

ST. CROIX RIVER CROSSING PROJECT SUPPLEMENTAL DRAFT EIS EXECUTIVE SUMMARY

1.0 THE PROBLEM

Severe traffic congestion in downtown Stillwater and delays caused by the operation of the Stillwater Lift Bridge (the Lift Bridge) have spurred the discussion of a new bridge crossing in Stillwater for many years. “Peak hour” delays and weekend backups, especially during the tourist season, frustrate residents and visitors alike.

Development of downtown Stillwater and northwestern Wisconsin as tourist destinations, commercial development along Trunk Highway (TH) 36 attracting employees and residents throughout the region, residential development in western St. Croix County, and the economic strength of the Twin Cities metropolitan area as an employment center have contributed to increasing traffic volumes on TH 36, TH 95, in downtown Stillwater State Trunk Highways, (STH) 64, across the Lift Bridge, and on STH 35 and 64. Figure ES-1 shows the project location and setting.

Some drivers have avoided this congestion by finding alternate routes across the St. Croix River. Most drivers who can alternately use the Interstate-94 (I-94) (Hudson), TH 243 (Osceola), or U.S. Highway (USH) 8 (Taylor’s Falls) bridges are already doing so. However, a considerable number of area residents or visitors are still dependent on the Lift Bridge crossing for access to their homes, jobs, and shopping, and that number is expected to continue to grow in the future.

As owners and operators of the bridge, the Minnesota Department of Transportation (Mn/DOT) and the Wisconsin Department of Transportation (Wis/DOT) have grown further concerned about the condition of the Lift Bridge and continued operations of the lift mechanism. Built in 1931, the Lift Bridge is approaching the age at which substantial investments will be required to keep the bridge operating and to maintain navigation on the St. Croix River. The narrow widths and functional deficiencies of the approach roadways are also of concern as the traffic on these roadways is at or above capacity. Figure ES-2 shows transportation issues identified in the project area.

2.0 OTHER CONSIDERATIONS

Identifying possible solutions to this transportation problem requires consideration of the context in which this bridge and its adjoining roadways sit. The U.S. Congress has designated the St. Croix River, over which the Lift Bridge crosses, as a National Wild and Scenic River designated for its scenic and recreational opportunities. The St. Croix River valley supports an abundance of wildlife and aquatic species, including the endangered Higgin’s Eye mussel, bald eagles, peregrine falcons, and osprey. The St. Croix Valley is rich in historic resources as well; Stillwater, “the birthplace of Minnesota,” boasts many historic properties which speak to its 19th century prosperity as a major logging center in the upper Midwest and offer a varied palette of architectural styles and designs. The Lift Bridge itself is listed on the National Register of Historic Places as a testament to innovative engineering techniques in the early twentieth century.

In total, the St. Croix River valley is valued by residents and visitors alike for its combination of natural, historic, and scenic resources. Proposed solutions to the transportation problem should intend to minimize potential negative impacts on these resources and maintain the balance that creates a respected environment in which to live, work, and play.

3.0 PROJECT HISTORY

Consideration of a replacement bridge crossing over the St. Croix River near Stillwater began in the early 1970s, but was not pursued because of a lack of funding. In the 1980s, Mn/DOT, Wis/DOT, and the Federal Highway Administration (FHWA) began working with the communities of Stillwater and Oak Park Heights in Minnesota, and the Town of St. Joseph in Wisconsin to identify possible solutions for a replacement crossing. The 1987 Scoping Decision Document/Final Study Outline identified four broad corridors for a new river crossing both north and south of downtown Stillwater as well as two corridors in or near the downtown area. The 1990 *Draft Environmental Impact Statement* (EIS) analyzed three of these corridors, along with a “No-Action” Alternative and a Transportation System Management (TSM) Alternative, which examined various options to maximize use of the existing transportation system.

In April 1995, Mn/DOT, Wis/DOT, and FHWA completed a Final EIS and Section 4(f) Evaluation for a replacement bridge approximately 6,300 feet south of the existing Lift Bridge between Stillwater and Houlton. A Section 106 Memorandum of Agreement for this alignment was signed in 1994. A Record of Decision (ROD) was issued by FHWA in July 1995, and work began on the final design of the river crossing and the approach roadways. Right-of-way was acquired, and site preparation work was initiated.

In 1996, the National Park Service (NPS) evaluated the project under Section 7(a) of the Wild and Scenic Rivers Act and found that the project, as proposed, would have a direct and adverse effect on the outstandingly remarkable scenic and recreational values for which the Lower St. Croix River was included in the National Wild and Scenic River System. As a result of this finding, federal permits from the U.S. Army Corps of Engineers (Corps) and the U.S. Coast Guard were not issued for the project, and the project was not allowed to proceed. In April 1998, the U.S. District Court upheld the NPS determination.

In June 1998, Mn/DOT revisited the issue of a river crossing near Stillwater. Richard P. Braun, a retired Mn/DOT Commissioner, was asked to facilitate this process. Braun’s charge was to determine whether present and future traffic could be accommodated on the Lift Bridge, determine whether a replacement crossing was needed, and investigate potential bridge alignment alternatives between the 1995 Final EIS Preferred Alternative on the south and the Lift Bridge on the north. The Braun process concluded that a new four-lane bridge would be required to satisfy present and future traffic demand and recommended further study of a bridge alignment 3,600 feet south of the Lift Bridge (The process is documented in the *St. Croix River Crossing: A Graceful Solution for a Magnificent River*, Richard Braun, September 1998). Following the Braun process, NPS, FHWA, Wis/DOT, and Mn/DOT executed a Memorandum of Understanding specifying the intention to use the Braun recommendations as a basis for a supplemental environmental review process agreeing that the NPS Section 7(a) review would be completed concurrently with the Supplemental Draft EIS (SDEIS) and that resolution of the Lift Bridge future must still be addressed.

In February 1999, an Amended Scoping Decision Document was completed for the Braun Process proposed location. Work began on an SDEIS in 1999, which collectively referred to the Braun Facilitation Process recommendations as the “Consensus Alternative”. Work on the project was suspended by the DOTs in January 2001 due to the inability to reach a consensus on the future of the Lift Bridge, insufficient federal funding for the conservation fund, and anticipated failure to obtain municipal consent on the project. Due to project suspension, the 2000 SDEIS addressing the Consensus Alternative was not published.

In the fall of 2001, while work on the project was suspended, FHWA requested the assistance of the U.S. Institute for Environmental Conflict Resolution (IECR) to review the project. The IECR report provided recommendations for resuming discussions regarding a new river crossing through a mediated process. On June 21, 2002, Mn/DOT and Wis/DOT held a press conference re-initiating the project.

