategically guide interpretation in the park.
- Most recreational infrastructure in the national river and recreation area is partner-owned and operated; infrastructure gaps exist for paddling and boating access, shelters, rest rooms, water, etc.

Park Infrastructure.

- The park did not receive a base funding increase with the addition of the 29.5-acre Coldwater Spring unit, and therefore must carefully plan how it spends park funding on maintenance and repair of the roads, parking areas, trails and the Coldwater springhouse, reservoir, and creek.
- The Mississippi National River And Recreation Area does not have law enforcement or maintenance staff, both of which are required at the new Coldwater Spring property. The park is developing partnerships with local law enforcement units and with the St. Croix National Scenic Riverway to address these issues.
- Ongoing restoration and planning for the Coldwater Spring unit to address visitor use, safety, and enjoyment, as well as resource protection, will require more funding to complete the necessary planning, compliance, and civic engagement processes and documents.

Climate Change.

- The impact of climate change on all the resources of the national river and recreation area is an issue.

Planning and Data Needs

To maintain connection to the core elements of the foundation and the importance of these core foundation elements, the planning and data needs listed here are directly related to protecting fundamental resources and values, park significance, and park purpose, as well as addressing key issues. To successfully undertake a planning effort, information from sources such as inventories, studies, research activities, and analyses may be required to provide adequate knowledge of park resources and visitor information. Such information sources are referred to as data needs. Geospatial mapping tasks and products are included in data needs.

Items considered of the utmost importance were identified as high priority, and other items identified, but not rising to that level, were listed as either medium- or low-priority needs. These priorities inform park management efforts to secure funding and support for planning projects.

Planning Needs – Where a Decision-making Process Is Needed

Related to an FRV or OIRV?	Planning Needs	Priority (H, M, L)	Notes
	Highest Priority Planning Needs – Not in Priority Order		
FRV	Completion of the plans needed for the Coldwater Spring unit and adjoining lands. These include, but are not limited to: a unit management plan; cultural resource, fire, forest, trail, business, and interpretation plans; a law enforcement needs assessment; a park asset management plan; a land protection plan; and a jurisdictional inventory.	H	These plans are critical to proceeding with any work at Coldwater Spring.
FRV	Creation of a “Riverfront Development Model Ordinance” to guide development along the river.	H	
FRV	A plan to address the worst invasive species.	H	
FRV	A comprehensive interpretive plan for the national river and recreation area.	H	
FRV	A scenic views protection strategy based on the visual resource protection plan.	H	
FRV	A water quality research and public engagement strategy.	H	Analysis of all the research being collected to help the park prioritize water quality planning.
	Cultural Resources		
FRV	A cultural resources management plan for the national river and recreation area.	M	
	Collaborative Relationships		
FRV	A public outreach plan to address best practices for clean water and pollution prevention.	M	With Metro WaterShed Partners and others.
	Aquatic Habitat and Species		
FRV	An aquatic resource stewardship and ecosystem restoration strategy.	M	
	Terrestrial Habitat and Species		

Planning Needs – Where a Decision-making Process Is Needed

Related to an FRV or OIRV?	Planning Needs	Priority (H, M, L)	Notes
FRV	A terrestrial resource stewardship and ecosystem restoration strategy.	M	
FRV	A plan for the nurturing the recovering populations of otters, coyotes, beaver, red fox, turkeys, and other wildlife in a way that minimizes conflict with the more settled areas of the corridor.	M	
FRV	A plan for island stabilization in the corridor, especially for the NRRRA's islands.	M	
FRV	A strategy for cottonwood and silver maple regeneration.	H	
FRV	Parks and Protected Areas – A plan to work toward more interconnected stretches of habitat along the river corridor.	M	
	Migratory Flyway		
FRV	A migratory flyway stewardship strategy, which would include habitat enhancement/ evaluation strategies.	M	
FRV	A plan for annual comprehensive bird surveys, as well as strategies on how to acquire research on flyway use and how the large metro area impacts bird migration.	M	
	Outdoor Recreation Activities and Experiences		
FRV	Five-year alternative transportation implementation plan.	M	
FRV	A recreation management plan for the corridor.	M	
FRV	A sign plan, including way finding information and interpretation.	M	
	Geologic Character		
FRV	Paleontological resource preservation, safety, and interpretation strategy.	M	
FRV	A cave and mine preservation and public safety strategy.	M	
FRV	Bluffs – A bluff protection strategy.	M	
	Other Planning Needs		
FRV	Climate change planning for all fundamental resources and values.	M	
FRV	Develop a plan to accurately assess visitor satisfaction.	M	
FRV	Develop a plan for a campaign to increase park visibility.	M	
FRV	Updated strategic plan.	M	

Data Needs – Where Information Is Needed Before Decisions Can Be Made

Related to an FRV or OIRV?	Data and GIS Needs	Priority (H, M, L)	Notes, Including Which Planning Need This Data Need Relates To
	Highest Priority Data Needs – Not in Priority Order		
FRV	Groundwatershed study of flow to the Coldwater Spring unit.	H	Public health and national historic landmark integrity both significant.
FRV	A Phase I and potentially a Phase II environmental site assessment of the Veterans Affairs property adjacent to the Coldwater Spring unit.	H	Need to complete as soon as possible. This work is essential to the eventual transfer of the Veterans Affairs land to the National Park Service.
FRV	An archeological survey of the lands bordering on the Coldwater Spring unit.	H	Highest cultural resources need.
FRV	Baseline survey for key terrestrial species and their related habitat conditions.	H	Based on natural resource condition assessment due in 2014.
FRV	Baseline survey for the key aquatic species and their related habitat conditions.	H	Based on natural resource condition assessment due in 2014.
FRV	A comprehensive study of how waterbirds, songbirds, and other migratory bird species use the national river and recreation area, including a bird census and an assessment of the habitat conditions.	H	Partner with the Audubon Society and U.S. Fish and Wildlife Service.
FRV	A map tracking the spread of the most serious invasive species.	H	
	Cultural Resources		
FRV	A comprehensive database and mapping of all national register-listed or -eligible cultural resources.	M	This would update the 2003 historic resource study archeological inventory.
FRV	A corridorwide archeological survey.	M	
FRV	A cultural landscape assessment.	M	
FRV	An ethnographic resources assessment.	M	
	Economic Resources		
FRV	Data on economic benefits of the river from: public lands, fishing, boating, shipping, tourism, recreation, private investment, and ecosystem services.	M	This would provide documentation to support arguments for the river’s value.
FRV	A comprehensive zoning database and map for the national river and recreation area.	M	
	Collaborative Relationships		
FRV	An online database for notification and tracking development proposals in the corridor.	M	We are recommending this be included as an outcome of the critical area rule-making process.
FRV	Research with Metro WaterShed Partners to understand public knowledge, attitudes, and practices affecting water quality and how public behaviors may be influenced toward best practices for a clean, healthy river.	M	

