ENVIRONMENTAL ASSESSMENT
ENVIRONMENTAL ASSESSMENT WORKSHEET

INTERSTATE 90 / DRESBACH BRIDGE AND
APPROACH ROADWAY INTERCHANGE PROJECT
Minnesota DOT State Project: S.P. 8580-149
Wisconsin DOT State Design Number: 1071-05-34

Interstate 90 Bridge over the Mississippi River and I-90/US 14/US 61 Approach Roadway Interchange
Dresbach Township, Winona County, Minnesota; and Campbell Township, La Crosse County, Wisconsin
Sections 28, 33 and 34; Township 105N, Range 4W; Sections 13 and 14, Township 16N, Range 8W

Submitted pursuant to 42 U.S.C. 4332, Minn. Statutes 116D, and Wis Chapt. Trans 400

By the
U.S. Department of Transportation,
Federal Highway Administration,
Minnesota Department of Transportation and
Wisconsin Department of Transportation
For

Replacement of the Interstate 90 (I-90) Dresbach Bridge over the Mississippi River with a new bridge that meets structural and geometric standards, and reconstruction of the I-90/US 61 interchange to improve traffic safety, capacity, and access on and between US 61/14 and I-90

Contacts:

FHWA: Philip Forst
Environmental Specialist
Galtier Plaza
380 Jackson Street, Suite 500
St. Paul, MN 55101-2904
Phone: 651-291-6120

MnDOT: Jai Kalsy
Project Manager
MnDOT District 6
2900 – 48th Street NW
Rochester, MN 55901
Phone: 507-286-7545

Recommended for approval by:

Debra Succio 12/16/11
MnDOT – District 6 Engineer Date

Approved by:

Frank Pafko 12/16/11
MnDOT – Chief Environmental Officer Date

[signature] 12/16/11
WisDOT –DTSD Bureau of Technical Services, Environmental Services Section Date

Approved by:

William R Lohr 12/19/11
FHWA Date

This document is available in alternative formats to individuals with disabilities by calling the Minnesota Relay Service at 1-800-627-3529.

This Page Left Intentionally Blank

Table of Contents

List of Tables

List of Figures

Appendices

Figure 1: Area Location

Figure 2: USGS Project Location Map

1.0 REPORT PURPOSE

This Environmental Assessment/Environmental Assessment Worksheet (EA/EAW) for the proposed Interstate 90 (I-90) Dresbach Bridge and Approach Roadway Interchange Project in Winona County, Minnesota and La Crosse County, Wisconsin (Figures 1 and 2, presented just prior to this section) provides background information and analysis, including:

- need for the proposed project,
- alternatives considered,
- environmental impacts and mitigation, and
- agency coordination and public involvement.

This EA/EAW was prepared as a part of the National Environmental Policy Act (NEPA) process and state environmental review process to fulfill requirements of 42 USC 4332, Minn Statutes 116D [the Minnesota Environmental Policy Act (MEPA)] and Wis Chapt. Trans 400 [the Wisconsin Environmental Policy Act (WEPA)]. At the federal level, the EA is used to provide sufficient environmental documentation to determine the need for an Environmental Impact Statement (EIS) or that a Finding of No Significant Impact (FONSI) is appropriate. At the state level, this document also serves as a State of Minnesota Environmental Assessment Worksheet (EAW), and is used by the Minnesota Department of Transportation (MnDOT) to provide sufficient environmental documentation to determine whether or not preparation of a state EIS is required. The Wisconsin Department of Transportation's (WisDOT's) requirements for WEPA are fulfilled by the federal NEPA documentation.

This document is made available for public review and comment in accordance with the requirements of 23 CFR 771.119 (d) and Minnesota Rules 4410.1500 through 4410.1600.

Unless otherwise noted, all technical memoranda and studies referenced in this EA/EAW are available from the MnDOT Contact (see Section 4.2) upon request.

2.0 NEED FOR PROJECT

The need to replace or conduct major rehabilitation of the I-90 Dresbach Bridge over the Mississippi River was identified a number of years ago, based on structural evaluations. Ongoing and periodic inspections of the bridge have revealed worsening structural deficiencies that need to be addressed. Because of these structural conditions, MnDOT has also investigated other aspects of the bridge, including roadway capacity, operations, and safety issues. Since a bridge's design affects and is controlled by its approaches, the approach roadways, especially the Minnesota approach, which includes the interchange of I-90 with United States Highway 14/61 (referred to hereafter as US 61) were included in a 2006 comprehensive assessment of the potential need for improvements. (US 14 and US 61 are concurrent here, and US 14 is included in the project, but "US 61" will be used in this document for ease of reference.) This 2006 comprehensive assessment, *The Dresbach Bridge Improvement Study*[1] , evaluated the bridge as well as its Minnesota approach roadways. Other problems the study identified included narrow bridge shoulders, locations with higher than average accidents rates, and geometric deficiencies that affect traffic flow and safety through the I-90/US 61 interchange. Figure 3 (see Appendix A for this and all subsequent Figures) shows the existing conditions, bridge and interchange locations and project area. The project area was defined early in the EA/EAW process as the area that could potentially be physically impacted by the proposed project construction (based on early design information), and is shown on Figure 2.

The *Dresbach Bridge Improvement Study* was the starting point for the pre-design/environmental review studies that are documented in this EA/EAW document. The 2006 studies, plus additional assessments performed for this EA process, were the basis for the summary of project needs and considerations described below. These relate to bridge structural problems, narrow bridge shoulders, roadway operational problems, roadway capacity needs, safety problems, and the important transportation role of the bridge and its Minnesota approach roadways. The following sections (Sections 2.1 through 2.7) and Figure 4 discuss and show the location of the transportation deficiencies in the project area, and describe the importance of this river crossing and associated approach roadways in the regional transportation system as a Principal Arterial route, an interregional corridor and a regional river crossing.

2.1.Bridge Structural Deficiencies

The I-90 Dresbach Bridge is nearing the end of its useful life expectancy. Built in 1967, the four-lane single-bridge river crossing was fabricated in the early years of welded bridge design using large, steel girders in a non-redundant design. (A non-redundant design has no back-up for some component of its design. The I-90 Bridge has non-redundant steel girders; i.e., they are arranged such that if one member fails, the bridge could collapse because there are no backup or "redundant" structural supports.)

The bridge is formally inspected annually to ensure it is safe to remain open; informal inspections are performed by bridge crews throughout the year and an in-depth inspection of critical

[1] *Dresbach Bridge Improvement Study*, Parsons Brinckerhoff, June 2006.

elements is performed every two years. Portions of the bridge are beyond their useful life whereby maintenance needs are increasing and becoming less cost-effective. A detailed bridge inspection and fatigue study occurred as part of the *Dresbach Bridge Improvement Study*. The study indicated that the Dresbach Bridge has experienced cracking due to fatigue, out-of-plane bending, and detailing and fabrication processes typical of the era. The study also found that a number of bridge components are in poor condition, including the main and approach span girders, expansion joints, floor beams, and bracing. The study concluded that major rehabilitation or replacement of the bridge would be needed to ensure long-term safety.

2.2. Narrow Bridge Shoulders

Current bridge shoulder widths do not meet federal interstate and state bridge standards that specify, for this level of traffic and design speed, outside bridge shoulders should be at least 10 feet wide, and inside shoulders should be 6 feet wide. Shoulder widths are currently 3 feet on the outside shoulder and 2 feet on the inside shoulder. The narrow shoulders prevent emergency vehicles from bypassing congested or stopped traffic on the single-bridge river crossing. They also do not provide an opportunity for stalled vehicles to leave the traffic flow or for maintenance vehicles, personnel or activities. The shoulder also cannot accommodate westbound off-ramp queues that back up onto the mainline of westbound I-90.

2.3. Roadway Operational Problems

The *Dresbach Bridge Improvement Study* conducted a comprehensive analysis of traffic operations in the I-90/US 61 interchange area, which has been supplemented by recent analysis. Level of Service, or LOS, is a measure of the quality of traffic flow through an intersection or roadway segment. Intersections or roadway segments are assigned a ranking from LOS A through LOS F based on an estimate of travel delay. LOS A would indicate a condition where little or no delay exists, whereas LOS F would indicate severe congestion (i.e., a "failing" intersection or roadway). Drivers generally consider LOS A through LOS D to be in the range of acceptable conditions, while LOS E is a condition at or near the effective capacity of the roadway where vehicles experience substantial delays. A LOS F indicates severe congestion and substantial delays.

2.3.1. Travel Demand Between La Crosse and La Crescent

The *Dresbach Bridge Improvement Study* identified operational problems in the I-90/US 61 interchange, which reflect a preference for travel to eastbound I-90 from northbound US 61, and from westbound I-90 to southbound US 61. For example, during the a.m. peak hour (7:30-8:30 a.m.) in 2003, approximately 35 percent more vehicles made the latter directional movement than continued through the project area on either the I-90 or US 61 mainline (742 vehicles moving from I-90 to US 61; 575 vehicles on the I-90 mainline; 568 on north/south US 61)[2].

2.3.2. Westbound I-90 to Southbound US 61 Movement

For the westbound I-90 to southbound US 61 movement during p.m. peak hour, traffic must proceed through two intersections as left turns: first, where the exit ramp intersects with

[2] US 61 traffic includes vehicles that may continue toward or originate from I-90 north and west of the project area.

Dam No. 7 Road and the entrance to the Dresbach Travel Information Center (Rest Area); and second, at the signalized intersection with US 61. As a result of high traffic volumes at peak hours, traffic modeling analysis results of operations at both of these intersections indicate "failing" (LOS F) conditions, where traffic experiences significant queuing and delay (nearly five minutes of delay). Traffic under these conditions queues back along the entire length of the off-ramp. The traffic analysis results were consistent with field observations[3], where queues were observed backing up on the westbound exit ramp into the through-traffic lanes of I-90 at various times during the p.m. peak hour.

