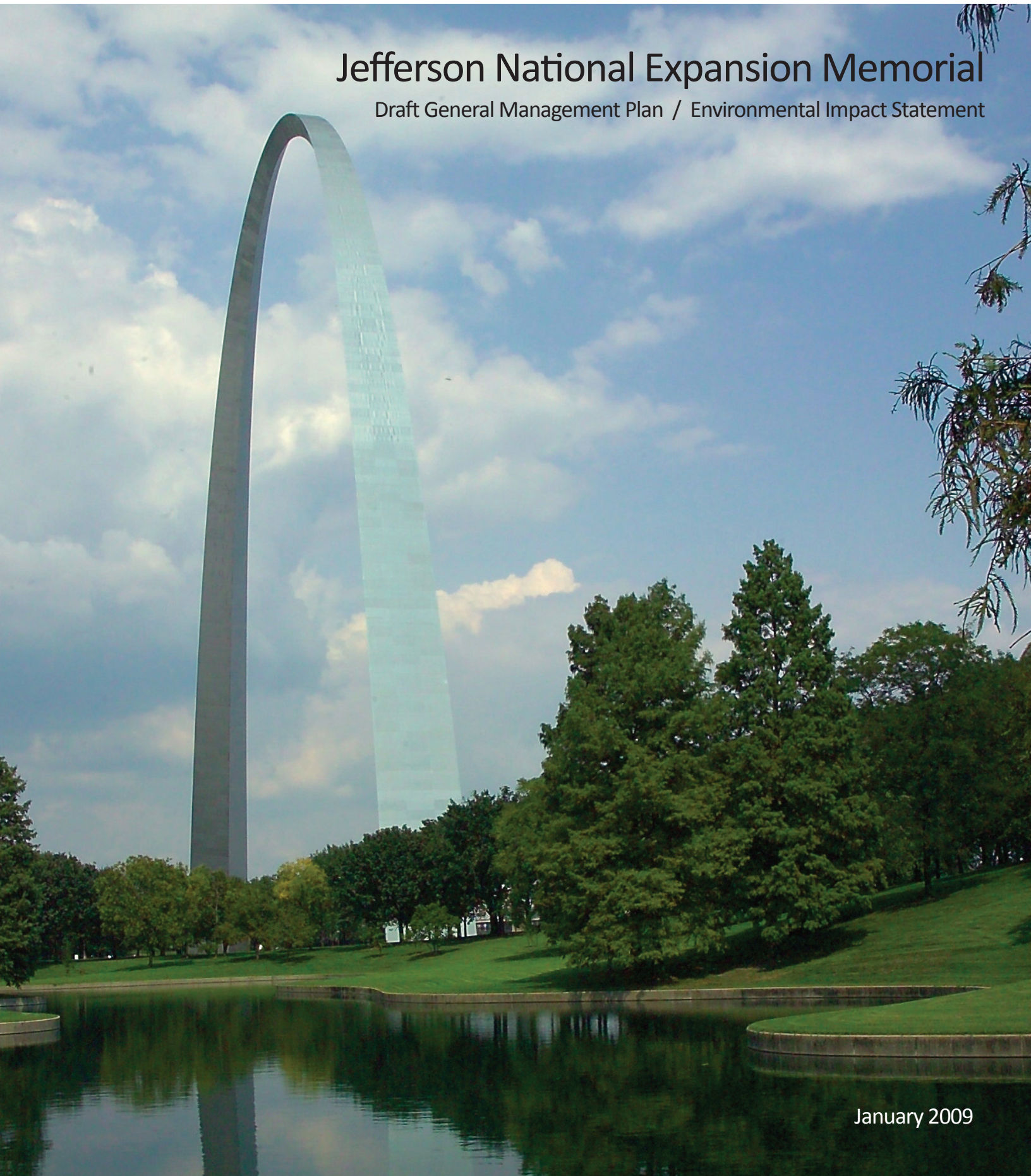




# Jefferson National Expansion Memorial

Draft General Management Plan / Environmental Impact Statement



January 2009

**Draft**  
**General Management Plan / Environmental Impact Statement**  
**Jefferson National Expansion Memorial**

St. Louis, Missouri

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Jefferson National Expansion Memorial was established December 21, 1935, when President Franklin D. Roosevelt signed an executive order directing the Secretary of the Interior to acquire property and develop the Memorial along the riverfront in downtown St. Louis, Missouri. The Memorial was the first Secretarial designation under the Historic Sites Act of 1935, and has always been administered by the National Park Service. The Memorial honors the memory of the pioneers of U.S. westward expansion, and its construction served as the central foundation in revitalization efforts for the entire downtown section of St. Louis. The Gateway Arch is an icon within the city, a major tourist destination and the symbolic portal to the American West.

Between 1939 and 1942, 40 square blocks of condemned buildings were razed to make way for the memorial. Only the Old Courthouse and the Old Cathedral were saved and still stand. In 1940, the City of St. Louis gave the Old Courthouse to the National Park Service and it was incorporated into the Memorial. Groundbreaking for the Gateway Arch occurred on June 23, 1959, and the structure was completed in October of 1965. The landscape design and Museum of Westward Expansion were completed during the following twenty-five years. Legislation was passed in 1984 and 1992 establishing the Jefferson National Expansion Memorial Addition in East St. Louis, Illinois. Though the legislation authorized an addition of approximately 100 acres, the boundary has yet to be determined and property has yet to be acquired.

The last comprehensive master plan for the Memorial was completed in 1962. A general management plan will help guide the future of the Memorial.

This document examines four alternatives for managing the Memorial for the next 15 to 20 years. It also analyzes the impacts of implementing each of the alternatives. The **no action alternative (alternative 1)** consists of continuing the existing park management and serves as a basis for comparison in evaluating the other alternatives. Three **action alternatives (alternatives 3, 4 and 5)** propose actions that differ from the current management of the Memorial. The action alternatives propose different ways to manage resources and new facilities that would allow new types of visitor uses and amenities. Over the course of planning, alternative 2 was dismissed from consideration after public scoping and further analysis because the benefits of this alternative already existed in or could be incorporated into other alternatives. In this draft plan, alternative 3 has been identified as the National Park Service's preferred alternative.

This *Draft Jefferson National Expansion Memorial General Management Plan and Environmental Impact Statement* has been distributed to other agencies and interested organizations and individuals for their review and comment. The public review and comment period for this document will last for 60 days after the Environmental Protection Agency's notice of availability has been published in the *Federal Register*. Readers are encouraged to submit their comments on this draft plan. Please note that National Park Service practice is to make comments, including names and addresses of respondents, available for public review; see "How to Comment on this Plan" discussion on the next page for further information.



## How to Comment on this Plan

Comments on this plan are welcome and will be accepted for 60 days after the Environmental Protection Agency's notice of availability appears in the *Federal Register*. Comments and responses to the material may be submitted either over the internet or in writing. Please comment only once. Please include your name and address on any correspondence, particularly any e-mail messages, if you wish to be included on our mailing list.

Readers are encouraged to submit comments through the internet if at all possible. Please visit the National Park Service Planning, Environment and Public Comment (PEPC) website located at <<http://parkplanning.nps.gov/jeff>> and then choose the General Management Plan to access the official project website and to submit comments.

Written comments may be sent to:

Superintendent Tom Bradley  
Jefferson National Expansion Memorial  
11 North 4th Street  
St. Louis, Missouri 63102

Verbal comments may be made at public meetings. The dates, times, and locations of public meetings will be announced in the media following release of this document. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment — including your personal identifying information — may be made publicly available. Although you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

## The Next Steps

Following the 60-day public review and comment period, the NPS planning team will evaluate comments from federal and state agencies, organizations, and individuals regarding the draft plan. Subsequently, the team will incorporate appropriate changes into a *Final Jefferson National Expansion Memorial General Management Plan and Environmental Impact Statement*. The final plan will include substantive comments on the draft document and the NPS responses to those comments. Following distribution of the *Final Jefferson National Expansion Memorial General Management Plan and Environmental Impact Statement* and a 30-day no-action period, a Record of Decision approving a final plan will be signed by the National Park Service Regional Director. The Record of Decision documents the National Park Service selection of an alternative for implementation. With the signed Record of Decision, the approved plan can then be implemented, depending on funding and staffing. A Record of Decision does not guarantee funds and staff for implementing the approved plan.

# Executive Summary

Jefferson National Expansion Memorial (hereafter referred to as the Memorial) was established by Executive Order in 1935. Part of the national park system, the Memorial consists of the Gateway Arch and grounds - a National Historic Landmark - as well as the Old Courthouse and Luther Ely Smith Square. The Memorial is located in downtown St. Louis, on the west bank of the Mississippi River, and consists of 91 acres.

## **Purpose of the General Management Plan and Environmental Impact Statement**

General Management Plans (GMPs) are required of all national park units by law and serve as long-term plans to guide the management and use of park lands. The last master plan for the site was released in 1962, more than a decade before the completion of key elements of the Memorial grounds, and was completed prior to the enactment of the National Environmental Policy Act, National Historic Preservation Act and other relevant laws. As such, it is out of date. The development of a GMP for Jefferson National Expansion Memorial is critical for guiding the operations and management of the Memorial over the next 15 to 20 years.

## **Management Zones**

One of the key tools used in planning for units of the national park system is the definition and application of management zones. Management zones can be used to identify how different areas within the Memorial could be managed to achieve resource preservation, provide visitor access and use, and serve operational purposes. Each management zone specifies complementary resource conditions, opportunities for visitor experiences, and

appropriate facilities, and combines these into a possible management strategy that could be applied to locations within the Memorial. As such, management zones give an indication of management priorities for various areas.

Six management zones have been developed for use within the Memorial. These include: Heritage Education and Visitor Amenities, Original Landscape, Orientation, Streetscape/Riverscape, Service, and Design Competition.