Data Needs – Where Information Is Needed Before Decisions Can Be Made

Related to an FRV or OIRV?	Data and GIS Needs	Priority (H, M, L)	Notes, Including Which Planning Need This Data Need Relates To
	Aquatic Habitat and Species		
FRV	Research on the impacts of the river's impoundments on aquatic ecosystems of the national river and recreation area.	M	This would include a comparative study of the impounded and unimpounded reaches of the river.
FRV	Research into and mapping of areas that would most benefit aquatic plants if pool drawdowns are conducted in Pools 2 and 3.	M	We could initiate this research to spur the drawdowns.
	Terrestrial Habitat and Species		
FRV	Detailed herbaceous layer/understory vegetation data and a map to go with it.	M	
FRV	Data on the diversity, population size, and threats to key terrestrial species, especially for of coyotes, beaver, red fox, turkeys, and other wildlife that are coming back.	M	
FRV	Mapping of island erosion, especially of the NRRAs islands.	M	
FRV	Mapping of possible island rebuilding locations within Pool 2.	M	
FRV	Uplands – An update on the condition of high-quality natural areas.	M	
FRV	Parks and protected areas – Develop a comprehensive map showing the location of protected/natural areas versus active use areas in all parks and open spaces within the national river and recreation area.	M	
FRV	Detailed plant inventories on public lands to find local unique and rare species assemblages.	M	This effort was initiated four years ago but has not continued due to lack of staffing.
	Migratory Flyway		
FRV	Data on migratory bird mortality due to hitting bridges, buildings, and other urban structures.	M	
	Scenic Views		
FRV	Identify and assess additional scenic views beyond the first 50 examined in the visual resource protection plan.	M	
FRV	Monitoring of important scenic views listed in the visual resource protection plan database.	M	
	Outdoor Recreation Activities and Experiences		
FRV	Annual updates of the recreational GIS data.	M	
FRV	An Americans with Disabilities Act study of accessibility to land and water based recreation facilities.	M	

Data Needs – Where Information Is Needed Before Decisions Can Be Made

Related to an FRV or OIRV?	Data and GIS Needs	Priority (H, M, L)	Notes, Including Which Planning Need This Data Need Relates To
FRV	Annual bicycle counts to determine if infrastructure improvements are increasing access to the river.	M	
FRV	A visitor shuttle study.	M	
Geologic Character			
FRV	Bluffs – Mapping of bluff conditions throughout the corridor.	M	
FRV	Paleontological resources – A comprehensive paleontological survey.	M	Build on the first two studies already completed.
FRV	Caves and mines – A study of the corridor’s caves and mines to determine their location, numbers, condition, and use.	M	
FRV	Waterfalls – Identification and assessment of the smaller waterfalls in the national river and recreation area.	M	
Water Quality			
FRV	Additional state of the river studies, focusing on other parameters.	M	
FRV	Mercury accumulation research (in fish, aquatic birds) within the national river and recreation area.	M	
FRV	Research on how agricultural drain tiling affects the water quality and flow patterns in the national river and recreation area.	M	
FRV	Macro-invertebrate research within the national river and recreation area.	M	
FRV	Research on sedimentation in Pool 2, similar to that done for Lake Pepin.	M	
FRV	Water quality studies to determine the threat posed by contaminants of emerging concern.	M	The national river and recreation area is participating with the U.S. Environmental Protection Agency and Minnesota Pollution Control Agency to gather samples from the Mississippi River and Coldwater Spring, but more comprehensive testing and analysis is needed.
Other Data Needs			
FRV	Research to determine how the public perceives the Mississippi River in the national river and recreation area as a recreational opportunity.	M	
FRV	Climate change trends for all fundamental resources and values.	M	

Part 3: Contributors

Mississippi National River and Recreation Area

Paul Labovitz, Superintendent

John Anfinson, Chief, Resource Management

Mary Blitzer, Park Ranger

Emily Buhr, Secretary

Dan Dressler, Park Ranger

Nancy Duncan, Natural Resources Specialist

Nate Edwards, IT Specialist

Brian Goodspeed, Park Ranger

Kelsey Hans, Biotech

Nick Karasch, Park Ranger

Susan Overson, Outdoor Recreation Planner

Denise St. Marie, Chief, Administration

Alan Robbins-Fenger, Outdoor Recreation Planner

Rory Stierler, Community Planner

Kathy Swenson, Park Ranger

Lyndon Torstenson, Park Ranger

Brian Valentine, Park Ranger

Lark Weller, Water Quality Planner

Park Partners

Katie Nyberg, Executive Director, Mississippi River Fund

Greg Lais, Executive Director, Wilderness Inquiry

Whitney Clark, Executive Director, Friends of the Mississippi River

Midwest Regional Office

Sharon Miles, Community Planner

Ruth Heikkinen, Chief of Planning and Compliance

Tom Richter, Chief of Interpretation and Education

Jeff Doty, Geographic Information Services

Appendixes

Appendix A: Enabling Legislation

PUBLIC LAW 100-696 - NOV. 18, 1988

TITLE VII-MISSISSIPPI NATIONAL RIVER AND RECREATION AREA

Subtitle A-Mississippi National River and Recreation Area

FINDINGS AND PURPOSES

SEC. 701. (a) FINDINGS.-The Congress finds that:

(1) The Mississippi River Corridor within the Saint Paul-Minneapolis Metropolitan Area represents a nationally significant historical, recreational, scenic, cultural, natural, economic, and scientific resource.

(2) There is a national interest in the preservation, protection and enhancement of these resources for the benefit of the people of the United States.

(3) State and local planning efforts along the River Corridor provide a unique foundation for coordinating Federal, State, and local planning and management processes.

(4) Existing Federal agency programs lack sufficient coordination and financial participation with State and local planning and regulatory authorities to provide for adequate and comprehensive resource management and economic development consistent with the protection of the Mississippi River Corridor's nationally significant resources, and the public use and enjoyment of the area.

(5) The preservation, enhancement, enjoyment, and utilization of the nationally significant resources of the Mississippi River Corridor can be accomplished by a cooperative Federal, State, and local comprehensive planning and management effort.

