

2004 AMENDED FINAL SCOPING DECISION DOCUMENT

ST. CROIX RIVER CROSSING PROJECT

**Trunk Highway 36, Washington County, Minnesota
State Trunk Highway 64, St. Croix County, Wisconsin**

**Minnesota Department of Transportation
Wisconsin Department of Transportation
Federal Highway Administration**

March 2004

2004 AMENDED FINAL SCOPING DECISION DOCUMENT

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**Trunk Highway 36, Washington County, Minnesota
State Trunk Highway 64, St. Croix County, Wisconsin**

March 2004

CERTIFICATION BY RESPONSIBLE GOVERNMENTAL UNIT

Approved: Mn/DOT
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Environmental Services

Approved: Wis/DOT

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2004 AMENDED FINAL SCOPING DECISION DOCUMENT ST. CROIX RIVER CROSSING

This Final Scoping Decision Document documents the narrowing of the scope (i.e., identification of alternatives to be studied in the SDEIS) for the St. Croix River Crossing Project. The alternatives to be studied in the SDEIS are presented in Section VIII. Section V describes alternatives examined in the preceding Scoping Phase.

I. INTRODUCTION

This 2004 Amended Final Scoping Decision Document (2004 AFSDD) and the previously released 2003 Amended Scoping Document (2003 ASD) (published with the 2003 Amended Draft Scoping Decision Document (ADSDD)) were prepared in accordance to Minnesota Statute Chapter 4410.2100 and identified the alternatives as well as social, economic, need and environmental issues proposed to be addressed in the Supplemental Draft Environmental Impact Statement (SDEIS) for the project. A Notice of Availability was published in the Minnesota Environmental Quality Board (EQB) *Monitor* on November 10, 2003 as required. The 2003 ASD was distributed to the Environmental Quality Board distribution list and interested parties, and posted on a publicly-accessible website for comment. A 30-day comment period followed the Notice of Availability. The comment period included two public scoping meetings held on December 2 and 3, 2003. This 2004 AFSDD was prepared to document the final decisions made by the Responsible Governmental Units (RGUs) (under Minnesota statutes, the Minnesota Department of Transportation (Mn/DOT), in cooperation with the Wisconsin Department of Transportation (Wis/DOT) and the Federal Highway Administration (FHWA)) regarding the contents of the future SDEIS.

The 2003 ASD described the purpose of and need for the proposed project, the process followed in the development and evaluation of alignment alternatives, and the social, economic, and environmental (SEE) issues that will affect the continuing development of the proposed project. The 2003 ASD contains supporting information for this document and, although no longer open for comment, is available for review in PDF format on the project website (<http://www.dot.state.mn.us/metro/projects/stcroix/documents.html>). During the comment period of the Scoping Phase, the 2003 ASD was made available at the following libraries and government offices in the project area, and may still be available at these locations: Bayport Public Library (Bayport), Carleton A. Friday Memorial Library (New Richmond), Hudson Area Joint Library (Hudson), St. Joseph Town Hall (St. Joseph), Somerset Public Library (Somerset), Stillwater Public Library (Stillwater), Washington County Government Center Library (Stillwater), Mn/DOT Library (395 John Ireland Boulevard, St. Paul), Mn/DOT offices at County Road B2 (Oakdale, Minnesota), and the Environmental Conservation Library (Minneapolis). The document was also available at the Wis/DOT Planning Library (Madison). Project contact names and telephone numbers are in Section IV.

The SDEIS will be prepared by the sponsoring agencies (Mn/DOT in cooperation with Wis/DOT and FHWA) to meet the requirements of the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality (CEQ) regulations for NEPA documentation, the Minnesota Environmental Policy Act (MEPA, (Minnesota Statute Chapter 4410.2000 – 2900) and the Wisconsin Environmental Policy Act (WEPA) (s. 1.11 Stats., Chapter Trans 400).

II. PROJECT DESCRIPTION

The Lift Bridge over the St. Croix River between Stillwater, Minnesota, and Town of St. Joseph, Wisconsin, is part of a larger transportation system connecting the Minneapolis-St. Paul metropolitan area and west central Wisconsin. The Lift Bridge and its approach highways, Trunk Highways (TH) 36 and 95 in Minnesota and State Trunk Highways (STH) 35 and 64 in Wisconsin, serve the interregional movements of people and goods over long distances between the two states as well as short- to medium-distance trips between local communities. The interstate and interregional connection facilitated by this crossing of the St. Croix River serves to support the economic interdependencies that exist between Minnesota and Wisconsin and the sub-regions within the states (Figure 1). The project area (anticipating the potential limits of a transportation improvement project¹) extends from the TH 36/TH 5 interchange in Stillwater, Minnesota on the west to approximately 150th Avenue on STH 35/64 in Wisconsin on the east. With Alternative A only, the project area would also include a section of STH 65 in central St. Croix County (as shown on Figure 2) and other smaller areas in St. Croix County (not yet identified) needed to implement transit elements of Alternative A.²

The importance of TH 36 in this area within Minnesota's transportation system was recognized in 1999 by its designation by Mn/DOT as an Interregional Corridor. Interregional Corridors are defined as roadways connecting major regional and economic centers within and around the state. As more of Minnesota's population and economic activities are locating in and around regional centers, the corridors connecting them become ever more important by providing safe, timely, and efficient movement of people and goods and by ensuring economic vitality. Further reinforcing the roles of both TH 36 and STH 64 as key transportation corridors is their designation on the National Highway System (NHS). The NHS was established by the United States Congress to designate major highways important for interstate travel, national defense, intermodal connections, and international commerce. Wisconsin has recognized the role STH 64 plays in the state transportation system by designating STH 64 as a Multilane Connector in their *Corridors 2020* plan, a long-range highway and economic development plan.

¹ Project area here is not intended to define the geographic study area addressed in specific SDEIS analyses, but rather, the maximum extent of the scoping alternatives. (The project area for the SDEIS is dependent upon the definition of the alternatives to be examined in the SDEIS.) The geographic areas for SDEIS alternatives analyses will be defined in the SDEIS.

² As discussed in Section IX, Alternative A will not be included in the SDEIS.

Figure 1
Project Location

Figure 2
General Project Location

This proposed project is to provide improved traffic operations to relieve existing and future congestion in downtown Stillwater and on approach roadways to the Lift Bridge by increasing roadway capacity, to address concerns related to interrupted service provided by the Lift Bridge due to daily lift operations and seasonal flooding, to improve the safety of the approach roadways and pedestrian safety in downtown Stillwater; and to improve operations on a corridor that has been identified as an interregional corridor connecting Minnesota and Wisconsin.

III. PROJECT COST, FUNDING SOURCE AND SCHEDULE

Preliminary cost estimates and funding sources for the project have not been prepared.

The following is the anticipated schedule for completion of project activities:

| | |
|--|-------------------------|
| 2003 Amended Scoping Document/2003 Amended Draft Scoping Decision Document | November 2003 |
| Public Scoping Meetings in Minnesota and Wisconsin | December 2003 |
| 2004 Amended Final Scoping Decision Document | March 2004 |
| Supplemental Draft EIS preparation | Winter 2004–Summer 2004 |
| SDEIS Public Hearings in Minnesota and Wisconsin | Fall 2004 |
| Supplemental Final EIS | Spring 2005 |
| Record of Decision/Adequacy Determination | Late Spring 2005 |
| Final Design | 2005-2006 |
| Right-of-Way Acquisition | 2006-2007 |
| Construction | 2007-2010 |
| Project Completion | 2010 |

IV. RESPONSIBLE GOVERNMENTAL UNIT AND PROJECT MANAGER

Mn/DOT is the designated Responsible Governmental Unit (RGU), in cooperation with Wis/DOT and FHWA, for the purposes of the 2003 ASD/ADSDD, 2004 AFSDD and for the SDEIS.

The contact persons for each agency follow.

The contact person for Mn/DOT (the RGU) is:

Contact Person: Todd Clarkowski, P.E.
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The project manager for Wis/DOT is:

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The contact person for FHWA (the federal responsible agency under NEPA in cooperation with Mn/DOT and Wis/DOT) is:

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V. ALTERNATIVES STUDIED IN THE SCOPING PHASE

In addition to the No Build Alternative, five alternatives were studied in the Scoping Phase as described in the 2003 Amended Scoping Document. These five alternatives are briefly described in the following section and illustrated in Figure 3. Also, the TH 36 Partnership Study, which occurred during the Scoping Phase, is discussed in this Section (see Section V.G).

A. NO BUILD ALTERNATIVE

The No Build Alternative is a “no action” alternative and does not include a new river crossing or improvements to the existing transportation system. The existing congestion and safety problems would continue. The Lift Bridge would remain in place for vehicular travel and continue to be maintained on the Minnesota and Wisconsin trunk highway systems. Navigation would continue to be limited by the existing Lift Bridge schedule.

Figure 3
Scoping Alternatives A B, C, D, E

B. ALTERNATIVE A

Alternative A entails the permanent rehabilitation and continued vehicle use of the Lift Bridge. Needed mobility would be provided through a combination of transit and emergency vehicle advantages (transit and emergency vehicle lanes, park-and-ride facilities), new transit travel options (water transit service, express bus service, circulator shuttle, commuter rail lines), use of advanced technologies to enhance mobility (opticon emitters), widening STH 65 from two lanes to four lanes for the purpose of redirecting more traffic to the I-94 river crossing, and regional policy changes (STH 65 commercial growth zone, restrictive zoning of STH 35, inclusion of St. Croix County in Metropolitan Council planning and research, and other policy changes). Figure A-1 in Appendix A illustrates the proposed elements of Alternative A.

A number of the measures identified for Alternative A addressing land use policies, zoning and transit operations are beyond the statutory authority of the Minnesota and Wisconsin Departments of Transportation, would require enabling legislation and, when necessary, appropriations from the legislature. The transit and emergency vehicle advantages and advanced technology options are within the statutory authority of the Minnesota and Wisconsin Departments of Transportation.

C. ALTERNATIVE B

Alternative B (shown on Figure A-2 in Appendix A) would consist 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 new bridge would cross northeasterly to Wisconsin from a point in Minnesota approximately 7,480 feet south of the Lift Bridge. The new bridge would meet the Wisconsin bluff 5,465 feet south of the point where the Lift Bridge meets the Wisconsin bluff.

Trunk Highway 36 from TH 5 to the new bridge would be converted to a grade-separated facility and includes modifications to TH 36, local roads, and the frontage roads parallel to TH 36 that would be included with this Alternative³. An interchange at TH 36 and TH 95 would provide for all movements between the two roadways. TH 95 would be realigned as it crosses under TH 36 to allow for additional lanes and traffic signals associated with the ramps to TH 36.

³ The TH 36 Partnership Study was conducted in 2001 to explore design concepts for TH 36 between TH 5 and approximately Osgood Avenue. This study was conducted by Mn/DOT, in partnership with the cities of Oak Park Heights and Stillwater and Washington County. A grade-separated concept with two buttonhook-type interchanges has been supported by the local communities. Refinement of the location of the buttonhooks, overpasses and frontage road connections was considered during the Scoping Phase (fall 2003) by the TH 36 partners supplemented by the Stillwater Area Chamber of Commerce (the Technical Advisory Group, or TAG).

The river crossing would extend diagonally over the river from Minnesota (near the TH 36 / TH 95 interchange) to Wisconsin.⁴ In Wisconsin, the approach roadway would travel under STH 35, north to an interchange with the relocated St. Croix County Highway (CTH E). A bicycle/pedestrian trail would provide access to the new bridge for pedestrians and bicyclists at the STH 35 crossing. Access to and from STH 35 with the new STH 64 roadway would be possible from the interchange with the relocated CTH E.

Several design elements were studied for Alternative B during the Scoping Phase. These design elements include:

- the “South Ravine Option” alignment (Alternative B-1);
- the construction of a tunnel at the bridge abutment into the Wisconsin bluff. This tunnel would use a “cut and cover” method because of the soil conditions of bluff; i.e., the bluff would be excavated, a tunnel structure would be constructed, and fill would be placed over the tunnel and the fill would be revegetated;
- the retention of the Lift Bridge for limited vehicular use (i.e., no semi-trailer or large truck traffic);
- the conversion of the Lift Bridge to a pedestrian and bicycle facility;
- the construction of park-and-ride facilities in Minnesota near the TH 36/95 interchange; and
- park-and-ride facilities in Wisconsin near Houlton.

D. ALTERNATIVE C

Alternative C (refer to Figure A-3 in Appendix A) would include construction of a new four-lane bridge (two through-traffic lanes in each direction) and a bicycle/pedestrian trail on the north side of the bridge. The new bridge would cross northeasterly to Wisconsin from a point in Minnesota approximately 4,390 feet south of the Lift Bridge. The new bridge would meet the Wisconsin bluff approximately 3,600 feet south of the point where the Lift Bridge meets the Wisconsin bluff.

Trunk Highway 36 from TH 5 to the new bridge would be converted to a grade-separated facility in the same manner described for Alternative B previously in this Section (Section V.C.) Figure A-3 in Appendix A includes an illustration of the concept of frontage road alignments and interchange locations. Approach roadways to the bridge that would be reconstructed as part of the project include TH 36 and TH 95 in Minnesota, and STH 64, STH 35, and CTH E in Wisconsin. The options for the alignment of the new roadway, the roadway connections, and realignment of CTH E would result in five potential options for the new STH 35/64 roadway in Wisconsin.

⁴ Two locations for the Wisconsin bridge approach were investigated for Alternative B. One site (Alternative B) was located within a ravine based on the alignment in the 1995 Final EIS, and is discussed in this section. The second site (Alternative B-1) was located approximately 2,500 feet south of the 1995 Final EIS alignment. Alternative B-1 is mentioned here for consistency, but is discussed fully in Section VII. G.