2.4. Roadway Capacity Needs

Congestion and back-ups observed on the Dresbach Bridge are primarily due to traffic back-ups from the interchange with US 61, rather than the number of through lanes on the bridge. Inadequate width of bridge shoulders can also contribute to congestion, as described in Section 2.2. With the exception of the failing intersections and intermittent spillback onto I-90, traffic volumes on I-90 and US 61 operate with little or no delay (LOS A). Average daily volumes for the four-lane roadway segments in 2007 are 25,000 for the Dresbach Bridge; 20,525 for the I-90/ US 61 commons area; and 16,395 for US 61 south of the I-90/US 61 commons area.

Long range traffic forecasts were completed in June 2008 to consider a long lifespan of a new bridge. Forecast projections were developed by WisDOT for both the bridge and the approach roadways. These projections assumed a four-lane bridge configuration with free flowing entrance and exit ramps; an increase in traffic, but with a declining rate of growth (reflecting documented historic trends); i.e., annual growth rates of 1.33% applied for each year between 2005 and 2045; 0.87% between 2045 and 2065; and 0.66% between 2065 and 2115. With these conditions, operations analysis indicates that a four-lane bridge would provide a reasonable LOS for the foreseeable future (LOS C in 2065). The eastbound on-ramp to I-90 is forecast to operate at LOS D by 2065 (reasonable conditions for roadway users with some delay during peak hours). The westbound off-ramp to southbound US 61 would operate at LOS C in 2065 – also reasonable delay.

2.5. Traffic Safety Concerns

Two notable patterns of single-vehicle crashes occurred during a three-year crash history analysis period (2000 through 2002)[4]. Reported incidents primarily included drivers losing control and striking the concrete barrier wall or guard rail. Although weather was a contributing factor in most of these cases, outdated roadway geometry contributes to the problem, as described below.

2.5.1. Interstate 90 Curve

Traffic data indicates a pattern of crashes along I-90 in the curved bridge section over the Canadian Pacific Railroad (CP Rail, or "the railroad") and northbound US 61. During the three year study period, 56 crashes occurred in this area. Of these, 26 were concentrated on the

[3] Dresbach Bridge Improvement Study (June 2006) and field observations in August 2008.

[4] Dresbach Bridge Improvement Study, June 2005

eastbound and westbound segments in the middle of the curve. Weather appears to be related, as noted for 31 of the 56 total crashes. A number of other factors may contribute to the problem, including the existing vertical crest on the west end of the river bridge (which impedes westbound drivers' ability to see spillback queues accumulating at the southbound US 61 exit), the exit to the Rest Area and southbound US 61, and the scenic view of the bluffs, all of which may distract drivers heading westbound into the curve. The crash rate for this area (0.75 crashes/million vehicle miles) exceeds the statewide average (0.6 crashes/million vehicle miles) for this type of road.

2.5.2. Northbound US 61 to Eastbound I-90

Another pattern of crashes is associated with movement from northbound US 61 to eastbound I-90, where a sharp turn (nearly 90 degrees) is required from US 61 to the I-90 ramp (Figure 4). During the three-year study period, this intersection experienced a crash rate of 0.6 crashes per million vehicle miles, higher than the statewide average of 0.4 for rural intersections with similar traffic controls. Of eight total crashes, five were due to drivers losing control of their vehicles as they turned at the ramp entrance and struck the guardrail, primarily during inclement weather conditions. A yellow turn-speed advisory sign of 10 mph is currently in place for this movement. Driver confusion may also be a contributing factor as one of the two northbound US 61 lanes becomes the turn-lane to eastbound I-90. Drivers may be expecting this lane to continue beyond the intersection. The merge onto I-90 is also difficult since there is no shoulder to provide additional width during the merge.

2.6. Riverfront Access

Four points of interest located along the Mississippi River in the project area will collectively be referred to as "the Riverfront":

- the westbound I-90 MnDOT Rest Area,
- the U.S. Army Corps of Engineers (COE) Lock & Dam No. 7,
- the Upper I-90 Mississippi River Public Water Access - owned and operated by the Minnesota Department of Natural Resources (MNDNR) and referred to as "the MNDNR boat launch", and
- Lower I-90 Landing – operated by the U.S. Fish and Wildlife Service (U.S. FWS) and referred to as the "U.S. FWS boat launch"; access road is on an easement from MnDOT.

Currently, travelers cannot access these facilities from the north (via southbound US 61) or from eastbound I-90. At one time, access could be gained to the Riverfront from southbound US 61 by making a U-turn onto northbound US 61 approximately 1,000 feet south of the I-90/US 61 split. This U-turn was closed by MnDOT after several fatal accidents occurred at this location. Southbound traffic must now continue to the signalized intersection of 3rd Street and US 61 at La Crescent approximately one mile south, turn around, and travel back north. Alternatively, they may cross the I-90 Dresbach Bridge and turn around at the I-90/French Island interchange, then return to the Riverfront via the westbound I-90 exit to the Riverfront. At public and project stakeholder meetings, consistent support for providing this access was expressed, citing the regional importance of the Riverfront amenities as well as a need for emergency access.

Improved or maintained access to and from the Riverfront from Wisconsin is another project need. A ramp currently provides direct access from westbound I-90 to the Riverfront, and direct return trips to I-90 eastbound are currently possible via a left turn from southbound US 61. However, to do this, the current return trip from the Riverfront must cross the northbound lane of US 61 twice: first at the signalized intersection to proceed southbound, then again at an unsignalized intersection to enter the eastbound I-90 on-ramp.

Alternatively, the movement to I-90 eastbound can be two other ways: 1) by accessing westbound I-90 from the Riverfront, then exiting I-90 at the Dresbach interchange (Exit #272B/A in Dresbach, approximately 2 miles to the west) then two left turns on a township road to re-enter I-90 via the on ramp to return to I-90 eastbound; or 2) accessing US 61 southbound from the Riverfront, and proceeding to the intersection with TH 14 in La Crescent (approximately four miles to the south) to return on US 61 northbound to the I-90 eastbound ramp. These trips are also circuitous, but do not involve left turns across unprotected traffic through-lanes.

An origin and destination survey performed in June of 2008 (Dresbach Bridge Project Visitor Survey – Minnesota Riverfront Area, June, 2008) confirmed that the demand for travel to and from the Riverfront is driven first by westbound I-90 visits and second by return trips to Wisconsin and La Crescent from the boat launches and Lock & Dam No. 7. Given the local popularity of the Riverfront, the various movements between I-90/US 61 and the Riverfront were included in the project Goals and Objectives (see detailed discussion in Section 3, Table 1) as follows:

Requirement - Maintaining westbound I-90 access to and from the Riverfront
Requirement – Maintaining northbound US 61 access to and from the Riverfront
High Priority – Maintaining access to southbound US 61 from the Riverfront
High Priority – Maintaining access to eastbound I-90 from the Riverfront
Secondary Priority – Provide new access to the Riverfront from eastbound I-90/southbound US 61.

The last movement, currently missing from the existing access, had once been provided via the U-turn on southbound US 61 (as described in the first paragraph of this section as a route to reach US 61 northbound). Once completing the U-turn, drivers could either continue north to access I-90 eastbound, or remain on US 61 northbound to reach the Riverfront. This U-turn was difficult because:

- a tight turning radius at a break in the median;
- no turning lane; and
- many users of this U-turn were vehicles with trailers that need a longer turning time and have a larger turning radius.

After several fatalities occurred at this location, the U-turn option was eliminated as described above. Access to eastbound I-90 from the Riverfront could also be reached by making U-turn further to the south in La Crescent (many drivers used the parking lots of businesses adjacent to US 61 to make this move), or by travelling south through La Crescent, crossing the river at 3rd Street/US 14/61 into La Crosse, and traveling north through La Crosse to regain access to I-90.

The origin/destination study showed boaters desired and would welcome a direct and safe route to I-90 eastbound.

The Rest Area at the Riverfront serves I-90 westbound traffic in Minnesota, while a separate facility in Wisconsin (the La Crosse Rest Area, located east of and outside the project area; shown on Figure 2) serves I-90 eastbound traffic. Maintaining westbound I-90 access to and from the Minnesota Rest Area was identified as a required project objective.

During the analysis of alternatives, and after the project Goals and Objectives had been established by the PAC, the need for full Riverfront access (i.e., maintaining all existing accesses between the Riverfront and I-90/US 61, and providing direct access to eastbound I-90 from the riverfront; discussed in Section 3.2) was identified as an important feature desired by stakeholders.

2.7. Transportation Role of I-90 and US 61

Replacement or rehabilitation of the I-90 Dresbach Bridge and its Minnesota approach roadways are identified in MnDOT's long range (2008 – 2030) Transportation System Plan. The Wisconsin State Highway Plan 2020 identifies the I-90 corridor as a "Corridor 2020 Backbone Route" – i.e., a multi-lane route that connects major population and economic centers and provides economic links to national and international markets. The Wisconsin "Connections 2030 Long-Range Multimodal Transportation Plan" adopted October 2009 shows I-90 as an existing backbone corridor. Inclusion of the I-90 Dresbach Bridge and its Minnesota approach roadways in MnDOT's long range plan, and identification of I-90 as a backbone corridor in WisDOT's study are indicative of the importance of these components in the regional transportation system as a Principal Arterial, as an interregional corridor and as a regional river crossing. These roles emphasize the need for a river crossing that will allow traffic to be maintained through construction, and provide a safe, smooth-flowing transportation facility with access to important regional and local destinations.

2.7.1. National Highway System Principal Arterials

Interstate 90 and US 61 play important roles in the regional transportation system. Both I-90 and US 61 are National Highway System routes, principal arterials that carry significant truck traffic and function as high mobility, high speed corridors. Interstate 90 is a primary travel corridor across southern Minnesota and central Wisconsin, connecting the two states, as shown in Figure 1. It serves regional population centers that include Rochester (via US 52) and Austin, Minnesota; and Madison, Wisconsin. It also serves as a local connection between the cities of La Crescent, Minnesota, and Onalaska and La Crosse, Wisconsin, and other smaller communities. In Minnesota, the I-90 Dresbach Bridge intersects with US 61, providing connections north along the Mississippi River to the Twin Cities (via Winona and Red Wing) and south toward La Crescent.