In September 2002, President Bush issued Executive Order 13274 to enhance environmental stewardship and streamline review of transportation infrastructure projects, focusing on seven nationwide projects, including the St. Croix River Crossing Project. This elevated the St. Croix project’s visibility both locally and nationally, and provided a federal level mechanism to resolve issues if an effort focused on local representatives should fail.

Stakeholder Resolution Process

In September 2002, the facilitation firm RESOLVE was selected by a multi-agency and stakeholder panel to proceed with the project through mediation. RESOLVE developed a dispute resolution process that centered on a “Stakeholders Group”, made up of representatives of the diverse interests in the project area who would provide input to the project proposers’ decision-making process. This process, the “Stakeholder Resolution Process,” responded to the need for a new start to the project, and a new approach to address the environmental, historical and transportation concerns surrounding the project. Formal facilitated Stakeholder meetings began in June 2003. Chapter 15 of the 2004 SDEIS provides a detailed description of the Stakeholder Resolution Process.

2005 Lift Bridge Repair project

In fall of 2002, the 106th United States Congress provided \$4,989,000 in funding from the Labor, Health, and Human Services bill for the repair of the Lift Bridge (referred to herein as the “\$5 Million Lift Bridge Repair Project”), to be completed as a separate project. A series of meetings was held to prioritize the need with the agencies, and historic preservation groups. Prioritization included identifying repairs that could be completed with available funds. A separate environmental document (Mn/DOT Project Memorandum, *Lift Bridge Repair, Bridge #4654*, March 2004). resulted in a federal categorical exclusion under NEPA, meaning that the project would result in no significant environmental impacts. These repairs are scheduled to occur in spring 2005 through spring 2006.

4.0 THE 2004 SUPPLEMENTAL DRAFT EIS

The 2004 *St. Croix River Crossing Supplemental Draft EIS* documents the potential social, economic, and environmental impacts of the four Build and No-Build Alternatives for a river crossing now being considered. The alternatives and associated issues to be studied were discussed in the 2004 *Final Amended Scoping Decision Document*. The Supplemental Draft EIS “supplements” the 1995 Final EIS and the 1990 Draft EIS by providing information related to the Build Alternatives as well as updating information related to the No-Build Alternative.

Following public review of the SDEIS, a Supplemental Final EIS (SFEIS) will be completed on the “preferred” alternative. The Supplemental Final EIS will also be released for public review. A Record of Decision (ROD), anticipated in early 2005, will document Mn/DOT, Wis/DOT and FHWA’s final decision regarding the project.

4.1 SUPPLEMENTAL DRAFT EIS ALTERNATIVES

No-Build Alternative

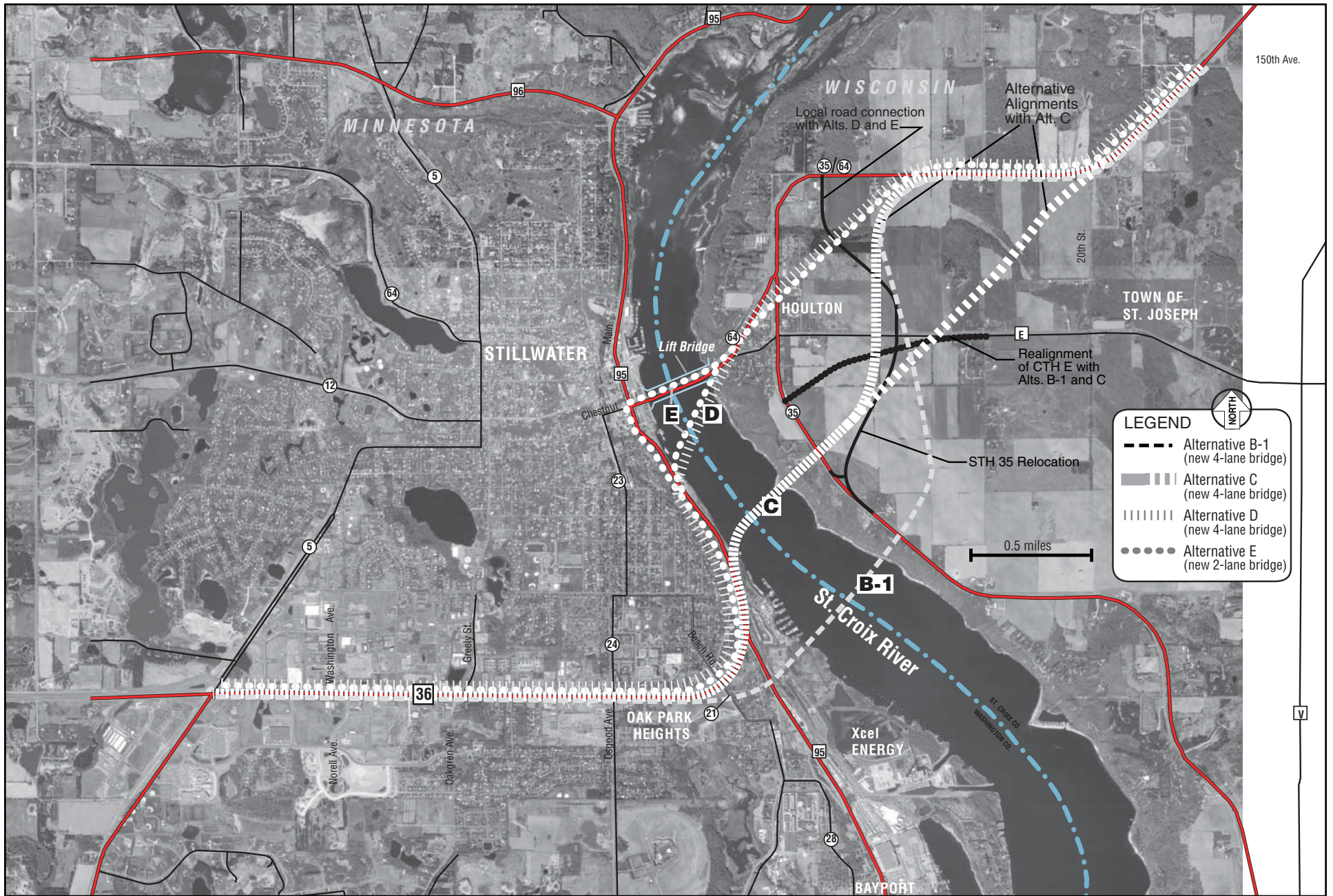
The No-Build Alternative would include no changes to the existing transportation system, and continue the use of the existing Lift Bridge in Stillwater (the Lift Bridge) on TH 36/STH 64 between Stillwater and Houlton.