(b) PURPOSES.-The purposes of this subtitle are:

(1) To protect, preserve and enhance the significant values of the waters and land of the Mississippi River Corridor within the Saint Paul-Minneapolis Metropolitan Area.

(2) To encourage adequate coordination of all governmental programs affecting the land and water resources of the Mississippi River Corridor.

(3) To provide a management framework to assist the State of Minnesota and its units of local government in the development and implementation of integrated resource management programs for the Mississippi River Corridor in order to assure orderly public and private development in the area consistent with the findings of this subtitle.

ESTABLISHMENT OF NATIONAL RIVER AND RECREATION AREA

Sec. 702. (a) ESTABLISHMENT.-There is hereby established the Mississippi National River and Recreation Area (hereinafter in this title referred to as the “Area”) which shall consist of the State designated Mississippi Critical Area encompassing that portion of the Mississippi River and adjacent lands generally within the Saint Paul-Minneapolis Metropolitan Area, as depicted on the map entitled Mississippi National River and Recreation Area numbered MI-NRA/80,000 and dated April 1987. The map shall be on file and available for public inspection in the offices of the Department of District of the Interior in Washington, District of Columbia, and in the offices of the Metropolitan Council of the Twin Cities Area in Saint Paul, Minnesota.

(b) **BOUNDARIES.**-The Secretary of the Interior (hereinafter referred to as the “Secretary”) shall publish in the Federal Register as soon as practicable after the enactment of this title a detailed description and map of the boundaries established under subsection (a).

MISSISSIPPI RIVER COORDINATING COMMISSION

SEC. 703. (a) ESTABLISHMENT.-There is hereby established a Mississippi River Coordinating Commission whose purpose shall be to assist Federal, State, and local authorities in the development and implementation of an integrated resource management plan for those lands and waters as specified in Section 702. The Commission shall consist of the following 22 members appointed by the Secretary of the Interior:

- (1) The Director of the National Park Service, or his designee.
- (2) The Chief of the Corps of Engineers, or his designee.
- (3) The Director of the Fish and Wildlife Service, or his designee.
- (4) Three individuals, from recommendations by the Governor of Minnesota, to represent the Minnesota Department of Natural Resources, Department of Transportation, and Minnesota Environmental Quality Board.
- (5) One individual, to represent the Minnesota Historical Society.
- (6) One individual, to represent the Metropolitan Council of the Twin Cities Area.
- (7) Four elected officials, to represent the cities of Saint Paul and Minneapolis.
- (8) Four elected officials, from recommendations by the Governor of Minnesota, to represent the interests of the other affected municipalities and counties.
- (9) One individual, to represent the Metropolitan Parks and Open Spaces Commission.
- (10) One individual, from recommendations by the Governor of Minnesota, to represent the interests of commercial navigation.
- (11) Four individuals, from recommendations by the Governor of Minnesota, to be chosen from the general public.

(b) **TERMS.**-(1) Except as provided in paragraphs (2) and (3), members (other than ex officio members) shall be appointed for terms of three years.

(2) Of the members first appointed-

(A) Under paragraph (4) of subsection (a):

(i) One shall be appointed for a term of one year.

(ii) One shall be appointed for a term of two years.

(B) Under paragraphs (7) and (8) of subsection (a), one shall be appointed for a term of one year.

(C) Under paragraph (11) of subsection (a):

(i) One shall be appointed for a term of one year.

(ii) One shall be appointed for a term of two years.

(iii) One shall be appointed for a term of four years.

(3) Any member appointed to fill a vacancy occurring before the expiration of the term for which his predecessor was appointed shall be appointed only for the remainder of such term. A member may serve after the expiration of his term until his successor has taken office.

(c) COMPENSATION.-Members of the Commission shall serve without pay. While away from their homes or regular places of business in the performance of services for the Commission, members of the Commission shall be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in Government service are allowed expenses under Section 5703 of title 5 of the United States Code.

(d) CHAIRPERSON.-The Chairperson of the Commission shall be appointed by the Secretary from among the members of the Commission nominated by the Governor of Minnesota to serve for a term of three years.

(e) QUORUM.-Twelve members of the Commission shall constitute a quorum.

(f) MEETINGS.-The Commission shall meet at the call of the Chairman or a majority of its members.

(g) DEVELOPMENT OF POLICIES AND PROGRAMS.-As a coordinator and advisory organization, the Commission shall assist the Secretary, the State of Minnesota and local units of government, endeavoring to use existing Federal, State, regional, and local plans and programs where consistent with the intent and goals of this subtitle, in developing the following:

(1) Policies and programs for the preservation and enhancement of the environmental values of the Area.

(2) Policies and programs for enhanced public outdoor recreation opportunities in the Area.

(3) Policies and programs for the conservation and protection of the scenic, historical, cultural, natural and scientific values of the Area.

(4) Policies and programs for the commercial utilization of the Area and its related natural resources, consistent with the protection of the values for which the Area is established as the Mississippi National River and Recreation Area.

(h) STAFF.-The Secretary shall provide the Commission with such staff and technical assistance as the Secretary, after consultation with the Commission, considers appropriate to enable the Commission to carry out its duties. Upon request of the Secretary, any Federal agency may provide information, personnel, property, and services on a reimbursable basis, to the Commission to assist in carrying out its duties under this subtitle. The Secretary may accept the services of personnel detailed from the State of Minnesota or any political subdivision of the State and may reimburse the State or such political subdivision for such services. The Commission may procure temporary and intermittent services under Section 3109(b) of Title 5 of the United States Code.

(i) PLAN.-Within 3 years after enactment of this Act, the Commission shall submit to the Secretary and the Governor of Minnesota a comprehensive plan for land and water use measures for the area to be developed and implemented by the responsible Federal agencies, the State of Minnesota, and local political subdivisions. The plan shall endeavor to use existing Federal, State, regional, and local plans and where consistent with the intent and goals of this subtitle shall coordinate those plans to present a unified comprehensive plan for the Area. The plan shall include but not be limited to each of the following:

(1) A program for management of existing and future land and water use which-

(A) considers and details the application of a variety of land and water protection and management techniques;

(B) includes a policy statement for the use of Federal, State, and local regulatory responsibilities to manage land and water resources in a manner consistent with the purposes of this subtitle; and

(C) recognizes existing economic activities within the area and provides for the management of such activities, including barge transportation and fleeting and those indigenous industries and commercial and residential developments which are consistent with the findings and purposes of this subtitle.

