

## CHAPTER 1

## INTRODUCTION

## 1.1 BASIS FOR VISUAL QUALITY MANUAL – FINAL EIS AND RELATED DOCUMENTS

Between 2004 and 2006, the Federal Highway Administration (FHWA), the Minnesota Department of Transportation (Mn/DOT), the Wisconsin Department of Transportation (WisDOT), and Stakeholder Group developed a Supplemental Final Environmental Impact Statement (SFEIS) for the St. Croix River Crossing Project. The SFEIS was prepared in compliance with the National Environmental Policy Act (NEPA), applicable state laws, and considered natural, cultural, social, and economic impacts. The SFEIS formalizes the development of a Preferred Alternative Package that establishes the basic elements of the project—the highway and river crossing location/alignment, highway design classification(s), river crossing bridge type, future use of the existing river crossing (the Stillwater Lift Bridge), pedestrian/bicycle trails, and other mitigation and design elements that will offset the adverse historic and environmental impacts identified for the project.

Due to the important scenic qualities of the project area, this Visual Quality Manual (VQM) was developed earlier than is typical for a standard project, at approximately the same time as the SFEIS. This introductory section describes the project, discusses the basis and timing for the VQM, and introduces other VQM issues.

Figure 1.1 shows the general location of the project. Figure 1.2 provides an overview of the St. Croix River Crossing Project, as defined by the Preferred Alternative Package. The 6.7-mile highway project and major river crossing includes:

- Highway approaches along the existing alignment of MN Trunk Highway (TH) 36 and along a new alignment of WI State Trunk Highway (STH) 64

- An extradosed bridge for the new St. Croix River Crossing

Other project elements shown in Figure 1.2 include:

- A new interchange with TH 95 and a Beach Road overpass of TH 36 (near the Minnesota side of the river)
- A STH 35 overpass of STH 64 near the Wisconsin side of the river
- An interchange with STH 35/County Trunk Highway (CTH) E about ¾-mile northeast of the new river bridge
- A 4.8-mile loop trail for pedestrians and bicyclists, located along the north side of the new river bridge and across the Stillwater Lift Bridge (the Lift Bridge will be open for pedestrians and bicyclists only after the new bridge is opened)

These elements are presented in more detail below and throughout this manual.

The SFEIS and previous studies established that visual quality is a critical part of the project. Completion of the SFEIS, design, and construction requires review and action from federal, state, and local agencies. Some of the key federal regulatory requirements linked to the project area's visual quality and cultural values include Section 7(a) of the Wild and Scenic Rivers Act, Section 4(f) of the U.S. DOT Act, and Section 106 of the National Historic Preservation Act. These are addressed in detail within the SFEIS and are briefly discussed in the next few paragraphs to provide some context for the VQM.

Section 7(a) of the Wild and Scenic Rivers Act is intended to preserve the values that led to the designation of portions of the St. Croix River under the Act. Congress designated the Lower St. Croix in recognition of its outstanding scenic, recreational, and geologic values. Visual impacts are particularly important to addressing Section 7(a) because the project crosses the Lower St. Croix National Scenic Riverway. Bridge design, landscape design features, and other project details will reduce and/or mitigate adverse visual impacts. When these and other measures are sufficiently incorporated into the project, a finding of no direct and adverse effect on the Riverway, as required to satisfy Section 7(a), is possible.

The project area contains resources that are federally protected under Section 4(f) of the 1966 U.S. Department of Transportation Act (now: 49 U.S.C., Section 303). Section 4(f) resources include significant publicly owned parks, recreation areas, wildlife and waterfowl refuges, and historic or archaeological sites. Such resources are protected from use as part of transportation project development to the extent that: (a) there is no feasible and prudent alternative to such use; and (b) the project includes all possible planning to minimize harm. The SFEIS contains information related to the project's use of the 4(f) resources.