Build Alternatives

The Build Alternatives for the project include a crossing of the St. Croix River between TH 36 in the cities of Stillwater and Oak Park Heights, (Washington County) Minnesota, and STH 64 in the Town of St. Joseph, (St. Croix County) Wisconsin, reconstruction/construction of the Minnesota and Wisconsin approach roadways to the bridge (including interchanges at Minnesota TH 36 and TH 95, and at Wisconsin STH 64 and STH 35 or County Trunk Highway (CTH) E), and conversion of a portion of Minnesota TH 36 to a grade-separated facility (see Figure ES-3). The project would extend from a point 700 feet east of the TH 5/TH 36 interchange in Minnesota to a point 100 feet southwest of the 150th Avenue overpass on STH 35/64 in Wisconsin.

In addition to the improvements to TH 36 and the approach roadways and interchanges described above, the four Build Alternatives developed for consideration in this SDEIS each include a new bridge with either four lanes or two lanes:

- Alternative B-1 consists of a new four-lane bridge (two through-traffic lanes in each direction) with a bicycle/pedestrian trail on the north side of the bridge. The bridge would be located approximately 6,500 feet south of the Lift Bridge.
- Alternative C includes a new four-lane bridge (two through-traffic lanes in each direction) with a bicycle/pedestrian trail on the north side of the bridge. The bridge would be located approximately 3,900 feet south of the Lift Bridge.



Project Area and Supplemental Draft EIS Alternatives B-1, C, D and E

Figure ES-3

- Alternative D includes a new four-lane bridge south of the Lift Bridge. The new bridge would be located approximately 1,940 feet south of the Lift Bridge.
- Alternative E includes a new one-way bridge approximately 2,010 feet south of the Lift Bridge for two lanes of eastbound traffic, and use of the Lift Bridge as a two-lane one-way roadway for westbound traffic.

With these 2004 SDEIS alternatives, the existing river crossing (the Lift Bridge) may either remain a trunk highway facility (Alternatives E and the No-Build Alternative), be converted to a local roadway (Alternatives B-1 and C), or be converted to a pedestrian/bicycle facility (Alternatives B-1, C and D). The SDEIS, Chapter 3, provides full descriptions of the Alternatives, including the No-Build Alternative to which each alternative is being compared.

4.2 ANTICIPATED ENVIRONMENTAL IMPACTS

The No-Build and Build Alternatives would have both beneficial and adverse impacts on human and natural elements within the project area. The major advantages and disadvantages of the No-Build Alternative versus the four Build Alternatives (collectively) are summarized below. In addition, Tables ES-1 (provided at the end of this Executive Summary) provides a comparative summary of the anticipated impacts of the No-Build and four Build Alternatives. The table also provides information on where (chapter/section) impacts are discussed in detail within the SDEIS.

No-Build Alternative

The primary advantages of the No-Build Alternative are:

- Avoidance of the impacts of the Build Alternatives.

The primary disadvantages of the No-Build Alternative are:

- Existing congestion in the project corridor would not be addressed; congestion would increase and corresponding delays would lengthen as traffic in the project area increased;
- The Lift Bridge would remain as the sole river crossing in the area (between the I-94 crossing to the south and the TH 243 crossing to the north). Repeated closures for repairs and continued maintenance or rehabilitation work would be required, and the Lift Bridge would be closed for substantial periods of time to make these repairs. Traffic detours would be necessary during these closures.
- Poor traffic operations and roadway geometrics would continue with greater delays and decreased safety as traffic volumes increase; and
- No improvements in storm water treatment.

Build Alternatives

The primary advantages of the Build Alternatives are:

- Decreased congestion and associated delays in downtown Stillwater both from what is experienced today and what is anticipated in the future;
- Improved interregional corridor connections between Somerset, New Richmond, the Town of St. Joseph, and the Twin Cities metropolitan area;
- Improved geometrics and traffic operations resulting in less delay and increased safety along Minnesota's TH 36 and TH 95 and Wisconsin's STH 35 and STH 64;
- Improved treatment of storm water runoff compared to today's system; and

The primary disadvantages of the Build Alternatives are:

- Acquisition and relocation of residences and businesses;
- Adverse visual impacts on the Lower St. Croix National Scenic Riverway;
- Adverse impacts on historic properties in the area, including (among others) the National Register-listed Lift Bridge, the Stillwater Commercial Historic District, and the Stillwater Cultural Landscape District;
- Fill in floodplains and wetlands; and
- Noise impacts to residential properties.

The build alternatives have also raised concerns regarding potential economic, fiscal, land use, water quality, air quality, endangered species, habitat, construction and cumulative impacts. The tables at the end of this Executive Summary summarize impacts on the various issues listed here.

4.3 AREAS OF POTENTIAL CONTROVERSY

The St. Croix River Crossing Project has attracted considerable attention from surrounding communities, local, state, and federal agencies, special interest groups, and the general public. Following is a list of remaining key areas of potential controversy for the project.

- STH 64 alignment and access points in Wisconsin and related acquisition and agricultural impacts;
- TH 36 roadway layout and intersection design in Stillwater/Oak Park Heights and resulting commercial property acquisition and potential economic impacts;
- Resolution of the future ownership of, and preservation strategies for, the Stillwater Lift Bridge;
- Growth in western Wisconsin and resulting potential cumulative impacts on natural resources and historic properties;

- Economic impacts on downtown Stillwater and the historic district; and
- Potential visual and recreational impacts on the Lower St. Croix National Scenic Rivers and proposed mitigation for these impacts.

4.4 UNRESOLVED ISSUES

The following issues were unresolved at the time of publication of the 2004 SDEIS:

- Proposed bridge type: Several bridge types are currently under consideration for each alignment alternative. Selection of bridge type will occur concurrently with selection of a Preferred Alternative and development of a mitigation package for the project.
- Determination of historic properties and effects to historic properties: Two archaeological areas remain under investigation at the publication of the 2004 SDEIS. Completion of these investigations is anticipated by fall 2004. Determinations of effect to National Register-eligible properties are preliminary to allow for public comment on the proposed effects during the SDEIS comment period. Determinations of effect will be finalized in the Supplemental Final EIS.
- Partial property acquisitions: A table indicating the number of partial property acquisitions is included in the 2004 SDEIS. Efforts to minimize both the number and size of partial property acquisitions will continue through final design.
- Transit elements: Studies completed for the 2003 Scoping Document indicate a potential market for transit services in the project area. While no transit elements are currently proposed as part of the project alternatives, Mn/DOT and Wis/DOT are committed to completing a Transit Feasibility Study to examine the feasibility of transit services, including bus transit, park-and-ride lots, and park-and-pool facilities. This feasibility study is proposed for a separate, yet concurrent, timeframe from the SDEIS. Completion of this study is anticipated prior to publication of the Supplemental Final EIS.
- Mitigation: A preliminary list of potential mitigation items is provided in Chapter 15 of the SDEIS. This list is less developed regarding possible mitigation items for effects to historic properties, as discussions regarding potential project impacts are preliminary. Following identification of a Preferred Alternative, the lead agencies will identify a mitigation package for presentation in the Supplemental Final EIS.
- Construction staging for the TH 5 to Oak Park Heights segment of the project: Controversy regarding the extent of proposed transportation improvements in this segment has raised the potential for staged construction in this portion of the project. This issue is discussed in Chapter 12 of the 2004 SDEIS.
- Municipal Consent/Cost Participation: Minnesota state law requires municipal consent from the Cities of Stillwater and Oak Park Heights prior to implementation of a Build Alternative, if one should be selected as the Preferred Alternative. Concerns have also been raised from the adjacent communities regarding cost participation requirements. These issues will be discussed further following selection of a Preferred Alternative and will be resolved prior to approval for project construction.