2.7.2. Interregional Corridors

The Minnesota Statewide Transportation Plan designates I-90 and the portion of US 61 between La Crescent and Winona as "Interregional Corridors". The goal of this designation is to prioritize and maintain efficient connections between regional trade centers[5] by ensuring safe, timely, and efficient movement of goods and people. The Interregional Corridor System represents only two percent of all roadway miles in the state, and I-90 is designated as having "High" status. In Wisconsin, I-90 is similarly designated in its long range highway improvement plan as a "Corridors 2020 Backbone Highway".

2.7.3. Regional River Crossing

The La Crosse / La Crescent area now includes approximately 108,000 people. The long-range plan for the La Crosse metropolitan area anticipates a 26 percent increase in households and employment growth of 21 percent. There is no replacement or alternative for the regional role that the Dresbach Bridge plays. The nearest bridges serve different functions and corridors. Approximately five miles to the south of the Dresbach Bridge is the US 61 Bridge (see Figure 1) between the urban cores of La Crescent and La Crosse. This route provides local connections between the communities, but is less efficient and less direct for inter- and intraregional travel. Approximately 24 miles to the north is the Minnesota Trunk Highway (TH) 43 / Wisconsin TH 54 crossing at Winona. This crossing serves more local trips through the downtown section of Winona.

2.8. Purpose of Project

The primary purpose of the project is to provide a new structurally sound I-90 river crossing bridge that meets current structural and geometric standards on an important regional river crossing, and to provide a reconstructed interchange that improves traffic safety, capacity and access on and between US 61 and I-90.

[5] The State Transportation Plan designates the La Crosse / La Crescent and Rochester areas as Primary Regional Trade Centers; while Winona, Red Wing and Austin areas are designated as Secondary Regional Trade Centers.

3.0 DEVELOPMENT AND SCREENING OF ALTERNATIVES

To identify, develop and screen a wide range of alternatives with input from a variety of stakeholders, two guiding stakeholder groups were established for the project; meetings were held to collect information from and disseminate information to these groups. The groups included technical staff, environmental agency representatives, local stakeholders and the general public (Section 6.1 lists the groups and describes the public involvement process in greater detail). The Technical Advisory Committee (TAC) met regularly (about once a month) during the process to develop, review and refine alternatives. The TAC also participated in technical workshops to supplement the project development process, and focus on how alternatives addressed project need and objectives. A Project Advisory Committee (PAC), composed of local and environmental agency representatives, was formed to provide input on local needs and concerns, as well as to provide input on and responses to project alternatives. Meetings with the TAC early in the project included development of project goals and objectives against which the various alternatives could be assessed as the alternatives were developed. The goals and objectives were refined and ranked "Required", "High Priority" or "Secondary Priority" and presented to the PAC for review and comment (see Table 1). Formal consultation with environmental agencies occurred at the onset of the project, as alternatives were narrowed, and as key environmental issues were identified and addressed. Section 6.0 describes agency and other stakeholder involvement during project development. Appendix B presents response letters and communications from the agencies; Appendix C presents commitments to be carried out by the project proposers; Appendix D presents further documentation of commitments, Appendix E presents a technical memorandum on two alternatives, and Appendix F presents correspondence regarding bicycle/pedestrian accommodation on the I-90 Dresbach bridge.

It should be noted that Table 1 – Goals and Objectives - includes specific items that build on the Purpose and Need. These items played a role in the development and screening of alternatives, as guided by input from the TAC and PAC. For example, design life and design speed were included in the goals and objectives by the TAC, and were refined with specific modifiers within the categories of "Required", "High Priority" or "Secondary Priority" by the TAC to help differentiate and prioritize the many alternatives examined for this project. It should be further noted that these criteria have a lower precedence than the project's Purpose and Need.

The No Build alternative and numerous Build alternatives (for the bridge and approaches) were reviewed and analyzed. The project alternatives considered for this project and the process of screening them down to the preferred alternative are documented in two reports: the 2006 *Dresbach Bridge Improvement Study* documents the initial development and screening; and the May 2009 *Development and Screening of Alternatives for the Dresbach Bridge Project*, provides more detailed information about the design development and evaluation of alternatives recommended in the 2006 study, and gives additional alternative concepts and detailed maps/drawings of the various components. Both studies are available from the MnDOT contact as shown in Section 4.2. The evaluation and decision-making processes discussed in these documents ultimately resulted in selection of the preferred alternative evaluated in this EA/EAW document. The following sections summarize the alternatives development and screening process.

Table 1 - Dresbach Bridge Project Goals and Objectives

Requirements	High Priorities	Secondary Priorities
Transportation Function 1. Provide uninterrupted, free-flowing movement between I-90 and US 61. 2. Maintain westbound Interstate 90 ingress and egress from the Dresbach Travel Information Center (Rest Area).	**Transportation Function**	**Transportation Function**
Access Function 3. Maintain westbound I-90 ingress and egress from the Riverfront. 4. Maintain northbound US 61 ingress and egress from the Riverfront.	**Access Function** 5. Maintain access to southbound US 61 from the Riverfront. 6. Maintain access to eastbound I-90 from the Riverfront.	**Access Function** 7. Provide new access to the Riverfront from eastbound I-90/southbound US 61.
Roadway Capacity 8. Provide sufficient mainline roadway capacity such that LOS is no less than LOS B by the year 2035 and no less than LOS C by the year 2065. 9. Provide sufficient interchange ramp capacity such that LOS is no less than LOS C by the year 2035 and no less than LOS D by the year 2065.	**Roadway Capacity** 10. Provide free-flowing movement on ramps to and between I-90 and US 61, meeting design speed standards and providing safe merging distances.	**Roadway Capacity**
Railroad Capacity 11. Meet minimum design requirements to accommodate three sets of freight rail tracks and a potential track for high speed passenger use.	**Railroad Capacity**	**Railroad Capacity**
Bridge Safety 12. Include adequate shoulder widths to accommodate vehicle breakdowns and/or their use by emergency and maintenance vehicles. 13. Provide bridge structural redundancy.	**Bridge Safety**	**Bridge Safety**
Approach Roadway & Interchange Safety 14. Meet current roadway design standards for mainline interstates and trunk highways. 15. Incorporate mainline entrance/exit ramps and through-traffic movements that are consistent with driver expectations.	**Approach Roadway & Interchange Safety** 16. Design mainline ramps and interchanges to meet current geometric standards, thereby safely accommodating a range of vehicle types.	**Approach Roadway & Interchange Safety**
River Navigation 17. Provide vertical and horizontal clearance to meet U.S. Coast Guard requirements for river navigation. 18. Provide vertical and horizontal clearance to meet U.S. Coast Guard requirements for river navigation during construction.	**River Navigation**	**River Navigation** 19. Provide a long span bridge to reduce the number of piers adjacent to the navigation channel.

Requirements	High Priorities	Secondary Priorities
Cost Effectiveness [1] 20. Have a positive (>1.0) benefit/cost ratio (including life-cycle costs).	**Cost Effectiveness**	**Cost Effectiveness**
Maintenance Impacts of Design 21. Design new river crossing for 100-year design life (for new bridge) or 75-year design life (for rehabilitated bridge). 22. Design all approach bridges for 75-year design life.	**Maintenance Impacts of Design** 23. Ensure ease of ongoing inspection. 24. Minimize long-term maintenance costs of river crossing and approach roadway overpasses.	**Maintenance Impacts of Design**
Construction Coordination 25. Maintain one lane of I-90 traffic in each direction during project.	**Construction Coordination** 26. Coordinate with MNDNR and USFWS on interruption of services to boat ramps and with Mn Office of Tourism regarding the rest area.	**Construction Coordination** 27. Maintain two lanes of I-90 bridge traffic in each direction, whenever feasible, during bridge project.
Bicycle / Pedestrian Access 28. Accommodate bicycle travel through the project area, considering connections to La Crescent and the Mississippi River Trail.	**Bicycle / Pedestrian Access**	**Bicycle / Pedestrian Access**
Environmental Considerations	**Environmental Considerations** 29. Follow MnDOT's context sensitive design guidelines. 30. Minimize impacts on Upper Mississippi River National Wildlife and Fish Refuge. 31. Minimize impacts on existing wetlands. 32. Minimize water quality impacts. 33. Avoid/minimize impacts on cultural resources. 34. Avoid encroachment into bluff, an area of moderate biodiversity significance. 35. Minimize disturbance of Mississippi River Migratory Bird Flyway. 36. Minimize loss of floodplain forest.	**Environmental Considerations** 37. Minimize visual impact of approach roadways from bridge and Riverfront. 38. Minimize number of bridge piers in river. 39. Minimize extent of land and water disturbance during construction.
Aviation 40. Obtain FAA approval for structure height. 41. Coordinate design with FAA to meet FAA Advisory Circular 150/5200-33B storm water management and habitat practices.	**Aviation**	**Aviation** 42. Meet local ordinance height limitation (for main bridge span design) without variance.
Bridge Security	**Bridge Security** 43. Minimize the structural vulnerability of the main river bridge.	**Bridge Security**

Requirements	High Priorities	Secondary Priorities
Riverfront Area Considerations 44. Retain Rest Area functionality post-construction for westbound I-90 automobile, recreational vehicle and truck traffic. 45. Preserve function of boat launch areas for recreational users.	**Riverfront Area Considerations**	**Riverfront Area Considerations** 46. Minimize impacts to the Rest Area, Boat Ramps, and Lock & Dam #7.

[1] Environmental documentation level of cost examination is typically limited to a benefit/cost analysis.

3.1.No Build Alternative

The No Build Alternative would maintain the existing conditions on I-90 and US 61 in the project area until a time when bridge traffic must be restricted (due to load and/or lane restrictions) or eventually eliminated (i.e., re-routed to other river crossings). The No Build Alternative would disrupt traffic on a regional scale once the closure of the bridge became necessary (Section 7 discusses the regional importance of this river crossing in the transportation system). The existing bridge and at-grade intersections that create traffic operational problems for the westbound to southbound movement would be perpetuated. The No-Build Alternative would not address the issues identified in Section 2.0 (Need for Project), including the geometric conditions where there are higher than average crash rates, or a lack of bridge structural redundancy.