Several design elements were studied for Alternative C during the Scoping Phase. These design elements include:

- the construction of a tunnel at the bridge abutment into the Wisconsin bluff. This tunnel would use a “cut and cover” method because of the soil conditions of bluff. The bluff would be excavated, a tunnel structure would be constructed, and fill would be placed over the tunnel and the will would be revegetated;
- the retention of the Lift Bridge as a limited vehicular facility (i.e., no semi-trailer or large truck traffic);
- the conversion of the Lift Bridge to a pedestrian and bicycle facility;
- the construction of park-and-ride facilities in Minnesota near the TH 36/95 interchange; and
- park-and-ride facilities in Wisconsin near Houlton.

E. ALTERNATIVE D

Alternative D (refer to Figure A-4 in Appendix A) consists of a new four-lane bridge south of the existing Lift Bridge, accommodating both eastbound and westbound traffic with two through-traffic lanes in each direction. The new bridge would cross northeasterly to Wisconsin from a point in Minnesota approximately 1,940 feet south of the Lift Bridge. The new bridge would meet the Wisconsin bluff approximately 160 feet south of the point where the Lift Bridge meets the Wisconsin bluff. The Lift Bridge would remain intact and would be used for limited vehicular traffic, and for pedestrian/bicycle traffic. A trail would provide bicycle/pedestrian access to STH 35 from the Lift Bridge.

Trunk Highway 36 from TH 5 to the new bridge would be converted to a grade-separated facility in the same manner as described for Alternative B previously in this Section (Section V.C.). Figure A-4 in Appendix A includes an illustration of the concept of frontage road alignments and interchange locations.

South of Stillwater, a full interchange would provide access in all directions to and from TH 36 and TH 95 at the southern junction of the roadways. At the north junction of TH 36 and TH 95, ramps would provide access from eastbound TH 36/95 to northbound TH 95 into Stillwater, and from southbound TH 95 to westbound TH 36/95 from Stillwater. Direct access from southbound TH 95 from Stillwater to eastbound TH 36 (new bridge crossing) would not be possible. Access from westbound STH 64 to northbound TH 95 would be provided by the Lift Bridge.

In Wisconsin, the new STH 64 roadway would climb the Wisconsin bluff along the existing corridor. A ramp would connect eastbound traffic from Stillwater using the Lift Bridge to eastbound traffic on STH 64. At the top of the Wisconsin bluff, the new STH 64 roadway would cross under existing STH 35, and connect to an interchange with

relocated STH 35, providing full access in all directions between STH 64 and a new north-south road for STH 35. This roadway would also join CTH E at an at-grade intersection and join existing STH 35 south of Houlton at a new T-intersection.

Several design elements were under study for Alternative D during the Scoping Phase. These design elements include:

- the inclusion of an at-grade intersection between STH 64 and STH 35 in Houlton or an STH 64 overpass with no access to STH 35 in Houlton;
- the addition of bicycle and pedestrian facilities on the new river crossing and access facilities in both Minnesota and Wisconsin;
- the construction of park-and-ride facilities in Minnesota near the TH 36/95 interchange; and
- park-and-ride facilities in Wisconsin near Houlton.

F. ALTERNATIVE E

Alternative E (refer to Figure A-5 in Appendix A) would consist of utilizing the Lift Bridge as a two-lane one-way roadway for westbound traffic, and constructing a new one-way bridge south of the Lift Bridge for two lanes of eastbound traffic. The new bridge would cross northeasterly to Wisconsin from a point in Minnesota approximately 2,010 feet south of the Lift Bridge. The new bridge would meet the Wisconsin bluff at approximately 200 feet south of the point where the Lift Bridge meets the Wisconsin bluff. The Lift Bridge would accommodate pedestrian/bicycle traffic, and a trail would provide bicycle/pedestrian access to STH 35 from the Lift Bridge.

Trunk Highway 36 from TH 5 to the new bridge would be converted to a grade-separated facility in the same manner as described for Alternative B previously in this Section (Section V.C.). Figure A-5 in Appendix A includes an illustration of the concept of frontage road alignments and interchange locations.

South of Stillwater, a full interchange would provide access in all directions to and from TH 36 and TH 95 at the southern junction of the roadways. Northbound traffic on TH 95 would be able to continue north into Stillwater via a left turn from TH 36/95, while eastbound traffic would continue east crossing the river on the new bridge. Southbound traffic on TH 95 from Stillwater would either continue south on TH 36/95 or turn left, crossing the river with eastbound traffic from TH 36/95.

On the Wisconsin side, the new bridge would approach the bluff immediately south of the existing Lift Bridge, and meet westbound traffic on STH 64 at the westernmost end of CTH E. The new STH 64 approach roadway would be a four-lane, divided highway providing access to STH 35 with either an at-grade intersection or an interchange. The alignment of the new STH 35/64 roadway, the alignment of a new local road between the existing STH 35/64 roadway and CTH E, and the interchange between the local road and the new STH 35/64 would be the same as described for Alternative D.

Several design elements were under study for Alternative E during the Scoping Phase. These design elements include:

- the reconstruction of the TH 36/95 interchange in Oak Park Heights, Minnesota and the relocation of the Beach Road bridge over TH 36;
- the inclusion of an at-grade intersection between STH 64 and STH 35 in Houlton or an STH 64 overpass with no access to STH 35 in Houlton;
- the profile of the bridge and clearance over the St. Croix River;
- the addition of bicycle and pedestrian facilities on the new river crossing and access facilities in both Minnesota and Wisconsin;
- the construction of park-and-ride facilities in Minnesota near the TH 36/95 interchange; and
- park-and-ride facilities in Wisconsin near Houlton.

VI. COMMENTS RECEIVED DURING THE SCOPING PHASE

The Scoping Comment Period began on November 10, 2003 with the publication of the notice of availability of the 2003 ASD in the EQB *Monitor*, and was completed on December 10, 2003. Scoping Meetings were held on December 2, 2003 in Houlton, Wisconsin at the Houlton Elementary School and on December 3, 2003 in Stillwater, Minnesota at the Washington County Government Center. Approximately 550 people attended the meeting in Wisconsin and approximately 350 attended the meeting in Minnesota for a combined attendance of 900 people. Over 1,000 comments were received in various formats (comment cards from the Scoping Meetings, mailed comment cards, letters, e-mails) during the Scoping Comment Period from citizens, federal, state, and local government agencies, and other interested parties. A summary of the comments received is available on the project website (<http://www.dot.state.mn.us/metro/projects/stcroix/index.html>). The project contacts (listed in Section IV) have copies of all comments received.

A. PUBLIC COMMENTS

All of the alternatives identified in the 2003 ASD received support to some degree. Comments noted concerns with the Lift Bridge (e.g., safety, reliability, changes in vehicle access or the lift schedule), traffic and congestion in the project area, roadway design, and environmental impacts among other issues. Comments also identified issues and methodologies that need to be addressed in the SDEIS.

B. AGENCY COMMENTS

A total of 27 federal, state, and local agencies and organizations submitted comments on the Scoping documents. Comments ranged from reminders of process requirements to requests for clarifications and opinions as to the alternatives to be carried forward into the SDEIS. Recommendations regarding alternatives to be studied ranged from retaining all five alternatives, to narrowing the group to two or three alternatives, with all alternatives receiving some degree of support. Comments also identified issues concerning study areas and methodologies that will be addressed in the SDEIS.

C. STAKEHOLDER RESOLUTION PROCESS COMMENTS

Participants in the Stakeholder Resolution Process were asked to provide comments regarding alternatives that should be carried forward into the SDEIS at their January 6, 2004 meeting. Comments ranged from recommending that all alternatives be carried forward into the SDEIS, to focusing on as few as one to two alternatives, with the selected alternatives covering the full range of those being studied. However, several Stakeholder Resolution Process members representing permitting agencies noted that alternatives that do not meet the project Purpose and Need could be eliminated at this point in the project. Others emphasized the need to study a range of alternatives in the SDEIS. The Stakeholders were unable to reach a consensus regarding the alternatives to be carried forward into the SDEIS and the decision was referred back to Mn/DOT, Wis/DOT and the FHWA.

VII. ADDITIONAL INFORMATION SINCE RELEASE OF THE SCOPING DOCUMENT

Analysis of the Scoping alternatives (Figure 3) continued through the Scoping Phase, and after the publication of the 2003 Amended Scoping Document, to determine the ability of the alternatives to address transportation needs and to further assess potential environmental effects of the project. The analysis included completion of travel demand forecasts and analysis of potential bluff, floodplain, park and wetland impacts.

A. TRAFFIC FORECAST RESULTS

Travel demand forecasts were completed using the Twin Cities Regional Model (developed by the Metropolitan Council) expanded to include southern Polk County, all of St. Croix County and the northern portion of Pierce County in Wisconsin for the purposes of this project. A Peer Review Panel of national travel demand experts reviewed the travel demand methodology and assumptions to provide broader perspectives regarding the methodology. Extrapolated growth rates (straight line traffic projections) were not used for the travel demand forecasts as they would not accurately reflect anticipated conditions. Rather, travel demand forecasts were based on demographic forecasts and documented travel behavior in the Twin Cities region and calibrated to the 2000 Census and current traffic counts to reflect conditions and trends in the study area. (This methodology is documented in “St. Croix Supplement Draft Environmental Impact Statement Technical Memorandum – Travel Demand Forecasts; March 2004” prepared by SRF Consulting Group, and available from Mn/DOT.)

Table 1 shows the results of the 2030 travel demand forecasts for the five alternatives⁵ for the existing and No Build conditions at four Twin Cities Regional St. Croix River Crossing locations, including the subject river crossing at TH 36/STH 64, a crossing at United States Highway (USH) 8, a crossing at STH 243 and a crossing at I-94 as shown on Figure 1. With the No Build condition, the number of vehicles crossing the St. Croix River at TH 36/STH 64 is expected to increase from the current count of 16,700 vehicles per day to 21,700 vehicles per day. Transit opportunities provided with Alternative A reduce that number by 500 vehicles per day, but the traffic volume continues to exceed current daily volumes by 4,500 vehicles.

Table 1 also shows that Alternative A does not meet the transportation needs of the project because it does not resolve the congestion problem. The travel demand forecast results indicate that Alternative A shifts the congestion to the I-94 corridor, further exacerbating capacity concerns at this crossing.

**TABLE 1
EXISTING AND 2030 DAILY VEHICLE CROSSINGS FOR TWIN CITIES
REGION ST. CROIX RIVER CROSSINGS**

| | USH 8 - Taylors Falls (number of vehicles) | STH 243 - Osceola (number of vehicles) | TH 36/STH 64 Stillwater (number of vehicles) | I-94 - Hudson (number of vehicles) | TOTAL (number of vehicles) |
|---------------------------|---|---|---|---|-------------------------------------|
| Existing (2003) | 14,900 | 4,400 | 16,700 | 69,000 | 105,000 |
| 2030 No Build | 23,500 | 9,500 | 21,700 | 140,700 | 195,400 |
| 2030 Alt A ^{1,2} | 23,600 | 9,300 | 21,200 | 139,100 | 193,200 |
| 2030 Alt B ³ | 21,700 | 6,600 | 50,100 | 120,200 | 198,600 |
| 2030 Alt C ³ | 21,300 | 6,400 | 52,400 | 119,400 | 199,500 |
| 2030 Alt D | 21,300 | 6,200 | 46,000 (Lift Bridge = 7,700) | 119,000 | 200,200 |
| 2030 Alt E | 22,800 | 8,000 | 34,500 | 131,600 | 196,900 |

¹ Alternative A₁ was defined as including five express bus routes; six park-and-ride facilities indicated by travel demand patterns; no commuter rail (eliminated from this alternative on recommendation of the Peer Review Panel due to low ridership) and no expansion of STH 65 to four-lanes throughout the corridor (based on results of travel demand forecasting that showed traffic patterns were not sensitive to the expansion of STH 65).

² Alternative A₁ represents the base forecast for this alternative – see further discussions later in this Section

³ Alternatives B and C were modeled with the Lift Bridge closed to vehicular traffic as this would be considered a “worst case scenario” from a traffic capacity standpoint.

⁵ The forecasts for Alternative A reflect the revisions to Alternative A developed after release of the Scoping Decision Document and based on the Peer Review Panel’s recommendations. See Section VII.A for details.

Forecasted traffic at the TH 36/STH 64 crossing for Alternatives B, C, and D exceeds 50,000 vehicles per day, with Alternative D splitting the volumes between a new four-lane bridge and the Lift Bridge. Because the congestion-free capacity of these facility types exceeds 60,000 vehicles per day, these alternatives represent an unconstrained demand level. Further, the reduced volumes at the I-94 crossing with these alternatives suggest that with constrained conditions at TH 36/STH 64, vehicles are currently diverting to the I-94 crossing to avoid congestion at the Stillwater crossing.

The reduction of volumes on TH 36/STH 64 with Alternative E below the volumes indicated for Alternatives B, C and D suggests that this alternative provides a somewhat constrained condition, yet it does provide more vehicle capacity than the No Build or Alternative A. Again, the parallel increase in volumes at I-94 suggests that vehicles will divert to the I-94 crossing with the constrained conditions of Alternative E.

Similar totals across the St. Croix River crossing locations examined for all alternatives indicate that river crossing trips are not significantly increased with any of the alternatives. Rather, capacity constraints and subsequent congestion affect only the location chosen to make the river crossing. Alternative A provides a small exception to this pattern, where the total daily vehicle crossings are marginally reduced through transit use.

An examination of total regional⁶ vehicular hours traveled and total vehicular miles traveled provides further information regarding trip diversion with constrained conditions (shown on Figures 4 and 5, respectively).

While Alternative A reduces total vehicle hours traveled by nearly 4,000 vehicle hours per day (Figure 4) from the No Build condition, Alternatives B, C, and D reduce vehicles hours traveled by over 25,000 vehicle hours per day. This suggests a significant reduction in trip diversion. Results for Alternative E reflect a reduction of approximately 15,000 vehicle hours traveled, a smaller reduction than Alternatives B, C, and D, but still significantly larger than Alternative A.