4.5 OTHER REQUIRED ACTIONS

Table ES-2 summarizes the permits, approvals, or other required actions that may be necessary to implement the Build Alternatives.

**TABLE ES-2
AGENCY PERMITS, APPROVALS, AND OTHER REQUIRED ACTIONS**

FEDERAL	
Advisory Council on Historic Preservation	<ul style="list-style-type: none"> Section 106 of the National Historic Preservation Act – Amended (or new) Memorandum of Agreement
Federal Highway Administration	<ul style="list-style-type: none"> Supplemental EIS (Draft and Final) and Section 4(f) of the Department of Transportation Act of 1966 Evaluations (Draft and Final) Section 106 of the National Historic Preservation Act – Amended (or new) Memorandum of Agreement Supplemental EIS Record of Decision
National Park Service	<ul style="list-style-type: none"> Section 7(a) of the Wild and Scenic Rivers Act - Evaluation
U.S. Army Corps of Engineers	<ul style="list-style-type: none"> Section 10 of the Rivers and Harbors Act - Permit (navigable waters) Section 404 of the Clean Water Act - Permit (fill in U.S. waters)
U.S. Coast Guard	<ul style="list-style-type: none"> Section 9 of the Rivers and Harbors Act - Permit (navigable waters)
U.S. Fish and Wildlife Service	<ul style="list-style-type: none"> Biological Opinion
STATE	
MN Department of Transportation	<ul style="list-style-type: none"> Amended Scoping Decision Document Supplemental EIS (Draft and Final) and Section 4(f) of the Department of Transportation Act of 1996 Evaluations (Draft and Final) Supplemental EIS Adequacy Determination Noise Standards Exemption Wetland Conservation Act (WCA)
WIS Department of Transportation	<ul style="list-style-type: none"> Supplemental EIS (Draft and Final) and Section 4(f) of the Department of Transportation Act of 1966 Evaluations (Draft and Final)
MN Department of Natural Resources	<ul style="list-style-type: none"> Protected Waters Permit (if needed) Mussel Relocation Permit Water Appropriation Permit (if needed)
MN Pollution Control Agency	<ul style="list-style-type: none"> Noise Standards Exemption Section 401 of the Clean Water Act -Water Quality Certification National Pollutant Discharge Elimination System/State Disposal System Permit (NPDES/SDS)

**TABLE ES-2 (continued)
AGENCY PERMITS, APPROVALS, AND OTHER REQUIRED ACTIONS**

STATE	
WIS Department of Natural Resources	<ul style="list-style-type: none"> • Concurrence Letter (through Wis/DOT – WisDNR Cooperative Agreement liaison process) • Scientific Collector Permit • Endangered/Threatened Species Permit • Authorization for Taking Endangered/Threatened Species (required jeopardy determination) • Section 401 of the Clean Water Act - Water Quality Certification • Air Quality Construction Permit (if needed) • Wetlands Process (NR 103)
MN State Historic Preservation Office	<ul style="list-style-type: none"> • Section 106 of the National Historic Preservation Act – Amended (or new) Memorandum of Agreement
WIS State Historic Preservation Office	<ul style="list-style-type: none"> • Section 106 of the National Historic Preservation Act – Amended (or new) Memorandum of Agreement
REGIONAL	
Twin Cities Metropolitan Council	<ul style="list-style-type: none"> • Controlled Access Approval
LOCAL	
City of Oak Park Heights	<ul style="list-style-type: none"> • Municipal Consent
City of Stillwater	<ul style="list-style-type: none"> • Municipal Consent
Local Watershed Districts	<ul style="list-style-type: none"> • Coordination of Grading and Drainage Plans/Dewatering/Floodplain Management
St. Croix County	<ul style="list-style-type: none"> • Coordination of State Trunk Highway changes and local road alterations.
Town of St. Joseph	<ul style="list-style-type: none"> • Coordination of State Trunk Highway changes and local road alterations.

5.0 SPECIAL STUDIES

The analysis of alternatives within this SDEIS is based on the findings of more detailed special studies and/or technical memoranda completed as part of the preparation of the 2004 *Supplemental Draft EIS*, 2004 *Amended Final Scoping Decision Document*, the 2003 *Amended Scoping Document/Amended Draft Scoping Decision Document*, the 1999 *Amended Scoping Decision Document*, the 1998 Braun facilitation process, the 1995 *Final EIS*, and the 1990 *Draft EIS*. The special studies and technical memoranda are listed in Appendix A of the Supplemental Draft EIS.

6.0 INDEPENDENT REGIONAL INFRASTRUCTURE PROJECTS

The following list of roadway and transportation projects or studies are planned or underway in the vicinity of the St. Croix River Crossing Project. These projects are independent of the St. Croix River Crossing Project; that is, the projects are not needed to support each other and each has independent utility. The social, economic, and environmental impacts of each of the projects has been or will be evaluated in independent environmental review processes as required by law. Chapter 13 of the 2004 SDEIS presents a comprehensive list of the regional infrastructure and development projects taken into consideration in the cumulative impacts study.

Minnesota

- USH 8 from I-35W to TH 95; improvements and capacity study.
- TH 36: CSAH 24 (Osgood Avenue) reconstruction/improvements north and south of TH 36 and an adjacent trail; and CR 66 (Greeley Avenue) improvements and Oakgreen Avenue jurisdiction changes (from city to county).
- CSAH 13 from CR 74 to CSAH 20 four-lane construction on new alignment, 2004.
- CSAH 18, Anoka CSAH 14 between I-35 and TH 61: Four-lane divided roadway construction (with intermodal trail), 2005.
- CSAH 16 (Valley Creek Road) CSAH 25 (Century Avenue) to I-494 and new interchange: Interchange construction dependent on third lane construction on I-94, expected in 2006.
- CSAH 2, Broadway Avenue I-35 to TH 61: I-35 to TH 61 and interchange reconstruction expected in 2007.
- CSAH 18 from I-94 to CSAH 21 Road resurfacing, turn lane additions, access consolidation; Bridge replacement over Valley Branch Creek North of downtown Afton.
- CSAH 15 from TH 35 to CSAH 12 (75th St. N): Reconstruction to a four-lane roadway from TH 36 to ½ mi north of CSAH 12.
- CR 66 (Greeley Avenue), CSAH 24 (Osgood Avenue), CSAH 14: Interchange reconstruction tied to TH 36 Reconstruction/ River Crossing project.