(2) A program providing for coordinated implementation and administration of the plan with proposed assignment of responsibilities to the appropriate governmental unit at the Federal, State, regional and local levels, including each of the following:

(A) Ways in which local, regional, State, and Federal policies and permits may better be coordinated to the goals and policies of this subtitle.

(B) A financial plan to provide and support the public improvements and services recommended in the plan; and a mechanism for coordinating local, regional, State, and Federal planning to promote the purposes of this subtitle.

(C) How the goals and policies of the management plan will be compatible with the existing channel maintenance program on the Mississippi River, and the existing Federal, State, regional, and local programs and goals on the Minnesota and Saint Croix Rivers.

(D) The provisions of the Clean Water Act and the Safe Drinking Water Act (title XIV of the Public Health Service Act) which pertain to the surface waters of the Mississippi National River and Recreation Area.

(3) A coordination and consistency component which details the ways in which local, State, and Federal programs and policies may best be coordinated to promote the purposes of this subtitle.

(4) A program for the coordination and consolidation, to the extent feasible, of permits that may be required by Federal, State, and local agencies having jurisdiction over land and waters within the Area.

(j) DEVELOPMENT OF PLAN.-

(1) In developing the plan the Commission shall consult on a regular basis with appropriate officials of any local government or Federal or State agency which has jurisdiction over lands and waters within the Area.

(2) In developing the plan the Commission shall consult with interested conservation, business, professional and citizen organizations.

(3) In developing the plan the Commission shall conduct public hearings within the Area, and at such other places as may be appropriate, for the purposes of providing interested persons with the opportunity to testify with respect to matters to be addressed by the plan.

(k) APPROVAL OF PLAN.-The Commission shall submit the plan to the Secretary and the Governor of Minnesota, for their review. The Governor shall act on the plan within 90 days and shall submit the plan to the Secretary along with any recommendations. The Secretary shall approve or disapprove the plan within 90 days. In reviewing the plan the Secretary shall consider each of the following:

(1) The adequacy of public participation.

(2) Assurances of plan implementation from State and local officials.

(3) The adequacy of regulatory and financial tools that are in place to implement the plan.

(4) Plan provisions for continuing oversight of the plan implementation by the Secretary and the Governor of Minnesota. If the Secretary disapproves the plan, he shall, within 60 days after the date of such disapproval advise the Governor and Commission in writing of the reasons therefor, together with his recommendations for revision. The Commission shall within 90 days of receipt of such notice of disapproval revise and resubmit the plan to the Governor for his review. Following his review, the Governor shall submit the revised plan, together with any recommendations he may have, to the Secretary who shall approve or disapprove the revision within 60 days.

(l) **INTERIM PROGRAM.**-Prior to the adoption of the Commission's plan, the Secretary and the Commission shall monitor all land and water use activities within the Area to ensure that said activities are in keeping with the purposes of this subtitle, and shall advise and cooperate with the appropriate Federal, State, and local governmental entities to minimize adverse impacts on the values for which the Area is established.

(m) **COMMISSION REVIEW.**-The Commission shall assist the Secretary and the Governor of Minnesota in reviewing and monitoring the implementation of the plan by Federal, State, and local governmental agencies having jurisdiction in the Area. The Commission may, after providing, for public comment and subject to the review and approval, as set forth in subsection (k), modify said plan, if the Commission determines that such modification is necessary to further the purposes of this subtitle.

(n) **TERMINATION OF COMMISSION.**-The Commission shall terminate on the date 10 years after the enactment of this subtitle. Following termination of the Commission the State is authorized to establish a State Commission which shall exercise the functions and authorities described in subsection (m). The Secretary of the Interior and the Secretary of the Army are authorized and directed to participate as members of such State Commission.

FEDERAL LANDS AND DEVELOPMENTS

SEC. 704. (a) LANDS.-Notwithstanding any other provision of law, any Federal property located within the boundaries of the Area as identified on the map referred to in Section 702, is hereby transferred without consideration to the administrative jurisdiction of the Secretary for use by him in implementing the purposes of this subtitle, except as follows:

(1) Facilities and lands administered by the Secretary of the Army through the Corps of Engineers for navigational and flood control purposes may continue to be used by the Secretary of the Army subject to the provisions of subsection (b).

(2) Federal property on which there is located any building or other structure which is in use (as of the enactment of this subtitle) or for which a lease is in effect shall not be transferred under this subsection without the concurrence of the administering agency.

(b) FEDERAL AGENCY ACTIVITIES.-

(1) **IN GENERAL**--Before any department, agency, or instrumentality of the United States issues or approves any license or permit for any facility or undertaking within the Area and before any such department, agency, or instrumentality commences any undertaking or provides any Federal assistance to the State or any local governmental jurisdiction for any undertaking within the Area, the department, agency, or instrumentality shall notify the Secretary. The Secretary shall review the proposed facility or undertaking to assess its compatibility with the plan approved under

Section 703. The Secretary shall make a determination with respect to the compatibility or incompatibility of a proposed facility or undertaking within 60 days of receiving notice under this subsection. If the Secretary determines that the proposed facility or undertaking is incompatible with the plan, he shall immediately notify such Federal department, agency, or instrumentality and request such department, agency, or instrumentality to take the actions necessary to conform the proposed facility or undertaking to the plan. The Federal department, agency, or instrumentality shall, within 60 days after receiving the Secretary's request, notify the Secretary of the specific decisions made in response to the request. To the extent that such department, agency, or instrumentality does not then conform such facility or undertaking to the request of the Secretary, the Secretary is directed to notify the Congress in writing of the incompatibility of such facility or undertaking with the plan approved under Section 703.

(2) NAVIGATION.-(A) Nothing in this subtitle shall be deemed to impact or otherwise affect such existing statutory authority as may be vested in the Secretary of the Department in which the Coast Guard is operating or the Secretary of the Army for the maintenance of navigation aids and navigation improvements: Provided, That in exercising such authority the Secretary of the Army, through the Corps of Engineers and the Secretary of the Department in which the Coast Guard is operating, shall not take any action that would have a direct and adverse effect on the values for which the Area is established unless such action is essential for the protection of public health or safety or is necessary for national security or defense.

(B) In planning for the development and public use of the Area, the Secretary shall consult with the Secretary of the Army to assure that public use of adjacent or related water resource developments or flood control projects and that of the Area are compatible.