⁶ “Region” in this instance refers to the region included in the Twin Cities Regional Forecast Model, which includes the seven-county metropolitan area, and for this project, was expanded to include southern Polk County, St. Croix County and northern Pierce County in Wisconsin. While the model encompasses a wide region, changes in vehicle miles traveled and vehicular hours traveled are attributable solely to the alternatives examined, as they are the only variable tested in the modeled conditions.

**FIGURE 4
REDUCTION IN 2030 REGIONAL VEHICLE HOURS TRAVELED
COMPARED WITH NO BUILD**

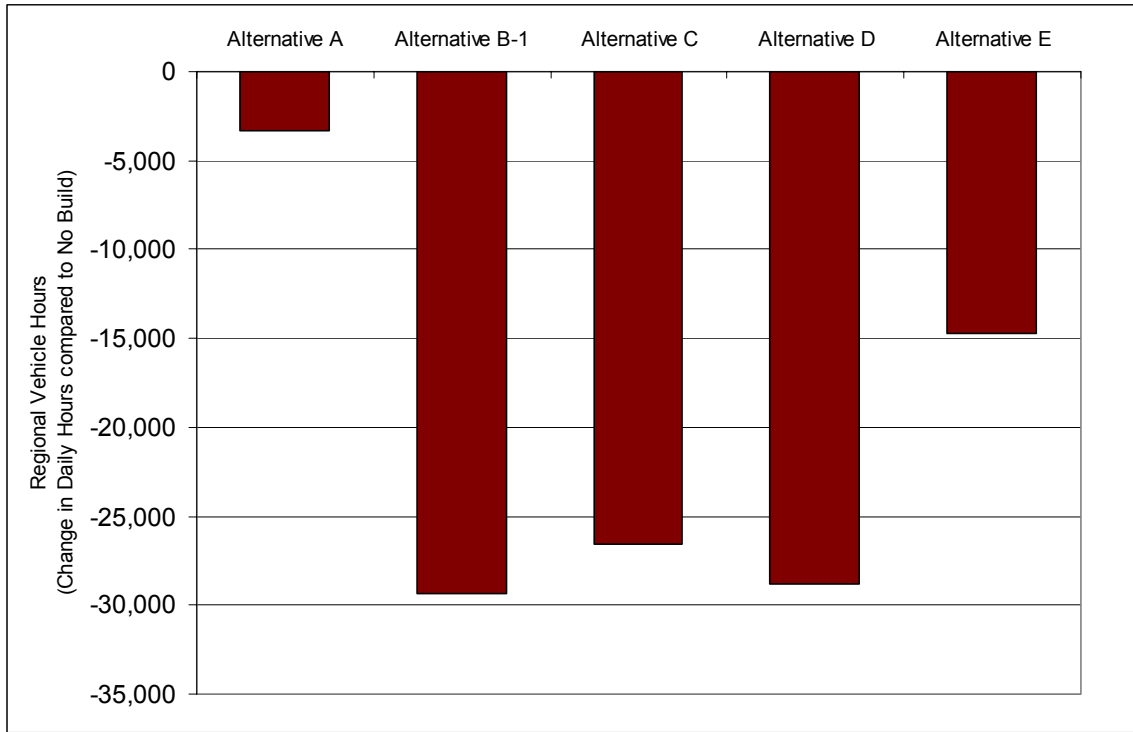


Figure 5 shows the results of an analysis of change in vehicle miles traveled. In these results, similar to the results of the analysis of reduction of vehicle hours traveled and delay, Alternative A demonstrates a reduction in regional vehicle miles traveled from the No Build alternative, but significantly greater reductions are found with Alternatives B, C and D. Results for Alternative E indicate a slight (approximately 12,000) increase in vehicle miles traveled.

Analysis of the vehicle miles traveled experiencing congested conditions⁷ (Level of Service E or F⁸) as compared with the No Build provides a further indication of the ability of the alternatives to meet the project purpose, as shown on Figure 6. Once again, a similar pattern is found with Alternative A providing a slight reduction in vehicle miles traveled with congested conditions when compared with the No Build alternative, but significantly higher reductions can be found with Alternatives B, C and D. Alternative E performs better in this measure than Alternative A, but not as well as Alternatives B, C and D.

⁷ “Congested conditions” here is defined as when volumes exceed capacity, and vehicles experience delay or congestion.

⁸ Level of Service E or F, when measured on an A to F scale, with Level of Service A representing the best level of service. Level of Service here does not refer to the level of service at intersections in the corridor as measured in average delay per vehicle, but rather as an indication of vehicle volumes to roadway capacity. When volumes exceed capacity, vehicles experience delay or congestion. A reduction in vehicle miles traveled (VMT) with congested conditions is a measure of congestion reduction.

FIGURE 5
DIFFERENCE IN 2030 REGIONAL VEHICLE MILES TRAVELED
COMPARED WITH NO BUILD

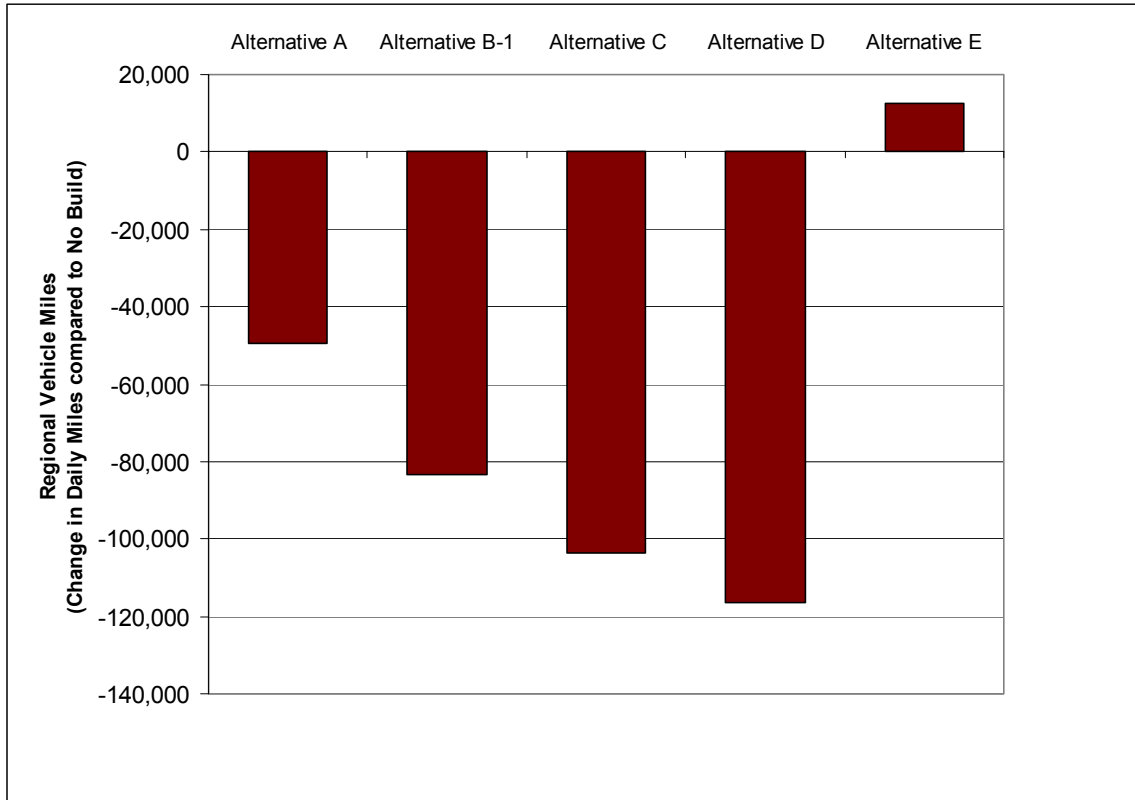
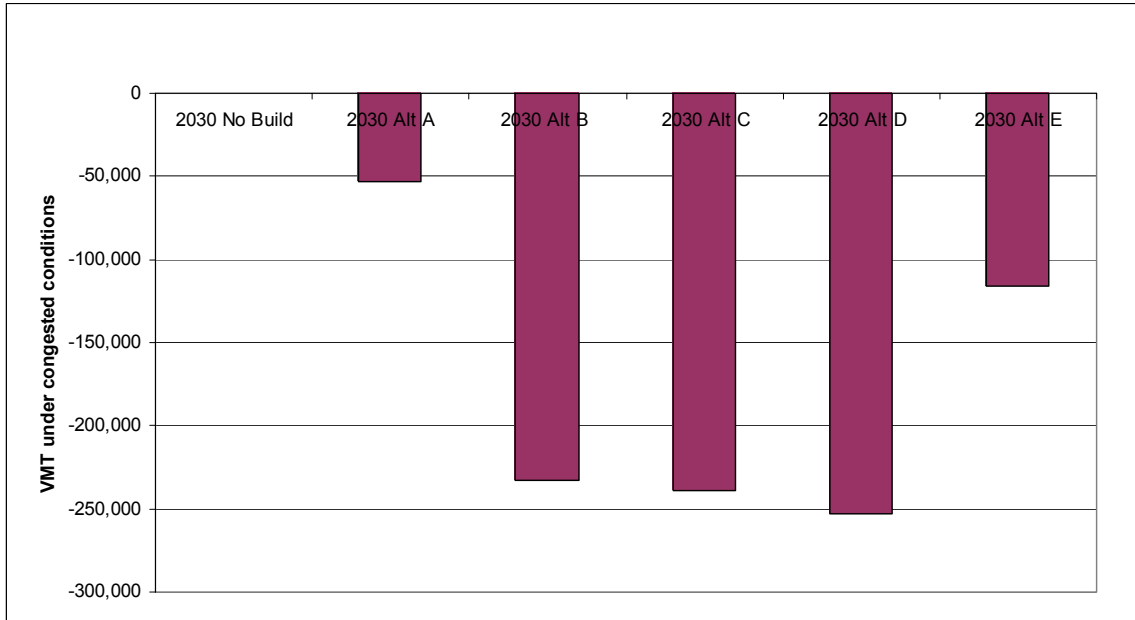


FIGURE 6
DIFFERENCE IN 2030 REGIONAL VEHICLE MILES TRAVELED WITH
CONGESTED CONDITIONS (LOS E OR F) COMPARED WITH NO BUILD ⁽¹⁾

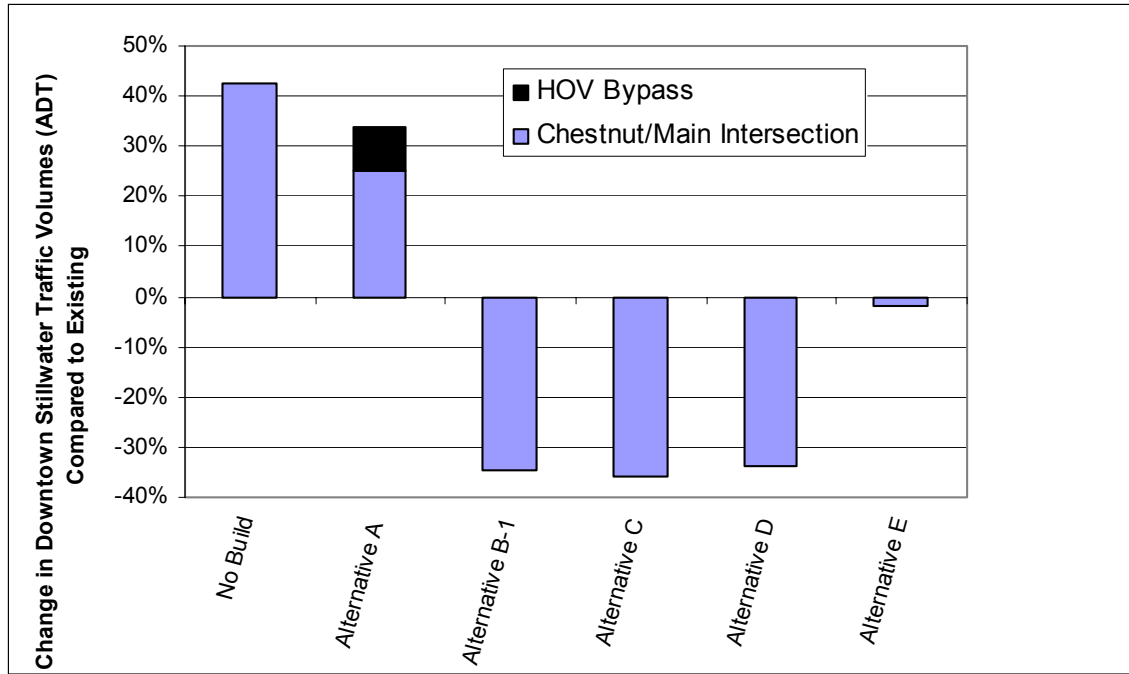


⁽¹⁾ Reflects congestion as measured in the Twin Cities Regional Travel Demand Model only. Refined analysis of traffic operations (including delay and congestion) by traffic operation models will be included in the SDEIS.

Volumes at the intersection of Chestnut Street and Main Street (TH 36/95) in Stillwater (this intersection is shown on Figure 3, in Section V) were examined as an indication of each alternative’s potential ability to reduce congestion at this downtown Stillwater intersection, as shown on Figure 7. Modeling results indicate that 2030 volumes at this intersection are expected to increase by over 40 percent with the No Build condition. Alternative A results in a lesser increase of 35 percent. However, Alternatives B, C and D reduce expected volumes at this intersection by over 30 percent (nearly 35 percent) because traffic is not required to pass through Stillwater to cross the River. Alternative E perpetuates volumes at existing levels because traffic must pass through downtown Stillwater to cross the River in one direction with this Alternative.

While these forecast volumes provide an indication of the potential of each of these alternatives to alleviate congestion at this intersection, traffic operations analysis will be required to specifically assess each alternative’s ability in this regard.