Wisconsin

- Reconstruction of I-94 from STH 35 South to E. of USH 12: Added one eastbound and one westbound lane between STH 35 and USH 12 in 2002.
- STH 35/64 Expansion: Wis/DOT is reconstructing this two-lane highway as a four-lane expressway, with bypasses of the Somerset and New Richmond central business districts, from west of Somerset to New Richmond (about 15 miles). The project, which began at the eastern terminus of the St. Croix River Crossing Project, will be completed in 2006.

- STH 35 Expansion (River Falls to I-94): Wis/DOT reconstructed STH 35 as a four-lane expressway (was formerly two lanes) between River Falls and I-94 in 2002, including the reconstruction and relocation to the west of the STH 35/I-94 interchange.
- STH 65 Reconstruction: Wis/DOT reconstructed STH 65 (from two lanes to four lanes) in New Richmond in 2002, from 0.75 mile south of Paperjack Drive to 6th Street.

Wis/DOT is currently studying future access and capacity needs on USH 8 between STH 35 north of St. Croix Falls (Polk County) to USH 53 near the City of Barron (Barron County). Wis/DOT currently has no capacity expansion projects for USH 8 in their Six-Year Program, but is planning for construction of passing lanes on USH 8 from Almena to Barron in Barron County in about 10 years. Wis/DOT also anticipates additional passing lane construction on other sections of USH 8 between 2015 and 2025.

- USH 63 between I-94 and STH 64: Expansion from two-lane to four-lane, bypass of cities/villages (currently not programmed).
- I-94: Wis/DOT as the lead agency, with Mn/DOT, is adding an auxiliary lane on westbound I-94 bridge over the St. Croix River (2005).
- USH 12/CTH U: Wis/DOT and St. Croix County are currently reconstructing the existing two-lane USH 12/CTH U as a four-lane expressway from north of I-94 to CTH A, including the relocation of USH 12 east of USH 12 and CTH U.
- CTH "I", STH 35/64, and Village of Somerset Improvement Project(s) (Village of Somerset area). Apple River Flume area and Flume Bridge (2004 project- bridge replacement) CTH "I" from Somerset south to 53rd Avenue (2004 project currently underway- expansion. CTH "I" from STH 35 south to Village of Somerset (in planning stage). Expansion is likely.

Other

- Power line in Chisago County, MN and Polk County, WI: Xcel Energy in Minnesota and Dairyland Power Cooperative in Wisconsin are seeking approval for the construction of a new power transmission line over the St. Croix River between Chisago County, Minnesota and Polk County, Wisconsin.

**TABLE ES-1
COMPARATIVE SUMMARY OF PROJECT IMPACTS**

IMPACT	RELATED CHAPTER OR SECTION	ALTERNATIVE				
		NO-BUILD ALTERNATIVE	B-1	C	D	E
COSTS – CHAPTER 3						
Total Cost ^{1 2 3 4 5 6} (millions of dollars)	Section 3.8	\$0	\$230 to \$355	\$230 to \$285	\$245 to \$310	\$230 to \$275
TRANSPORTATION IMPACTS – CHAPTER 4						
River Crossing Reliability at Stillwater/Houlton:		River crossing closures due to deck lifts, flooding, and maintenance continue. Two-year closing anticipated for major Lift Bridge rehabilitation (before 2020).	B-1_a :No anticipated closings. B-1_b :Lift Bridge closures due to deck lifts, flooding, and maintenance continue; affecting local traffic only.	No anticipated closings.	No anticipated closings.	Lift Bridge closures due to deck lifts, flooding, and maintenance continue; new bridge can provide short-term bi-direction crossing in emergencies.
Traffic Operations: Daily Congestion	Section 4.3.1.2 (Table 4-8)	Substantial congestion for regional trips across the Lift Bridge; Substantial traffic volumes shift to other existing river crossings (USH 8, TH 243, and I-94).	Minimal congestion to regional trips on the river crossing; Minimizes volume shifts to other river crossings.	Same as Alternative B-1.	Same as Alternative B-1.	Some congestion to regional trips on the river crossing; Substantial if Lift Bridge closed; Minimizes volume shifts to other river crossings.
PM Peak Period River Crossings	Section 4.3.1.2 (Table 4-9)	6+ hours of congestion anticipated (3+ existing)	B-1_a :0 hours of congestion anticipated. B-1_b :0 hours of congestion on New Bridge; less than one hour anticipated on the Lift Bridge	Less than one hour of congestion anticipated.	Less than one hour of congestion anticipated.	Less than one hour of congestion anticipated. Substantial temporary congestion if Lift Bridge closed.
Regional Travel Effects	Section 4.3.1.2 (Figures 4-16 & 4-17)	Base Condition	B-1_a :Substantial decreases in regional Vehicle Hours Traveled and Vehicles Miles Traveled (compared to No Build). B-1_b :Largest decrease in regional Vehicle Hours Traveled and Vehicles Miles Traveled (compared to No Build).	Substantial decreases in regional Vehicle Hours Traveled and Vehicles Miles Traveled (compared to No Build).	Substantial decreases in regional Vehicle Hours Traveled and Vehicles Miles Traveled (compared to No Build).	Smallest decrease in regional Vehicle Hours Traveled; Increase in regional Vehicle Miles Traveled (compared to No Build).
Local Traffic Diversion	Section 4.3.1.3 (Figure 4-18)	Local diversion increases as compared to existing conditions: Local street continuity continues to be a problem in TH 36 area.	B-1_a :Third lowest amount of local traffic diversion; increases as compared to existing conditions. B-1_b :Second lowest amount of local traffic diversion; increases as compared to existing conditions. Trunk Highway 36 frontage roads provide continuous, parallel local street network.	Same as Alternative B-1 _a .	Lowest amount of local traffic diversion; increases as compared to existing conditions. Trunk Highway 36 frontage roads provide continuous, parallel local street network.	Same as Alternative B-1 _a .
Local Intersection Operations	Section 4.3.2.1	20 of 26 intersections operate at LOS E or F (9 of 26 in existing)	B-1_a :3 of 30 intersections operate at LOS E or F. B-1_b :11 of 30 intersections operate at LOS E or F.	1 of 29 intersections operate at LOS E or F.	6 of 29 intersections operate at LOS E or F.	8 of 30 intersections operate at LOS E or F.

¹ In 2004 dollars.

² Does not include costs for replacement or future repair costs for the Lift Bridge.

³ Includes costs for construction of TH 36 from TH 5 to Osgood Avenue (all Build Alternatives [see Section 3.2]), TH 36/95 interchange (Oak Park Heights [all Build Alternatives]), TH 36/95 interchange (Stillwater [Alternative D]), TH 36/95 intersection (Stillwater [Alternative E]) and STH 35/64 or CTH E/STH 64 interchange (all Build Alternatives).