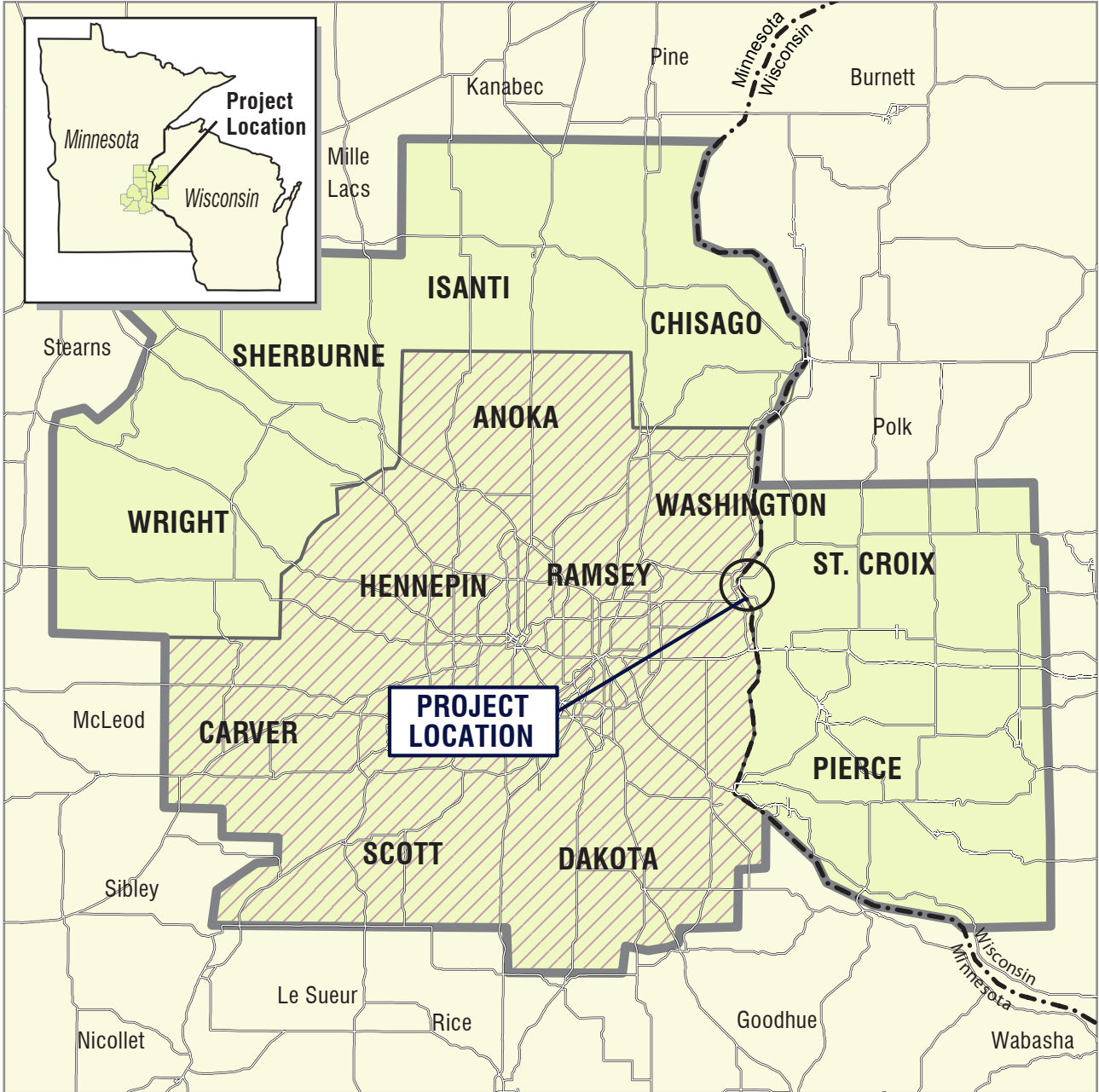
Compliance with Section 106 of the National Historic Preservation Act is a project requirement under federal law. Section 106 describes avoidance, minimization, and mitigation techniques where cultural resources are involved. Therefore, the timing and coordination of this VQM is also tied to a Section 106 Amended Memorandum of Agreement (MOA), executed among the following signatories; the FHWA, the U.S. Army Corps of Engineers, the Advisory Council on Historic Preservation (ACHP), and the Minnesota and Wisconsin State Historic Preservation Officers (SHPOs), as well as other concurring parties. The MOA contains several stipulations aimed at the protection and preservation



of cultural resources found throughout the St. Croix River Crossing Project area (see Chapter 8). MOA Stipulation II.C directs Mn/DOT and WisDOT to develop a VQM and to develop the visual design concepts and recommendations with assistance from design and cultural resource professionals working in cooperation with a Visual Quality Review Committee (VQRC). See Section 1.3 for information about the VQRC. The MOA requires the development of the VQM consistent with the following principles:

1. Develop a controlling vision that identifies and reinforces links between the historic properties and natural resources.
2. Avoid, minimize, and/or mitigate adverse effects to historic properties (avoidance is preferable).
3. Minimize the impact of the new bridge on the Lower St. Croix Scenic Riverway and, in particular, on vistas from the St. Croix Overlook-South and from the Stillwater Cultural Landscape District.
4. Minimize the impact of project lighting on the St. Croix Valley and on historic properties.
5. Minimize the visual impact of signage on the Lower St. Croix Valley and on historic properties.
6. Incorporate opportunities to provide comprehensive educational and interpretive information about the Lower St. Croix National Scenic Riverway's natural resources and historic properties.