The purpose of the **Heritage Education and Visitor Amenities** zone is to provide visitor education, interpretation, orientation, and amenities. This zone is characterized by the cultural resources and visitor facilities that serve the educational and practical needs of the visitor. It is situated so as to have little impact on the designed landscape/National Historic Landmark.

The purpose of the **Original Landscape** zone is to preserve the National Historic Landmark (NHL). The Original Landscape may be rehabilitated, as necessary, as defined by the Secretary of the Interior's Standards (compatible materials, design, and features) only to provide safe visitor access and security.

The purpose of the **Orientation** zone is to provide visitor orientation, enhance visual and physical connectivity, and to support Memorial operations. This zone is characterized by visitor orientation, parking, and practical needs. It is situated so as to have little impact on the designed landscape/National Historic Landmark.

The purpose of the **Streetscape/Riverscape** zone is to create visual and physical connectivity between the city streets, the riverfront,



and the Memorial. This zone is characterized by the formal, pedestrian-oriented avenues, and/or riverfront the visitor passes through when approaching, entering, leaving, or walking by the Memorial.

The purpose of the **Service** zone is to support Memorial operations. Appropriate types of facilities in this zone may include administrative and operational facilities; parking, storage, roads, and security checkpoints.

The purpose of the **Design Competition** zone is to provide opportunities for a design competition that would explore innovative approaches to revitalizing the Memorial. This zone is characterized by visitor programs and facilities that serve the educational needs of the visitor. It is situated so as to have as minimal an impact as possible on the National Historic Landmark.

Because the Memorial is not currently zoned, management zones only apply to action alternatives (alternatives 3, 4, and 5). The action alternatives each propose a different configuration of the management zones within the Memorial based on the concept for each alternative. In each management zone, the Memorial intends to preserve and protect resources to the greatest extent possible. The National Park Service will not allow an action that would cause the National Historic Landmark to be delisted.

### Alternatives and Impacts

The alternatives in this general management plan represent different methods of applying management zones onto the grounds and to facilities and include alternative actions that could be taken at Jefferson National Expansion Memorial. Each of the action alternatives consists of an overall management framework and a concept of how different areas of the Memorial would be managed.

**ALTERNATIVE 1: NO ACTION** The no action alternative primarily reflects current conditions and activities at the Memorial. This alternative is provided as a baseline against which to compare the other “action” alternatives. The Memorial would continue to function much the way it does today, and the

NPS management of the site would continue to be based upon the 1962 final Conceptual Master Plan, which currently guides park managers on the completion and preservation of the Memorial grounds. As funding permits, the National Park Service would continue to look for opportunities to complete unfinished portions of the design, according to *The Secretary of the Interior’s Standards for the Treatment of Historic Properties, Guidelines for the Treatment of Cultural Landscapes* and the treatment recommendations of the *Jefferson National Expansion Memorial Cultural Landscape Report* (1996).

Under the no action alternative, no major changes, or new construction projects would be undertaken. Long-term, minor to moderate adverse impacts could occur if the roof on the Old Courthouse is not replaced. The poor condition of the Old Courthouse roof along with other mechanical, electrical and climatic conditions would continue to cause minor to moderate adverse effects to the Memorial curatorial resources and museum collections. The appearance of the Memorial grounds would remain unchanged and necessary repairs to landscape elements would continue to be made creating overall long term minor to moderate beneficial effects to the cultural landscape. Natural resources conditions would remain unchanged. The visitor experience would continue to be adversely impacted due to the lack of accessibility and connectivity between the Memorial and the surrounding city, unfriendly streetscapes and aging exhibits. Transportation and access would also continue to be adversely affected due to the lack of accommodation of alternative means of transportation and the separation between the Memorial and public rail transportation lines. The socioeconomic condition would remain unchanged and the lack of focus on planning activities for the East St. Louis Addition would continue to create a minor long term adverse impact on land use. Minor to moderate adverse effects to Memorial operations would continue due to current funding constraints.

**PREFERRED ALTERNATIVE 3: PROGRAM EXPANSION** In this alternative, the Memorial would be revitalized by expanded programming, facilities, and partnerships. The National Park Service would capitalize on multiple opportunities to expand visitor experience throughout the Memorial. In order to gain the widest breadth of ideas for expanding interpretation, education opportunities, and visitor amenities at the Memorial, a design competition, akin to the 1947 competition, would be initiated by the National Park Service in close coordination with partners. Project funding would not come all at once; it most likely would be provided from partners, donations and other non-federal and federal sources. Private funding would be required in order to implement the winning entry of the design competition. In addition to considering the “winning” ideas from the competition, the National Park Service would continue the educational and interpretive programs currently offered at the Memorial and expand opportunities for visitors to participate in more interactive experiences across the Memorial grounds. The grounds surrounding the Gateway Arch would be managed in such a way as to accommodate and promote more visitor activities and special events than are currently provided. The National Park Service would actively coordinate with the City and State to enhance the pedestrian environment around the Memorial by developing a unifying streetscape along the Gateway Mall and the other streets adjacent to the Memorial, including Leonor K. Sullivan Boulevard and the riverfront levee.

The appearance of the Memorial within the design competition zone could be substantially changed and could include above ground structures as a result of the proposed competition under this alternative. The design competition would be structured to ensure the National Historic Landmark designation is protected and that major long-term adverse impacts to historic buildings and cultural landscapes are avoided. Depending on the locations of design elements and the extent of ground disturbing activities, impacts on archeological resources could range from minor beneficial to major adverse. The National Park Service would not select any alternative that would result in impairment of the resource or

result in the delisting of the National Historic Landmark. The Old Courthouse roof along with other mechanical, electrical and climatic conditions would be replaced and/or upgraded creating moderate beneficial impacts to the Memorial curatorial resources and museum collections.

Depending on the results of the design competition, critical habitat for the federally listed Threatened species could be impacted, but any future development that might result from the design competition would be preceded by a site survey to determine if the species is present within the study area. Consultation with the U.S. Fish and Wildlife Service would be required as part of the design process and prior to any construction.

Alternative 3 would have moderate to major beneficial short-term impacts on visitor use and moderate long-term beneficial impacts due to the development of new facilities. Improvements in barrier-free access points and streetscapes are expected to increase connectivity to downtown St. Louis and to have a long-term beneficial impact on the visitor experience. Modification and rehabilitation of exhibits and heritage programs, including more interactive experiences is expected to improve visitor opportunities, attracting new visitors and encouraging more use of underutilized facilities.

Improvements to streetscapes and connectivity with local neighborhoods are expected to have long-term beneficial impacts on land use within and immediately adjacent to the Memorial. Development of new facilities within the Memorial could lead to long-term adverse impacts to public green spaces. Changes in management in the East St. Louis addition are expected to have long-term beneficial impacts on local land use. Visitation to the Memorial will have a long-term beneficial economic impact due to visitor spending and expenditures associated with operations at the Memorial, though the magnitude is indeterminate at this time.

The unknown, yet potentially substantial changes to the existing transportation conditions, depending upon the outcome of the design competition, could create moderate to

major long-term adverse to beneficial impacts on transportation. Memorial operations would be impacted in this alternative and would range from moderate/major beneficial to adverse. Much depends on the outcome of the design competition, and whether the new programs and elements that emerge from the competition come with additional financial resources for operations.

**ALTERNATIVE 4: PORTALS** This alternative focuses on revitalizing the Memorial through enhanced visual and physical connections from the surrounding neighborhoods to the Memorial. It features the development of four portals from the north, south, east, and west as formal entrances into the Memorial. Capitalizing on the established visual link between the Old Courthouse and the Gateway Arch, the east-west axis would be strengthened with a new east portal, linking East St. Louis to the Gateway Arch grounds by water taxi, and the creation of an expanded west portal that includes a wide at-grade lid or deck above the recessed highway to provide additional open space. Directly above the lid/deck, two elevated pedestrian bridges would be constructed for visitors to walk between Luther Ely Smith Square and the Gateway Arch grounds. The north portal would be improved at both the northwest plaza (at Memorial Drive and Washington Avenue) and in the vicinity of the MetroLink station at Eads Bridge. The south portal would provide improved visitor access and orientation to the south end of the Memorial grounds and riverfront. Pedestrian at-grade improvements would be made at all major entrances. Further connectivity would be promoted with a new transportation system linking visitor attractions within and outside of the Memorial. The National Park Service would actively coordinate with the City and State to enhance the pedestrian environment around the Memorial by developing a unifying streetscape along the Gateway Mall and the other streets adjacent to the Memorial, including Leonor K. Sullivan Boulevard and the riverfront levee.

The Portals alternative may result in local negligible to minor long-term adverse and moderate to major long-term beneficial impacts on the cultural landscape at Jefferson National Expansion Memorial. Under Section

106, there would be no adverse effect on the Memorial landscape or to historic resources. The implementation of the Portals alternative would result in moderate long-term beneficial impacts on curatorial resources and museum collections.

Implementation of alternative 4 may have moderate long-term beneficial impacts on visitor opportunity and use. Visitor opportunities and use are expected to improve with redesign of exhibits at the Museum of Westward Expansion and the Old Courthouse and development of barrier-free access to the riverfront and museum. Improvements in streetscapes, the introduction of a new transportation system, and a water taxi service are expected to increase connectivity to local neighborhoods in downtown St. Louis and East St. Louis, and have a long-term beneficial impact on visitor opportunities and use. The Memorial would continue to be a major attraction for visitors coming to the St. Louis area, and its appeal to local residents and visitors is expected to have a minor positive increase in visitation under this alternative. Visitation to the Memorial would have a long-term minor positive economic impact due to visitor spending and expenditures associated with operations at the Memorial, though the impacts would be focused within the local geographic area.

Implementation of the Portals alternative would have a long-term moderate beneficial impact on local land use. The expanded facilities would require a commensurate increase in NPS operational resources.