⁴ Estimates for right-of-way costs are included in the project total. These estimated do not include dollars spent on property acquisition in Minnesota and Wisconsin as part of the 1995 Final EIS Preferred Alternative.

⁵ The mitigation cost estimate acknowledges there will be costs associated for mitigation items across all Build Alternatives. Specific costs for potential mitigation items appropriate to the level of impacts will be developed with the identification of a Preferred Alternative and release of the SFEIS.

⁶ Minnesota and Wisconsin will pay for their own approach and right-of-way costs. The bridge and related mitigation items are assumed to be split 50/50 between the two states.

**TABLE ES-1 (continued)
COMPARATIVE SUMMARY OF PROJECT IMPACTS**

IMPACT	RELATED CHAPTER OR SECTION	ALTERNATIVE				
		NO-BUILD ALTERNATIVE	B-1	C	D	E
Local Freeway Operations	Section 4.3.2.2	Not Applicable.	No problem movements anticipated.	Two movements that may be problematic.	Problem movements anticipated.	No problem movements anticipated.
Safety Crash rates	Section 4.3.3.1 (Figure 4-19)	Highest number of anticipated regional and local crashes.	B-1_a :Lowest number of anticipated regional crashes. B-1_b :Moderate number of anticipated regional crashes. Local crashes anticipated less than No Build.	Same as Alternative B-1 _b .	Same as Alternative B-1 _b .	Same as Alternative B-1 _b .
Incident Management/ Emergency Response	Section 4.3.3.2	Constrained geometrics and congestion create difficulties for emergency vehicles access and rerouting traffic around crash/incident sites.	B-1_a :Anticipate good conditions in project area. B-1_b :Downtown congestion continues; Upper Bluff conditions improved.	Same as Alternative B-1 _a .	Same as Alternative B-1 _a .	Downtown congestion continues; Bridge closings substantially affect response times; Upper Bluff conditions improved.
Marginal Benefit/Cost Ratio (Compared to No Build)	Section 4.3.4 (Table 4-12)	Base Condition	B-1_a :6.0 B-1_b :6.0	7.4	7.3	3.1
Access and Local Road Connectivity	Section 4.3.5	No direct access to TH 36 to/from TH 95 south of TH 36; STH 64 access to/from STH 35 continues to be a skewed, at-grade intersection.	Direct TH 36/TH 95 access provided. STH 64/STH 35 interchange provided.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Vehicular Energy Consumption	Section 4.3.6	Base Condition.	Long-term net indirect energy savings (as compared to No Build).	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Alternate Mode Systems Transit	Section 4.3.7.1	No direct changes.	No direct changes; Substantially improved traffic flow provides favorable transit conditions.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Bicycle/Pedestrian	Section 4.3.7.2	Congested traffic conditions inhibit bicycle/pedestrian travel in the project area.	Bicycle/pedestrian facilities added; Downtown Stillwater traffic volumes decrease improving pedestrian environment.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Navigational and Recreational Boating	Section 4.3.7.3	No direct changes.	Change in Lift Bridge use may provide opportunity for more frequent bridge raisings.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Regional Plan Compatibility	Section 4.3.8	Least consistent with plans.	More compatible with plans.	More compatible with plans.	More compatible with plans.	Less consistent with plans (regional traffic directed through downtown Stillwater).
SOCIAL, RELOCATION AND ECONOMIC IMPACTS — CHAPTER 5						
Parks and Recreation Areas Lower St. Croix National Scenic Riverway	Section 5.1	No physical, visual or usage effects anticipated to result.	Physical effects from bridge piers and visual effects resulting from bridge. No impacts to social use.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.

**TABLE ES-1 (continued)
COMPARATIVE SUMMARY OF PROJECT IMPACTS**

IMPACT	RELATED CHAPTER OR SECTION	ALTERNATIVE				
		NO-BUILD ALTERNATIVE	B-1	C	D	E
Stillwater Municipal Barge Facility Property		No physical, visual or usage effects anticipated to result.	Physical and visual effects from access road construction. No impacts to social use.	Physical effects and visual impacts from bridge crossing southern portion of park. No impacts to social use.	Substantial portion of parkland required for widening of TH 95 and bridge construction. Limited land available for future park construction.	Substantial portion of parkland required for widening of TH 95 and bridge construction. Limited land available for future park construction.
Lowell Park		No physical, visual or use effects anticipated.	No physical, visual or use effects anticipated. Conversion of Lift Bridge to ped/bicycle facility may enhance park use.	No physical, visual or use effects anticipated. Conversion of Lift Bridge to ped/bicycle facility may enhance park use.	No physical or use effects anticipated. Conversion of Lift Bridge to ped/bicycle facility may enhance park use. Visual effects from new bridge in close proximity to park.	No physical or use effects anticipated. Visual effects from new bridge in close proximity to park.
Kolliner Park		No physical, visual or usage effects anticipated to result.	No physical or visual effects resulting from construction; Lift Bridge as ped/bike facility would limit vehicular access, enhance ped/bike access; possible impacts from mitigation measures.	No physical or visual effects resulting from construction; Lift Bridge as ped/bike facility would limit vehicular access, enhance ped/bike access; possible impacts from mitigation measures.	Parkland needed for bridge construction; vehicular access eliminated, ped/bike access enhanced with Lift Bridge conversion to trail facility; visual impacts from new bridge crossing.	Parkland needed for bridge construction; vehicular access eliminated, ped/bike access enhanced with Lift Bridge conversion to trail facility; visual impacts from new bridge crossing.
New Stillwater Park		No physical, visual or usage effects anticipated to result.	No physical or usage effects anticipated. Visual effects resulting from new bridge.	No physical or usage effects anticipated. Visual effects resulting from new bridge.	No physical or usage effects anticipated. Visual effects resulting from new bridge. Potential noise impact to amphitheater.	No physical or usage effects anticipated. Visual effects resulting from new bridge. Potential noise impact to amphitheater.
Relocation and Right-of-Way Right-of-way area to be acquired	Section 5.2	None	MN: 110 acres WI: 187 acres	<u>Option 1:</u> MN: 106 acres WI: 179 acres <u>Option 2:</u> MN: 106 acres WI: 173 acres	MN: 114 acres WI: 191 acres	MN: 112 acres WI: 191 acres
Commercial properties to be acquired (total takes only)	Section 5.2	None	MN: 20 WI: 0	<u>Option 1:</u> MN: 20 WI: 0 <u>Option 2:</u> MN: 20 WI: 0	MN: 24 WI: 3	MN: 24 WI: 3
Residential properties to be acquired (total takes only)	Section 5.2	None	MN: 6 single-family, 2 multi-family WI: 2 single-family, 0 multi-family	<u>Option 1:</u> MN: 6 single-family, 2 multi-family WI: 2 single-family, 0 multi-family <u>Option 2:</u> MN: 6 single-family, 2 multi-family WI: 1 single-family, 0 multi-family	MN: 6 single-family, 2 multi-family WI: 16 single-family, 0 multi-family	MN: 6 single-family, 2 multi-family WI: 16 single-family, 0 multi-family
Commercial Impacts	Section 5.3	<u>City of Stillwater:</u> Increased Stillwater congestion may discourage visitors. <u>TH 36 Commercial Corridor:</u> Increasing congestion and continued safety concerns may inhibit business growth.	<u>City of Stillwater:</u> Potential benefits due to reduced congestion if accompanied by clear wayfinding and adequate parking. <u>TH 36 Commercial Corridor:</u> Highway-oriented businesses will benefit from exposure to increased traffic volumes and improved aesthetics.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.