The MOA also stipulates that all design elements in the VQM must be compatible with the historic qualities of the affected properties and must conform to FHWA's Context Sensitive Design principles, the Secretary of the Interior's Standards and Guidelines for the Treatment of Historic Properties, and the Lower St. Croix Cooperative Management Plan.

FIGURE 1.1  
PROJECT LOCATION



-  13-County Minneapolis-St. Paul Metropolitan Statistical Area (U.S. Census Bureau)
-  7-County Metropolitan Council Area





## 1.2 CONTEXT SENSITIVE DESIGN/SOLUTIONS

Development of the VQM was guided by the decision-making framework embodied in Context Sensitive Design/Solutions (CSD/CSS)—a practice where highway and bridge designers look not only at engineering requirements, but also at the context within which the completed project will exist. Some of the key guidance in this practice includes: National Cooperative Highway Research Program (NCHRP) Report 480, *A Guide to Best Practices for Achieving Context Sensitive Solutions* (2002); FHWA's *Flexibility in Highway Design* (1997); and from the American Association of State Highway Transportation Officials (AASHTO), *A Guide for Achieving Flexibility in Highway Design* (2004).

The CSD/CSS decision-making process is not simply adding aesthetic features to highway projects. It is an integrated approach that seeks to balance the importance of good highway design with the important contextual features of the area. CSD/CSS practices focus on historic and cultural resources, environmental and other community values, and on making project investments that fit both community and transportation objectives.

As a framework for the decision-making behind the VQM, the DOTs, the Stakeholder Group, and the Consultant Team referred to the following six CSD/CSS steps shown in NCHRP Report 480: (1) define process management and leadership structure; (2) identify the problems to be solved (and non-negotiable items); (3) establish the criteria and framework to be used for making decisions; (4) define alternative concepts; (5) evaluate and screen alternative concepts; and (6) assemble implementation plan (this VQM). With reference to the next section, these steps guided the project team's work with a Visual Quality Review Committee (VQRC) and with the general public.

The CSD/CSS decision-making process for the St. Croix River Crossing Project began many years ago and has evolved to include recent efforts by the 28-member St. Croix River Crossing Project Stakeholder Group. The Visual Quality Planning Process that concluded with this VQM is the most recent exercise in this process. The CSD/CSS process will continue through preliminary and final design, and construction. The DOTs and Stakeholder Group gave the Visual Quality design team some fixed design features in the SFEIS's Preferred Alternative Package including:

- The highway and bridge alignment, four-lane capacity, and design speeds.
- The new river crossing bridge type, an extradosed bridge (see Chapter 5).
- The alignment of the approximately 4.8-mile loop trail, which includes adapting the historic Stillwater Lift Bridge for pedestrian and bicycle use only.

## 1.3 VISUAL QUALITY REVIEW COMMITTEE (VQRC) AND PUBLIC INVOLVEMENT

The planning process behind this VQM was coordinated with members of the VQRC. The VQRC included representatives of the following stakeholders and organizations:

- City of Oak Park Heights, MN
- City of Stillwater, MN
- Town of St. Joseph, WI
- St. Croix County, WI Board of Supervisors
- St. Croix County, WI Transportation Committee
- Stillwater Heritage Preservation Commission
- Minnesota Center for Environmental Advocacy
- Friends of the St. Croix

- Western Wisconsin Realtors Association
- MN Department of Natural Resources, Division of Waters
- WI Department of Natural Resources
- Minnesota State Historic Preservation Office
- Federal Highway Administration
- National Park Service, St. Croix National Scenic Riverway

Mn/DOT and WisDOT provided direction and oversight for the Visual Quality Planning Process, working closely with the VQRC and a Consultant Team. The DOTs and the Consultant Team included specialists in highway/bridge engineering design, bridge architecture, landscape architecture, environmental planning, and decision process facilitation. The Consultant Team that assisted Mn/DOT and WisDOT met with the VQRC and with the state DOT representatives regularly during development of the visual quality concepts and recommendations. The VQRC meetings were held on: May 25; June 15; August 2; August 23; September 14; October 5; October 26; and November 29, 2005.