With the No Build Alternative, necessary routine repairs would continue to be made for as long as possible. The bridge would continue to deteriorate and the bridge load posting would necessarily be reduced. Trucks and buses would be diverted initially but after further bridge deterioration, it could be necessary to reduce the number of through lanes in each direction from two lanes to one. Ultimately, the bridge would become structurally insufficient, necessitating closure to all traffic, and all vehicles would be detoured to other routes indefinitely.

The No Build Alternative was rejected because it does not meet the project's purpose (Section 2.8). Ultimately, it would result in the closure of the bridge, the loss of a vital regional transportation corridor, and would not meet the project needs identified in Section 2.0. Structurally, the No Build Alternative would retain a non-redundant bridge that would eventually be closed. Geometrically, the No Build Alternative retains shoulder widths that do not meet federal standards. Operationally, the No Build Alternative would perpetuate the queues that develop on the I-90 through-lanes during the p.m. peak hour and failing LOS F conditions at two intersections. Capacity would not accommodate growth in the area. Existing safety issues (crashes at the I-90 curve and northbound US 61 to eastbound I-90 right turn) would not be addressed, and the Riverfront access from eastbound I-90 identified as a secondary priority would not be provided.

3.2.Build Alternatives Considered and Dismissed

The various build alternatives and a rehabilitation alternative are discussed in this section. To simplify development and analysis of the Build Alternatives, major project design components were developed and evaluated separately, but with overall project compatibility in mind. Major project components included:

- Bridge alignment;
- Main channel bridge type;
- Wisconsin approach span type; and
- Minnesota approach roadway interchange.

The preferred types were identified for each design component, and the preferred types were then assembled into and reconsidered together as the "Preferred Alternative" (shown on Figure 6B; later referred to as the Recommended Alternative) over the course of the TAC and PAC meetings.

For each component, the overall process of developing, evaluating and making decisions about eliminating alternatives was similar. Alternatives that were found to not meet the project purpose and need were eliminated at an early concept stage of development. Those that met the core project needs were developed further and evaluated against more extensive evaluation criteria that included consideration of environmental impacts, ability to meet secondary transportation system objectives, cost, feasibility, ability for traffic flow to be maintained during construction and other criteria (described in greater detail in the 2009 Alternatives Analysis Technical Memorandum prepared for this project).

The main river bridge alignment component (described in Section 3.2.1 below) accounted for the greatest differences in environmental impacts, and also most influenced the potential choices for other components, so it is discussed first.

3.2.1. Bridge Alignment Alternatives

Potential new bridge alignment alternatives considered initially early in the Dresbach Bridge Project included:

1. *North Alignment* - River bridge shifted entirely to the north of the existing bridge,
2. *Existing Alignment* - River bridge partially on the existing bridge alignment (constructing the new bridge in stages; eastbound lanes where the existing bridge is located; westbound lanes north of the existing bridge), and
3. *South Alignment*- River bridge shifted entirely to the south of the existing bridge.

Figure 5 shows the location of the river bridges for these alignment alternatives.

Each of these alternatives included two separate bridges (one for I-90 eastbound traffic and one for I-90 westbound traffic) for safety, separation of traffic and flexibility of traffic routing during maintenance, repair or emergencies. (The existing river crossing is on one bridge). The main difference among these three alignments was the size and location of impacts outside of the existing bridge/approach corridor impact 'footprint.'

The *North* and *Existing Alignments* had similar impacts in the Minnesota approach, but differed in the Wisconsin approach and the U.S. FWS's Upper Mississippi River National Wildlife and Fish Refuge (hereafter referred to as the 'Refuge') area impacts. The *North* and *South Alignments* had similar impacts outside of the existing corridor footprint, but differed in how they impacted the Refuge. The *Existing Alignment* (#2 above) partially utilized the existing corridor, minimizing new footprint (impact) area.

The *South Alignment* with a new bridge located south of the existing bridge was dismissed early, as this alignment would have greater bluff impacts than the north alignment, require the acquisition of the U.S. FWS boat launch property and create problems maintaining traffic during construction (traffic would have to be routed via temporary bridges over the railroad), thus greatly increasing construction time, complexity and cost. As described in Section 6.2, the U.S. FWS and other environmental agencies were consulted in the evaluation of the bridge alignments being considered. Refuge representatives agreed that the impacts to their boat launch were not acceptable, concurring with elimination of the *South Alignment*.

The *North* and *Existing Alignments* (see Figure 5) were carried forward into the next phase of alternative screening (selection of the Preferred Alternative). The alignment designs were modified as more information became available and the design process continued; i.e., as other project component decisions were made and designs evolved, as described in the next sections.

Section 3.3 discusses the selection of the Recommended Alternative, which was essentially the process of choosing a preferred alignment between the *North* and *Existing Alignments,* as discussed here, then refining the Alternative as other issues emerged.

Through design refinement it was determined that the *Existing Alignment* (and any replacement alternative that would utilize this alignment) would have the potential for bluff impacts because the I-90/US 61 interchange and US 61 would need to be shifted westward from their existing locations. This would cause US 61 to encroach into the Minnesota bluff as much as 30 feet in some areas, where a 20-foot buffering distance from the edge of the US 61 pavement to the toe of the bluff is included. This buffering distance is a common safety practice in Minnesota that would be required to protect of the road from materials fallen off the bluff face.

Construction staging studies for the *Existing* and *North Alignments* indicated difficulty with scheduling for the *Existing Alignment*. Construction staging for the *Existing Alignment* overall would be much more difficult and less safe because the new roadway would be constructed directly on top of (over) the existing roadway, complicating the traffic staging and overall construction time and cost. Staging for the *Existing Alignment* would limit traffic to 2 lanes (one in each direction on the I-90 mainline) for the duration of the project and for an extra year of construction time when compared with the *North Alignment*. Also, an unsafe merge condition would exist at the northbound US 61 to eastbound I-90 ramp throughout *Existing Alignment* construction (3 years), where traffic would be forced to use a high-volume ramp with no acceleration lane for merging directly into I-90 through lanes.

The overall construction duration for the *Existing* and *North Alignments* were compared. The *Existing Alignment* would have a longer construction time (14 months additional) when compared with the *North Alignment*. The *Existing Alignment* would increase disruption to traffic and to fisheries and wildlife/birds in the Refuge because of the longer construction time.

Throughout the PAC meetings for this project, the U.S. FWS was recognized as a key agency because of the proximity of their Refuge and their important role as manager of the Refuge. During discussions about these two alignments, the U.S. FWS expressed a preference for minimization of impacts on the U.S. FWS boat launch, and maximization of turn-back land (i.e., land relinquished or "turned back" to a previous owner) in the boat launch area. The potential turn-back land in the U.S. FWS boat launch area with the *North Alignment* (1.4 acres) could potentially allow for increased parking capacity at the boat launch - a heavily-used facility – which the U.S. FWS favored. The U.S. FWS made clear that the project proposers would be required to provide assurances that other, negative (wetland, forest) impacts would be mitigated to make the alternative ultimately acceptable. The project proposers are committed to completing all agreed-to mitigation and replacement for this project, and are pursuing a joint-agency mitigation site (with the potential to provide sufficient mitigation for the total 5.1 acres of wetland impact from the project) that would benefit the goals of local and regional wetland agencies. These factors resulted in the decision to dismiss the *Existing Alignment* in favor of the *North Alignment* for the Bridge Alignment component of the Preferred Alternative.

It should be noted that the *Existing Alignment* vs. *North Alignment* issue was re-visited late in project development (February – June 2010), when MnDOT's internal project review process led to an interest in re-assessing in-place bridge replacement (*Existing Alignment*) as a potential cost-saving measure. Two revised conceptual plans were developed for reconsideration. These concepts were eventually dismissed from further consideration for engineering and environmental reasons. The technical memorandum included in Appendix E provides a more detailed description of the alternatives considered and reasons they were dismissed.

3.2.2. Main Channel Bridge Type Alternatives

The project considered a number of bridge types for a new main channel bridge:

- rehabilitation (i.e., a new, wider deck placed on top of existing and new piers),
- cable-stayed,
- arch,
- steel plate girder,
- steel box girder,
- extradosed, and
- concrete box girder.

Primary design challenges for the main channel crossing included roadway flare (widening) on the bridge in the area of the angled Minnesota approaches, river navigation needs, and
La Crosse Municipal Airport height limitations for any bridge towers. An additional concern regarding potential interference with migratory bird flight from tall bridge structures (such as with the cable-stayed bridge type) also arose during bridge type consideration. As with other components, various iterations of these main channel bridge type alternatives were explored.

Conceptual visualizations of the bridge types considered are shown on Figures 7a and 7b.

A comparison of impacts of the various main channel bridge type alternatives (assumed constructed on either of the two alignments selected for further examination – north and existing – described in Section 3.2.1) is presented in Table 2. All of the main channel bridge types considered meet the stated purpose and need (see Table 2). All of the main channel bridge types would have essentially the same main channel area bridge "footprint", with the exception of the rehabilitation alternative, which would have a narrower footprint for the main channel bridge area. (The rehabilitation alternative is discussed in more detail below). Among the other bridge "replacement" alternatives, the type of bridge selected for the main channel would have little influence on footprint-related impacts, such as wetlands, forest impacts, or right-of-way. Therefore, the main channel bridge type impacts comparison looks at the impacts the bridge type would influence – i.e., those related to height and design features.