**TABLE ES-1 (continued)
COMPARATIVE SUMMARY OF PROJECT IMPACTS**

IMPACT	RELATED CHAPTER OR SECTION	ALTERNATIVE				
		NO-BUILD ALTERNATIVE	B-1	C	D	E
Fiscal Impacts	Section 5.4	None	<u>City of Stillwater:</u> 7 commercial parcels acquired with an est. market value of \$5.8 million. <u>City of Oak Park Heights:</u> 13 commercial parcels acquired with an est. market value of \$7.5 million, (1.8 % of the city's taxable market value, approx. \$41,000 of annual tax revenue). Loss may be offset by relocated business/ higher tax value of remaining properties due TH 36 improvements.	<u>City of Stillwater:</u> 7 commercial parcels acquired with an est. market value of \$5.8 million. <u>City of Oak Park Heights:</u> Same as Alternative B-1.	<u>City of Stillwater:</u> 7 commercial parcels acquired with an est. market value of \$5.8 million. <u>City of Oak Park Heights:</u> Same as Alternative B-1.	<u>City of Stillwater:</u> 7 commercial parcels acquired with an est. market value of \$5.8 million. <u>City of Oak Park Heights:</u> Same as Alternative B-1.
LAND USE — Chapter 6						
Farmland Impacts (Agricultural acres to be acquired)	6.2.1.3	None	84 acres to be acquired (total of 129 acres including previously acquired right-of-way).	Option 1: 102 acres to be acquired (total of 123 acres including previously acquired right-of-way) Option 2: 82 acres to be acquired (total of 95 acres including previously acquired right-of-way).	46 agricultural acres to be acquired (total of 66 agricultural acres including previously acquired right-of-way).	46 agricultural acres to be acquired (total of 66 agricultural acres including previously acquired right-of-way).
Direct Impacts	6.2.1	Potential for redevelopment of previously acquired right-of-way (Minnesota).	Redevelopment potential of access right-of-way; acquisition of agricultural land for highway use.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Indirect Impacts	6.2.2	No impact.	MN: No changes in land use patterns anticipated. WI: potential for commercial use at interchange area; increased residential development due to improved accessibility.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
VISUAL — Chapter 7						
Visual impacts on the St. Croix River and the river valley	Sections 7.2 – 7.6	None	Visual impacts from a new river crossing, interchange construction and approach roadway reconstruction; impacts dependent on bridge type, and perspective and preferences of the viewer.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
AIR QUALITY, TRAFFIC NOISE, AND CONTAMINATED SITES — Chapter 8						
Air Quality	Section 8.1	Below state and federal standards	Below state and federal standards	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Traffic Noise Minnesota - daytime (L ₁₀ , L ₅₀) ⁽²⁾ Minnesota - nighttime (L ₁₀ , L ₅₀) ⁽²⁾ Wisconsin (L _{EQ}) ⁽²⁾	Section 8.2	8 of 26 modeling receptors exceed state standards. 24 of 26 modeling receptors exceed state standards. No receptors exceed state criteria (same as federal noise abatement criteria).	10 of 26 modeling receptors exceed state standards. 25 of 26 modeling receptors exceed state standards. 1 receptor would experience noise impacts as defined by Wisconsin Chapter Trans. 405.	10 of 26 modeling receptors exceed state standards. 26 of 26 modeling receptors exceed state standards. 3 (Opt 1) and 6 (Opt 2) receptors would experience noise impacts as defined by Wisconsin Chapter Trans. 405.	11 of 26 modeling receptors exceed state standards. 26 of 26 modeling receptors exceed state standards. 4 receptors would experience noise impacts as defined by Wisconsin Chapter Trans. 405.	9 of 26 modeling receptors exceed state standards. 26 of 26 modeling receptors exceed state standards. 2 receptors would experience noise impacts as defined by Wisconsin Chapter Trans. 405.

**TABLE ES-1 (continued)
COMPARATIVE SUMMARY OF PROJECT IMPACTS**

IMPACT	RELATED CHAPTER OR SECTION	ALTERNATIVE				
		NO-BUILD ALTERNATIVE	B-1	C	D	E
On the St. Croix River		No change from existing noise levels (below federal noise criteria)	Federal noise abatement criteria approached /exceeded at river level within 200 ft north and south of bridge centerline.	Federal noise abatement criteria approached/exceeded at river level within 200 – 300 ft north and south of bridge centerline.	Federal noise abatement criteria approached/exceeded at river level within 200 – 300 ft north and south of bridge centerline.	Federal noise abatement criteria approached/exceeded at river level within 200 - 300 ft north and south of bridge centerline.
Potentially-Contaminated Sites	Section 8.3	None	27 Medium-risk sites, 6 High-risk sites potentially affected.	26 Medium-risk sites, 9 High-risk sites potentially affected.	27 Medium-risk sites, 9 High-risk sites potentially affected.	27 Medium-risk sites, 9 High-risk sites potentially affected.
NATURAL RESOURCES — Chapter 9						
Protected Species	Sections 9.1 – 9.4	No impact	Potential impacts on freshwater mussels, dotted blazing star, osprey and bald eagle.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Fish and Aquatic Community	Section 9.1	No impact	Temporary impacts during construction.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Terrain and Climate	Sections 9.1 – 9.4	No impact	River bottom impacts from pier construction; Impacts on MN shore and WI shore and bluff; grading of existing terrain.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Vegetation	Sections 9.2 – 9.4	No impact	Removal of trees and undergrowth along shorelines and upland/bluff area (2.18 acres).	Removal of trees and undergrowth along shorelines and upland/bluff area (3.98 acres under both options).	Removal of trees and undergrowth along shorelines and upland/bluff area (11.69 acres).	Removal of trees and undergrowth along shorelines and upland/bluff area (13.29 acres).
Wildlife	Sections 9.2 – 9.4	No impact	Some loss of habitat; fragmentation from new roadway	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
WATER RESOURCES — CHAPTER 10						
Water Quantity (Drainage)	Section 10.1	No change	Increased impervious area would increase runoff volumes.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Water Quality	Section 10.2	Existing water quality impacts on Lily Lake, Perro Creek, and the St. Croix River drainage areas (including storm water runoff from Lift Bridge) would continue.	No increase in overall phosphorus loading to the St. Croix. 86 acres of drainage diverted from Brown's Creek to the St. Croix River, 80 acres of drainage diverted from Lily Lake to the St. Croix River.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Floodplains	Section 10.3	No impact	900 feet longitudinal impacts from road and pond construction. Fill impacts due to bridge pier placement.	1,600 feet longitudinal and 200 feet transverse impacts from road and pond construction. Fill impacts due to bridge pier placement.	4,800 feet longitudinal and 300 feet transverse impacts from road and pond construction. Fill impacts due to bridge pier placement.	5,400 feet longitudinal and 800 feet transverse impacts from road and pond construction. Fill impacts due to bridge pier placement.
Groundwater	Section 10.4	No impact	No impacts exceeding state water quality standards are expected.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Wetlands Area of encroachment	Section 10.5	No impact	6.37 acres of impact.	6.97 (C-1) / 7.62 (C-2) acres impact.	7.68 acres of impact.	7.68 acres of impact.
Mitigation Plan	Section 10.5	No impact	7-acre mitigation site has been constructed. If needed additional mitigation may be constructed on-site or withdrawn from banking site.	7-acre mitigation site has been constructed. If needed additional mitigation may be constructed on-site or withdrawn from banking site.	7-acre mitigation site has been constructed. If needed additional mitigation may be constructed on-site or withdrawn from banking site.	7-acre mitigation site has been constructed. If needed additional mitigation may be constructed on-site or withdrawn from banking site.