On September 14 and 15, 2005, public open house meetings were held in Stillwater, MN and the Town of St. Joseph, WI, respectively. Like the VQRC meetings, the public meetings with the general public were held to share ideas and obtain input. In addition, the project web site was used to share information about the Visual Quality Planning Process and the development of the VQM; it was also used to encourage and gather additional public comments. The facilitated committee and public input process strongly influenced the design guidance in the VQM. The VQM, like the SFEIS and related documents, reflects a collaborative process that has guided the project and will continue to guide it into final design and construction.

## 1.4 VISUAL QUALITY MANUAL (VQM) ORGANIZATION

The VQM is organized around design concepts for logical project segments, guidance for historical/cultural resources, and with reference to specific design elements. These topics illustrate the visual quality intent for the project and will guide designers to implement the context sensitive recommendations outlined in the VQM for the St. Croix River Crossing Project.

### 1.4.1 CHAPTERS 2-4: HIGHWAY SEGMENT LANDSCAPES AND TRANSITIONS

Chapters 2-4 address the large-scale highway features and landscapes that are parts of the St. Croix River Crossing Project, along Minnesota TH 36 and Wisconsin STH 64. These areas include a great diversity of environments, landforms, landscapes, and character of segments of the project. The work plan for the publicly facilitated visual quality planning process and the organization of the VQM address this diversity. The project area is rich with context, with everything from an urban commercial/retail area to the scenic Lower St. Croix River Valley, from rural Wisconsin farmland to the historic City of Stillwater, Minnesota.

The context and character of neighborhoods and communities in the general project area were also considered and help to provide context for the visual quality recommendations in this VQM. Finally, the approaches to the project in Minnesota and Wisconsin, were considered in the treatment of the transitions that travelers will experience. Transitions will occur as travelers move within the project area, from one area to another. Therefore, transitions are addressed in Chapters 2-4, as well as in other chapters.

The following VQM chapters provide detail on landscape design concepts:

**CHAPTER 2 - MINNESOTA TH 36**, the urban section through Oak Park Heights and Stillwater.

**CHAPTER 3 - MINNESOTA TH 36/TH 95 INTERCHANGE**, located at the west gateway to the St. Croix River Valley. (This interchange will be the driver's decision point and is a multiple gateway location serving as an entry to: Minnesota or the new river crossing along TH 36; and to Stillwater or Bayport, MN along TH 95.)

**CHAPTER 4 - WISCONSIN STH 64**, the entry corridor into Wisconsin or to the new river crossing from Wisconsin.

#### 1.4.2 CHAPTERS 5-6: NEW RIVER CROSSING AND GRADE SEPARATION BRIDGES

These VQM chapters address bridges:

**CHAPTER 5 - NEW RIVER CROSSING**, about 4,900 feet long, including a span over TH 95, other box girder approach spans over lowlands and wetlands in Minnesota, and the extradosed bridge spans over the river and Wisconsin shoreline.

**CHAPTER 6 - GRADE SEPARATION BRIDGES**, bridge design concepts for spans that cross over the Minnesota TH 36 and Wisconsin STH 64 mainlines at three locations—one in Minnesota, and two in Wisconsin; a fourth grade separation bridge carries the treatment plant access road over the Union Pacific Railroad adjacent to Minnesota TH 95.

#### 1.4.3 CHAPTERS 7-8: TRAILS AND CULTURAL RESOURCES

These chapters emphasize features that are most readily experienced and appreciated by the non-driving user:

**CHAPTER 7 - LOOP TRAIL AND OTHER TRAILS**, addresses the 4.8-mile pedestrian/bicycle route that includes segments on the existing river crossing at the historic Stillwater Lift Bridge, on the new river bridge, and in Minnesota and Wisconsin.

**CHAPTER 8 - HISTORICAL/CULTURAL RESOURCES**, provides a detailed discussion of preservation, protection, enhancement, or mitigation measures related to Section 106 compliance; the chapter discusses the historic context and addresses design intentions and guidance for several specific resources on, or eligible for listing on, the National Register of Historic Places.

#### 1.4.4 CHAPTERS 9-10: DESIGN ELEMENTS AND IMPLEMENTATION

The last two chapters provide guidance on roadway design elements and outline the project implementation plan:

**CHAPTER 9 - DESIGN ELEMENTS**, addresses many details necessary to develop the detailed project design, including grading, signing, lighting, landscape, traffic barriers, bicycle/pedestrian railings, fencing, storm-water ponds, community gateway areas, and retaining walls. The chapter also identifies design documentation based on Mn/DOT and WisDOT standards or other relevant design guidance.

**CHAPTER 10 - NEXT STEPS/IMPLEMENTATION**, outlines the planned next steps for the visual quality elements of the project as it advances into the approvals, permits, engineering design, and construction phases.