Table 2 - Main Channel Bridge Type Alternatives Comparison

	Existing Alignment							North Alignment						
MAIN CHANNEL BRIDGE TYPE	Migratory Birds	Meets Airport Height Restriction	Channel Width (ft)	Piers in Main Channel	Potential Turn-back to Refuge (acres)	Meets Goals and Objectives	Meets Purpose and Need	Migratory Birds	Meets Airport Height Restriction	Channel Width (ft)	Piers in Main Channel	Potential Turn-back to Refuge (acres)	Meets Goals and Objectives	Meets Purpose and Need
Rehabilitation	None	Yes	411	2	None	No – sub-stantial bluff impacts	Yes	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]
Cable-Stayed	Highest structure	No	537	1	None	Yes	Yes	Highest structure	No	537	1	5.5	Yes	Yes
Arch	Higher structure	No	442	2	None	Yes	Yes	Higher structure	No	437	2	5.5	Yes	Yes
Steel Plate	None	Yes	442	2	None	Yes	Yes	None	Yes	437	2	5.5	Yes	Yes
Steel Box	None	Yes	442	2	None	Yes	Yes	None	Yes	437	2	5.5	Yes	Yes
Extra-dosed	Highest structure	Yes	442	2	None	Yes	Yes	Highest structure	Yes	437	2	5.5	Yes	Yes
Con-Crete Box Girder	None	Yes	442	2	None	Yes	Yes	None	Yes	437	2	5.5	Yes	Yes

[1] Rehabilitation is not possible on the 10B – North alignment.

With the exception of the bridge rehabilitation alternative, which would have a slightly reduced main channel bridge 'footprint', there were relatively minor differences among the bridge type alternatives with respect to environmental impacts (see Table 2). The primary differences related to the number of piers in the river (one less pier with the cable-stayed bridge) and a potential concern for increases in the number of migratory bird/bridge collisions with the cable or extradosed bridge types. The number of bridge piers in the river was determined to not be a substantial issue in selection; and the bird strike issue was eliminated when the two pertinent bridge types were eliminated for other (engineering/cost) reasons.

Rehabilitation

The rehabilitation alternative and its associated interchange and approach roadway modifications would only be possible with the *Existing Alignment*. The rehabilitation alternative would have the potential to reduce the project's footprint as discussed in Section 3.2.2 above; therefore, an extensive assessment of this alternative (bridge rehabilitation/existing alignment) was performed, and is summarized below.

During the *Dresbach Bridge Improvement Study*, several bridge rehabilitation concepts were developed. To improve upon disadvantages of other rehabilitation concepts in that study, a concept was developed for further study (and eventual consideration in this EA), that included: rehabilitated existing piers sufficient to resist vessel collision loads; modified piers to support a new superstructure and bridge deck for eastbound traffic; a new set of piers and new steel plate girder span superstructure and deck built upstream to serve westbound traffic.

The **advantages** of the rehabilitation concept included:

- Shoulder design meets current geometric standards.
- The existing bridge/alignment are retained; used for eastbound traffic.
- No right-of-way acquisition needed, and no associated costs.
- No boat launch impacts.
- Redundant design.

The **disadvantages** of the rehabilitation concept included:

- Structural life anticipated to be no more than 75 years (versus 100 years for build alternatives).
- Rehabilitation would not preserve all of the bridge foundation (a portion of the piers and abutments for one half of the bridge would be preserved); all of the deck and the upper third of each pier would be removed. The remaining pier foundation would require difficult, expensive and lengthy underwater construction to strengthen the piers against barge impacts and collision loads.
- No improvement (increase) in width of navigation channel.
- Security issue resulting from the first pier in Minnesota being located on land, rather than in the river (and would therefore be more accessible).
- Higher staging costs due to re-use of eastbound structure (approximately $600,000).

- Annualized life cycle costs[6] of $1,948,000 (versus approximately $1,705,000 for Build Alternative).
- Increased user costs associated with travel delay during construction (restriction to two travel lanes requires more frequent re-routing, and a longer construction period and has a higher crash rate/severity).
- Traffic would be maintained as head-to-head for the entire construction time (approximately four construction seasons). This condition is discouraged by FHWA and MnDOT for all projects, but especially for Interstate Highway bridge projects for this amount of time.
- With rehabilitation, no acceleration lane would exist for northbound US 61 access to I-90 eastbound during construction (approximately two construction seasons). This would present geometric and flow challenges as well as unsafe conditions (potential rear-end collisions as queues develop at the merge onto the bridge lanes).

The rehabilitation alternative was eliminated from further consideration because of concerns for the lack of improvement in life span, the longer construction time, higher traffic staging costs, difficult construction methods, life-cycle cost uncertainties, and encroachment into the bluff from compatible interchange configuration alternatives and the extra cost of the rehabilitation alternative. Also, the foundation strengthening and other corrective measures needed for rehabilitation would result in a higher-cost project without an increase in structural life. These disadvantages make rehabilitation a less desirable and less cost-effective alternative than constructing an entirely new bridge structure.

Decision-making process for Bridge Type – Participants at a Bridge Workshop held on June 25th, 2008 reduced the number of new main channel bridge alternatives being considered from seven to four, by evaluating each alternative against four parameters: environmental impact, project cost, long-term maintenance cost, and structural vulnerability. The cable-stayed and arch bridge types were eliminated; while these would allow a longer bridge span and eliminate a set of piers in the river, they were less desirable with regard to cost-effectiveness and also interfered with height restrictions of the La Crosse Regional Airport. Other concerns for the cable-stayed bridge type were the appropriateness of the large (high) bridge superstructures in the Refuge and maintenance related to towers/cables. Structural redundancy was also a concern regarding the arch bridge type. The steel plate girder bridge type was eliminated due to concerns regarding maintenance of steel plates and a cluttered visual presence on the underside of the bridge.

At a second Bridge Workshop on November 25th, 2008, participants met in three small groups to discuss the three remaining main channel bridge alternatives (steel box girder, extradosed, and concrete box girder, as shown on Figure 7). Each group evaluated the alternative types against project objectives regarding operation and maintenance, cost-effectiveness, and visual

[6] Net present value of the financing of bridge construction costs and estimated maintenance costs over the life of the project. These are based on MnDOT's Equivalent Uniform Annual Cost or EUAC.

impact/environment. Concern arose for inspection difficulty/needs for the steel box girder and extradosed alternatives, as well as corrosion and painting needs associated with steel in general. Furthermore, there were outstanding environmental, aesthetic and airport compatibility questions related to the extradosed bridge's towers and cables (i.e., the possible impact of towers and cables on migratory birds, appropriateness of bridge superstructures in the Refuge, and maintenance related to towers/cables). Consensus emerged that a concrete box girder main span was distinguished from the other alternatives in terms of ease of inspection, ease and cost of maintenance, and the elimination of bridge superstructure(s) and cables above the bridge deck from the design. As a result, the steel box girder, and extradosed alternatives were eliminated from further consideration and the concrete box girder alternative emerged as a preferred design.

3.2.3. Wisconsin Approach Span Alternatives

At the second Bridge Workshop on November 25th, 2008, possible bridge type alternatives for the Wisconsin approach spans were considered in conjunction with the three remaining main channel bridge type alternatives. The Wisconsin approach spans would cross over "the island" and the "East Channel", as shown on the aerial photograph of Figure 6a. Since there were no environmental impact differences among the four main span bridge type alternatives being considered, the decision-making process was based on engineering and aesthetic considerations. At this point the concrete segmental box design emerged as the preferred main span design. The Bridge Workshop participants then focused on the Wisconsin approach span alternatives compatible with the concrete segmental box girder design for the main channel. These are shown on Figures 8a – 8d, and included:

- concrete segmental box girder (Figure 8a),
- pre-stressed girder approach spans (Figure 8b),
- pre-stressed girder approach spans modified with two additional spans of boxes at the bridge transition (Figure 8c), and
- pre-stressed girder approach spans with lengthened main channel spans (Figure 8d).

Participants noted that a concrete segmental box for the Wisconsin approach span would have a form more consistent with the main span, and have one less pier in the East Channel (and therefore decrease refuge and habitat disturbances). Participants also noted that the pre-stressed girder approach spans presented significant cost savings and addressed aesthetic concerns by minimizing transitioning styles in the wooded area on the island. Table 3 compares the two Wisconsin approach span bridge type alternatives when combined with either of the two alignments (*North* and *Existing)* selected for further consideration (described in Section 3.2.1). Workshop participants recommended carrying forward a modification of the pre-stressed girder approach spans, to include two more concrete box girder spans added at the island to further soften the transition (see Figure 8d).

Table 3 – Wisconsin Approach Span Bridge Type Alternative Comparison

	North Alignment				Existing Alignment			
	Number of Piers in East Channel	Right-of-Way Acquisition (Acres)	Meets Objec-tives	Meets Purpose and Need	Number of Piers in East Channel	Right-of-Way Acquisition (Acres)	Meets Objec-tives	Meets Purpose and Need
WISCONSIN APPROACH BRIDGE TYPES								
Concrete Segmental Box	4	1.0	Yes	Yes	4	0.5	Yes	Yes
Pre-stressed Girder	5	1.0	Yes	Yes	5	0.5	Yes	Yes

3.2.4. Minnesota Approach Roadway and Interchange Alternatives

Interchange configurations recommended for further study in the 2006 *Dresbach Bridge Improvement Study*, along with a number of additional preliminary concepts encompassing a wide range of configurations, were considered in the 2008-2009 development and evaluation of Minnesota approach roadway and interchange alternatives. Most of these alternatives were developed to be adaptable to the *North* and *Existing* bridge alignments. Figures 9a through 9i present thumbnail sketches of these concepts.

Roadway interchange alternatives that were developed and carried forward met all aspects of the project's Purpose and Need. This included the need for full directional access between I-90 and US 61 and the need for free-flowing and safe ramp movements. Alternatives that did not address these needs were eliminated early in the process. For example, several alternatives forwarded from the *Dresbach Bridge Improvement Study* did not provide uninterrupted free-flowing conditions between I-90 and US 61 for all movements, and so were eliminated. In addition, all of the interchange alternatives were developed with Minnesota bluff impact avoidance (i.e., fully avoiding cutting/grading into the Minnesota bluff or bluff side slopes) as a high priority project goal (see Table 1). (Later design refinements and study determined some concepts would have bluff impacts, as discussed in Section 3.3).