**ALTERNATIVE 5: PARK INTO THE CITY** The focus of this alternative is to extend the visitor's experience of the Memorial into the surrounding city. In this alternative the Memorial would be revitalized by emphasizing enhanced services and visual themes that begin and continue into adjacent neighborhoods and areas, and addressing the transportation and access challenges of the Memorial. The single largest change to the character of the Memorial would be caused by the removal and rerouting of Memorial Drive away from the Memorial between Poplar and Locust Streets. With the removal of this major thoroughfare from the Memorial's boundary, the edge of the



Memorial could be transformed into a series of large pedestrian plazas, which would increase connectivity between the Old Courthouse and the Gateway Arch, all centered on Luther Ely Smith Square. Connectivity would be further promoted with a new transportation system linking visitor attractions within and outside the Memorial. The National Park Service would actively coordinate with the City and State to enhance the pedestrian environment around the Memorial by developing a unifying streetscape along the Gateway Mall and the other streets adjacent to the Memorial, including Leonor K. Sullivan Boulevard and the riverfront levee.

The Park into the City alternative may result in long-term moderate to major beneficial and minor adverse local impacts on the cultural landscape at Jefferson National Expansion Memorial. Under Section 106, there would be no adverse effect on the Memorial landscape. The implementation of the Park into the City alternative would result in local moderate long-term beneficial impacts on curatorial resources and museum collections. The Park into the City alternative would have moderate long-term beneficial impact on visitor opportunity and use. Visitor opportunities are expected to improve with the redesign of exhibits at the Museum of Westward Expansion and the Old Courthouse and development of barrier-free access to the riverfront and the museum. Improvements in streetscapes and the introduction of a new transportation system are expected to increase connectivity to local neighborhoods in downtown St. Louis, and to have a long-term beneficial impact on visitor opportunities and use.

The implementation of alternative 5 would have a long-term moderate beneficial impact on local land use.

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# 1.0 Introduction

Jefferson National Expansion Memorial • Draft General Management Plan / Environmental Impact Statement



# Introduction

## 1.1 A GUIDE TO THIS DOCUMENT

This document is arranged to provide the user with a comprehensive understanding of the establishment and early history, present condition, and future potential of Jefferson National Expansion Memorial. The alternatives presented within this document are thoroughly examined against a multi-faceted backdrop that includes: the Memorial's purpose and historical significance; a wide range of environmental, resource, socioeconomic, and fiscal considerations; federal laws, policies, and executive orders; past, current, and projected local and regional development plans and concerns; and the necessary steps for consultation and coordination throughout the development process. At once broad and specific, this document is intended to provide a roadmap for future changes to the Memorial's operation and physical environment.

*This Draft Jefferson National Expansion Memorial General Management Plan and Environmental Impact Statement* is organized into five chapters plus appendices. Each section is described briefly below.

*Chapter 1: Introduction* describes the context for the entire document. It explains the purpose and need for the plan while also giving a brief overview of the evolution of Jefferson National Expansion Memorial. It explains the foundations which support the National Park Service (NPS) plans for and management of the Memorial (e.g., park purpose, significance, fundamental resources and values, special mandates, and servicewide laws and policies). This chapter touches on potential adjustments to the boundary of the Memorial as well as the plan's relationship to other planning efforts in the St. Louis region. Finally, it introduces the

impact topics being considered in the evaluation of the potential management alternatives for the Memorial and provides a discussion of impact topics that were dismissed from detailed analysis.

*Chapter 2: Alternatives, Including the Preferred Alternative* discusses four management, or action, alternatives - including a no action alternative - developed during this planning process, their management zones and their implementation strategies. It describes six management zones (Heritage Education and Visitor Amenities, Original Landscape, Orientation, Streetscape/Riverscape, Service, and Design Competition) that provide the foundation for each of the action alternatives. A summary table comparing the alternatives with mitigation measures considered for the action alternatives, as well as the rationale behind the selection of the preferred alternative, is included in this chapter.

*Chapter 3: Affected Environment* describes the resources and operations that would be affected by the various actions proposed in each alternative. These impact topics include cultural resources, natural resources, visitor opportunities and use, socioeconomic, transportation and access, infrastructure, and NPS operations.

*Chapter 4: Environmental Consequences* analyzes the impacts of implementing the alternatives. It includes analysis of direct, indirect, and cumulative impacts. The chapter addresses the impairment findings, if any, under each of the impact topics.

*Chapter 5: Consultation and Coordination* summarizes the public involvement efforts, including the scoping phase, of this planning



effort. It also describes the history of public and agency coordination during the planning effort, and lists the agencies and organizations that received copies of the document.

*The Appendices* present supporting information for the document, and are followed by bibliographic references, a list of preparers, acronyms, and an index.

## 1.2 PURPOSE AND NEED FOR THE GENERAL MANAGEMENT PLAN

General management plans (GMP) are required by law of all national park units and serve as long-term plans to guide the management and use of park lands (Public Law 95-625). The last master plan for the site was released in 1962, more than a decade before the completion of key elements of the Memorial, and was completed prior to the enactment of the National Environmental Policy Act, National Historic Preservation Act and other relevant laws. As such, it is out of date. The development of a GMP for Jefferson National Expansion Memorial is critical to guide the operations and management of the Memorial over the next 15 to 20 years.

A GMP is an operational blueprint for each park unit within the national park system. It provides the foundation upon which park managers guide programs and set priorities for resource stewardship, visitor understanding and appreciation, partnerships, and facilities and operations for the 15 to 20 years following its publication. All concepts, strategies, and actions in a GMP must be consistent with the NPS Organic Act and the original purpose and significance of the unit's establishment. Federal legislation and National Park Service policies also govern the plan's parameters and recommendations. The *Draft Jefferson National Expansion Memorial General Management Plan and Environmental Impact Statement* will not resolve all the issues facing the Memorial, nor will it guarantee funding. The plan will identify desired resource conditions and visitor experiences and the strategies for achieving those conditions. It will also identify general locations in which certain types of activities and development would be appropriate. Specific designs and methods for achieving these conditions will be addressed in new

or revised implementation plans that will be prepared after the GMP has been completed and approved. Although GMPs provide estimates of costs for proposed activities and development, the completion of a GMP does not guarantee future funding.

In summary, a general management plan satisfies statutory and policy requirements and:

- Provides basic direction and management philosophy (Chapter 1).
- Identifies resource and visitor use management strategies and actions (Chapter 2).
- Identifies infrastructure requirements, functions, and locations (Chapter 2).
- Identifies funding and staffing requirements (Chapter 2).
- Examines management considerations and discloses environmental impacts of proposed actions within the broader context of the city and region (Chapters 1 and 4).
- Provides disclosure of the environmental impacts of proposed actions (Chapters 3 and 4).

## 1.3 OVERVIEW OF JEFFERSON NATIONAL EXPANSION MEMORIAL

Jefferson National Expansion Memorial was the brainchild of Luther Ely Smith, a prominent St. Louis attorney. Smith convinced the city mayor, Bernard Dickmann, and prominent St. Louis businessmen that "...a suitable and permanent public memorial to the men who made possible the western territorial expansion of the United States, particularly President Jefferson," should be built on the St. Louis riverfront.

On December 21, 1935, President Franklin D. Roosevelt signed an executive order providing direction to the Secretary of the Interior for the acquisition and development of Jefferson National Expansion Memorial. The Memorial was the first Secretarial designation under the Historic Sites Act of 1935, and was to be administered by the NPS. Between 1939 and 1942 forty blocks of condemned buildings, remnants of the once-proud riverfront district, were razed. Only the Old Courthouse and the Old Cathedral are still standing today. In 1940 the City of St. Louis gave the Old Courthouse, the historic building in which the Dred Scott

case began, to the NPS, and it was incorporated into the Memorial. Just as progress was being made on the Memorial's development the United States was plunged into World War II, and work on the Memorial was halted.

With the end of the Second World War Luther Ely Smith resumed the project with an architectural competition. Smith felt that the Memorial should include a central feature, "a shaft, a building, or an arch" symbolizing American culture and civilization, "transcending in spiritual and aesthetic values," and attracting visitors from around the globe. Held in two stages, the competition was judged by a jury of seven nationally recognized architectural and design professionals predisposed toward the Modern style, influencing most of the entrants to assume a modern approach to their design submissions. By the deadline of September 1, 1947, 172 entries were received. By secret ballot the panel of seven unanimously chose design number 144, submitted by Eero Saarinen and the design team that included his wife Lily Saarinen (a sculptor and artist), landscape architect Dan Kiley, illustrator J. Henderson Barr, and designer Alexander Girard – and which featured a soaring stainless steel arch.

As funds became available to build the Memorial in 1957, Saarinen returned to the drawing board to re-tool several aspects of the project. Saarinen and Kiley placed the surface structures of the original design, including the museum, underground, and completely revamped the landscape plan. The system of curving, tree-lined walks reflected the shape of the Gateway Arch, and the grounds became a vital part of the overall aesthetic. The Gateway Arch was designed to be viewed from all angles, as seen from below and from various distances. It was in reality a monumental outdoor sculpture. Ground-breaking for the Gateway Arch occurred on June 23, 1959, and the structure was completed in October of 1965.

At last, Luther Ely Smith's dream was fulfilled in more ways than one. Not only did the Memorial's construction honor the memory of the pioneers of American westward expansion, but it also served as the central foundation of revitalization efforts for the entire downtown

section of St. Louis. The Gateway Arch is an icon within the city, a major tourist destination (drawing nearly 2.5 million annual visitors), and a symbolic portal to the West.

## 1.4 REGIONAL SETTING

Jefferson National Expansion Memorial is located entirely within the urban area of downtown St. Louis, Missouri (See figures 1.1 and 1.2). It was the first urban park within the NPS system to be designated outside of Washington D.C. (NPS 1994). The 91-acre park sits on the west bank of the Mississippi River and occupies forty blocks between Eads Bridge and Poplar Street (NPS 1996a), bounded on the east by Leonor K. Sullivan Boulevard and primarily on the west by Memorial Drive, except for two blocks immediately west of Memorial Drive occupied by Luther Ely Smith Square and the Old Courthouse.