**FIGURE 7
CHANGE IN 2030 DOWNTOWN STILLWATER TRAFFIC VOLUMES
COMPARED WITH EXISTING VOLUMES**



ADDITIONAL TRAVEL DEMAND MODELING FOR ALTERNATIVE A

In addition to the baseline forecast produced for Alternative A, two specialized forecasts were analyzed to address specific questions regarding Alternative A:

- If the current legislative prohibition of tolls for the TH 36/STH 64 crossing were removed, what level of tolling would be required to maintain traffic volumes at current (2003) levels?
- Further, if projected St. Croix County population and employment projections could be reduced (i.e. if development were to occur in Washington and Chisago Counties in Minnesota instead of St. Croix County in Wisconsin), what level of development must be shifted to maintain traffic volumes at current (2003) levels?

The travel demand forecast results for these conditions of Alternative A are shown in Table 2, with A₁ representing the baseline forecast for Alternative A discussed above, A₂ representing the forecast with tolling, and A₃ representing the forecast with tolling and population and employment reductions.

TABLE 2
2030 DAILY VEHICLE CROSSINGS FOR TWIN CITIES REGION ST. CROIX
RIVER CROSSINGS FOR ALTERNATIVE A SUB-ALTERNATIVES

| | TH 8 - Taylors Falls (number of vehicles) | STH 243 - Osceola (number of vehicles) | TH 36/STH 64 - Stillwater (number of vehicles) | I-94 - Hudson (number of vehicles) | TOTAL (number of vehicles) |
|-------------------------|--|---|---|---|----------------------------------|
| Existing (2003) | 14,900 | 4,400 | 16,700 | 69,000 | 105,000 |
| 2030 No Build | 23,500 | 9,500 | 21,700 | 140,700 | 195,400 |
| 2030 Alt A ₁ | 23,600 | 9,300 | 21,200 | 139,100 | 193,200 |
| 2030 Alt A ₂ | 23,400 | 8,700 | 16,300 | 137,500 | 185,900 |
| 2030 Alt A ₃ | 24,800 | 7,700 | 15,700 | 135,300 | 183,500 |

To maintain 2030 volumes at approximately current levels, Alternative A₂ required “value pricing” (tolls) for single occupancy vehicles as follows:

- \$2.25 AM Peak (approx. 7:00 – 9:00 a.m., westbound)
- \$3.60 PM Peak (approx. 3:00 – 6:00 p.m., eastbound)
- \$1.60 (remainder of the day, both directions)

Maintaining current volumes through alteration of land use patterns (Alternative A₃) would require relocation of 20,000 people and 1,900 jobs currently projected in 2030 for St. Croix County, Wisconsin to Washington and Chisago Counties in Minnesota. These land use changes would reduce required tolls to approximately 60 percent of A₂ pricing. Figure 8 shows the location where population and employment were removed in Wisconsin and where they were added in Minnesota for the purposes of modeling sub-alternative A₃.

The travel mode choices for all four Twin Cities Regional St. Croix River crossings for Alternative A are shown in Table 3, with A₁ representing the baseline forecast for Alternative A discussed above, A₂ representing the forecast with tolling, and A₃ representing the forecast with tolling and population and employment reductions.

TABLE 3
MODE CHOICES FOR 2030 TOTAL PERSON-TRIP CROSSINGS (DAILY
VOLUMES) FOR TWIN CITIES REGION ST. CROIX RIVER CROSSINGS

| | Single-Occupant Vehicles (person trip-crossings) | High Occupancy Vehicles (person trip-crossings) | Transit (person trip- crossing) | TOTAL (person trip- crossings) |
|-------------------------|--|---|---------------------------------------|--------------------------------------|
| Existing (2003) | 69,900 | 69,100 | | 139,000 |
| 2030 No Build | 133,800 | 140,000 | | 273,800 |
| 2030 Alt A ₁ | 132,500 | 137,400 | 4,900 | 274,500 |
| 2030 Alt A ₂ | 125,400 | 140,800 | 7,000 | 270,000 |
| 2030 Alt A ₃ | 124,200 | 137,200 | 3,900 | 265,300 |

Figure 8
Alternative A3 Growth Redistribution

Mode choices for Alternative A₁ indicate there is a potential market between western Wisconsin and Minnesota in the Twin Cities region with 4900 person trips using transit daily. Results for Alternative A₂ suggests that tolling at the TH 36/STH 64 crossing would reduce the total number of person trips, and increase high occupancy vehicles (car pooling) and transit use. The land use changes required under Alternative A₃ would further reduce the total daily volume of person trip crossings, while keeping high occupancy vehicle person-trips at similar levels and reduce both single occupancy vehicle person-trips and transit use from baseline (A₁) levels.

B. WISCONSIN BLUFF IMPACTS

Since release of the 2003 ASD, impacts to the Wisconsin bluff from the Scoping Alternatives (see Figure 3) were re-evaluated. The Wisconsin bluff was defined per the Wisconsin Department of Natural Resources (Wisconsin DNR) and the definitions in Appendix A (Land Use Regulation Guidelines) of the Lower St. Croix National Scenic Riverway Cooperative Management Plan (2002, Wisconsin Department of Natural Resources (Wisconsin DNR), Minnesota DNR and U.S. Department of the Interior National Park Service (NPS)). The land use regulation guidelines in the Cooperative Management Plan define the bluffline as “the top of a slope preservation zone.” The slope preservation zone is defined as “areas with slopes greater than 12 percent with the horizontal interval of measurement not exceeding 50 feet.”

Based on these guidelines, the bluff impacts for each alternative identified in the 2003 ASD were calculated. Figure 9 shows the location of each alternative on the Wisconsin river bluff. The bluff areas were defined as those areas with slopes equal to or greater than 12 percent with a width of 50 feet or greater. The bluffline is therefore the easternmost extent of the bluff area.

Bluff impacts (areas or volumes of bluff cut) were evaluated by estimating the impacted bluff area and volume for each river crossing alternative. Fill areas were not included as part of the bluff impacts for these calculations; fill impacts will be discussed in the SDEIS. Calculations of bluff area and bluff volume were measured out to the construction limits for each alternative. These estimates are summarized in Table 4.

**TABLE 4
WISCONSIN BLUFF IMPACTS**

| | Impacted Bluff Area (acres) | Impacted Bluff Volumes (cubic yards) |
|----------------------------|--|---|
| Alternative A | 5.3 | 24,625 |
| Alternative B | 4.4 | 38,800 |
| Alternative B-1 | 2.4 | 17,100 |
| Alternative C ¹ | 4.6 | 149,600 |
| Alternative D | 11.1 | 767,140 |
| Alternative E | 7.9 | 181,990 |

¹ The bluff impacts for Alternative C were calculated based on the impacts of an interchange at CTH E (see Figure 13). If the roadway alignment in Wisconsin were to include the interchange at STH 35, bluff grading impacts for Alternative C would increase by approximately five percent. The additional impacts result from the increased roadway and bridge width for access ramps from the bridge to STH 35.

FIGURE 9
River Bluff Areas Under WisDNR Definition – Wisconsin Shoreline

Figure 10A shows the No Build Alternative, or existing conditions at the Wisconsin bluff with the Lift Bridge. Figures 10B through 10G illustrate these bluff impacts for each alternative in the 2003 ASD. Each figure shows a cross-section of the alternative at the bridge abutment (eastern end of the Lift Bridge causeway for the No Build or Alternative A), the bluffline, and approximately half-way between the abutment and bluffline. The cross-sections also illustrate the bridge abutment and/or roadway elevations relative to the St. Croix River normal water elevation (674.86 feet).

All alternatives identified in the 2003 ASD would impact the Wisconsin bluff to varying degrees. Bluff impacts for Alternative A result from reconstructing the existing road to current roadway standards, bypass lanes parallel to the existing roadway to access the Lift Bridge, a slip ramp to access the park-and-ride in Houlton, and facilities to access the water taxis at the shoreline. Alternative B-1 would impact the least amount of bluff area and volume (2.4 acres and 17,070 cubic yards). In general, Alternatives B, B-1, and C would have fewer bluff impacts because the bridge abutment would meet the bluff closer to the bluffline, thereby decreasing the total amount of bluff area impacted.

Bluff impacts resulting from Alternative D would be the greatest compared with the other alternatives (Figure 10F). The bluff impacts from Alternative D are the result of a combination of several factors:

- widening the existing roadway to accommodate the new roadway and access ramps to the Lift Bridge – tiered retaining walls were incorporated into the design of Alternative D to minimize the bluff cut, but large volumes of the bluff would still be impacted by the proposed roadway;
- the width of the bluff from the shoreline to the bluffline is greater at the location of Alternative D compared to Alternatives B, B-1, and C;
- profile issues contribute to the bluff impacts of Alternative D – because the Alternative D bridge abutment is closer to the shoreline compared to other alternatives to the south, the bluff impacts are increased as the proposed roadway crosses the bluff area east to the bluffline; and
- the need for the new roadway grade to be lower than the existing grade to improve safety contributes to the bluff impacts.

Bluff impacts for Alternative E (Figure 10G) would be the second greatest of the alternatives identified in the 2003 ASD, but substantially lower compared to Alternative D. The bluff impacts for Alternative E are primarily the result of widening the existing roadway and lowering the existing grade to improve safety.

FIGURE 10A
Bluff Impacts – No Build Alternative (11x17 color)

FIGURE 10 B
Bluff Impacts – Alternative A (11x17 color)

FIGURE 10C
Bluff Impacts – Alternative B (11x17 color)

FIGURE 10D
Bluff Impacts – Alternative B-1 (11x17 color)

FIGURE 10E
Bluff Impacts – Alternative C (11x17 color)

FIGURE 10F
Bluff Impacts – Alternative D (11x17 color)

FIGURE 10G
Bluff Impacts – Alternative E (11x17 color)

C. PARK IMPACTS

Impacts to the Stillwater Municipal Barge Facility (a planned park, previously recognized as the Aiple Property) in Minnesota, and Kolliner Park in Wisconsin (two local park properties directly affected by the proposed alternatives) were evaluated for each alternative. (Figure 18 in Section X.B shows the parks in the project area.) The Stillwater Municipal Barge Facility Property is located between TH 36/95 and the Minnesota shoreline, north of the Sunnyside Marina. Kolliner Park is located in St. Croix County, Wisconsin, across from Stillwater along the St. Croix River. Kolliner Park also includes the Lift Bridge causeway and is bisected by STH 64. Area (acres) of park impacts were assumed within the construction limits of the roadways, bridges, and access roadways on park property. The park impacts for Alternatives C, D, and E include the construction of an access roadway from the Sunnyside complex to the Stillwater Municipal Barge Facility Property. The acres of park impacts for each alternative are summarized in Table 5.

**TABLE 5
PARK IMPACTS**

| | Impacts to Stillwater Municipal Barge Facility Property in Minnesota) (acres) | Impacts to Kolliner Park in Wisconsin (acres) | Total |
|-----------------|--|--|--------------|
| Alternative A | 1.2 (ponding area) | 2.5 | 3.7 |
| Alternative B | 0 | 0 | 0 |
| Alternative B-1 | 0 | 0 | 0 |
| Alternative C | 2.7 | 0 | 2.7 |
| Alternative D | 7.2 | 1.9 | 9.1 |
| Alternative E | 7.3 | 2.1 | 9.4 |

Alternatives B and B-1 are both south of the Stillwater Municipal Barge Facility Property and Kolliner Park and would not impact these parklands. Alternative C is south of the Kolliner Park in Wisconsin, but the proposed bridge crossing leaves the Minnesota shoreline from the Stillwater Municipal Barge Facility Property. Impacts to the Stillwater Municipal Barge Facility Property from Alternative C would also result from realignment of TH 36/95. Alternative A would impact the Stillwater Municipal Barge Facility Property with a ponding area for storm-water runoff. The proposed bypass lanes associated with Alternative A contribute to the impacts to Kolliner Park.

Impacts to the Stillwater Municipal Barge Facility Property and Kolliner Park are nearly equal for Alternatives D and E. The large impact to the Stillwater Municipal Barge Facility Property in Minnesota for Alternatives D and E when compared with other alternatives to the south is due to reconstruction of the roadway from the TH 36/95 interchange north to the bridge abutment at the river shoreline. The impacts from Alternatives D and E to the Stillwater Municipal Barge Facility Property represent

approximately 43 percent of the total park property (approximately 17 acres). Because space is limited between the Minnesota bluff and the shoreline at this location, land from the Stillwater Municipal Barge Facility Property is needed to accommodate a wider roadway and to maintain access to TH 95 and downtown Stillwater. The impacts of Alternatives D and E to Kolliner Park in Wisconsin are also a result of a widened roadway in addition to access ramps to and from the Lift Bridge for Alternative D and potential stormwater ponds.

D. FLOODPLAIN IMPACTS

Floodplain impacts were also assessed for each alternative. Floodplain impacts were determined by calculating the volume of flood storage displaced by the proposed construction below the 100-year high water level (HWL) elevation (692.6 feet) (Table 6).

**TABLE 6
FLOODPLAIN IMPACTS ¹**

| | Minnesota (cubic yards) | Wisconsin (cubic yards) | Total (cubic yards) |
|-----------------|------------------------------------|------------------------------------|--------------------------------|
| Alternative A | 0 | 10,100 | 10,100 |
| Alternative B | 0 | 0 | 0 |
| Alternative B-1 | 200 | 0 | 0 |
| Alternative C | 2,500 | 0 | 2,500 |
| Alternative D | 26,425 | 7,730 | 34,155 |
| Alternative E | 34,640 | 7,160 | 41,800 |

¹ Reconstruction of the DNR boat ramp in Minnesota was not included with any of the alternatives. If it were included as part of the mitigation for a selected alternative, the additional floodplain impacts would be the same regardless of the alternative chosen.

Construction of Alternatives B and B-1 would result in minimal floodplain impacts. Construction of Alternative C would result in the loss of approximately 2,500 cubic yards of flood storage area due to the realignment and widening of TH 36/95. Floodplain impacts are substantially greater for Alternatives D and E, the result of fill needed for widening the roadway along the Minnesota shoreline between the TH 36/95 interchange and downtown Stillwater. The additional width needed at the intersection with TH 95 increases the floodplain impacts of Alternative E compared to Alternative D. Construction of new roadways near the Lift Bridge causeway at the Wisconsin shoreline also contributes to the increased floodplain impacts of Alternatives A, D and E.