**TABLE ES-1 (continued)
COMPARATIVE SUMMARY OF PROJECT IMPACTS**

IMPACT	RELATED CHAPTER OR SECTION	ALTERNATIVE				
		NO-BUILD ALTERNATIVE	B-1	C	D	E
HISTORIC AND ARCHAEOLOGICAL RESOURCES — Chapter 11						
Historic and Archaeological Resources	Section 11.3	No change	Adverse effect on 6 properties.	Adverse effect on 6 properties.	Adverse effect on 7 properties.	Adverse effect on 7 properties.
CONSTRUCTION — Chapter 12						
Construction Impacts	Section 12.2	No change	Construction equipment noise and emissions; Increased dust/particulates from grading activities; earth-, air- and possibly water-borne vibrations; temporary visual intrusions; Temporary traffic rerouting, lane closures/shifts; possible congestion on alternative routes, short-term access changes to businesses and residences; possible sedimentation and erosion impacts. Minor impacts on rail operations/ temporary navigational disruptions; disturbance of river substrate; disturbance of bald eagle nesting activities; potential for introduction of exotic species.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
CUMULATIVE IMPACTS — Chapter 13 (only conclusions provided here; see Ch 13 for detailed discussion)						
Land Use and Development	13.2.1	Potential for intensified development in already developed areas, expansion of developed area into rural settings and alteration of highly valued 'rural character,' potential to habitat and natural resource impacts as development occurs in previously undeveloped areas.	Same as No-Build Alternative; potential for accelerated or more rapid rate of growth.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Prime Agricultural Land	13.2.2	Same as Alternative B-1.	Market-driven property sales and absence of local zoning regulations mandating agricultural densities may cause cumulative impacts on the amount of prime agricultural land in western St Croix County.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Social	13.2.3	Same as Alternative B-1.	Urbanization of rural and small town communities will likely result in both positive and negative impacts.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Regional Economy	13.2.4	Same as Alternative B-1.	Little potential for adverse cumulative impacts due to the strength of the overall economy. Decrease in the agricultural sector is likely as development continues, but without substantial impact on the area economy due to land values.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.

**TABLE ES-1 (continued)
COMPARATIVE SUMMARY OF PROJECT IMPACTS**

IMPACT	RELATED CHAPTER OR SECTION	ALTERNATIVE				
		NO-BUILD ALTERNATIVE	B-1	C	D	E
CUMULATIVE IMPACTS — Chapter 13 (only conclusions provided here; see Ch 13 for detailed discussion) continued						
Air Quality	13.3.1	Same as Alternative B-1.	No substantial adverse impacts are anticipated given existing conditions and continued decreased emissions from mobile sources of pollutants.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Noise	13.3.2	Same as Alternative B-1.	An increase in both the number of sensitive receptors and traffic levels is expected, potentially increasing the number of receptors exceeding state and federal standards. However, noise energy disperses quickly over distance minimizing potential for cumulative impacts at specific receptors.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Wetlands	13.4.1	Same as Alternative B-1.	Effectiveness of regulations, including replacement ratios and close coordination between agencies on mitigation measures diminishes potential for adverse cumulative impact.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Water Quality and Quantity	13.4.2	Same as Alternative B-1.	Potential for adverse impact to water quality without implementation of stormwater management practices and monitoring of groundwater quality.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Aquatic Resources	13.5.1	Same as Alternative B-1.	Long term cumulative impacts will be minimized as stringent standards and regulations at the state and federal level are in place to protect water quality.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Vegetation	13.5.2	Same as Alternative B-1.	Potential adverse cumulative effects on vegetative resources based on increased urbanization, expansion of road networks that could be minimized through development controls, conservation easements, mandated preservation of resources in sensitive areas, tree replacement requirements, and other local governmental controls.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.

**TABLE ES-1 (continued)
COMPARATIVE SUMMARY OF PROJECT IMPACTS**

IMPACT	RELATED CHAPTER OR SECTION	ALTERNATIVE				
		NO-BUILD ALTERNATIVE	B-1	C	D	E
CUMULATIVE IMPACTS — Chapter 13 (only conclusions provided here; see Ch 13 for detailed discussion) continued						
Wildlife	13.5.3	Same as Alternative B-1.	Given the amount of available habitat (Lower St. Croix River and state and county parklands) and the overall health of wildlife populations in the study area, substantial adverse cumulative impacts on wildlife are not anticipated.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Parks and Recreational Lands	13.6.1	Same as Alternative B-1.	Parklands are given a high degree of protection by local, county, state, and federal laws, reducing the potential for substantial adverse cumulative impacts.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Aesthetics	13.6.2	Same as Alternative B-1.	Changes to highly-valued aesthetic resources can be protected through government regulations, reducing the potential for cumulative impacts.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.
Archaeological and Historic Resources	13.6.3	Same as Alternative B-1.	There is potential for cumulative effects to archaeological and historic resources, due to changes in surrounding land use, accessibility, setting and views.	Same as Alternative B-1.	Same as Alternative B-1.	Same as Alternative B-1.