The urban setting of the Memorial is in various stages of redevelopment. According to the City of St. Louis Strategic Land Use Plan (City of St. Louis 2005), three zone designations characterize the area surrounding the Memorial:

- Recreation and Open Space Preservation Area
- Specialty Mixed-Use Area
- Opportunity Area

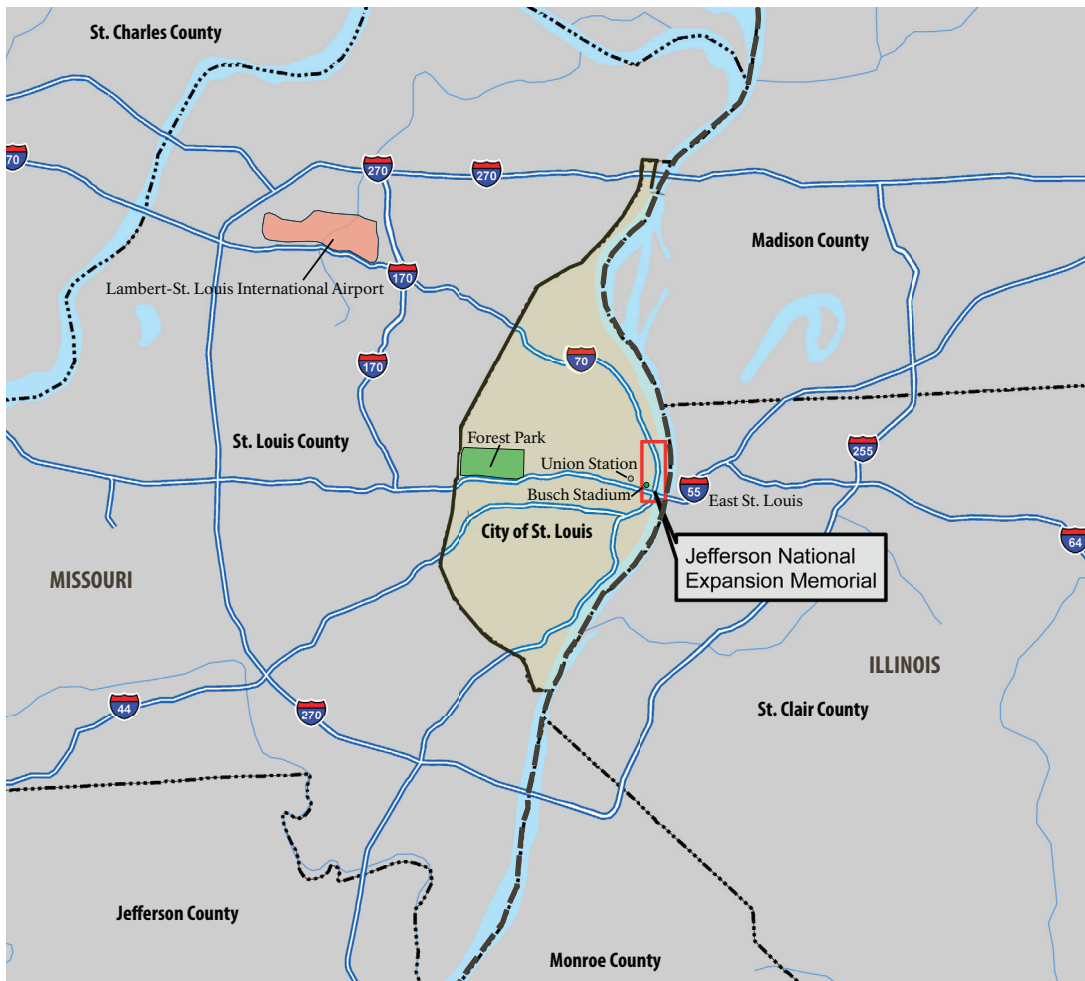
Jefferson National Expansion Memorial, along with the Gateway Mall that runs axially east-west through the center of downtown St. Louis, has been identified by the City as a Recreational and Open Space Preservation Area.

To the west and north of the Memorial is a district primarily identified as a Specialty Mixed-Use Area – in this case a unique mix of uses for preservation and development. A newly developed casino and luxury hotel sits directly north of Laclede's Landing, a historic nine-block district immediately to the north of the Memorial on the north side of Eads Bridge. The area includes eating and entertainment venues around Laclede's Landing which are served by the Memorial's north parking lot. The Landing formerly served as a steamboat cargo area for vessels traveling the Mississippi River. To the northwest of the Memorial and



**Figure 1.1** Jefferson National Expansion Memorial Region





**Figure 1.2** Jefferson National Expansion Memorial Location

Laclede's Landing the Washington Avenue loft district has also been experiencing a residential, retail and restaurant resurgence.

Southwest of the Old Courthouse, on land formerly occupied by the old baseball stadium, a five-block mixed-use development project of office, residential, retail, and restaurant uses has been proposed but has more recently been delayed.

Immediately south of the Memorial, Chouteau's Landing has been identified as an Opportunity Area, a "key underutilized location(s) where land use is in transition" (City of St. Louis 2005). One of St. Louis' oldest districts, and emerging as a pivotal commercial hub during the late 19th and early 20th centuries - manu-

facturing a diverse array of products ranging from burlap bags to pickles - Chouteau's Landing was integral to the St. Louis economy. The area continued to prosper until construction of interstate highway improvements in the 1950s effectively cut the district off from the city and contributed significantly to its economic decline. Efforts are underway to revitalize Chouteau's Landing – as an example some 58 acres located a block south of the Memorial have been slated for mixed-use redevelopment.

Directly across the river in East St. Louis, Illinois, the city's comprehensive plan (2004), proposes to improve downtown-riverfront linkages and foster mixed-use entertainment/ civic/residential development at the riverfront

- through public-private partnerships – as a catalyst for the city’s revitalization. .

## 1.5 FOUNDATION FOR PLANNING AND MANAGEMENT

A fundamental aspect of the general management planning process is a formal statement of the Memorial’s core mission. The foundation for Jefferson National Expansion Memorial is composed of several elements:

- Purpose of the Memorial
- Significance of the Memorial
- Fundamental Resources and Values of the Memorial
- Primary Interpretive Themes
- Special Mandates and Administrative Commitments

### Purpose of the Memorial

Every unit within the national park system has an established basis for being. Purpose statements reaffirm the reasons each unit was designated, help reinforce the foundation for future management and use, and provide a rationale against which all proposed actions can be measured. These statements help visitors, cooperating agencies, partners, members of the community, and other users to understand the framework in which Memorial managers make decisions. The following purpose statements have been refined over time and are based on Jefferson National Expansion Memorial’s designation and subsequent legislative history, as well as laws and policies governing the management of all national park system units.

- The Memorial commemorates, through a designed memorial, Thomas Jefferson’s vision of building a unified continental nation and St. Louis’ role as a confluence and gateway of the American westward expansion during the 19th century.
- The Memorial interprets the key individuals and cultural groups involved in exploring, exploiting, and inhabiting the western lands from the Mississippi River to the Pacific Ocean.

- The Memorial preserves the architecturally significant Old Courthouse as the site of the Dred Scott case, which divided North and South over the extension of slavery into the western territories and led to the American Civil War.

### Significance of the Memorial

Significance statements capture the essence of the Memorial’s importance to our country’s natural and cultural heritage and historical events that occurred at this location. Significance statements do not inventory resources, but rather describe the unit’s distinctiveness and place the Memorial within its regional, national, and international contexts. Defining significance helps managers make decisions and focus their efforts and funding on preserving the resources and values necessary to accomplish the Memorial’s purpose.

- St. Louis was politically and geographically pivotal in the westward expansion of the United States during the 19th century. Significant historic events associated with westward expansion, exploration, and the fur trade occurred at the site, including the transfer of the Louisiana Territory from Spain to France and then to the United States, the negotiation of numerous treaties removing Indian tribes from their lands, and the provisioning and return of the Lewis and Clark expedition. St. Louis was the starting point for numerous explorers, fur traders, overland pioneers, and others who made the journey west.
- In 1846, Dred and Harriet Scott sued for their freedom from slavery at the Old Courthouse in St. Louis. This historic case, argued in 1847, 1850, 1852, and 1854, resulted in an 1857 U.S. Supreme Court decision which determined that all “people of color,” enslaved or free, could not become citizens of the United States, and removed restrictions on the extension of slavery into the U.S. Western Territories, further dividing the North and South and eventually leading to the Civil War.

- The Old Courthouse is a prime example of mid-19th century Greek Revival civic architecture, utilizing the very latest technological innovations and materials available at the time, including the first cast iron dome completed in the United States.
- The Memorial is recognized globally as an exceptional example of mid-20th century Modern design. The soaring Gateway Arch is one of the world's great architectural and engineering achievements. It is a tangible symbol of St. Louis' historical role as the "Gateway to the West," purposefully located on the footprint of the original 1764 village of St. Louis. The site is recognized as a deliberate built experience, a complete design for a public monument, and a masterpiece composition of integrated structure, landscape, and interpretation.
- The museum objects and archival records in the Memorial's collection document the westward expansion of the United States and the creation, planning, and building of the Memorial. The collection is used in ongoing research by scholars and staff and is the basis of the historic site's interpretation programming and museum exhibits.

### Fundamental Resources and Values of the Memorial

Fundamental resources and values are closely related to the Memorial's designated purpose and warrant primary consideration in planning and management, because they are critical to maintaining the Memorial's purpose and significance. If these resources are allowed to deteriorate, the purpose and/or significance of the Memorial could be jeopardized. A loss or major impact to a fundamental resource or value could constitute impairment, violating the 1916 the NPS Organic Act. The planning team, with assistance from resource specialists and public comment, has identified the following fundamental resources and values for Jefferson National Expansion Memorial:

- Jefferson National Expansion Memorial Gateway Arch and designed landscape – a National Historic Landmark – integrated by a purposeful approach, scale, and aesthetic quality, including the relationship to the

river and to the Old Courthouse and corresponding views.