E. WETLAND IMPACTS

Impacts on wetlands in the project area were evaluated for each alternative identified in the 2003 ASD. Wetlands were delineated earlier in the project using the U.S. Army Corps of Engineers Wetland Delineation Manual, January, 1987. Other sources of information used in the identification of wetlands impacts included field surveys, the National Wetland Inventory mapping of the U.S. Fish and Wildlife Service, the MnDNR Protected Waters maps, the Natural Resource Conservation Service (NRCS) soils and wetland maps, county soil service wetland mapping, aerial photographs and topographic maps. The project area was re-examined in the fall of 2003 to determine if any new wetland areas would be impacted by the alignment of the alternatives being considered, and to reconfirm the delineations' accuracy. No new areas of impact were identified, several wetlands in Wisconsin were re-delineated, and the previously performed delineations in Minnesota were determined to be accurate (although re-delineation would be necessary and is planned at the time of future permitting). Table 7 shows the areas of wetland impact for each Alternative.

**TABLE 7
WETLAND IMPACTS**

| | Minnesota (acres) | Wisconsin (acres) | Total (acres) |
|----------------------------|------------------------------|------------------------------|--------------------------|
| Alternative A ² | 0 | 0 | 0 |
| Alternative B | 5.6 | 0 | 5.6 |
| Alternative B-1 | 5.5 | 0.2 | 5.7 |
| Alternative C | 6.9 | 0.2 | 7.1 |
| Alternative D | 7.9 | 0 | 7.9 |
| Alternative E | 7.9 | 0 | 7.9 |

² Does not include impacts from water taxi docking facilities, the MnDNR boat ramp reconstruction, park-and-ride lot construction or the reconstruction of STH 65 in St. Croix County (with Alternative A).

Alternative A would impact no wetlands in Minnesota or Wisconsin, with the exception of any wetlands along STH 65, for which information was not examined for the Scoping Phase. Alternative B would impact 5.6 acres of wetland, and Alternative B-1 would impact 5.7 acres. Alternative C would impact 7.1 acres of wetlands, and Alternatives D and E would each have the greatest impact on wetlands (7.9 acres).

F. TH 36 (TH 5 TO OSGOOD AVENUE) DESIGN

The configuration of the section of TH 36 from TH 5 to Osgood was studied in concept by Mn/DOT and local communities through the TH 36 Partnership Study in 2001. A grade-separated concept with two buttonhook-type interchanges has been supported by the local communities. Refinement of the location of the buttonhooks, overpasses and frontage road connections was considered at the time of the Scoping Phase (fall 2003) by the same TH 36 partners supplemented by the Stillwater Area Chamber of Commerce (the Technical Advisory Group, or TAG). The TAG gave input into the further refinement of the buttonhook concept. The concept recommendations developed with the input of the TAG have been incorporated into the alternatives carried into the SDEIS (Alternatives B, C, D and E). In addition, opportunities for minimizing business and property impacts as well as staging considerations will continue to be studied through the SDEIS development in cooperation with the TH 36 partners and a recently-formed group called the “TH 36 Business Owners Group”.

G. IMPACTS SUMMARY

Table 8 shows a summary of the alternatives’ abilities to address transportation needs and minimize impacts, based on the studies discussed previously in this Section.

**TABLE 8
SUMMARY OF SCOPING ALTERNATIVES' ABILITIES TO ADDRESS TRANSPORTATION NEEDS AND MINIMIZE ENVIRONMENTAL IMPACTS**

| | | Alternative A | Alternative B | Alternative B-1 | Alternative C | Alternative D | Alternative E |
|--|---|--|----------------------------------|----------------------------------|-----------------------------------|---|---|
| Alternative Description | Type | No new bridge; system and transit improvements | New 4-lane bridge | New 4-lane bridge | New 4-lane bridge | New 4-lane bridge; continued use of Lift Bridge | New 2-lane bridge; continued use of Lift Bridge |
| | New bridge location | None | Southernmost | Southernmost | Midway | Northernmost | Northernmost |
| Ability to meet transportation needs | River Crossing Capacity | Least potential (short term) | Greatest potential | Greatest potential | Greatest potential | Greatest potential | Mid-level potential (short term) |
| | Downtown Stillwater congestion | Least potential | Greatest potential | Greatest potential | Greatest potential | Mid-level potential | Mid-level potential |
| | Addresses Lift Bridge reliability concerns | No | Yes | Yes | Yes | No | No |
| Preliminary Environmental Impacts^{1,2} | Bluff Impacts: acreage | Mid-level impact (5.3 acres) | Mid-level impact (4.4 acres) | <i>Least impact (2.4 acres)</i> | Mid-level impact (4.6 acres) | Greatest impact (11.1 acres) | Mid-level impact (7.9 acres) |
| | Bluff Impacts: volume | Low mid-level impact (24,625 cy) | Low mid-level impact (38,800 cy) | <i>Least impact (17,100 cy)</i> | Mid-level impact (149,600 cy) | Greatest impact (767,140 cy) | High mid-level impact (181,990 cy) |
| | Park Impacts³ | Mid-level impact (3.7 acres) | <i>Least impact (0 acres)</i> | <i>Least impact (0 acres)</i> | Mid-level impact (2.7 acres) | Greatest impact (9.1 acres) | Greatest impact (9.4 acres) |
| | Floodplain Impacts | Mid-level impact (10,100 cy) | <i>Least impact (0 cy)</i> | <i>Least impact (0 cy)</i> | Low impact (2,500 cy) | Mid-level impact (34,155 cy) | Greatest impact (41,800 cy) |
| | Wetland Impacts | <i>Least impact (0 acres)</i> | Low mid-level impact (5.6 acres) | Low mid-level impact (5.7 acres) | High mid-level impact (7.1 acres) | Greatest impact (7.9 acres) | Greatest impact (7.9 acres) |

¹ Measurements of impacts are shown in parentheses for each alternative. The least impact for each measured variable (i.e., bluff, park, floodplain, wetland) among the alternatives is shown in *italics*. The greatest impact is shown in **bold**.

² Impacts based on preliminary construction limits as of January 19, 2004.

³ Kolliner Park in Wisconsin and Stillwater Municipal Barge Facility Property (planned park) in Minnesota.

H. REVISIONS TO SCOPING ALTERNATIVES

The alternatives identified in the Scoping Document were refined in response to comments received during the Scoping Process and through the Stakeholder Resolution Process. Alternative A was redefined to best meet future travel demands in a cost-effective manner. Refinements for Alternative B were in response to concerns for the ability of Alternative B to receive approval from the National Park Service, given the previous findings of this agency. Refinements of Alternative D were in response to concerns for Wisconsin bluff impacts, and a strong desire to separate the impacts related to traffic on the lift bridge from the impacts of a new river crossing.

ALTERNATIVE A

Alternative A, as initially proposed during the Scoping Phase, was modified during the travel demand forecasting process to define the alternative to best meet future travel demands in a cost-effective manner. These modifications were recommended by the Peer Review Panel and accepted by the Stakeholders and the DOTs. These modifications were as follows:

- Two commuter rail lines – These were eliminated upon recommendation of the Peer Review Panel because ridership forecasts were very low (300 total daily riders on two lines), due to competition with express bus routes for the same potential transit users. The costs for two commuter rail lines were also excessively high and not justified by the forecast low ridership numbers.
- Express bus routes – Increased from two proposed routes (included in the initial proposal) to five based on the demand for this service and origin-destination patterns shown in the travel demand forecast model.
- Park-and-Ride lots – Increased from proposed two locations to six locations based on demand forecast by the travel demand model and upon recommendation of the Peer Review Panel.
- Widening of STH 65 – The initial proposal included widening an 11-mile segment of STH 65 from two lanes to four lanes from I-94 to New Richmond to attract trips from the Stillwater crossing to the I-94 crossing. Travel demand forecasting showed that traffic patterns would not be sensitive to the widening (i.e., STH 65 with two lanes demonstrated existing excess capacity, therefore a four-lane road would not attract additional trips). In addition, proposed expansion of this roadway would potentially increase environmental impacts and complicate environmental documentation without providing a transportation benefit. Therefore, this element was dropped from further consideration.

These recommendations improved the alternative's ability to meet transportation needs, reduced potential environmental impacts, and reduced potential costs for the alternative.

ALTERNATIVE B

An alternative on the Alternative B alignment was reviewed by the National Park Service (NPS) under Section 7(A) of the Wild and Scenic Rivers Act for the 1995 FEIS and determined to have an adverse effect on the River. Further discussion with the NPS indicated that a reversal of that determination with a different bridge type or profile was not likely. The “South Ravine Alignment” or Alternative B-1 (as shown with a dashed line on Figure 3B) reduces Alternative B’s impacts on the Wisconsin bluff and provides a more perpendicular crossing of the River. These impact values were shown in Tables 4, 5, 6 and 7. Other impacts are similar for the two alignments of Alternative B (as discussed in this Section), and so the “South Ravine Alignment” – referred to as Alternative B-1 - was recommended for consideration in the SDEIS.

The configuration of TH 36 from TH 5 to Osgood design concept was modified to the “buttonhook concept” with a grade separated facility, as recommended by the TAG (see Section VII G).

Concerns regarding the affects of future use of the Lift Bridge on the Lift Bridge’s viability suggested that keeping the Lift Bridge open to vehicular traffic with the new bridge (Build) alternatives should also be examined. Therefore, for Alternative B-1, two sub-alternatives (Alternative B-1_a and Alternative B-1_b) were identified for the Lift Bridge. With Alternative B-1_a, the Lift Bridge would be converted to a pedestrian and bicycle facility. With Alternative B-1_b, the Lift Bridge would remain open to vehicular traffic. Alternatives B-1_a and B-1_b would have the same geometrics and bridge location; the difference between the two sub-alternatives is the use of the Lift Bridge.

ALTERNATIVE C

As noted above, concerns regarding the affects of future use of the Lift Bridge on the Lift Bridge’s viability suggested that keeping the Lift Bridge open to vehicular traffic with the new bridge (Build) alternatives (including Alternative C) should also be examined. Therefore, for Alternative C it is assumed that the Lift Bridge is converted to a pedestrian and bicycle facility. The option of keeping the Lift Bridge open for vehicular traffic will be assessed for Alternative C using the traffic operations and related air quality and noise impact analyses for Alternative B-1_b, because the results of these analyses for B-1_b are expected to be equally applicable to Alternative C.

The five potential options for the alignment of STH 35/64 in Wisconsin, the roadway connections, and realignment of CTH E were narrowed to two options. Option 1 would include a diamond interchange at relocated CTH E with the curved alignment of STH 35/64. Option 2 would include the folded-diamond interchange at STH 35 with the diagonal alignment of STH 35/64.

ALTERNATIVE D

Concerns were raised during the Scoping Phase about the impacts of Alternative D on the Wisconsin bluff. Design changes at the TH 36/STH 64 interchange were examined to determine if the impacts on the Wisconsin bluff could be reduced. By shifting several of the interchange access movements from Wisconsin to Minnesota, Wisconsin bluff impacts can be lessened.⁹ These access changes eliminate the need for use of the Lift Bridge to access TH 36 from the north, or to access TH 95 to the north, and therefore, with this revised alternative, the Lift Bridge would be used as a pedestrian/bicycle facility with a trail connecting the Lift Bridge to Houlton.

The configuration of TH 36 from TH 5 to Osgood design concept was modified to the “buttonhook concept” with a grade separated facility, as recommended by the TAG (see Section VII G).

By incorporating these changes into Alternative D (revised), the Wisconsin bluff impacts would be reduced (see Figure 10H), Kolliner Park impacts would not change, impacts to the Stillwater Municipal Barge Facility Property would increase, overall floodplain impacts would increase, and wetland impacts would increase. Tables 9 through 14 at the end of this section show the changes in impacts that result from revising this alternative.

ALTERNATIVE E

Concerns were also raised about the impacts of Alternative E on the Wisconsin bluff. The design of this alternative was revised to include a steeper grade for the Wisconsin approach to minimize bluff impacts. Access to Wisconsin on the new bridge for TH 95 southbound traffic from downtown Stillwater was also revised, moving the signalized intersection north of the new, two-lane bridge. A ramp was added at this intersection for southbound to eastbound traffic to access the new bridge. This ramp joins the new bridge over the St. Croix River, approximately 400 feet from the Minnesota shore. These revisions resulted in decreased bluff cut impacts in Wisconsin (180,100 cubic yards decreased from 181,990 cubic yards) as shown on Figure 10I, decreased overall floodplain impacts and increased wetland impacts in both Minnesota and Wisconsin.

The traffic signal proposed on TH 36 at the Minnesota approach to the new eastbound bridge was also moved to TH 95 to improve the operations of through-traffic on the TH 36 facility.

The configuration of TH 36 from TH 5 to Osgood design concept was modified to the “buttonhook concept” with a grade separated facility, as recommended by the TAG (see Section VII G).

⁹ These design changes would not change the bridge or road alignments, therefore, the name of this refined alternative is not changed (i.e., it remains Alternative D for the SDEIS, but is discussed separately in the following sections as “Alternative D (revised)” for ease of differentiation in this document).

Tables 9 through 13 show the revised impacts based on the revisions and construction limits as of March 16, 2004, and Table 14 shows the revised relative abilities of the alternatives to meet the project needs and minimize environmental impacts. Revisions are shown in **BOLD**.