The resulting approach/interchange configurations therefore had little variation in environmental impacts. Table 4 presents impacts within the interchange area (i.e., the area west of the River, excluding the river, East Channel, island and areas in Wisconsin) of the many early interchange concept alternatives. Impacts discussed (e.g., bluff impacts, wetland and potential historic resource impacts) were used to compare among the alternatives. The TAC participation meetings also encompassed discussions of other factors, including roadway design, ability to provide full access to the Riverfront area, impacts to future Rest Area reconstruction, and ability to route the Mississippi Regional Trail (MRT) through the interchange areas as described below.

Given the speeds at which traffic travels through the project area and the complex ramp configurations required to accommodate I-90 and US 61 movements, the TAC placed a high priority on configurations that would not be confusing to drivers, as they travel through the project area and are presented with driving decisions. Alternatives from the *Dresbach Bridge*

Improvement Study and new concepts that included unexpected features (e.g., left exits or a roundabout for movements to and from the arterials or Riverfront) were dismissed because other alternatives were able to provide these movements in more familiar ways.

Two interchange alternatives (15A shown on Figure 9h, and 10B shown on Figure 9i) were selected for further study as they met the project Purpose and Need, as well as most or all high priority objectives. Alternative 3B (Figure 9a) was also selected for further study because it showed potential to meet the Purpose and Need with some modification. A Roadway Workshop was conducted on November 10, 2008 to address iterations of these three remaining interchange alternatives, and further develop and refine the configurations to address particular concerns or unmet objectives.

As shown in Figure 9h, Alternative 15A was developed as a full access alternative, providing new southbound US 61/eastbound I-90 access to the Riverfront via a "flyover" ramp that passes over southbound US 61, under I-90, and then merges with the westbound I-90 off-ramp. The November 10, 2008 Roadway Workshop identified a number of concerns regarding Alternative 15A including, but not limited to, amount of fill/wall height, a steep grade from the Riverfront to eastbound I-90 (where truck traffic exiting the Riverfront may experience climbing difficulty), the speed of southbound US 61 traffic exiting to the Riverfront, and the complexity of the Riverfront access road bridge over the railroad. For these reasons, and because another alternative (10B shown on Figure 9i) met project objectives with fewer concerns and at a lower cost, Alternative 15A was eliminated from further consideration.

Table 4 - Minnesota Approach Roadway and Interchange Alternatives Comparison (Interchange Area)[1]

							Access to Riverfront			
Minnesota Approach Roadway Concept	Bluff Impacts	Wetland Impacts[2] (acres)	Historic (Old US 61) Impacts[2] (length in ft)	Meets Purpose & Need	Objective Flaw	Geometric Flaw	Ingress/ egress to Riverfront from WB I-90 and NB US 61 (Requirement)	Access to SB US 61 from River-front (High Priority)	Access to EB I-90 from Riverfront (High Priority)	Access to Riverfront from EB I-90/ SB US 61 (Secondary Priority)
3A - North	Med	.4	500	Yes	Design speed; lack of access to/from Riverfront		Yes	Yes	No	No
3B - North	Low	.4	2,000	Yes	Lack of access to /from Riverfront		Yes	Yes	No	No
3B1 - Existing	Med	.4	2,000	Yes	Lack of access to /from Riverfront		Yes	Yes	No	No
3C - North	Low	.4	2,000	Yes	Limited access to I-90 from Riverfront	Steep grades; Riverfront traffic split - EB I-90/US 61	Yes	Yes	Yes	No
3D - North	Low	.3	1,700	Yes		Steep grades at river-front	Yes	Yes	Yes	No
4 - Existing	High	.3	300	Yes		Steep grades at river-front	Yes	Yes	No	Yes
4A - North	Med	.4	2,000	Yes			Yes	Yes	Yes	Yes
10	High	.7	2,000	Yes			Yes	Yes	Yes	Yes
10A	High	.7	2,000	Yes			Yes	Yes	Yes	Yes
10B	Low	.4	1,300	Yes [4]			Yes	Yes	Yes	Yes
10B1 - Existing	Highest [3]	.4	1,300	Yes		Merge distance for ramp from River-front to NB 61 then to EB I-90 is inadequate.	Yes	Yes	Yes	Yes; ramp cannot be constructed within the max allowed 7% grade
12 - Existing	High	.4	500	Yes	Not cost-effective	River-front to SB US 61 ramp grade separation	Yes	Yes	Yes	Yes

							Access to Riverfront			
Minnesota Approach Roadway Concept	Bluff Impacts	Wetland Impacts[2] (acres)	Historic (Old US 61) Impacts[2] (length in ft)	Meets Purpose & Need	Objective Flaw	Geometric Flaw	Ingress/ egress to Riverfront from WB I-90 and NB US 61 (Requirement)	Access to SB US 61 from River-front (High Priority)	Access to EB I-90 from Riverfront (High Priority)	Access to Riverfront from EB I-90/ SB US 61 (Secondary Priority)
12A - North	High	.6	2,000	Yes	Not cost-effective	Riverfront to SB US 61 ramp grade separation	Yes	Yes	Yes	Yes
14 - South	High	.5	1,700	Yes	MOT w/ construction difficult for South alignment		Yes	Yes	Yes	Yes
15 - South	Med	0.8	1,700	Yes	MOT w/ construction difficult for South alignment		Yes	Yes	Yes	Yes
15A - Existing	Med	1.1	2,200	Yes	Complex bridge design near Riverfront/ over RR	EB I-90 to Riverfront ramp	Yes	Yes	Yes	Yes
15B – Existing	Med	.9	2,200	Yes			Yes	Yes	Yes	Yes
10C	Low	.4	1,300	Yes [5]			Yes	Yes	No	Yes

WB = Westbound; EB = Eastbound

[1] Details regarding the process to narrow alternatives to those show are presented in the 2009 Alternatives Technical Memorandum.

[2] Wetland impacts shown are limited to those in the interchange area - from the river westward. Wetland and Old US 61 impacts are assessed from a planning-level review of conceptual interchange alternative layouts, and are not based on final design-level of detail. As noted in Section 4.12.2, for the Recommended Alternative, MnDOT will assume a worst-case scenario for impacts on wetlands in the interchange/approach area (Wetlands 2 and 3) for permitting and mitigation purposes.

[3] Concept 10B1 is a refinement of Concept 10B that places the new river bridge on the same alignment as the existing river bridge. As described in Section 3.3, through further study, it was determined that 10B1 had the potential for extensive bluff impacts along US 61 north of the interchange.

[4] Late in alternatives development, the need for a design exception (for a 30-mph design speed ramp where 45-mph is the standard) was noted for this interchange alternative (10B), which would then not meet the Purpose and Need. Alternative 10C was developed to address this shortcoming, by increasing the ramp design speed from 30 to 38 mph, however, an exception would still be needed for the 38 mph design speed ramp where the standard is 45 mph.

[5] Alternative 10C does not meet the design speed standard for one ramp (designed at 38 mph where 45 mph is required), but this design is an improvement over the Alternative 10B design. Alternative 10C was added in early 2011.

As shown in Figure 9i, Alternative 10B was developed as a full access alternative, providing access to/from the Riverfront from the three pertinent highways. The access to the Riverfront from the north and west is accommodated by bridging over the railroad and US 61 (and crossing underneath I-90). These bridges accommodate two-way traffic at an at-grade intersection, appropriate with the lower volumes of traffic on this access road. The bridge over northbound US 61 can also provide a means for the Mississippi Regional Trail to proceed through the interchange, and reach the southbound shoulder of US 61. Alternative 10B became the basis for a Recommended Alternative. Design refinements of this concept were made and studied, as discussed in Section 3.3, below.

3.3. Selection of Recommended Alternative

To select a recommended alternative, the preferred designs of the project components (bridge alignment, main channel bridge type, Wisconsin approach span alternative, and Minnesota approach roadway and interchange) selected through the processes described in Sections 3.2.1 – 3.2.4 above, were combined. The question of alignment location was re-examined to confirm the differentiation of the alignments once the other components had been selected, and found to be conceptually buildable on either alignment. To re-examine the alignment choice, two final candidate alternatives were analyzed and compared by the TAC as:

10B – *North Alignment* – Main bridge alignment north of existing alignment; concrete box girder main bridge; concrete segmental box with pre-stressed girder approach spans for Wisconsin bridge (Figure 9i).

10B1 – *Existing Alignment* – Main bridge alignment partially on existing alignment; concrete box girder main bridge; concrete segmental box with pre-stressed girder approach spans for Wisconsin bridge (Figure 9e).

Table 5 presents a comparison of the impacts from the entire length of the two alternatives (10B and 10B1), including all components. Figures 6a and 6b show conceptual layouts developed to test the feasibility/impacts of these two alternatives. Impacts in the Minnesota approach area were initially assessed to be essentially the same; however, through concept refinement and study it was determined that 10B1 would have potentially high bluff impacts because of the southward shift of the bridge alignment, and subsequent westward shift in the interchange.