- The Old Courthouse, site of the Dred Scott case and a tangible reminder of intangible concepts such as civil rights, citizenship, and freedom, as well as an innovative and outstanding example of mid-19th century civic architecture.
- The museum objects and archival records in the Memorial collection, vital to the interpretation and education of the visiting public on the topic of the westward expansion of the United States.
- The iconic, inspirational, and transcendent nature of the Gateway Arch as one of the unique and enduring symbols of national identity.

### Primary Interpretive Themes

Primary interpretive themes are the most important stories, concepts, and ideas communicated to the public about the Memorial. They are the core of all educational programs and media provided to visitors. From these themes visitors can form intellectual and emotional connections with Memorial resources and experiences. The following are the most important messages to be communicated to the public about the Memorial:

- Thomas Jefferson's vision of the West as a land that would foster and sustain democratic values shaped U.S. policy, including the Louisiana Purchase and the Lewis and Clark Expedition, thus enabling the westward expansion of the 19th century.
- The Gateway Arch symbolizes the westward expansion of the 19th century, an unprecedented and rapid migration of people into the trans-Mississippi West which represented hope, opportunity, and promise for some and religious freedom for others, while also causing cultural clashes, environmental destruction, and the taking of land from American Indians.
- The design and scale of the Gateway Arch integrated into its setting elevates the timeless form of an arch into a structure that is

among the world's architectural and engineering marvels.

- The Dred Scott Decision was a significant event in United States history which spotlighted the potential expansion of slavery into the American West and helped exacerbate regional tensions which led to the American Civil War.
- The architecturally significant Old Courthouse was a crucible of change that galvanized the struggle for civil rights, justice, freedom, equality and the rights and responsibilities of citizenship in St. Louis and the United States.
- The American West is both a symbol and a physical reality that has attracted people the world over and shaped the national identity.
- St. Louis' strategic location near the confluence of the Mississippi and Missouri Rivers made it a logical hub of exploration, commerce, military activity, cultural encounter, and transportation as the United States expanded westward during the 19th century.

### Special Mandates and Administrative Commitments

Special Mandates and Administrative Commitments refer to requirements specific to Jefferson National Expansion Memorial. These legislative or judicial requirements and formal agency agreements are often established concurrently with the creation of a unit of the national park system, but can occur at a later date. For Jefferson National Expansion Memorial these include the following:

#### National Historic Landmark

The Secretary of the Interior designated Jefferson National Expansion Memorial Gateway Arch a National Historic Landmark (NHL) in 1987. The government of the United States designates NHLs as places of exceptional national significance worthy of special protection under the National Historic Sites Act of 1935 and Section 110 (f) of the National Historic Preservation Act (NHPA) of 1966, as amended. The over 62-acre Jefferson National

Expansion Memorial Gateway Arch National Historic Landmark includes the Arch and surrounding designed landscape grounds, elements, and features.

#### National Icons and Monuments

As a matter of national security, the Gateway Arch has been designated a National Icon by the Department of Interior. Icons are internationally recognized symbols of national identity that are seen as potential terrorist targets. Increased security and antiterrorism measures have been instituted that will continue to influence management decision-making for the foreseeable future.

#### Easements, Permits and other Agreements

Easements exist for all railroad, street, and highway transportation corridors that cross the Memorial boundaries, as well as utility and communication lines. Separate agreements for utility corridors and maintenance of associated infrastructure exist on a case-by-case basis. An indefinite permit authorized by the US Army Corps of Engineers (USACE) covers NPS buildings, retaining walls, planting areas, and levee roadway along the west bank of the river constructed before December 31, 1963. A cooperative agreement between the Memorial and the City of St. Louis permits redevelopment of the levee by the City and provides for joint control of its use following development. Agreements with Metro Business Enterprises (Metro) cover the operation of the parking garage and Arch tram, and agreements with the Jefferson National Parks Association (JNPA) cover the supplementing of interpretation and education programs through the sale of theme-related books and merchandise. An agreement with the Archbishop of St. Louis provides for cooperation in the preservation and interpretation of the Old Cathedral.

#### Servicewide Laws and Policies

Many park management directives are specified in laws and policies guiding the NPS and are therefore not subject to alternative approaches. For example, there are: laws and policies concerning management of environmental quality (such as the Clean Air Act, the Endangered Species Act, and Executive



Order 11990 “Protection of Wetlands”); laws governing the preservation of cultural resources (such as the NHPA and the Native American Graves Protection and Repatriation Act (NAGPRA)); and laws about providing public services (such as the Americans with Disabilities Act (ADA) and the Architectural Barriers Act Accessibility Standard (ABAAS)) — to name a few. In other words, a general management plan is not needed to decide, for instance, that it is appropriate to protect endangered species, control exotic species, protect archeological sites, conserve artifacts, or provide for handicap access. Laws and policies already direct the management of these resources. Although attaining some of the conditions set forth in these laws and policies may be affected by funding or staffing limitations, the National Park Service will continue to strive to implement these requirements with or without a new GMP.

Some of these laws and executive orders are applicable solely or primarily to units of the national park system. These include the 1916 Organic Act that created the National Park Service and the General Authorities Act of 1970. Other laws and executive orders have much broader application, such as the Endangered Species Act (ESA) or the NHPA.

The Organic Act (16 USC § 1) provides the fundamental management direction for all units of the national park system:

*[P]romote and regulate the use of the Federal areas known as national parks, monuments, and reservations. . . by such means and measure as conform to the fundamental purpose of said parks, monuments and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.*

The national park system General Authorities Act (16 USC § 1a-1 et seq.) affirms that while all national park system units remain “distinct in character,” they are “united through their interrelated purposes and resources into one national park system as cumulative expressions of a single national heritage.” The act makes

it clear that the NPS Organic Act and other protective mandates apply equally to all units of the system. Further, amendments state that NPS management of park units should not “derogat[e] . . . the purposes and values for which these various areas have been established.”

Public Law 95-625, the 1978 National Park and Recreation Act, requires the preparation and timely revision of general management plans for each unit of the national park system. Section 604 of that act outlines several requirements for GMPs, including measures for the protection of the area’s resources and “indications of potential modifications to the external boundaries of the unit and the reasons therefore.” The NPS Management Policies 2006 reaffirm this legislative directive.

The NHPA of 1966, as amended, is the guiding legislation for the preservation of historic properties. As broadly defined by 36 CFR 800, historic properties are “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places.” Maintained by the National Park Service, the National Register of Historic Places is the nation’s official list of cultural resources worthy of preservation (see Appendix A for more information).

Pursuant to Section 106 of the NHPA federal agencies are required to consider the effects of a proposed project on properties listed in, or eligible for listing in, the National Register of Historic Places. In the event that a project may affect a historic property the lead agency must enter into consultation with the State Historic Preservation Officer, the Advisory Council on Historic Preservation, and other interested agencies and individuals to identify historic properties that could be potentially affected, assess potential adverse effects, and resolve the adverse effects through mutually agreed upon mitigation measures.

Section 110 of the NHPA sets out broad historic preservation responsibilities for federal agencies, ensuring that preservation is fully integrated into ongoing programs. In summary, Section 110 requires that federal agencies such as the NPS establish a preservation program

in order to identify, evaluate, and nominate properties to the National Register of Historic Places, designate a Federal Preservation Officer, document properties prior to major alteration or demolition, and document any decision that adversely affects listed or eligible properties.

NHLs are afforded a higher standard of protection than other historic properties. Designated by the Secretary of the Interior under the authority of the Historic Sites Act of 1935, NHLs are historic and archaeological sites, buildings, structures, and objects which “possess exceptional value as commemorating or illustrating the history of the United States.” Section 110(f) of the NHPA requires that agencies, “to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to such landmark.” In those cases when an agency’s undertaking directly and adversely affects an NHL, the agency should consider all prudent and feasible alternatives to avoid an adverse effect. Where such alternatives appear to require undue cost or to compromise the undertaking’s goals and objectives, the agency must balance those goals and objectives with the intent of Section 110(f). In doing so, the agency should consider: the magnitude of the undertaking’s harm to the historical, archaeological and cultural qualities of the NHL; the public interest in the NHL and in the undertaking as proposed; and the effect a mitigation action would have on meeting the goals and objectives of the undertaking.

The NPS has also established policies for all units under its stewardship. These are identified and explained in a guidance manual entitled *Management Policies 2006*. The “action” alternatives (the preferred alternative, plus alternatives 4 and 5) considered in this document must incorporate and comply with the provisions of these mandates and policies.

## 1.6 PLANNING ISSUES AND CONCERNS

The planning team assembled a list of issues and areas of concern to be addressed in the *Draft Jefferson National Expansion Memorial General Management Plan and Environmental Impact Statement*. The list which follows has been influenced by comments received from

the public and other agencies during the public scoping period. These planning issues and concerns form the cornerstone of the plan.

### Resource Stewardship / Design Integrity

The plan would continue to provide for the protection of the Memorial’s fundamental resources and values, its status as an NHL, and the design integrity of the Gateway Arch and the landscape around it, while considering alternatives for accommodating a range of visitor uses. The plan would provide guidance for dealing with the impending impact of the emerald ash borer on the Memorial’s ash trees and provide options for the protection of park collections. Issues related to the collections of the Memorial, including the age of the buildings, water damage, safety requirements, inadequate space, and proper accommodations for researchers would also be addressed.

### Programs / Visitor Services

The plan would consider a balance of tranquility and open space with increased programming and informal activity supported by appropriate visitor amenities.

### Access / Security

The plan would consider ways to improve pedestrian connections from the city into the Memorial, including an appropriate, barrier-free visitor entry sequence that enables effective security and Memorial operation.

### Connectivity / Urban Interface

The plan would consider multiple ways to enhance significant views of the Gateway Arch from multiple points and approach routes and increase opportunities for new and improved connections to adjacent neighborhoods, the riverfront, and the Gateway Mall. Consideration of the Memorial’s expansion into East St. Louis would also be addressed in the plan. The plan would address the lack of connection between the Memorial grounds east of Memorial Drive and Luther Ely Smith Square.