**TABLE 9
2030 DAILY VEHICLE CROSSINGS FOR TWIN CITIES REGION ST. CROIX
RIVER CROSSINGS**

| | USH 8 - Taylors Falls (number of vehicles) | STH 243 - Osceola (number of vehicles) | TH 36/STH 64 Stillwater (number of vehicles) | I-94 - Hudson (number of vehicles) | TOTAL (number of vehicles) |
|---------------------------|---|---|--|---|---|
| Existing (2003) | 14,900 | 4,400 | 16,700 | 69,000 | 105,000 |
| 2030 No Build | 23,500 | 9,500 | 21,700 | 140,700 | 195,400 |
| 2030 Alt B-1 _a | 21,700 | 6,600 | 50,100 | 120,200 | 198,600 |
| 2030 Alt B-1 _b | 21,600 | 6,400 | 51,600 (including 8,300 on Lift Bridge) | 119,300 | 198,900 |
| 2030 Alt C | 21,300 | 6,400 | 52,400 | 119,400 | 199,500 |
| 2030 Alt D (revised) | 21,300 | 6,200 | 51,000 | 119,000 | 197,500 |
| 2030 Alt E | 22,800 | 8,000 | 34,500 | 131,600 | 196,900 |

FIGURE 10H
Bluff Impacts – Alternative D (revised) (11x17 color)

Figure 10I
Bluff Impacts – Alternative E (revised) (11x17 color)

**TABLE 10
REVISED WISCONSIN BLUFF IMPACTS**

| | Impacted Bluff Area (acres) | Impacted Bluff Volumes (cubic yards) |
|-------------------------|---|---|
| Alternative D (revised) | 8.6 (4.4. acres for roadway; 4.2 acres for trail) | 169,100 (108,900 cy for roadway; 60,200 cy for trail) |
| Alternative E (revised) | 10.0 (6.6 acres for roadway; 3.4 acres for trail) | 180,100 (142,700 cy for roadway; 37,400 cy for trail) |

¹ Wisconsin bluff impacts for revised Alternatives D and E include measurements for construction of the STH 64 roadway and a trail in Kolliner Park within the defined bluff area. Impacted bluff volumes are for the bluff cut only.

**TABLE 11
REVISED PARK IMPACTS**

| | Impacts to Stillwater Municipal Barge Facility Property in Minnesota) (acres) | Impacts to Kolliner Park in Wisconsin (acres) | Total |
|-------------------------|--|--|--------------|
| Alternative D (revised) | 7.4 | 1.9 | 9.3 |
| Alternative E (revised) | 4.8 | 2.1 | 6.9 |

**TABLE 12
REVISED FLOODPLAIN IMPACTS**

| | Minnesota (cubic yards) | Wisconsin (cubic yards) | Total (cubic yards) |
|-------------------------|------------------------------------|------------------------------------|--------------------------------|
| Alternative D (revised) | 38,800 | 2,700 | 41,500 |
| Alternative E (revised) | 16,300 | 8,900 | 25,200 |

**TABLE 13
REVISED WETLAND IMPACTS**

| | Minnesota (acres) | Wisconsin (acres) | Total (acres) |
|-------------------------|------------------------------|------------------------------|--------------------------|
| Alternative D (revised) | 9.3 | 0.2 | 9.5 |
| Alternative E (revised) | 9.3 | 0.2 | 9.5 |

**TABLE 14
SUMMARY OF REVISED ALTERNATIVES' ABILITIES TO MEET TRANSPORTATION NEEDS AND MINIMIZE ENVIRONMENTAL IMPACTS**

| | | Alternative A | Alternative B | Alternative B-1 | Alternative C | Alternative D (revised) | Alternative E |
|--|---|--|----------------------------------|---------------------------------|------------------------------------|--|---|
| Alternative Description | Type | No new bridge; system and transit improvements | New 4-lane bridge | New 4-lane bridge | New 4-lane bridge | New 4-lane bridge; Lift Bridge converted to ped/bike facility | New 2-lane bridge; continued use of Lift Bridge |
| | New bridge location | None | Southernmost | Southernmost | Midway | Northernmost | Northernmost |
| Ability to meet transportation needs | River Crossing Capacity | Least potential (short term) | Greatest potential | Greatest potential | Greatest potential | Greatest potential | Mid-level potential (short term) |
| | Downtown Stillwater congestion | Least potential | Greatest potential | Greatest potential | Greatest potential | Mid-level potential | Mid-level potential |
| | Addresses Lift Bridge reliability concerns | No | Yes | Yes | Yes | Yes | No |
| Preliminary Environmental Impacts^{1,2,3} | Bluff Impacts: acreage | Mid-level impact (5.3 acres) | Mid-level impact (4.4 acres) | <i>Least impact (2.4 acres)</i> | Mid-level impact (4.6 acres) | Mid-Level Impact (8.6 acres) | Highest Level Impact (10.0 acres) |
| | Bluff Impacts: volume | Low mid-level impact (24,625 cy) | Low mid-level impact (38,800 cy) | <i>Least impact (17,100 cy)</i> | High mid-level impact (149,600 cy) | High mid-level impact (169,100 cy) | Greatest Impact (180,100 cy) |
| | Park Impacts⁴ | Mid-level impact (3.7 acres) | <i>Least impact (0 acres)</i> | <i>Least impact (0 acres)</i> | Mid-level impact (2.7 acres) | Greatest impact (9.3 acres) | Mid-level impact (6.9 acres) |
| | Floodplain Impacts | Mid-level impact (10,100 cy) | <i>Least impact (0 cy)</i> | <i>Least impact (0 cy)</i> | Low impact (2,500 cy) | Greatest impact (41,500 cy) | Mid-level impact (25,200 cy) |
| | Wetland Impacts | <i>Least impact (0 acres)</i> | Low Level Impact (5.6 acres) | Low-level Impact (5.7 acres) | Mid-level Impact (7.1 acres) | Greatest Impact (9.5 acres) | Greatest impact (9.5 acres) |

¹ Measurements of impacts are shown in parentheses for each alternative. The least impact for each measured variable (i.e., bluff, park, floodplain, wetland) among the alternatives is shown in *italics*. The greatest impact is shown in **bold**.

² Impacts based on preliminary construction limits as of March 16, 2004.

³ Bluff impacts for Alternatives D and E are total impacts for both the STH 64 roadway and trail within the defined bluff area. Refer to Table 10 for the individual impacts of the roadway and trail.

⁴ Kolliner Park in Wisconsin and Stillwater Municipal Barge Facility Property (planned park) in Minnesota.

VIII. ALTERNATIVES TO BE STUDIED IN THE SUPPLEMENTAL DEIS

In addition to the No Build Alternative, Alternatives B-1 (the south ravine option of Alternative B), C, D (revised) and E will be studied in the SDEIS. See Figure 11 for the alignment location of the alternatives. Specific features of each alternative are described below. These alternatives were selected for study in the SDEIS because they have the potential to meet the Purpose and Need for the project as outlined in the 2003 Amended Scoping Document and they represent a reasonable range of the alternatives considered for this project in the current Stakeholder Resolution Process. A brief summary of why these alternatives were selected is presented below, followed by a summary description of these alternatives to be studied in the SDEIS, including discussion of design issues undecided in the 2003 Amended Scoping Document.

An analysis of the travel demand forecast results (presented in Section VII.A) demonstrates that Alternatives B-1, C, D (revised) and E can potentially meet the transportation needs, as each of these alternatives meets and expands the capacity of the roadway network in the project area as well as the capacity of Twin Cities Region St. Croix River crossings, while reducing traffic volumes in downtown Stillwater. In addition, assessment of preliminary environmental impact measures for these alternatives demonstrates a similar range of environmental impacts at this stage of the analysis. Alternative D (revised) results in lessened impacts on the Wisconsin bluff compared with Alternative D.

Further, Alternatives B-1, C, D (revised) and E represent a geographical range of bridge crossing locations. The bridge location for Alternative B-1 is the farthest south, the bridge locations for Alternatives D (revised) and E are closest to the Lift Bridge, and the bridge location for Alternative C is approximately between the bridge locations for D/E and B-1. In addition, these alternatives represent a range of build solutions: Alternative E utilizes a smaller, two-lane one-way bridge in conjunction with the existing bridge, compared with the four-lane bridges of Alternatives B-1, C and D.

A. NO-BUILD ALTERNATIVE

The No Build Alternative is a “no action” alternative and does not include a new river crossing or improvements to the existing transportation system. The existing congestion and safety problems would continue. The Lift Bridge would remain in place for vehicular travel and continue to be maintained on the Minnesota and Wisconsin trunk highway systems. River navigation would continue to be affected by the existing Lift Bridge schedule. Closures due to maintenance of the Lift Bridge and flooding would also continue. The No Build Alternative will act as a baseline for comparison of the other alternatives.

FIGURE 11
Supplement Draft EIS Alternatives B-1, C, D, E (8.5x11 b/w)

B. ALTERNATIVE B-1

Alternative B-1 (Figure 12) would include a new four-lane bridge on the southernmost alignment of all those considered for this project. It includes construction of a grade-separated facility for TH 36 between TH 5 and TH 95, reconstruction of the TH 36/TH 95 interchange, and provision of a new interchange with realigned CTH E in Wisconsin as described in Section V.

The construction of a “cut and cover” tunnel into the Wisconsin bluff will no longer be considered as an option to lower the bridge height due to cost and extensive bluff and vegetation impacts.

The construction of a park-and-pool facility near the TH 36/TH 95 interchange has also been eliminated from inclusion with this alternative due to comments received from Metro Transit during the Scoping Comment Period. Period (i.e., there is a greater demand for this type of facility on the west side of Stillwater). Potential park-and-ride/pool locations will continue to be explored.

With Alternative B-1, two sub-alternatives (Alternative B-1_a and Alternative B-1_b) will be considered for the Lift Bridge. With Alternative B-1_a, the Lift Bridge would be converted to a pedestrian and bicycle facility, eliminating reliability concerns about bridge closures as a result of flooding, maintenance, and repair, and consideration of mitigating bluff land impacts. With Alternative B-1_b, the Lift Bridge would remain open to vehicular traffic. Alternatives B-1_a and B-1_b would have the same geometrics and bridge location; the difference between the two sub-alternatives is the use of the Lift Bridge.

C. ALTERNATIVE C

Alternative C (Figure 13) would include construction of a new four-lane bridge on an alignment midway between the B-1 alignment and the existing Lift Bridge, including construction of a grade-separated facility between TH 5 and TH 95, and reconstruction of the TH 36/TH 95 interchange. Two options will continue to be analyzed for the Wisconsin approach as well as two interchange locations and the possible relocation of CTH E as described in Section VII.H.

The construction of a “cut and cover” tunnel into the Wisconsin bluff will no longer be considered as an option to lower the bridge height due to cost and extensive bluff and vegetation impacts.

The construction of a park-and-pool facility near the TH 36/TH 95 interchange has also been eliminated from inclusion with this alternative due to comments received from Metro Transit during the Scoping Comment Period (i.e., there is a greater demand for this type of facility on the west side of Stillwater). Potential park-and-ride/pool locations will continue to be explored.

Figure 12
Alternative B-1 (11x17 color)

Figure 13
Alternative C (11x17 color)

Alternative C will be examined in the SDEIS assuming that the Lift Bridge is converted to a pedestrian and bicycle facility. The option of keeping the Lift Bridge open for vehicular traffic will also be assessed using the traffic operations and related air quality and noise impact analyses for Alternative B-1_b, as the results of these analyses for B-1_b are expected to be equally applicable to Alternative C.

D. ALTERNATIVE D

Examination of travel demand forecasting analysis revealed that Alternative D might have the potential to meet the transportation needs of the project as outlined in the 2003 Amended Scoping Document. However, during the Stakeholder Resolution Process, it was noted that Alternative D, as proposed in the 2003 Amended Scoping Document would have excessive Wisconsin river bluff impacts when compared with Alternatives B-1 or C. Therefore, Alternative D was revised to eliminate vehicular traffic on the Lift Bridge, modify the interchange in Wisconsin at STH 64 (vehicular access to/from the Lift Bridge is no longer included), and include a modified configuration of the TH 36/95 interchange in Minnesota. To accommodate bicycle/pedestrian traffic from the Lift Bridge, a trail was added to this alternative to connect the Lift Bridge to STH 35 in Houlton. These modifications would accommodate the geometric traffic moves in Minnesota, and lessen the impacts on the Wisconsin Bluff for this alternative (see Figure 14 and description below). Alternative D retains the general function of the ASDD Alternative D (new bridge for two-way traffic) but has different traffic moves, geometry and access at the bridge abutment in Minnesota (Figure 14).

The modifications incorporated into Alternative D following the scoping phase provide local access to downtown Stillwater from reconstructed TH 36/95 at the new bridge abutment along the Minnesota shore. The Lift Bridge would not carry vehicular traffic. Traffic on northbound TH 36/95 could continue northbound on TH 95 into Stillwater via an exit ramp or eastbound into Wisconsin on the new bridge. Westbound traffic from Wisconsin using the new bridge could continue west or south on TH 36/95 or exit to northbound TH 95 into Stillwater. Southbound traffic on TH 95 from Stillwater would merge with westbound traffic from the Alternative D bridge crossing. A pedestrian facility would connect Lowell Park in Stillwater to the Stillwater Municipal Barge Facility property. Potential park-and-ride and park-and-pool locations will continue to be explored.

E. ALTERNATIVE E

Alternative E (Figure 15) would utilize the existing Lift Bridge as a two-lane one-way roadway for westbound traffic, and include construction of a new one-way bridge south of the Lift Bridge for two lanes of eastbound traffic. A trail for pedestrian and bicycle traffic would be provided on the north side of the new bridge, with a connection to STH 35 in Houlton. The profile of the new bridge would remain as studied in the Scoping Phase, with sufficient height to provide required navigational clearance. TH 36 between TH 5 and TH 95 would be reconstructed as a grade-separated facility and the TH 36/95 interchange would be reconstructed to provide for all interchange movements. North of this interchange, TH 36/95 would be widened to four lanes and a signalized

FIGURE 14
Alternative D (11x17 color)

FIGURE 15
Alternative E (11x17 color)

intersection provided north of where the new eastbound two-lane bridge leaves the Minnesota shore. The intersection would provide for left-turn movements from southbound TH 95 and downtown Stillwater to access the new bridge to Wisconsin. A ramp would extend east from this intersection and merge with the new bridge over the St. Croix River. TH 36/95 would be reconfigured north of this intersection to provide two southbound lanes and one northbound lane, eliminating on-street parking.