Table 5 - Comparison of Alternatives 10B (North Alignment) and 10B1 (Existing Alignment)

Issue	10B - North Alignment	10B1 – Existing Alignment
Right-of-Way Acquisition	1.4 acres	0.9 acres
Bluff Impacts	None or minimal	Higher potential (up to 30 feet into bluff)
Forest	3.5 acres	3.0 acres
Impacts on Public Facilities		
U.S. FWS Boat Launch	No impact	Similar to current condition

Issue	10B - North Alignment	10B1 – Existing Alignment
MNDNR Boat Launch	No impact	No impact
Lock & Dam	No impact	No impact
Stormwater Retention Ponds		
Minnesota site	Located south of interchange, adjacent to U.S. FWS Boat Launch	Located near Rest Area parking
Wisconsin site	Located on existing bridge alignment	Located on new south embankment
Wetlands	2.7 acres	2.5 acres
Fisheries/Aquatic Habitat	Pier construction (cofferdams/dredging from barges or causeway) and demolition	Pier construction (cofferdams/ dredging from barges or causeway) and demolition
Historic / Architectural Resources		
Old US 61 Alignment	No adverse effect	No adverse effect
Railroad Corridor	No adverse effect	No adverse effect
Archeological	No impacts	No impacts
Contaminated Properties	No known impacts	No known impacts
Wildlife Refuge Impacts and Section 4(f) Property Impacts	1.4 acres R/W acquisition; New bridge would be 150′ from USFWS-identified eagle perching trees; 1.3 acres wetland impact; 5.5 acres available for turnback; 36 months construction (temporary) impacts.	0.9 acres R/W acquisition; New bridge would be 235′ from USFWS identified eagle perching trees; 1.1 acres wetland impact; No turnback acreage available; 48 months construction (temporary) impacts.
Threatened or Endangered Species (Mussels)	Temporary disruption to habitat during construction.	Temporary disruption to habitat during construction.
Construction Cost	Bridge Cost: $86 million Roadway Cost: $76 million Total Cost: $162 million (2009 dollars)	Bridge cost: $96 million Roadway cost: $76 million Total cost: $172 million (2009 dollars)
Construction Time	36 months	48 months
Benefit Cost Ratio	Positive	Positive
User Safety and Costs		
Post-construction Phase	67 crashes/million vehicle miles	• 98 crashes/million vehicle miles • Ramp onto northbound 61 then eastbound I-90 inadequate for taper and merge • Riverfront to I-90 eastbound ramp cannot meet maximum of 7 percent grade
Construction Phase	$1.2 million (2009 dollars)	$2.2 million (2009 dollars) User delay and safety issues (related to two-lane operation): ▪ Westbound exit limited delay ▪ Merge difficulty at northbound 61 to eastbound I-90. ▪ Difficulty eastbound on-ramp delay on ramp and mainline (1 to 3 minutes) ▪ Eastbound on-ramp safety issue

Impacts would vary in the Wisconsin approach area with respect to construction impacts, cost, operational considerations, but did not vary greatly with respect to environmental impacts. The U.S. FWS expressed a preference for minimization of impacts on the U.S. FWS boat launch, and maximization of turn-back land in the boat launch area. The *North Alignment* (used in Alternative 10B) would turn-back 1.4 acres in the U.S. FWS Boat Launch area, which could potentially allow for increased parking capacity at the boat launch - a heavily-used facility – which the U.S. FWS favored. Alternative 10B1 would have a longer construction period and associated environmental disruption (e.g., disruption to fisheries and protected birds species as a result of noise and land disturbance). Alternative 10B1 also gives rise to safety and operational concerns for maintenance of the traffic flow between Minnesota and Wisconsin during a staged construction period. Through Alternative 10B1 design refinement, it was determined that the merge distance for the Riverfront ramp with northbound US 61/eastbound I-90 would be inadequate to accommodate a ramp taper and merge, and it was determined that the Riverfront to I-90 eastbound ramp would exceed the maximum of 7 percent grade.

MnDOT's crash rates and cost rates were used to compare the two alternatives during the construction condition. The results of this comparison estimated that Alternative 10B1 would have 55.8 crashes per year, while Alternative 10B would have 40.8 crashes per year, based on current construction staging plans. The crash cost during construction for Alternative 10B1 would be $2.2 million, while the crash cost for Alternative 10B during construction would be $1.2 million, showing a greater crash cost during construction for Alternative 10B.

To further differentiate between these two alignments, and make an informed decision about the choice of alternatives, the proposers examined construction costs. (As noted on Table 1 and discussed in Section 3.8, the environmental documentation level of cost examination is typically limited to a benefit-cost analysis.) Because both Alternative 10B and 10B1 would result in a positive benefit/cost number, indicating that "the infrastructure improvement is economically justified," the project proposers looked to specific costs to provide a greater level of comparison. It should be noted that this comparison was not used as the only basis for alternative selection.

This comparison showed that 10B1 Existing Alignment construction costs (2009 dollars) would exceed 10B North Alignment construction costs by $9.9 million (because of a longer construction period), as follows:

- Escalation of costs (due to inflation over the longer construction period): $1.6 million greater
- Equipment rental costs: $1.9 million greater.
- Personnel and equipment time: $5.8 million greater.
- Additional by-pass construction: $0.6 million greater.

In summary, the factors that led to the decision to dismiss the *10B1-Existing Alignment* in favor of *10B - North Alignment* – an alignment shifted to the north of the existing bridge – included:

- Increased potential for bluff impacts,
- Disruption of traffic during a longer construction period,

- Potential issues with maintaining traffic,
- Longer construction duration, including longer disruption to fisheries and wildlife/birds in the Refuge,
- The preference of the U.S. FWS for greater turnback area,
- Increased crash costs during construction, and
- Greater construction costs due to inflation over a longer construction duration.

3.4. Recommended Alternative

The project's TAC made recommendations regarding components of the Recommended Alternative, which included Minnesota approach roadway interchange Alternative 10B, a Concrete Box Main Span Bridge, a Pre-Stressed/Pre-Cast Concrete Girder Wisconsin Approach Span, all of which utilize a river crossing alignment to the north of the existing bridge. Figure 6b shows the conceptual layout for this alternative, hereafter referred to as the Recommended Alternative, due to subsequent developments. Figure 10 shows the elevation and profile view of the preferred main channel bridge and Wisconsin approach span; Figure 11 shows typical cross sections for the main bridge, roadways and ramps. (Section 6.0 describes the public and agency involvement process that provided input into the development and screening of alternatives).

Alternative 10B is a refinement of an earlier Alternative 10, which reduced impacts on the bluff and reduced costs and project magnitude by splitting southbound-to-Riverfront traffic on the left rather than on the right. This eliminated the need for a full-scale bridge over southbound through traffic. Roadway Workshop participants discussed the issue of driver expectation with this change. They concluded that, given the need to turn left toward the Riverfront, drivers in this case may expect to do so from the left lane. This change also reconfigured the bicycle traffic pattern through the interchange. In order to reach the southbound shoulder of US 61, bicyclists would cross over the southbound through-lane of US 61 via a bicycle bridge. Northbound bicyclists would be directed from the northbound US 61 shoulder, under the eastbound I-90 on-ramp, alongside the exit from northbound US 61 to the Riverfront, and across the intersection to reach the Mississippi River Trail (MRT) trail along the Old US 61 alignment. Because driver expectations and bicyclist/MRT connectivity could both be accommodated within the design of this refinement, Alternative 10B was chosen by the TAC as the initial preferred alternative at its meeting on January 21st, 2009.

As with existing conditions, I-90 would maintain four travel lanes through the project area, but with improved geometry that meets current MnDOT and WisDOT standards. US 61 would maintain four lanes of travel south of the interchange, with one through-lane in each direction through the interchange as it merges into and out of the I-90/US 61 commons area. Travel from westbound I-90 to southbound US 61 would be accommodated by a ramp that passes over the railroad, underneath I-90, and over the through-lanes of US 61. The ramp then joins alongside southbound US 61 on the right, forming the second southbound lane. The northbound to eastbound movement would be accommodated by the right-hand lane of northbound US 61. From there, vehicles may move onto the eastbound entrance ramp, or remain in the lane.

Access to and from the Riverfront would have been possible for all directions with the Recommended Alternative. The two lower-volume movements (i.e., I-90 eastbound/US 61 southbound-to-Riverfront, and Riverfront-to-southbound US 61) would be accommodated with a two-way, two-lane road that passes underneath I-90, and over the northbound lane of US 61 and the railroad tracks. Part of this road is used for the US 61northbound-to-Riverfront and Riverfront-to-I-90/US 61 northbound and I-90 eastbound movements. This creates a design that is economical both in terms of project cost as well as in footprint. The Riverfront to eastbound I-90 movement would have been accommodated by a ramp that merges with US 61 northbound to I-90 eastbound ramp.

Consistent with the results of the November 25, 2008 Bridge Workshop, the TAC chose a concrete box girder main span for the Recommended Alternative because of ease of inspection, ease and cost of maintenance, and fewer visual impacts. Because the design transition between approach and main spans would occur within a wooded area, and because of anticipated cost savings, the TAC selected a pre-stressed/pre-cast concrete girder for the Wisconsin approach span at its meeting on January 21, 2009.

3.5.Additional Concepts and Details

3.5.1. Plans B and B-1

In February, 2010, during an internal review process, in response to heightened cost concerns, MnDOT Central Office developed and brought forth a concept similar to the Recommended Alternative, but with several cost-reducing design modifications. The goal of advancing this concept (Concept Plan B) was to study the cost savings that could be realized through various design modifications, including preserving the existing west embankment and Rest Area space. Examination of potential impacts and costs resulting in development of another concept, Plan B-1. These concepts were eventually eliminated from further consideration based on construction staging difficulty, river bridge piling location conflict, geometric difficulties in meeting the grade of the new river bridge deck, traffic congestion with at-grade ramp intersections and greatly reduced cost savings. Appendix E includes a Technical Memorandum documenting these impacts and MnDOT's decision made in late May 2010 to no longer pursue Concept Plans B and/or B-1, and to continue development of the Recommended Alternative (10B) without further modification.

3.5.2. Eastbound I-90 On-Ramp Design Details

During a further internal review process, FHWA indicated that a design exception would be required for the ramp to I-90 eastbound that originates from northbound US 61 and merges with the Riverfront to Eastbound I-90 ramp into one on-ramp for eastbound I-90. In an effort to better meet project goal #17 regarding design standards, several speed, curve, merge and ramp geometric design variations and combinations thereof were studied; these designs also considered resolving the overall design challenge, and retaining the Riverfront-to-I-90 ramp. Numerous iterations were examined; each would require an exception or variance to accommodate the combined ramps within the constrained interchange space. Additional discussion of the alternatives refinement process is provided in Section 3.6.