ADMINISTRATION

SEC. 705. (a) AUTHORITIES.-The Secretary shall administer the Area in accordance with this subtitle. Only those lands within the Area under the direct jurisdiction of the Secretary shall be administered in accordance with the provisions of law generally applicable to units of the National Park System. Our lands and waters within the Area shall be administered under State and local laws. In the case of any conflict between the provisions of this subtitle and such generally applicable provisions of law, the provisions of this subtitle shall govern.

(b) STATE AND LOCAL AUTHORITIES.-The Secretary shall consult and cooperate with the State of Minnesota and its political subdivisions concerning the development and management of Federal lands within the Area.

(c) LAND ACQUISITION.-Within the boundaries of the Area, the Secretary is authorized, in consultation with the State of Minnesota and the affected local governmental unit, to acquire land and interests therein by donation, purchase with donated or appropriated funds, exchange or transfer, except as provided in paragraphs (1) and (2).

(1) Any lands or interests therein owned by the State of Minnesota or any political subdivision thereof may be acquired only by donation.

(2) Privately owned lands or interests therein may be acquired only with the consent of the owner thereof unless the Secretary makes a determination pursuant to subsection (d)(2). In no event may the Secretary use the authority provided in subsection (d)(3) to acquire land or interests in land without the owner's consent for any use exercised prior to January 1, 1987, that is consistent with the plan under Section 703.

(d) REVIEW OF LOCAL PLANS.-

(1) **AUTHORITY.**-For the purpose of protecting the integrity of the Area the Secretary shall cooperate and consult with the State and the appropriate political subdivisions to review all relevant local plans, laws and ordinances to determine whether they substantially conform to the plan approved pursuant to Section 703. Additionally the Secretary shall in consultation with the State and its political subdivisions determine the adequacy of enforcement of such plans, laws, and ordinances, including review of building permits and zoning variances granted by local governments, and amendments to local laws and ordinances. The Secretary shall enter into agreements with the State or its political subdivisions to provide, on behalf of the Secretary, professional services necessary for the review of such local plans, laws, and ordinances, and of amendments thereto and variances therefrom, and for the monitoring or the enforcement thereof by local governments having jurisdiction over any areas to which the management plan applies.

(2) **PURPOSE.**-The purpose of review under paragraph (1) shall be to determine the degree to which actions by local governments are compatible with the purposes of this title. Following the approval of the plan under Section 703 and after a reasonable period of time has elapsed, upon a finding by the Secretary that such plans, laws and ordinances are nonexistent, are otherwise not in conformance with the plan or are not being enforced in a manner consistent with the plan, and if the Secretary determines that there is no feasible alternative available to prevent uses which would be substantially incompatible with the plan, the Secretary may exercise the authority available to him under the provisions of paragraph (3).

(3) **ENFORCEMENT.**-In those sections of the Area where local plans, laws and ordinances, or amendments thereto or variances therefrom are found by the Secretary not to be in conformance with the plan approved pursuant to Section 703, or are not being enforced in a manner consistent with the plan, the Secretary shall notify the local government authority concerned. The Secretary may withhold from the local government authority concerned or, require reimbursement of, (A) Federal funds made available for implementation of the plan, or (B) any grant under Section 706(a) if the local plan, law, ordinance, amendment, or variance is not modified to conform with the plan and enforced in such manner as will carry out the purposes of this subtitle. If the State has not initiated, within a 60-day period, such judicial or other action as necessary to ensure conformity with the plan, and if noncompliance with the plan or failure to enforce the plan continues after the end of such 60-day period, the Secretary may acquire, subject to appropriations, land or interests in land under this subsection without the consent of the owner thereof. Land and interests in land acquired pursuant to this subsection shall be restricted to the geographical area of the local government unit failing to conform with the plan and shall be limited to those lands clearly and directly required, in the judgment of the Secretary, for the protection of the Area in a manner compatible with the plan.

(e) **RETENTION BY OWNER OF USE AND OCCUPANCY.**-The Secretary may permit the owner or owners of any improved residential property acquired by the Secretary under this subtitle to retain a right of use and occupancy of the property for noncommercial residential uses not incompatible with the plan approved under Section 703. The provisions of subsection (c), (d), and (e) of Section 102 of the Act of August 15, 1978 (16 U.S.C. 460ii-1) shall apply to the retention of such rights, except that for purposes of this subtitle, the applicable date shall be January 1, 1987 in lieu of January 1, 1975 and the purposes of this subtitle shall be substituted for the purposes referred to in Section 102(d) of such Act.

STATE AND LOCAL ASSISTANCE AND JURISDICTION

SEC. 706. (a) GRANTS.-Upon approval of the plan under Section 703, the Secretary is authorized to make grants to the State of Minnesota, or its political subdivisions, to cover not more than 50 percent of the cost of acquisition and development within the Area of lands and waters or interests therein in a manner consistent with the purposes of this subtitle.

(b) **COOPERATIVE AGREEMENTS .-** The Secretary is authorized to enter into cooperative agreements with the State of Minnesota or any political subdivision thereof pursuant to which he may assist in the planning for and interpretation of non-Federal publicly owned lands within the Area.

(c) **TECHNICAL ASSISTANCE.**-To enable the State of Minnesota and its political subdivisions to develop and implement programs compatible with the plan, the Secretary shall provide such technical assistance to the State and its political subdivisions as he deems appropriate.

(d) **STATE AND LOCAL JURISDICTION.**-Nothing in this subtitle shall diminish, enlarge, or modify any right of the State of Minnesota or any political subdivision thereof, to exercise civil and criminal jurisdiction or to carry out State fish and wildlife laws, rules, and regulations within the Area, or to tax persons, corporations, franchises, or private property on the lands and waters included in the Area.

AUTHORIZATION OF APPROPRIATIONS

SEC. 707. There is authorized to be appropriated such sums as may be necessary to carry out this subtitle.

Subtitle B-Tri-Rivers Management

TRI-RIVERS MANAGEMENT BOARD

SEC. 711. (a) FEDERAL REPRESENTATIVES.-In furtherance of the integrated management of those portions of the Mississippi, Saint Croix, and Minnesota Rivers within the Saint Paul-Minneapolis Metropolitan Area, the Secretary of the Interior and the Secretary of the Army are authorized and directed to appoint representatives to a Tri-Rivers Management Board (hereinafter referred to as the "Board"), or any similar organization, which may be established by the State of Minnesota to assist in the development and implementation of consistent and coordinated land use planning and management policy for such portions of such rivers.