The Wisconsin approach (STH 64) would be widened to four lanes with an interchange provided at realigned STH 35. Potential park-and-ride lot locations will continue to be explored. For a summary description of the approach roadways in Minnesota and Wisconsin for Alternative E, refer to Section V (Alternatives Studied in the Scoping Phase), Item G (Alternative E).

IX. ALTERNATIVES THAT WILL NOT BE STUDIED IN THE SUPPLEMENTAL DEIS

As noted in the 2003 ASD, a tunnel option underneath the St. Croix River was considered but will not be studied in the SDEIS. Previous preliminary studies concluded that this option would be cost prohibitive and is not feasible from an engineering and geological standpoint. Studies indicated the sub-river soil conditions cannot support a structure of the size required. A tunnel option would also present numerous environmental concerns such as markedly greater impacts on natural resources in both Minnesota and Wisconsin, and within the river channel of the valley.

Of the five alternatives studied in the Scoping Phase (described in Section V), one alternative and one alternative option (alignment) have been eliminated from further consideration based on studies performed prior to and during the Scoping Phase: Alternative A will not be studied in the SDEIS, and the original alignment of Alternative B will not be studied in the SDEIS (although the South Ravine Option, or Alternative B-1 will be studied).

A. ALTERNATIVE A

Alternative A as modified was determined to not meet the purpose and need of the project through analyses of the travel demand forecasting results. As discussed in Section VII, travel demand modeling results indicate that under Alternative A, vehicles continue to divert to the I-94 crossing due to constrained and congested conditions at TH 36/STH 64. Vehicle hours traveled, vehicle miles traveled, and vehicle miles traveled under congested conditions (as shown in Figures 4, 5 and 6 in Section VII.A) show only minor improvement with Alternative A. This analysis indicates that Alternative A does not resolve the congestion problem, but shifts it to the I-94 corridor, which could indicate additional capacity concerns. In addition, continued use of the Lift Bridge does not address concerns of reliability associated with this bridge, which has been demonstrated to be susceptible to closures due to flooding, repairs and maintenance.

The \$5 Million Lift Bridge Project¹⁰ to be let for the Lift Bridge in August of 2004 would not eliminate the bridge's vulnerability to flooding, causing periods of traffic diversion potentially with every 10-year flood.

Traffic conditions assessed for travel demand sub-alternatives A₂ and A₃ were determined to be unrealistic as tolling at this location is prohibited by legislation and required changes in land use are not desired by local communities.

However, travel demand forecasts do indicate a potential market for transit both within St. Croix County and between western Wisconsin and Minnesota in the Twin Cities area. Continued examination of potential transit markets, routes and modes will be discussed in the SDEIS. A feasibility study will also be initiated by the DOTs on a separate, yet concurrent, timeframe.

B. ALTERNATIVE B

Alternative B (the northern alignment in this corridor) was eliminated from further consideration because of the previous determination under Section 7(a) of the Wild and Scenic Rivers Act by the National Park Service. In 1996, the National Park Service evaluated the project under Section 7(a) and found that the project, as then proposed (Alternative B alignment but with a higher profile), would have a direct and adverse effect on the outstandingly remarkable scenic, recreational and geologic 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 and the U.S. Coast Guard could not be issued for the project, and the project was not allowed to proceed. Then, in April 1998, the U.S. District Court upheld the NPS authority to make a determination that a river crossing alignment at this location is not acceptable.

In the Scoping Phase, Alternative B was again considered, so that alternatives representing a wide range of locations and configurations were examined; however, due to the previous negative Section 7(a) evaluation, this alternative was not carried forward. Re-examination of the alternative during the Scoping Phase yielded a potential new shorter and more perpendicular (with respect to the river) alignment (B-1), which gained support during the Scoping Phase. Therefore, Alternative B will not be considered in the 2004 SDEIS, but alternative (Alternative B-1), developed to utilize a different location for the Wisconsin bridge touchdown point, will be considered.

¹⁰ 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 Stillwater Lift Bridge ("\$5 Million Lift Bridge Project"), to be completed as a separate but related project. An extensive list of repair needs were identified through inspection and evaluation of the Lift Bridge, including steel repairs, deck replacement, lift span motors, drive gears, cables, tender's house repair, pier caps, abutments, along with the pedestrian walk and railing. The list was then prioritized, identifying repairs that could be completed with available funds. These repairs are scheduled for to occur in spring 2005 through spring 2006.

C. ALTERNATIVE D (AS DESCRIBED IN THE DRAFT 2003 ASDD)

As noted in Section VIII.D (above), Alternative D as described in the Draft 2003 ASDD will not be examined in the SDEIS, but a modified version of this alternative will be examined in the SDEIS.

X. ISSUES TO BE ADDRESSED IN THE SUPPLEMENTAL EIS

Based on information obtained during the Scoping Phase the following areas of environmental concern will require special studies (separate reports) in the SDEIS to better determine the extent of impacts related to the proposed alternatives.

A. ISSUES REQUIRING A SPECIAL STUDY IN THE SDEIS

Three special studies required by three separate federal laws will be necessary in the SDEIS. These laws and requirements overlap; therefore, details regarding these studies' formats may need to be determined as consultation with the overseeing agencies progresses.

Wild and Scenic Rivers Act - Section 7(a) Evaluation (Wild and Scenic Rivers Act) and Section 4(f) Evaluation

The St. Croix River within the project area is included in the Lower St. Croix National Scenic Riverway (NSR), which was designated as a Wild and Scenic River in 1972. The Lower St. Croix NSR stretches from Taylors Falls, Minnesota to the confluence with the Mississippi River (Figure 16). Because this portion of the river is a federally-designated National Scenic Riverway, additional protection is afforded to the river. As part of the SDEIS process, impacts to the Riverway and its outstandingly remarkable values (scenic, recreational and geologic – as guided by the Cooperative Management Plan for the Lower St. Croix National Scenic Riverway) for which it was designated, will be carefully assessed for each alternative. Because this portion of the river is a federally-designated National Scenic Riverway, a Section 4(f) Evaluation as required by the Transportation Act of 1966 will be performed for the Riverway and included with the SDEIS.

Figure 16
Known Natural Resources

Historic Properties - Section 106 Evaluations and Section 4(f) Evaluations

The project will require review under Section 106 of the National Historic Preservation Act (16 USC 470 et seq.) and its implementing regulations (36 CFR Part 800). The SDEIS will serve as the required documentation for both this review and NEPA.

Figure 17 shows known historic properties¹¹ in the project area. Several separate studies and surveys of the area have been completed for this ongoing project providing detailed information about the historical, archaeological and architectural properties in the project area, and additional studies will be necessary to clarify which properties are eligible for the National Register and the extent of the impacts from the alternatives examined in the SDEIS. Historic properties discussed in the 2003 Amended Scoping Document have been identified as eligible for or listed on the National Register of Historic Places, and either direct or indirect effects on these resources would result from the alternatives being considered to varying degrees. Areas of Potential Effect (APE) will be defined for the five alternatives to be addressed in the SDEIS, and a detailed discussion of the resources and impacts from the alternatives will be included in the SDEIS. A Memorandum of Agreement was previously signed for a new river crossing in 1994; however, an amended Memorandum of Agreement is anticipated for the project. It is not anticipated that this amended Memorandum of Agreement (even in draft form) will be provided in the SDEIS, but a discussion of preliminary findings of effect as determined under 36 CFR 800 and the ability to mitigate the identified adverse effects will be provided. An amended Memorandum of Agreement will be provided in the Final EIS.

Historic properties are also covered by Section 4(f) of the Transportation Act of 1966. Section 4(f) Evaluations will be completed for historic properties “used” (as defined by Section 4(f)) for this project. The details of the format of the necessary Section 4(f) Evaluations will be determined in consultation with the agencies responsible for oversight of these properties. A map showing the known historic properties is provided as Figure 17.

Parks and Recreational Areas - Section 4(f)/6(f) Evaluations on Recreational Resources

Numerous parks and recreation areas are located in and near the project area, including land near TH 36 and Cover Park in Oak Park Heights that may receive parkland status in the near future, as shown on Figure 18. Of these, several could be affected by the proposed alternatives. Potential impacts of the project on each of these facilities will be described in the SDEIS. In addition, separate Section 4(f) Evaluations will be completed for each of the parks or recreation areas used by the alternatives.

¹¹ The term “historic properties” in this document and in the regulations to refer to all properties that are eligible for or included in the National Register of Historic Places, including historic buildings, historic structures, and historic and prehistoric archaeological sites.

Figure 17
Known Historic Properties

FIGURE 18
Known Parks and Recreation Areas

B. ISSUES REQUIRING DETAILED ANALYSIS IN THE SDEIS

The following issues are of concern for the project. The SDEIS will provide detailed analysis of impacts for each of these environmental concerns, and discuss potential or known mitigation strategies for each topic when possible, but no separate report will be generated.

Project Cost, Funding and Jurisdictional Changes

The cost of the alternatives, cost participation, the funding sources and any jurisdictional changes that result from each of the alternatives will be defined in the SDEIS. A benefit/cost analysis will be included. Costs for mitigation may be discussed to the extent that mitigation actions and their associated costs are known at the time of the SDEIS.

Air Quality

A large part of the study area is located within the Twin Cities metropolitan area, which was redesignated by the Environmental Protection Agency as a “maintenance area” for carbon monoxide (CO) in 1990. The attainment status is contingent upon implementation measures to assure that the CO concentration remains below standards. The contingency stipulates that future CO concentrations be modeled for proposed transportation projects.

The SDEIS will include a qualitative assessment of potential air quality impacts related to ozone, air toxics, nitrogen oxides and particulates. A quantitative analysis of potential carbon monoxide impacts for each alternative will be performed. The analysis will use traffic operations projections and EPA-approved computer models to predict future concentrations of carbon monoxide. The project's conformity with the Minnesota State Implementation Plan will also be discussed in the air quality assessment. Minnesota Pollution Control Agency staff will be consulted during the development of the scope, methods and procedures to be used in performing the air quality analysis.

Visual Impacts

Visual impacts will be assessed in the SDEIS as they relate to users of the highway, users of the river corridor and users of the adjacent lands between the two project termini. The Mn/DOT Visual Impact Assessment (VIA) process will be used to identify visual resources, affected individuals and mitigation strategies. The Stakeholder Resolution Process has and will continue to contribute to this process. In addition, bridge type and several aesthetic issues must be addressed relating to this project that crosses a Federally-designated Wild and Scenic Riverway and the National Register – eligible Stillwater Cultural Landscape District, including: location of the bridge structure; geometrics of the bridge approaches; height of the bridge structures; integration of the structure with the native landscape; and the design of and material used for the bridge and its approaches. These issues will be addressed in the SDEIS.

Construction Impacts

Impacts on the physical and natural environment can be expected during the construction phase of the project. These include potential impacts related to water and air quality, erosion, steep slopes and slope stability, soils, sedimentation, noise, vibration, and traffic delays due to detours and construction operations. The SDEIS will describe the relative construction staging impacts of alternatives being considered.

Vegetation/Cover Types

The project area in Minnesota is generally urbanized and consists primarily of areas already used for transportation purposes (TH 36 and TH 95) or for other urban development, with little undisturbed natural area. The Wisconsin bluff and ravine area supports a young- to middle-aged forest of mixed hardwood trees. Impacts on the Wisconsin resources (including both cut impacts, as discussed in this document and fill impacts, which will be discussed in the SDEIS) are therefore anticipated to be greater for most of the alternatives. The impacts on these resources will be examined for each of the proposed alternatives.

Farmlands

The federal Farmland Protection Policy Act and Conservation Policy Act ensure that impacts on agricultural lands are integrated into the environmental decision-making process and that impacts are minimized to the extent feasible. The majority of agricultural properties in the project area are located on the Wisconsin side of the river and may be affected by changes in the STH 35/STH 64 interchange and related alignment and access changes. The conversion of farmland to roadway use will depend on the location of each alternative. The SDEIS will calculate conversion of total farmland acres, prime and unique farmland acreage and examine impact on farm operations, assuming existing land use.

Fish and Wildlife/Threatened and Endangered Species/Risk of Exotic Species Introduction

Most of the wildlife in the area consists of species that have adapted to a disturbed physical environment and would be tolerant of possible disturbances from the project. Figure 16 (referenced previously) shows the known natural resources, including protected species in the project area. The project could remove and/or displace some kinds of habitat and could displace wildlife in certain areas, and potentially risk the introduction of exotic species into the area. Potential general effects of highway development on wildlife include habitat loss through its conversion into a paved highway surface, decreased attractiveness of habitat adjacent to the highway as a result of noise and activity, and an increase in wildlife-vehicle accidents as a result of increased traffic volumes. A new review of the Natural Heritage Inventory database maintained by the MnDNR and WisDNR will be performed to identify any state-endangered, threatened, or special concern species in the project area in addition to those species of concern previously

identified in the area, including the bald eagle and pearly Higgin's eye mussel, and several other mussel species known to occur in other stretches of the St. Croix River. Special attention will be given to the examination of impacts on species that utilize the Lift Bridge for nesting areas, the timing of construction to minimize impacts, and the relocating of mussel beds.

Groundwater and Geology

Impacts on groundwater and geology will be examined in the SDEIS, including impacts from infiltration of runoff from new impervious surfaces, impacts on existing wells, impacts on any wellhead protection areas and impacts from excavation to the depth of the existing water table. Impacts on/resulting from unique geologic features are not anticipated, but will be examined in the SDEIS.

Water Body Modification

Impacts on water bodies will be addressed through examination of impacts on wetlands, surface water quality and quantity, floodplains, and protected waterways.