## Operations

The plan would consider the existing and forecast the future maintenance needs of the Memorial under alternative scenarios, as well as provide for adequate visitor needs with regards to movement throughout the Memorial.

### Memorial Boundary

The plan would consider options for new boundary configurations on the East St. Louis side of the river.

## 1.7 BOUNDARY ADJUSTMENTS

GMPs are required to assess the current boundaries of units for their adequacy and identify potential modifications and the reasons for the proposed changes (Public Law 95-625, the 1978 National Park and Recreation Act). Boundary adjustments should consider any current or future operational issues, as well as the protection of park resources. Jefferson National Expansion Memorial Amendments Act (1992) authorized approximately one hundred acres in East St. Louis, Illinois, for inclusion within Jefferson National Expansion Memorial. As of yet, no land has been acquired by the Department of the Interior and the exact configuration of the boundary of this addition has yet to be determined.

This *Draft Jefferson National Expansion Memorial General Management Plan and Environmental Impact Statement* considers a potential boundary adjustment under several of the proposed management alternatives. This potential expansion of the Memorial would include portions of the East St. Louis riverfront. The original concept for Jefferson National Expansion Memorial included both sides of the river, including the East St. Louis riverfront. Between the late 1960s and the early 1980s the National Park Service, upon direction from Congress and the Secretary of the Interior, conducted suitability and feasibility studies of the East St. Louis riverfront for inclusion in the Memorial. In 1984, the Jefferson National Expansion Memorial Amendments Act was signed into law, authorizing the enlargement of the Memorial to include the east bank of the Mississippi River in East St. Louis, Illinois. In 1992 a new law was

signed further amending the 1984 law and officially designating the East St. Louis site as part of Jefferson National Expansion Memorial. While the 1992 law officially designated the East St. Louis expansion or addition, it did not specify a boundary and lands have yet to be acquired or developed.

## 1.8 IMPACT TOPICS CONSIDERED IN THIS PLAN

This plan considers the key resources that contribute to the physical and cultural environment of Jefferson National Expansion Memorial and associated affects relevant to managers responsible for day to day operations. In order to properly assess the relative impacts of each proposed management alternative, specific topics are evaluated that would be affected. The following six topics were considered by the planning team as a result of issues raised during public scoping, and specified by policy and law:

### Cultural Resources, including:

- Historic Buildings, Structures, Objects, and Districts
- Cultural Landscapes
- Archeological Resources
- Curatorial Resources and Museum Collections

### Natural Resources, including:

- Vegetation
- Federal Threatened and Endangered Species
- Soundscape

### Visitor Opportunities and Use

### Transportation and Access, including:

- Vehicular Traffic
- Public Transportation
- Pedestrian and Bicycle Circulation
- Parking
- Water Transportation

### Socioeconomics, including:

- Socioeconomics
- Land Use

### NPS Operations and Partnerships, including:

- NPS Operations
- Current Partnerships/Associations

## Cultural Resources

This topic considers the cultural resources that are present on the Memorial site and within the surrounding area. Cultural resources include historic structures, cultural landscapes, archeological resources, and museum collections. As with all NHLs, its historic resources are vitally important to the existence and purpose of the Memorial.

## Natural Resources

The physical and biological resources of the Memorial and its surrounding environment are an important component of the Memorial. The Memorial's physical setting on the banks of the Mississippi River shape both the visitor experience and surrounding environmental context.

## Visitor Opportunities and Use

Visitor opportunities include information, interpretation, and education. Recreational activities also are considered a part of this topic. Scenic viewsheds and the opportunity to view and experience the Gateway Arch, the Memorial grounds, the Old Courthouse, the Museum of Westward Expansion, and the Arch Tram are central to the visitor experience of the Memorial. Visitor use and experience has been identified as an important issue that could be appreciably affected under proposed alternatives.

## Socioeconomics

With Jefferson National Expansion Memorial located in the urban region of St. Louis, Missouri, socioeconomic trends affect the Memorial, and vice versa. The Memorial attracts millions of visitors each year. As individuals and families travel to the area they provide an economic stimulus through their local spending. Given the importance of the Memorial as a regional attraction, the influence area for the social and economic considerations is considerably beyond the physical boundaries of the Memorial. Factors such as population, income, land use and the economic impact of the Memorial are considered.

## Transportation and Access

Since the Memorial is located in the center of the St. Louis metropolitan region it stands at the crossroads of numerous modes of transportation. Access to the Memorial is a vital part of the visitor experience. The downtown location of the Memorial presents both challenges and opportunities for accessing the site. This impact topic examines the transportation access, parking, and circulation patterns at the Memorial, including roadway characteristics, transit patterns, bicycle and pedestrian circulation, and parking options, as well as existing freight rail and water-based transportation conditions.

## NPS Operations

Each of the actions described in the proposed alternatives would affect the operation and management of the Memorial. Changes in staffing levels, visitor use activities, new facilities, infrastructure improvements, visitor attractions, and an expanded boundary in East St. Louis all have implications for NPS operations. These changes affect education and interpretation programs and services, curatorial objects management, grounds and facility maintenance and management, law enforcement and security functions, and overall administrative staffing and duties.

## 1.9 IMPACT TOPICS DISMISSED FROM FURTHER CONSIDERATION

Some impact topics that commonly are considered during the planning process were not relevant to the development of this *Draft Jefferson National Expansion Memorial General Management Plan and Environmental Impact Statement* because implementing the alternatives would have no impact, or a negligible to minor impact on the topic or because the resource does not occur within the Memorial. These topics are as follows:

### Energy Requirements and Conservation Potential

The action alternatives could result in new facilities with inherent energy needs. In the event that new facilities would be built the NPS would assess the energy requirements



and conservation potential during design and construction phases. The NPS would pursue sustainable practices whenever possible in all decisions regarding NPS operations and facilities management. Because proposals for new facilities in this *Draft Jefferson National Expansion Memorial General Management Plan and Environmental Impact Statement* are both general and speculative at this stage in the process this topic is dismissed from further analysis.

### Environmental Justice

Executive Order 12898, *Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations*, was published in February 1994 and requires federal agencies to identify and address disproportionately high and adverse human health or environmental impacts of its programs, policies, and activities on minority and low-income populations. In their guidance document the Environmental Protection Agency (EPA) defines a community with potential Environmental Justice indicators as one that has a greater percentage of minority or low-income populations than an identified reference community (state or county) (EPA 2004). The EPA guidance defines minority and low-income populations.

The City of St. Louis reported much higher percentages of individuals living in poverty than either St. Louis County or the State of Missouri. The City of St. Louis also reported a much higher percentage of individuals that are Black or African American than either St. Louis County, Missouri, or the US Environmental Justice was dismissed as an impact topic requiring detailed analysis for the following reasons:

- There do not appear to be qualifying populations of minorities or low-income peoples in the areas to be directly affected by the action alternatives.
- NPS staff and the planning team solicited public participation through newsletters, public meetings, and other venues. They gave equal consideration to input from all persons regardless of age, race, income

status, or other socioeconomic or demographic factors.

- The alternatives would not result in any disproportionate human health or environmental impacts on minorities or low-income populations and communities.
- The alternatives would not result in any impacts that would be specific to a minority or low-income community.

### Prime and Unique Farmlands

In 1980 the Council on Environmental Quality directed federal agencies to assess the impacts of their actions on farmland soils classified by the Natural Resources Conservation Service as prime or unique. Prime farmland is defined as land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops. Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops, as determined by the Secretary of Agriculture. There are no farmlands within Jefferson National Expansion Memorial or the East St. Louis addition. Therefore this topic was dismissed from detailed analysis.

### Wild and Scenic Rivers, Ecologically Critical Areas, or Other Unique Natural Resources

The NPS manages rivers designated as Wild and Scenic Rivers and maintains the Nationwide Rivers Inventory, which is a register of river segments that potentially qualify as national wild, scenic, or recreational river areas. The segment of the Mississippi River bordering the Memorial is not designated a Wild and Scenic River and is not listed in the inventory. In addition, because the study area has been heavily manipulated by human activity and development, there are no ecologically critical areas or unique natural resources within the bounds of the Memorial or the East St. Louis addition. Potential Threatened or Endangered species have been addressed separately in this plan. For these reasons Wild and Scenic Rivers, Ecologically Critical Areas, and Other Unique Natural Resources have been dismissed from detailed analysis.

### Sacred Sites

Executive Order 13007, released in 1996, states that “in managing Federal lands, agencies must (1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites.” Confidentiality of the site location is also required by this Executive Order. “Sacred site” means any specific, discrete, narrowly delineated location on Federal land that is identified by an American Indian tribe, or individual determined to be an appropriately authoritative representative of an American Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an American Indian religion. Currently there are no known American Indian tribes with ties to the St. Louis area or the general area of the Memorial, but continued efforts to consult with interested groups will be made by the Memorial. Because no sacred sites have been documented within the Memorial study area this issue is not discussed further in the environmental impact statement and has been dismissed from further analysis.

### Indian Trust Resources

Secretarial Order 3175 and ECM95–2 require bureaus to explicitly address the environmental impacts of their proposed actions on Indian Trust Resources in any environmental document. There are no Indian Trust Resources within Jefferson National Expansion Memorial or the East St. Louis addition. Therefore Indian Trust Resources was dismissed from detailed analysis within this plan.

### Ethnographic Resources

Ethnographic resources are defined by the NPS as any “site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it.” Currently there are no known American Indian tribes with ties to the St. Louis area or the general area of the Memorial, but continued efforts to consult with interested groups will be made by the Memorial. No ethnographic resources have been documented or known to be associ-

ated with the Memorial grounds or the East St. Louis addition. Thus, this topic has been dismissed from detailed analysis. Should any ethnographic resources be identified after the publication of the plan, they would be treated in accordance with the applicable laws and policies, and appropriate consultation would be undertaken.