(b) **PERSONNEL**-Upon request of the Board, the Secretary of the Interior and the Secretary of the Army may detail, on a reimbursable basis, any personnel to the Board.

(c) **AUTHORIZATION OF APPROPRIATIONS.**-There is hereby authorized to carry out the purposes of this subtitle the sum of \$100,000 annually; except that the Federal contribution to the Board shall not exceed one-third of the annual operating costs of the Board.

Appendix B: Related Federal Legislation, Regulations, and Executive Orders

Management decisions at Mississippi National River and Recreation Area are based on specific laws, policies, and regulations designed to protect environmental quality, preserve historic resources, promote public enjoyment of the site, and ensure that the benefits and costs of federal action are equitably shared by all citizens. The primary laws of particular importance to the decision-making process and management in this national park unit are outlined below.

The Organic Act of 1916 (16 USC 1, et seq.). The National Park Service Organic Act remains after nearly 100 years the core of National Park Service authority and the definitive statement of the purposes of the parks and of the National Park Service’s mission: “to promote and regulate the use of the federal areas known as national parks, monuments, and reservations . . . by such means and measures as conform to the[ir] fundamental purpose . . . to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations.”

General Authorities Act of 1970 (16 USC 1). This Act affirms that all national park areas are “united through their interrelated purposes and resources into one National Park System, as cumulative expressions of a single national heritage.”

Endangered Species Act of 1973 (7 U.S.C. § 136, 16 U.S.C. § 1531, et seq.). The purpose of the Endangered Species Act is to protect and recover imperiled species and the ecosystems upon which they depend. Under the Endangered Species Act, species may be listed as either endangered or threatened. “Endangered” means a species is in danger of extinction throughout all or a significant portion of its range. “Threatened” means a species is likely to become endangered within the foreseeable future. All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened.

The Redwood Act of 1978 (16 USC 1a-1). Congress supplemented and clarified the provisions of the Organic Act through enactment of the General Authorities Act in 1970, and again through enactment of a 1978 amendment to that law (the “Redwood Amendment”) contained in a bill expanding Redwood National Park. This Act states that the provisions of the Organic Act apply to all units of the National Park System. A key phrase is that activities “shall not be exercised in derogation of the values and purposes for which these areas have been established.” It is applicable unless Congress has “directly and specifically provided” otherwise. This Act also affirms that, if a conflict occurs between visitor use and protection of resources, the intent of Congress is to favor resource protection.

National Environmental Policy Act of 1969 (Title 42 U.S. Code sections 4321 to 4370 [42 USC 4321-4370]). This landmark environmental protection legislation requires federal agencies to integrate environmental values into their decision-making processes by considering the environmental impacts of their proposed actions and reasonable alternative to those actions. The National Environmental Policy Act establishes the format and process that the National Park Service must use in preparing the environmental analyses that are incorporated into the general management planning process. The results of

these analyses are presented to the public, federal agencies, and public officials in document format for consideration prior to taking official action or making official decisions.

Council on Environmental Quality Regulations, as amended (40 CFR 1500-1508). These regulations implement the National Environmental Policy Act and provide guidance to federal agencies in the preparation of environmental documents identified under the Act.

National Historic Preservation Act of 1966, as amended (Sec. 106 and Sec. 110, 16 USC 470; 36 CFR 800). The purpose of this Act is to protect and preserve districts, sites and structures, and architectural, archeological, and cultural resources. Section 110 requires that the National Park Service identify and nominate all eligible resources under its jurisdiction to the National Register of Historic Places. Section 106 of the Act requires that federal agencies with direct or indirect jurisdiction take into account the effect of any actions on cultural resources listed in or eligible for inclusion in the National Register of Historic Places.

Executive Order 11593, “Protection and Enhancement of the Cultural Environment,” May 13, 1971. This executive order directs federal agencies to inventory cultural properties under their jurisdiction, to nominate to the national register all federally owned properties that meet the criteria, to use due caution until the inventory and nomination processes are completed, and also to assure that federal plans and programs contribute to preservation and enhancement of nonfederal properties. Some of the provisions of the executive order were turned into section 110 of the National Historic Preservation Act.

Executive Order 13007, “Indian Sacred Sites.” This executive order, dated 24 May 1996, addresses the accommodation of access to and the protection of sacred sites. Each executive branch agency with statutory or administrative responsibility for the management of federal lands is required, to the extent practicable, permitted by law, and not clearly inconsistent with agency functions, accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners. They shall also avoid adversely affecting the physical integrity of the sacred sites. Where appropriate, agencies are supposed to maintain the confidentiality of sacred sites.

Code of Federal Regulations, Title 36. 36 CFR 1 provides the regulations “for the proper use, management, government, and protection of persons, property, and natural and cultural resources within areas under the jurisdiction of the NPS.” These regulations are used to fulfill the statutory purposes of national park system units – to conserve scenery, natural and historical objects, and wildlife, and to provide for the enjoyment of those resources in such a manner as to leave them unimpaired for future generations.

NPS Management Policies 2006. *NPS Management Policies 2006* is the basic servicewide policy document of the National Park Service. It is the highest of three levels of guidance documents in the NPS directives system. The directives system is designed to provide NPS management and staff with clear and continuously updated information on NPS policy and required and/or recommended actions, as well as any other information that would aid in the effective management of parks and programs.

Laws and regulations related specifically to the fundamental resources and values discussed in the document are listed below.

Natural Resources

Laws, Executive Orders, Regulations that Apply to the FRV/OIRV

- The Wild and Scenic Rivers Act
- Endangered Species Act of 1973, as amended
- National Invasive Species Act
- Lacey Act, as amended
- Migratory Bird Treaty Act (MBTA); 16 U.S.C. 703-712
- Eagle Protection Act; 16 U.S.C. 668
- The National Environmental Policy Act of 1969 (NEPA); 42 U.S.C. 4321
- Federal Noxious Weed Act of 1974, as amended
- The Clean Water Act
- The Clean Air Act (42 USC 7401 et seq.) gives federal land managers the responsibility for protecting air quality and related values, including visibility, plants, animals, soils, water quality, cultural resources, and public health, from adverse air pollution impacts
- Paleontological Resources Preservation Act (Pending, Senate Bill S.263), USC Title 9, Chapter 79, 5937
- Executive Order 13112, “Invasive Species”
- Secretarial Order 3289, “Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources”

NPS Policy-level Guidance (**NPS Management Policies 2006** and **Director’s Orders**)