Floodplains

Impacts on the floodplain of the St. Croix River will be examined in accordance with Executive Order 11988, Minnesota Statute 104.01, and Wisconsin Statute 87.30. Impacts to be examined include the flooding risk, floodplain values impacts, identification of any incompatible floodplain development, potential for interruption of a transportation facility, minimization measures, restoration measures and preservation measures.

Surface Water/Water Quantity and Quality Management/Stormwater Management

Impacts on surface water quantity and quality will be examined in the SDEIS. The primary potential for water quality impacts is related to surface and storm water runoff generated from new impervious surface areas of the alternatives (including the bridge deck) and during construction. Stormwater ponds and infiltration measures to minimize/decrease impacts will be required for alternatives and their stages during construction. The potential for impacts from spills on the roadways will also be examined.

Wetlands

Potential wetland impacts related to the proposed project are regulated by federal and state wetland protection laws. Current wetland regulations require (in order of preference) avoidance, minimization and compensation of impacts resulting from a proposed project. The study area of the proposed project includes numerous wetlands and protected waters.

The SDEIS will provide discussion of potential wetland impacts of each of the proposed alternatives carried forward. Initial avoidance and minimization efforts for the alternatives will also be discussed in the SDEIS.

Federal and state wetland regulatory agencies have been involved in project planning and will continue to provide input on the proposed project and wetland impacts throughout the SDEIS process.

Land Use

Land use impacts will vary greatly with the alternatives, dependent upon their location and configuration. The SDEIS will examine the compatibility of the project alternatives with the existing land uses in the area and with future land use plans for affected properties. The SDEIS will evaluate the direct land use impacts due to right of way acquisition and access changes and potential indirect land use impacts that may occur as a result of changes in traffic volumes and traffic patterns on area roadways following construction of the proposed project. Potential land use changes that will be examined in detail include those arising from the new interchanges in Minnesota and/or Wisconsin, and those related to the bridge location; potential redevelopment of land will also be considered. Induced or secondary land use impacts will also be considered in terms of location of development, and potential acceleration of planned development due to improved access.

Noise

Construction noise impacts are of a limited concern in comparison to the long-term operational noise of a highway, and therefore the SDEIS will focus on traffic noise impacts. Noise standards have been established in Minnesota by the MPCA for daytime and nighttime hours, while Wisconsin has adopted the Federal noise abatement criteria. Residences comprise most of the receptors and are considered the most sensitive receptors of traffic noise along the project corridor and therefore will be the subject of most of the noise discussion in the SDEIS. However, impacts on school and park locations will also be considered. In addition, a special section will be included for the alternatives that include a new river bridge to assess the future noise impacts on the river surface resulting from vehicles traveling on the proposed bridge and Lift Bridge.

Right-of-Way Acquisition and Relocation

All alternatives will require acquisition of land within the study area for right-of-way. Acquisitions may require relocation of residents or businesses. The SDEIS will analyze relative right-of-way acquisition impacts of each alternative based on total land area to be acquired and subdivided in categories including residential, commercial/industrial, public (including local, state and federal lands), and open space. This analysis will be based upon existing land uses. The SDEIS will compare the available housing/business sites in the area with the housing/business site needs of the displacees, discuss the likelihood of such relocation, and include descriptions of the businesses to be displaced (number of employees, types of businesses, etc.).

Traffic

Impacts on the transportation systems/facilities in the project area will be addressed. Previous comprehensive data collection efforts will be used and updated to document the past, existing, and future traffic conditions. Topics of study will include impacts on average daily traffic, traffic capacity, and turning movements/intersection operations at key locations. Issues to be considered in these studies include variations in daily traffic, hourly distribution of traffic, truck traffic and the Lift Bridge weight limits (and subsequent effects of changing travel patterns for these vehicles).

Transit

A separate feasibility study will examine the potential market for express bus service and determine the viability of this service. The study will also examine the need, viability and potential locations of park-and-ride lots (including the various locations that have been suggested throughout the Stakeholder Resolution Process). The express bus service and park-and-ride lots may or may not become part of any of the St. Croix River Crossing Project alternatives. A separate project or projects may be needed to address future express bus routes and/or park-and-ride locations. The feasibility study will also include a study of the potential impacts of the alternatives on the ability of transit services to be provided or impeded in the future. The feasibility study will be on a separate but concurrent timeline with the SDEIS.

Bicycle and Pedestrian Movement/Handicapped Accessibility

The SDEIS will evaluate the opportunities and constraints associated with providing for non-motorized travel within the project corridor, including but not limited to the effect of the proposed project on existing and planned trails. The SDEIS will also assess impacts on any planned handicapped facilities and will identify if special consideration needs to be made for handicapped facilities in the project design in conjunction with the analysis of impacts on pedestrian/bicycle facilities as described above.

Navigation

The SDEIS will study the effect of the alternatives to allow continued navigation on this segment of the St. Croix River.

Social (Neighborhood and Community Facilities Impacts)

The SDEIS will compare alternatives with respect to impacts on community facilities, access to residential areas and community facilities and services, neighborhood and community cohesiveness, and provision of emergency services, based primarily on existing land uses. In Minnesota, the focus will be on the impacts to the two main communities with the potential for social impacts: Stillwater and Oak Park Heights. Impacts on the City of Bayport will also be considered. In Wisconsin, the area with potential for social impacts is the northwestern quadrant of the Town of St. Joseph, which includes the unincorporated community of Houlton. Most residences and businesses in

Houlton are concentrated in the downtown area, but impacts on the other residences and farms in the town will be included in the analysis. Representatives of the Houlton community have expressed a strong concern for the potential impacts on community cohesion; these potential impacts will be studied.

Recreational Experience

Recreation is one of the three outstandingly remarkable values that caused the riverway to be designated as a Wild and Scenic Riverway. Potential impacts to the recreational experience are auditory, visual, and physical. Impacts on the recreational aspects of the river will be examined as a separate issue.

Economic Impacts

Economic impacts will vary greatly depending on the alternative being considered. Alternative location will affect right-of-way acquisition, access, land use and other items related to the economic functioning of the area. The countervailing beneficial and adverse effects of a roadway on the values of the affected properties are generally not quantifiable with any level of reliability. Therefore, the SDEIS will address economic impacts of the project using relative/qualitative analysis rather than quantitative analysis. The economic impacts will be examined with respect to relationship of the project to area development plans and the potential effect on local taxes.

Environmental Justice

Executive Order 12898 requires that the evaluation of environmental impacts resulting from a proposed project include assessment of the extent of these impacts on minority and low-income populations. Several locations within the study area have been identified as having potential sensitivity to environmental justice issues. The SDEIS will identify any concentrations of minority and/or low-income persons in the project area (based on current conditions) and assess the impact of the project alternatives on any such groups identified.

Cumulative Impacts

Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions.” (40 CFR 1508.7)

Cumulative impacts are not causally linked in their entirety to the project, but are the total effects of actions with similar impacts in a broader geographic area. The purpose of a cumulative impacts analysis is to look for impacts that may be minimal and therefore neither significant nor adverse when examined within the context of the proposed action, but that may accumulate and become significant and adverse over a large number of actions. The cumulative impacts analysis will address all resources affected by the project.

The SDEIS will compare the relative incremental impacts among the proposed alternatives compared to past, present and other foreseeable future actions. Foreseeable future actions include planned development and related infrastructure over the next 20 years.

C. ISSUES REQUIRING LESS DETAILED ANALYSIS IN THE SDEIS

The following issues are of moderate concern for the project. The SDEIS will identify impacts, including analysis in accordance with federal and state requirements where appropriate, for each of these areas of environmental concern; however, major impacts are not anticipated.

Excess Materials

Construction of any alternative except the No Build alternative could require the disposal of excess material outside of the project construction limits. Excess materials would be predominantly soil materials, which pose little environmental hazard, but may also include demolition of existing highway pavement and/or building materials. All demolition and construction material removed from the construction area will be recycled and/or disposed of in compliance with federal and state solid waste management regulations. The SDEIS will provide general discussion of appropriate handling of excess materials if appropriate, as this will have a limited influence on the identification of a Preferred Alternative.

Hazardous Materials, Contaminated Properties, Spills Management

Several operations or properties in the project area may be potential sources of contamination. The SDEIS will summarize the results of state and local agency file searches to determine the relative potential for each alternative considered to impact contaminated property. Analysis will be based on a Phase I Environmental Site Assessment to be conducted for determining any potential contamination source impacts to be avoided or minimized. The previously completed Phase I ESA information will be used in the SDEIS to the extent possible, and supplemented with additional studies to be performed in the SDEIS, if necessary. In addition, potential impacts and mitigation measures for spills from roadway users will be examined.

Soils

The previously completed soils information will be used to the extent possible, and supplemented with additional studies to be performed in the SDEIS, if necessary, to identify soils or areas of concern.

Utility Locations

Previous studies have identified known utilities in the project area, including power transmission lines, gas lines, electric substations, and sewer trunk lines. The SDEIS will address utility locations and necessary relocations and any substantive differences among alternatives that could affect selection of the preferred alternative.

Relationship of Local Short-Term Uses Versus Long-Term Productivity

The SDEIS will address the short-term adverse impacts and use of resources and their relationship to the long-term gains in productivity resulting from each alternative being considered.

Irreversible and Irretrievable Commitment of Resources

For each alternative considered, the SDEIS will discuss the commitment of resources, including as appropriate, natural, physical, human and fiscal resources that would be permanently dedicated to public use, and not able to be reversed or retrieved.

XI. ISSUES NOT TO BE ADDRESSED IN THE SUPPLEMENTAL EIS

The following areas of environmental concern are not relevant to this study area and will not be discussed in the Supplemental EIS:

Coastal Zones

No coastal zones exist in the project area, and therefore this issue will not be addressed in the SDEIS.

Federal and/or State-Designated Critical Areas (i.e., legislatively-defined areas)

No federal and/or state-designated (legislatively defined) critical areas currently exist in the project area, and therefore, this issue will not be addressed in the SDEIS. While the Lower St. Croix was designated a “critical area” under the Minnesota Critical Areas Act (Minn. Stat. 116G.01-116G.14), that designation expired in the 1970s. No state-designated critical areas now exist in the project area, and therefore this issue will not be addressed in the SDEIS.

XII. PUBLIC AND AGENCY INVOLVEMENT

The 2003 ASD describes the agency and public involvement activities performed during the Scoping Phase, as well as during previously-conducted studies. These activities included meetings and correspondence with public, government and regulatory agencies to obtain input on any potentially significant issues within the study corridor.

As discussed above, information was presented to the public and permitting agencies and comments solicited through publication of the Scoping documents and Scoping meetings conducted on December 2 and 3, 2003.

Continued public and agency involvement will occur through the Stakeholder Resolution Process, interim public information meetings, news releases and newsletters, a project website (<http://www.dot.state.mn.us/metro/projects/stcroix/index.html>) and the formal SDEIS public hearing currently anticipated in Fall 2004.

XIII. PERMITS AND APPROVALS

Permits and approvals that may be required for the proposed project are listed in Table 15.

**TABLE 15
AGENCY PERMITS AND APPROVALS THAT MAY BE REQUIRED**

| AGENCY | PERMIT/APPROVAL |
|---|---|
| FEDERAL: | |
| Advisory Council on Historic Preservation | <ul style="list-style-type: none"> ▪ Section 106 Memorandum of Agreement |
| Federal Highway Administration | <ul style="list-style-type: none"> ▪ SEIS (Draft and Final) ▪ Section 4(f) Evaluation (Draft and Final) ▪ Section 106 Memorandum of Agreement ▪ SEIS Record of Decision |
| National Park Service | <ul style="list-style-type: none"> ▪ Section 7(a) Evaluation (Draft and Final) |
| U.S. Army, Corps of Engineers | <ul style="list-style-type: none"> ▪ Section 10 Permit (navigable waters) ▪ Section 404 Permit (fill in U.S. waters) |
| U.S. Coast Guard | <ul style="list-style-type: none"> ▪ Section 9 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"> ▪ SEIS (Draft and Final) ▪ Wetland Conservation Act (WCA) ▪ SEIS Adequacy Determination |
| WIS Department of Transportation | <ul style="list-style-type: none"> ▪ SEIS (Draft and Final) |
| MN Department of Natural Resources | <ul style="list-style-type: none"> ▪ Protected Waters Permit ▪ Mussel Relocation Permit |
| MN Pollution Control Agency | <ul style="list-style-type: none"> ▪ Section 401 Water Quality Certification ▪ National Pollutant Discharge Elimination System Permit (NPDES) |
| WIS Department of Natural Resources | <ul style="list-style-type: none"> ▪ Indirect Source Air Permit ▪ Concurrence Letter and Section 401 Water Quality Certification to Wis/DOT (as co-lead agency) in lieu of water regulation, stormwater, wastewater and other permits per 30.12(4), Wis. Stats. and per DNR/DOT Cooperative Agreement ▪ Scientific Collector Permits (surveys) ▪ Endangered/Threatened Species Permit ▪ Authorization for Taking E/T Species (requires jeopardy determination) |
| MN State Historic Preservation Office | <ul style="list-style-type: none"> ▪ Section 106 Memorandum of Agreement |
| WIS State Historic Preservation Office | <ul style="list-style-type: none"> ▪ Section 106 Memorandum of Agreement |
| REGIONAL: | |
| 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 on Project per Minnesota Statute 161.162 to 161.167 |
| City of Stillwater | <ul style="list-style-type: none"> ▪ Municipal Consent on Project per Minnesota Statute 161.162 to 161.167 |
| Local Watershed Districts | <ul style="list-style-type: none"> ▪ Coordination of Grading and Drainage Plans |

APPENDIX A
SCOPING PHASE ALTERNATIVES

Figure A-1 – Scoping Alternatives: Alternative A – Major Transportation Elements
(8.5x11 – color)

Figure A-2 – Alternative B – Scoping Phase (11x17 – color)

Figure A-3 – Alternative C – Scoping Phase (11x17 – color)

Figure A-4 – Alternative D – Scoping Phase (11x17 – color)

Figure A-5 – Alternative E – Scoping Phase (11x17 – color)