### Climate Change

Global climate change resulting from the accumulation of heat-trapping gases in the atmosphere has the potential to increase risks to human health and to terrestrial and aquatic ecosystems. Critical economic sectors such as agriculture, forestry, fisheries, and water resources also may be affected. Current projections for the Midwest include warmer temperatures and more severe droughts and floods, which could have a wide range of impacts. All these stresses can add to existing stresses on resources caused by other influences such as population growth, land-use changes, and pollution (EPA 1997).

The primary heat-trapping gases associated with global climate change are carbon dioxide, methane, nitrous oxide, and chlorofluorocarbons. The greatest heat-trapping gas, by volume, is carbon dioxide. One of the main sources of carbon dioxide in the atmosphere is the burning of fossil fuels for transportation and power generation.

Sources of carbon dioxide and other heat-trapping gases within the study area are minimal and include mowers and other landscape equipment used to maintain the Memorial grounds. However, although the Memorial itself does not generate an appreciable amount of heat-trapping gases, visitors to the Gateway Arch do. Visitors from around the world using passenger vehicles that either pass by the Memorial on Memorial Drive or that are used to access the Memorial via the parking structure or the parking lot near the Old Cathedral generate carbon dioxide as their principal waste product. Construction and operation of buildings and structures can also contribute heat-trapping gasses to the atmosphere. Construction equipment also typically burns fossil fuels. Construction materials such as concrete, wood, and steel also require the

use of fossil fuels for preparation and transportation. The operation of buildings such as the Museum of Westward Expansion and the Old Courthouse, through the use of heat in the winter, air conditioning in the summer, and electricity throughout the year, can also generate greenhouse gasses.

Generally, visitor use is likely to increase under each of the action alternatives but not to the point where measurable effects from an increase in local carbon dioxide levels would have more than negligible effects on global levels. In addition, any new construction of facilities is too speculative at this point to be able to even guess at the impact to global levels of greenhouse gases. The NPS will assess the impacts of any new construction that may result from this plan in separate environmental documents and will assess the impacts of those actions on climate change at that time.

### Air Quality

Upon review of the actions likely to occur under each of the alternatives, it is unlikely that any alternative would result in a measurable improvement or degradation of air quality within the air shed. The locations of existing emissions would change as parking lots are moved or traffic is rerouted on city streets. It is expected that there would be minor increases in emissions from motor vehicles due to slight increases in the number of motorists needing to drive further or idle engines longer. In addition, pollutant concentrations along Interstate 70 would increase within the tunnel created by the proposed lids under alternatives 4 and 5, but the increased concentrations would be controlled by ventilation systems or other air handling devices. As a result, none of the proposed alternatives are anticipated to have more than a negligible to minor adverse impact on air quality.

Emissions from construction activities would have a minor short-term adverse impact on both local and regional air quality. In order to determine compliance of the alternatives with the General Conformity Rule, the following factors were taken into account:

- The State Implementation Plan for the St. Louis 8-Hour Ozone Nonattainment Area (Missouri DNR 2007b) includes estimates for future construction activities and future growth within the metropolitan area.
- Given normal funding constraints and the 15 to 20 year planning timeframe of this plan, it is assumed that construction of the various elements of each of the alternatives would be spread out over a period of several years.
- Construction activities associated with any of the alternatives (even if all construction were to occur within a single year) are presumed to be well within the regional emission estimates for future construction.
- Appropriate mitigation measures would be employed to further reduce emissions and local air quality impacts.
- Emissions generated by construction activities on the Memorial are expected to be well below the general conformity *de minimis* limits for ozone nonattainment areas inside an ozone transport region.

It is assumed that the following general air quality mitigation measures would be implemented during construction to reduce potential impacts on air quality:

- Low sulfur fuel would be used in all heavy-duty diesel construction equipment.
- Equipment would be shut down when not in use.
- The construction contractor would manage construction operations in compliance with local and state air quality requirements, including dust suppression, at all times.
- Motor vehicles, including delivery trucks, would not be left idling for periods exceeding five minutes.
- Water would be applied as needed to reduce fugitive dust during earthmoving and site preparation activities.

Based on the factors and mitigation measures outlined above it is assumed that the construc-

tion activities associated with any of the alternatives would conform to the region's attainment plan. Therefore the activities described in the *Draft Jefferson National Expansion Memorial General Management Plan and Environmental Impact Statement* would be in compliance with the requirements of the General Conformity rule. For these reasons air quality is dismissed from further analysis.

### Wetlands

Executive Order (EO) 11990, Protection of Wetlands, mandates that each federal agency take action to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance their natural values. Director's Order (DO) 77-1 establishes NPS policies, requirements, and standards for implementing this EO. In addition to the requirements in DO 77-1, NPS activities that involve dredging or the placement of fill in wetlands or other waters of the US must comply with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act.

The National Wetlands Inventory (NWI) that maps at least portions of five wetlands were identified in the study area, with a greater diversity and abundance observed on the east side of the river. A site visit was conducted on October 16, 2008, to verify the wetlands illustrated on the NWI maps. The wetlands shown on the Memorial grounds are the two designed reflecting pools and are not wetlands as defined by the USACE and EPA and do not fall under the jurisdiction of the USACE. None of the wetlands illustrated on NWI maps for the East St. Louis addition were observed during the site visit. The presence of these wetlands on the NWI maps is either the result of outdated information or they are the result of errors made while interpreting aerial photography when the maps were created. Therefore wetlands have been dismissed from detailed study.

### Floodplains

Executive Order 11988, "Floodplain Management," requires federal agencies to avoid, to the extent possible, the long- and short-term adverse impacts associated with

construction within and modifications to floodplains. Federal agencies are to avoid direct and indirect support of floodplain development whenever there is a practicable alternative. Section 4.6.4 of *NPS Management Policies 2006* states that the National Park Service will manage for the preservation of floodplain values and minimize potentially hazardous conditions associated with flooding. The NPS Director's Order 77-2 and the accompanying "Procedural Manual" (2003) provide guidance and procedures for implementing floodplain protection and management actions in units of the national park system.

When it is not practicable to locate development or human activities to a site outside of the floodplain, the National Park Service will:

- Prepare and approve a Statement of Findings (SOF), in accordance with procedures described in Procedural Manual 77-2: Floodplain Management.
- Take all reasonable actions to minimize the impact to the natural resources of floodplains.
- Use non-structural measures as much as practicable to reduce hazards to human life and property.
- Ensure that structures and facilities are designed to be consistent with the intent of the standards and criteria of the National Flood Insurance Program (44 CFR Part 60).

None of the actions proposed in the action alternatives would result in construction of facilities within the floodplain of the Mississippi River not protected by levees and other flood control devices managed by the USACE. Therefore there will be no impacts to floodplains and this topic is dismissed from further evaluation.

### Water Quality

Section 303(d) of the Clean Water Act and EPA regulation 40 CFR Section 130.7(d)(1) require that each state and the District of Columbia submit a Total Maximum Daily Load (TMDL) Priority List to the EPA during even numbered



calendar years. A TMDL is the maximum amount of a pollutant that can be introduced into a water body in order for that water body to achieve or remain in compliance with applicable water quality standards. The 303(d) list includes those water bodies and watersheds that exhibit levels of degradation requiring investigation and restoration. Water bodies found on the 303(d) list are subject to TMDL modeling and development. The portion of the Mississippi River that passes through the study area has been placed on the 303(d) list by the state of Illinois for having high levels of fecal coliforms, manganese, and PCBs (EPA 2006). Missouri has also developed a TMDL for the Mississippi River to reduce levels of chlordane and PCBs in fish tissues (MDNR 2006a).

Section 305(b) of the Clean Water Act requires that local agencies issue a report to the EPA and Congress every two years describing the water quality of 305(b) listed streams. In 305(b) reports, water bodies are categorized based on the degree to which water quality affects the use of the water bodies. According to the 2004 305(b) report for the section of the Mississippi River that passes through the study area, water quality fully supports the use of the river for sustaining aquatic life, but only partially supports the uses of the river as a public water supply and for fish consumption due to PCB and manganese contamination (EPA 2004).

None of the actions proposed in the action alternatives would result in the release of contaminants to the Mississippi River or to ground water in general. It is still too speculative to determine whether any new facilities may have impacts to water quality, but will be considered by separate environmental evaluations. Therefore, there would be no impacts to water quality from the implementation of this plan.

### Soils and Geologic Resources

The characteristics of soils influence the design, construction, and post-construction performance and maintenance of structures and landscapes. Therefore identification and avoidance of problematic soils can decrease project costs in these areas. The Missouri side of the study area is composed entirely (approximately 110 acres) of Urban soils. Urban soils

are defined as “soil material having a non-agricultural, man-made surface layer more than 50 cm (20 inches) thick that has been produced by mixing, filling, or by contamination of land surface in urban and suburban areas” (Bockheim 1974, Scheyer and Hipple 2005, USDA SCS 1982). The Illinois side of the study area is composed of 78 percent Orthents soils which are composed of well-drained, earthy fill material on slopes of five to 35 percent. Neither Urban nor Orthents soils have hydric characteristics (USDA NRCS 2998).

Geotechnical studies were previously conducted on the south end of the Memorial grounds to identify building constraints for the maintenance facility, and on the East St. Louis addition to determine the potential presence of hazardous materials. The geotechnical study completed for the new maintenance facility on the Memorial grounds only covered the areas immediately under and around that facility. However, previous land use practices in the area indicate that similar results could be expected at other locations within the Memorial grounds. Rubble-type fill was encountered at all of the boring and test pit locations, ranging in depth from six to 35 feet below the ground surface. These materials are likely the result of the destruction of former buildings on the site that were demolished prior to the construction of the Gateway Arch and Memorial grounds. Below the rubble, a six to 10 foot deep layer of loess (wind-blown sediments) was present at several sample locations. Alluvial deposits one to 12 feet deep were located directly below the fill, or loess when present. The residual soils, generally consisting of soft to medium stiff, silty clay with varying amounts of rock fragments, were located at a depth of 32 to 35 feet below the ground surface at three sample locations.