- *NPS Management Policies 2006* (§1.6) “Cooperative Conservation Beyond Park Boundaries”
- *NPS Management Policies 2006* (§4.1) “General Management Concepts”
- *NPS Management Policies 2006* (§4.1.4) “Partnerships”
- *NPS Management Policies 2006* (§4.4.1) “General Principles for Managing Biological Resources”
- *NPS Management Policies 2006* (§4.7.2) “Weather and Climate”
- NPS Director’s Order 18: *Wildland Fire Management*
- *NPS Natural Resource Management Reference Manual 77*
- *NPS Wildland Fire Management Reference Manual 18*

Geologic Resources

Laws, Executive Orders, Regulations that Apply to the FRV/OIRV

- Paleontological Resources Protection Act
- Wild and Scenic Rivers Act (1968)
- Clean Water Act
- 1988 Federal Cave Resources Protection Act

NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)

- NPS *Management Policies 2006* (§4.6.1) “Protection of Surface Waters and Groundwaters”
- NPS *Management Policies 2006* (§4.6.2) “Water Rights”
- NPS *Management Policies 2006* (§4.6.4) “Floodplains”
- NPS *Management Policies 2006* (§4.8.1.1) “Shorelines and Barrier Islands”
- NPS *Natural Resource Management Reference Manual 77*

Water Resources

Laws, Executive Orders, Regulations that Apply to the FRV/OIRV

- Wild and Scenic Rivers Act (1968)
- Clean Water Act
- Water rights adjudication and law
- Executive Order 11514, “Protection and Enhancement of Environmental Quality”
- Executive Order 11988, “Floodplain Management”
- Executive Order 12088, “Federal Compliance with Pollution Control Standards”
- National Flood Insurance Program

NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)

- NPS *Management Policies 2006* (§4.6.1) “Protection of Surface Waters and Groundwaters”
- NPS *Management Policies 2006* (§4.6.2) “Water Rights”
- NPS *Management Policies 2006* (§4.6.4) “Floodplains”
- NPS *Management Policies 2006* (§4.8.1.1) “Shorelines and Barrier Islands”
- Director's Order 77-2: *Floodplain Management*
- Special Directive 93-4 “Floodplain Management, Revised Guidelines for National Park Service Floodplain Compliance” (1993)

Ecosystems

Laws, Executive Orders, Regulations that Apply to the FRV/OIRV

- The Wild and Scenic Rivers Act
- Endangered Species Act of 1973, as amended
- National Invasive Species Act
- Lacey Act, as amended
- Federal Noxious Weed Act of 1974, as amended
- The Clean Water Act
- The Clean Air Act (42 USC 7401 et seq.) gives federal land managers the responsibility for protecting air quality and related values, including visibility, plants, animals, soils, water quality, cultural resources, and public health, from adverse air pollution impacts
- Executive Order 13112, “Invasive Species”
- Secretarial Order 3289, “Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources” states that “Each bureau and office of the Department must consider and analyze potential climate change impacts when undertaking long-range planning exercises.”
- Executive Order 13514, “Federal Leadership in Environmental, Energy, and Economic Performance.” The goal of the EO is to establish an integrated strategy towards sustainability in the Federal Government and to make reduction of greenhouse gas emissions a priority.
- Executive Order 13423, “Strengthening Federal Environmental, Energy, and Transportation Management” instructs Federal agencies to conduct their environmental, transportation, and energy-related activities in a sustainable manner.

NPS Policy-level Guidance (NPS *Management Policies 2006* and Director’s Orders)

- NPS *Management Policies 2006* (§1.6) “Cooperative Conservation Beyond Park Boundaries”
- NPS *Management Policies 2006* (§4.1) “General Management Concepts”
- NPS *Management Policies 2006* (§4.1.4) “Partnerships”
- NPS *Management Policies 2006* (§4.4.1) “General Principles for Managing Biological Resources”
- NPS *Management Policies 2006* (§4.7.2) “Weather and Climate”
- NPS *Natural Resource Management Reference Manual 77*

Clean Air and Scenic Vistas

Laws, Executive Orders, Regulations that Apply to the FRV/OIRV

- NPS Organic Act
- The Clean Air Act (42 USC 7401 et seq.) gives federal land managers the responsibility for protecting air quality and related values, including visibility, plants, animals, soils, water quality, cultural resources, and public health, from adverse air pollution impacts

NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)

- NPS *Management Policies 2006* (§1.4) “Park Management”
- NPS *Management Policies 2006* (§1.6) “Cooperative Conservation Beyond Park Boundaries”
- NPS *Management Policies 2006* (§3.1) “General”
- NPS *Management Policies 2006* (§4.7) “Air Resource Management”
- NPS *Natural Resource Management Reference Manual 77*

Soundscapes

Laws, Executive Orders, Regulations that Apply to the FRV/OIRV

- National Parks Air Tour Management Act of 2000
- National Parks Overflight Act of 1987 (Public Law. 100-91)
- “Audio disturbances” (36 CFR § 2.12)
- “What is the maximum noise level for the operation of a vessel?” (36 CFR § 3.15)

NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)

- Director’s Order 47: *Soundscape Preservation and Noise Management*
- NPS *Management Policies 2006* (§4.9) “Soundscape Management”
- NPS *Management Policies 2006* (§5.3.1.7) “Cultural Soundscape Management”
- NPS *Management Policies 2006* (§8.4) “Overflights and Aviation Uses”
- NPS *Management Policies 2006* (§8.2.3) “Use of Motorized Equipment”

Dark Night Skies

Laws, Executive Orders, Regulations that Apply to the FRV/OIRV

- The Clean Air Act (42 USC 7401 et seq.) gives federal land managers the responsibility for protecting air quality and related values, including visibility, plants, animals, soils, water quality, cultural resources, and public health, from adverse air pollution impacts

NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)

- NPS *Management Policies 2006* (§4.10) "Lightscape Management"
- NPS *Management Policies 2006* (§4.7) "Air Resource Management"
- NPS *Natural Resource Management Reference Manual 77*

Wild and Scenic Rivers

Laws, Executive Orders, Regulations that Apply to the FRV/OIRV

- Wild and Scenic Rivers Act (1968)
- Clean Water Act
- Executive Order 11514, "Protection and Enhancement of Environmental Quality"
- Executive Order 11988, "Floodplain Management"
- Executive Order 12088, "Federal Compliance with Pollution Control Standards"
- National Flood Insurance Program

NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)

- NPS *Management Policies 2006* (§4.3.4) "National Wild and Scenic Rivers System"
- Director's Order 77-2: *Floodplain Management*
- Special Directive 93-4 "Floodplain Management, Revised Guidelines for National Park Service Floodplain Compliance" (1993)
- NPS *Natural Resource Management Reference Manual 77*

Visitor Use and Experience

Laws, Executive Orders, Regulations that Apply to the FRV/OIRV

- Americans with Disabilities Act of 1990
- Architectural Barriers Act of 1968
- Architectural Barriers Act Accessibility Standards 2006
- Rehabilitation Act of 1973
- NPS Concessions Management Improvement Act of 1998
- 36 CFR Part 51

NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)

- NPS *Management Policies 2006* (chapter 7) “Interpretation and Education”
- NPS *Management Policies 2006* (chapter 8) “Use of the Parks”
- NPS *Management Policies 2006* (chapter 9) “Park Facilities”
- NPS *Management Policies 2006* (chapter 10) “Commercial Visitor Services”
- Director’s Order 6: *Interpretation and Education*
- Director’s Order 42: *Accessibility for Visitors with Disabilities in NPS Programs, Facilities, and Services*
- Director’s Order 48A: *Concession Management*
- Director’s Order 48B: *Commercial Use Authorizations*
- NPS *Transportation Planning Guidebook*

Cultural Resources**Laws, Executive Orders, Regulations that Apply to the FRV/OIRV**

- The Antiquities Act of 1906
- Historic Sites, Buildings, and Antiquities Act of 1935
- National Historic Preservation Act of 1966, as amended (16 USC 470)
- Archeological and Historic Preservation Act of 1974
- American Indian Religious Freedom Act of 1978
- Archaeological Resources Protection Act of 1979
- Native American Graves Protection and Repatriation Act of 1990
- Museum Act (16 USC 18f through 18f-3)
- Executive Order 11593, “Protection and Enhancement of the Cultural Environment”
- Executive Order 13007, “Indian Sacred Sites”
- “Curation of Federally Owned and Administered Archeological Collections” (36 CFR 79)
- “Protection of Historic Properties” (36 CFR 800)

NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)

- NPS *Management Policies 2006* (chapter 5) “Cultural Resource Management”
- Director’s Order 24: *NPS Museum Collections*
- Director’s Order 28: *Cultural Resource Management* (1998)
- Director’s Order 28A: *Archeology* (2004)
- NPS *Museum Handbook*, parts I, II, and III
- *The Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation*

Preserving and Studying Natural and Cultural History (related to research and museum collections)

Laws, Executive Orders, Regulations that Apply to the FRV/OIRV

- National Historic Preservation Act of 1966, as amended (16 USC 470)
- Antiquities Act of 1906
- Archeological and Historic Preservation Act of 1974
- Archaeological Resources Protection Act of 1979
- American Indian Religious Freedom Act of 1978
- Historic Sites, Buildings, and Antiquities Act of 1935
- Museum Act of 1955, as amended
- Native American Graves Protection and Repatriation Act of 1990
- Paleontological Resources Protection Act
- 1988 Federal Cave Resources Protection Act
- Endangered Species Act of 1973, as amended
- National Invasive Species Act
- Lacey Act, as amended
- Federal Noxious Weed Act of 1974, as amended
- The Clean Water Act
- The Clean Air Act
- Executive Order 13112, “Invasive Species”
- Executive Order 11593, “Protection and Enhancement of the Cultural Environment”
- Executive Order 13007, “American Indian Sacred Sites”
- “Curation of Federally Owned and Administered Archeological Collections” (36 CFR 79)
- “Protection of Historic Properties” (36 CFR 800)

NPS Policy-level Guidance (NPS *Management Policies 2006* and Director’s Orders)

- NPS *Management Policies 2006* (§1.6) “Cooperative Conservation Beyond Park Boundaries”
- NPS *Management Policies 2006* (§2.3.1.4) “Science and Scholarship”
- NPS *Management Policies 2006* (§4.1) “General Management Concepts”
- NPS *Management Policies 2006* (§4.1.4) “Partnerships”

- *NPS Management Policies 2006* (§4.2) “Studies and Collections”
- *NPS Management Policies 2006* (§4.4.1) “General Principles for Managing Biological Resources”
- *NPS Management Policies 2006* (§4.7.2) “Weather and Climate”
- *NPS Management Policies 2006* (§5.1) “Research”
- *NPS Management Policies 2006* (§8.10) “Natural and Cultural Studies, Research, and Collection Activities”
- Director’s Order 24: *Museum Collections*
- Director’s Order 28: *Cultural Resource Management*
- Director’s Order 28A: *Archeology*, 4A(3) Native American Graves Protection and Repatriation Act
- Director’s Order 77-2: *Floodplain Management*
- *NPS Museum Handbook*, parts I, II, and III
- *(NPS-75) Natural Resources Inventory and Monitoring Guideline*
- *NPS Natural Resource Management Reference Manual 77*



Midwest Region Foundation Document Recommendation Mississippi National River and Recreation Area

APRIL 2014

This Foundation Document has been prepared as a collaborative effort between park and regional staff and is recommended for approval by the Midwest Regional Director.

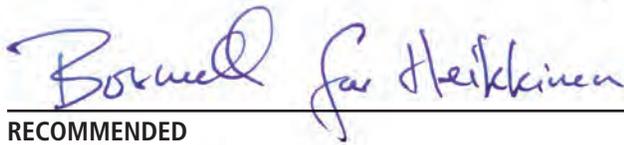


4-30-14

RECOMMENDED

Superintendent, Mississippi National River and Recreation Area

Date

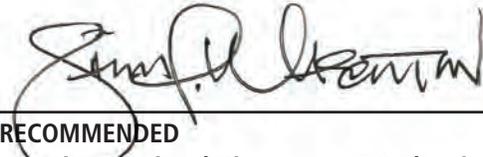


5/5/2014

RECOMMENDED

Planning Division Chief, Midwest Regional Office

Date

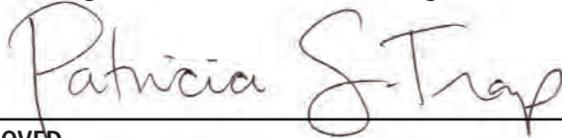


5/5/2014

RECOMMENDED

Associate Regional Director, MWRO Planning, Communications and Legislation

Date



5-6-2014

APPROVED

Acting Regional Director, Midwest Region

Date



As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historic places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

NPS/MISS/607/124511A

APRIL 2014

Foundation Document • Mississippi National River and Recreation Area