The original surficial deposits for the East St. Louis addition consisted of floodplain deposits (e.g., silt, sand, and gravel) deposited by the Mississippi River and its tributaries (Willman et al. 1975). Fill material including cinders, coal, bricks, and wood was encountered during the geotechnical survey to a depth of 20 feet, although most fill was observed in the upper four feet of the sample profile. Depth to limestone or dolomite bedrock ranged from 50 to 200 feet (NPS 1997).

Because of the type of soils that may be impacted are either artificial fill or typical soils that have no significant characteristics. No pristine soils or other geological resources are likely to be affected by any of the alternatives, so this topic was dismissed.

### Wildlife

The natural resources study area is within a highly urbanized landscape. Other than the Mississippi River, which offers no riparian habitat on the west bank of the river, there are no natural areas that might serve as corridors for wildlife to access the Memorial grounds. The Memorial grounds consist of well-maintained turf areas beneath an overstory of ash, oak, pine, and cypress trees. There is little cover and few sources of food available for wildlife other than tree seeds and acorns. The Illinois side of the river offers more open or forested habitat, but these areas are fragmented by roads, railways, industrial uses, and other development. Wildlife habitat within the East St. Louis addition is also very limited.

While the parks within the study area appear to offer little habitat, the Mississippi River is a major corridor for migratory birds. The St. Louis chapter of the National Audubon Society forged an agreement with the National Park Service to turn off the lights that illuminate the Gateway Arch during the spring and fall migration, as these lights may interfere with birds' ability to navigate at night. However, no other impacts to wildlife are expected from the action alternatives, so this topic was dismissed.

## 1.10 RELATIONSHIP OF THE GENERAL MANAGEMENT PLAN TO OTHER PLANNING EFFORTS

### NPS Management Plans and Studies

Jefferson National Expansion Memorial has a number of plans and strategies for lands and programs inside the NPS boundary that have influenced or would be influenced by this *Draft Jefferson National Expansion Memorial General Management Plan and Environmental Impact Statement*. Following is a summary of the related plans prepared by the NPS and considered most relevant to the GMP planning process, including a general description of plan

policies and recommendations relevant to the Memorial.

### JEFFERSON NATIONAL EXPANSION MEMORIAL CULTURAL LANDSCAPE REPORT

The Cultural Landscape Report (CLR) documents the Memorial's landscape and analyzes its character-defining features. It describes the landscape resources, their condition as of 1996, and overall character of the Memorial grounds. This report also documents the evolution of the Saarinen-Kiley plan and its implementation by the National Park Service. It describes the significance of the landscape, assesses resources and features, delineates between contributing and non-contributing resources and features, prescribes future treatment of those resources and features, and assesses the overall integrity of the property (NPS 1996a).

### ASSET MANAGEMENT

The NPS is developing a national program for managing structures and facilities (assets) in park system units. This program calls for development of an asset management plan for each park unit. Such plans are designed to enable park managers to prioritize, schedule, and fund maintenance and repair work. They also include techniques to manage gaps between needed and anticipated funding, such as "mothballing" or even disposing of lower priority assets. The Memorial's asset management plan would follow guidelines of the national program, including guidance for compliance with the NEPA (1969), Sections 106 and 110 of the NHPA, and other applicable laws and policies.

### COLLECTIONS MANAGEMENT

National park units with sizeable collections are directed to prepare plans for the management and storage of park collections. Jefferson National Expansion Memorial has prepared a Resources Management Plan (1990) and a Collections Storage Plan (1991) to provide necessary guidance for the Memorial. The purpose of the Resources Management Plan is to provide guidance for the protection, management and maintenance of the park's cultural resources in general, and the purpose of the Collections Storage Plan is to make recommendations for upgrading the conditions under which the collection is housed in

order to meet NPS standards. The plans are flexible decision-making tools which will be updated, revised and supplemented to meet the needs of the park and visiting public.

### City and Regional Plans

As an urban national park, Jefferson National Expansion Memorial is surrounded by planning and development in St. Louis, Missouri and East St. Louis, Illinois. Contemporary and current plans for areas around the Memorial have been reviewed to make certain proposed actions within the alternatives in this *Draft Jefferson National Expansion Memorial General Management Plan and Environmental Impact Statement* are not in conflict. In a similar vein current plans for areas around the Memorial may be influenced by this GMP. These relevant plans and studies were reviewed by the planning team.

#### ST. LOUIS STRATEGIC LAND USE PLAN

The St. Louis Strategic Land Use Plan, implemented in 2005, is a planning foundation upon which further planning and development initiatives will build. It is meant to provide a broad framework for future investments into the City of St. Louis. Future planning initiatives may include public improvement plans, neighborhood level plans, and rezoning (City of St. Louis, 2005).

#### ST. LOUIS GATEWAY MALL MASTER PLAN

The Gateway Mall Master Plan lays out a comprehensive vision to help unify the park space that forms the Gateway Mall, which runs between Market and Chestnut Streets from the Old Courthouse (at Broadway) to St. Louis Union Station at 21st Street. At its center the Mall widens to the north, encompassing four additional city blocks. The plan defines a design framework and is meant to facilitate future implementation and long-term management of the Gateway Mall (City of St. Louis 2007a).

#### EAST ST. LOUIS, ILLINOIS, COMPREHENSIVE PLAN

East St. Louis' long range plans are laid out in its 2004 Comprehensive Plan. The plan highlights: economic development; housing; open

space; natural and cultural resources; land use; land development regulations, including circulation; and infrastructure. It also highlights the importance of economic stimulus associated with downtown and riverfront development. The proposed future land uses for the East St. Louis riverfront include an entertainment/civic/residential district, a transit-oriented development surrounding the MetroLink station, and a primary greenway along the river with a connection to downtown.

The East St. Louis Guiding Planning Principles, listed in the Comprehensive Plan, are to:

- Ensure strong linkages between the riverfront and the downtown core.
- Ensure downtown planning is coordinated with riverfront redevelopment.
- Ensure a clear identity for the downtown that reflects the local community's commercial and housing needs.
- Ensure protection of historic and cultural resources, particularly in the immediate downtown, and promote adaptive re-use options.
- Ensure land use regulations are updated to support the proposed development (City of East St. Louis 2004).

#### ST. LOUIS DOWNTOWN DEVELOPMENT ACTION PLAN

The St. Louis Downtown Development Action Plan, written in 1999, included a master plan to help revitalize downtown St. Louis within a five- to seven-year timeframe, which is still the viable operating basis for planning. The plan builds on the 1993 Downtown St. Louis Strategic Plan and focuses on the following areas for revitalization: Laclede's Landing/Riverside North District, Washington Avenue Loft District, Old Post Office/Central Business District and the Gateway Mall/Arch Grounds District. The goals of the Downtown Development Action Plan include:

- Define a guiding vision directing the sense of place and design for downtown.

- Strengthen downtown's role as a place that engages, empowers, and celebrates its diverse population.
- Reinforce the value of downtown as an Urban Center for the region.
- Develop detailed physical design and implementation plans for the downtown and its districts.
- Develop a development program and phasing strategy (Downtown Now! 1999).

#### ST. LOUIS DOWNTOWN STREETSCAPE GUIDELINES

The St. Louis Downtown Streetscape Guidelines help define standards for the pedestrian environment in the portion of downtown St. Louis identified by the St. Louis Downtown Development Action Plan. The standards focus on environment, intimacy, and identity and are organized into six sections: furnishings, lighting, paving, planting, signage, and civic art. These six sections address materials, design, characteristics, image, and application criteria (Downtown Now! 2000).

#### LEGACY 2035

The Legacy 2035 plan is the fourth major update of the metropolitan region's transportation plan, originally adopted in 1994. The plan recognizes that transportation investments improve quality of life and aims to use those investments as a means for achieving the region's social, economic, and environmental goals. With a 28-year horizon, it is a long-range vision for the development of the greater St. Louis region's surface transportation system.

The plan's focus areas are:

- Preservation of existing infrastructure.
- Safety and security in travel.
- Congestion management.
- Access to opportunity.
- Sustainable development.

- Efficient movement of goods (East-West Gateway Council of Governments 2007a).

#### CONFLUENCE GREENWAY MASTER PLAN

The Confluence Greenway Master Plan covers a 200-square mile system of parks, conservation, and recreation areas that includes the downtown St. Louis area. The plan's goals include establishing trails along both the Illinois and Missouri sides of the Mississippi River that would provide connections to the river and to interpretive and cultural attractions (Confluence Greenway 2001).

#### UPPER MISSISSIPPI RIVER COMPREHENSIVE PLAN

The Upper Mississippi River Comprehensive Plan was developed by the USACE as a comprehensive plan and integrated strategy to reduce flood damage on the Upper Mississippi River System. The plan also addresses other components of floodplain management such as environmental stewardship and recreational opportunities (US Army Corps of Engineers 2006).

#### RIVERFRONT DEVELOPMENT AND THE ARCH CONNECTOR: A REPORT TO THE MAYOR

The Riverfront Development and the Arch Connector Report, prepared by the Danforth Foundation, propose alternatives for redevelopment of the St. Louis riverfront near Jefferson National Expansion Memorial. The Report provides alternatives for redevelopment, a proposal for improved pedestrian connections, and budget projections (Danforth Foundation 2007).

#### BUILDING THE RIVER RING: A CITIZEN-DRIVEN REGIONAL PLAN

Building the River Ring was developed by the Great Rivers Greenway District to plan for, promote, and help fund an interconnected system of greenways, parks, and trails in the St. Louis region. This trail system will highlight the region's waterways and other natural areas and connect three counties and two states. It is a long-range plan that will be updated every five years as progress is made and local communities identify connections to be made and integrated into the River Ring.