3.6.Preferred Alternative

In early 2011, the northbound US 61 to eastbound I-90 ramp was revised to a 38 mph design speed (which is 7 mph less than the standard 45 mph but an improvement over the original 30 mph design speed of Alternative 10B) to meet FHWA expectations. This configuration cannot adequately merge the Riverfront to I-90 eastbound ramp with the northbound US 61 to eastbound I-90 ramp, so the Riverfront to eastbound I-90 ramp was removed from the interchange, resulting in concept Alternative 10C. This change did not expand the overall footprint of the interchange, nor increase impacts on the social, economic or environmental resources. It did reduce the widening of the flare on the first span of the river bridge and reduced costs. The traffic destined for I-90 eastbound coming from the Riverfront is not of a large enough volume (average daily traffic: 100 in 2035: 200 in 2065) to warrant the additional cost. Because this design alternative came closer to meeting the design standards, this alternative (10C) became the project Preferred Alternative. (The Preferred Alternative is also referred to as "the proposed project", or "the project", for the remainder of this document.)

3.7. Mitigation Commitments and Inter-State Coordination

Consultation with U.S. FWS, U.S. Army Corps of Engineers (COE), MNDNR and WDNR guided and refined the Preferred Alternative definition. Floodplain forest replacement at a 1:1 ratio, wetland replacement at a 2:1 or greater ratio, right-of-way turnback to replace takings from within the Refuge, and coordination with the agencies to complete these mitigation efforts are all included in the Preferred Alternative as a result of agency consultation. To help track these and other mitigation commitments made during the environmental review process, a list of the mitigation commitments has been compiled and included in Appendix C of this EA/EAW. The list will be used as a checklist as project development and final design progress (and amended if necessary, to reflect any changes), to ensure mitigation commitments are carried out.

The project would take place in two states – Minnesota and Wisconsin. Coordination has been necessary between and among the states' agencies regarding project design, potential permitting needs and review procedures of both states. It is the intention of MnDOT (the lead proposing agency) and WisDOT to continue coordination on the project, and in particular, to proceed in accordance with the WDNR/WisDOT Cooperative Agreement, as appropriate. Section 6.4 further discusses required permits and approvals.

3.8 Cost, Funding and Benefit/Cost Analysis

The estimated construction cost (in 2011 dollars) for the Preferred Alternative is $190 million. It is anticipated that the river bridge portion of the project construction costs (approximately $88 million) would be split between federal and state funding sources, with Minnesota and Wisconsin each responsible for half of the bridge construction costs. Roadway construction costs ($102 million) would be similarly borne by federal and state sources; roadway costs in Minnesota would be greater than in Wisconsin due to the more extensive roadway

improvements (including bridging the railroad and flyover bridges in a compressed interchange) at the Minnesota approach.

A benefit/cost analysis (B/C Analysis) was completed in April 2009, as detailed in *I-90 / US 61 / US 14 [Dresbach Bridge] Project Benefit-Cost Analysis – Results*, April 24, 2009. The purpose of a B/C Analysis is to bring all of the direct effects of a transportation investment into a common measure (dollars), and to allow for the fact that benefits accrue over a long period of time while costs are incurred primarily in the initial years. The primary elements that can be monetized for transportation projects are travel time, changes in vehicle operating costs, accidents, and remaining capital value. The B/C Analysis can provide an indication of the economic desirability of an alternative, but results must be weighed by decision-makers along with the assessment of other effects and impacts. If the result is greater than or equal to 1.0, the infrastructure improvement is economically justified.

The B/C Analysis that was completed for this document evaluated the difference in transportation user costs between the No Build and Recommended Alternative 10B (with the original ramp design; see Section 3.5.2) and indicated that the Recommended Alternative would result in a benefit/cost ratio of 51.77. The change in project cost for the Preferred Alternative 10C ramp design change would not lower the outcome of the B/C Analysis below 1.0, and the infrastructure improvement is economically justified.

3.9 Proposed Project Schedule

It is anticipated that the project would be let for construction in 2012, with construction continuing into 2016. See Section 4.6.2 for additional details on the construction schedule.

4.0 ENVIRONMENTAL ASSESSMENT WORKSHEET

Note to preparers: This form and EAW Guidelines are available at the Environmental Quality Board's website at: http://www.eqb.state.mn.us/EnvRevGuidanceDocuments.htm.
The Environmental Assessment Worksheet (EAW) provides information about a project that may have the potential for significant environmental effects. The EAW is prepared by the Responsible Governmental Unit (RGU) or its agents to determine whether an Environmental Impact Statement should be prepared. The project proposer must supply any reasonably accessible data for — but should not complete — the final worksheet. If a complete answer does not fit in the space allotted, attach additional sheets as necessary. The complete question as well as the answer must be included if the EAW is prepared electronically

Note to reviewers: Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the Minnesota Environmental Quality Board (EQB) *Monitor*. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

4.1.Project Title

Interstate 90 Dresbach Bridge and I-90 / US 61 Approach Roadway Interchange Reconstruction

4.2.Proposer

Minnesota Department of Transportation

Contact person:	Greg Paulson
Title:	Assistant District Engineer, Program Delivery
Address:	MnDOT District 6
	2900 - 48th Street NW
City, state, ZIP:	Rochester, MN 55901
Phone:	507-286-7502
Fax :	507-285-7355
E-mail:	greg.paulson@state.mn.us

4.3.Responsible Governmental Unit (RGU)

Minnesota Department of Transportation

Contact person:	Jai Kalsy, P.E.
Title:	Project Engineer-Design
Address:	MnDOT District 6
	2900 - 48th Street NW
City, state, ZIP:	Rochester, MN 55901
Phone:	507-286-7545
Fax :	507-285-7355
E-mail:	jai.kalsy@state.mn.us

4.4.Reason for EAW Preparation

___EIS scoping ___ Mandatory EAW ___Citizen petition _**X**_RGU discretion
___Proposer volunteered

If EAW or EIS is mandatory give EQB rule category subpart number and subpart name:_____

4.5.Project Location

County: Winona, Minnesota and La Crosse, Wisconsin
Township: Dresbach Township, Minnesota and Campbell Township, Wisconsin (Figure 1, presented after the Table of Contents).

USGS Map – Figure 2 (presented after the Table of Contents).

Winona County:

- Part of E 1/2 of SW 1/4 and part of W 1/2 of SE 1/4, Section 28, Township 105N, Range 4W
- Part of NE 1/4 and part of the NE 1/4 of SE 1/4, Section 33, Township 105N, Range 4W

Part of W 1/2, Section 34, Township 105N, Range 4W

La Crosse County:

- Part of the S ½ of Section 13, Township 16N, Range 8W
- Part of the SE ¼ of Section 14, Township 16N, Range 8W
-

GPS Coordinates (at point where centerline of bridge crosses state line):

- 43.857879 N ; -91.299207 W

Attach each of the following to the EAW:

- County map showing the general location of the project: See Figure 1, presented after the Table of Contents.
- U.S. Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries (photocopy acceptable): See Figure 2, presented after the Table of Contents.
- Site plan showing all significant project and natural features. See Figures 3 and 9b.

4.6.Description

a. Provide a project summary of 50 words or less to be published in the EQB Monitor.

The project replaces the I-90 Mississippi River Bridge with a new bridge that meets structural standards, and proposes improvements to the I-90/US 61 interchange to improve traffic safety, capacity, and access in the interchange area.

b. Give a complete description of the proposed project and related new construction. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities.

4.6.1. Project Characteristics

The proposed project (Preferred Alternative) includes replacement of the I-90 bridge, reconstruction of the bridge approaches, reconfiguration of the I-90/US 61 interchange and reconfiguration of the Riverfront access (Figure 9b). The project would replace the existing I-90 bridge over the Mississippi River with two separate bridges; one for eastbound traffic and one for westbound traffic. These bridges would both be constructed north (upstream) of the existing bridge; the westbound (most northern) bridge would be constructed first, followed by the eastbound bridge. Traffic would be shifted onto the completed bridges before demolition of the existing bridge.

Each bridge would have two through-lanes, an auxiliary lane and shoulders. The eastbound bridge auxiliary lane would begin at the bridge abutment and extend to the second pier in the river to accommodate merging traffic from the on-ramp. The westbound auxiliary lane would extend from the first river pier to the bridge abutment to accommodate traffic diverging to the off ramp. The auxiliary lanes on the new bridges accommodate more effective vehicle sorting and improve overall bridge operations. The bridge shoulders would allow space for emergency vehicles, vehicle break-downs and maintenance vehicles/equipment thus improving safety and bridge operations, and decreasing the likelihood of secondary crashes.

Although the bridges and interchanges would be reconfigured, two through-lanes in each direction on I-90, and one through-lane in each direction on US 61 would extend through the project area. These through-lanes would have improved geometry that meets current MnDOT and WisDOT standards. Connections to the Riverfront and between I-90 and US 61 would change with the reconstructed I-90/ US 61 interchange and addition of a new two-way Riverfront access road that would pass under I-90, and bridge over the railroad. This design minimizes the footprint of this access road and compresses the area needed for this change.

For southbound US 61, an exit would split from I-90 eastbound before (north of) the interchange area providing two access opportunities further downstream; one would provide the afore-mentioned through-lane (continuing US 61 south into La Crescent and essentially by-passing the interchange area) and the other would provide access to the Riverfront (for both I-90 eastbound and US 61 southbound) via a new Riverfront access road. Northbound US 61 through-traffic would be accommodated with one lane extending through the interchange area; a second lane would split from this through-lane to provide access to the Riverfront on the new Riverfront access road.

Northbound US 61 traffic would have access directly to eastbound I-90 via a reconfigured ramp to eliminate the sharp (nearly 90 degree) right-hand turn onto a short ramp for this predominant morning rush hour movement. The new ramp would bridge over the railroad, and merge into I-90 with an auxiliary lane extending to the second pier in the river.

Interstate-90 westbound would have direct access to southbound US 61 or the Riverfront via a new exit ramp near the Riverfront. This exit ramp would split into two lanes: the right lane providing access to the Riverfront, and the left providing access to southbound US 61 via a curved bridge that brings traffic around to the south to merge onto US 61 from the right.

The new I-90 alignment and associated interchange ramps and bridges would necessitate the reconfiguration of the entrance road to the south Riverfront amenities. The new access and entrance road would provide Riverfront traffic with direct access as follows:

- to westbound I-90 and northbound US 61 via the access road and a dedicated ramp that merges first with the US 61 northbound through-lane; and
- to southbound US 61 via the access road and connection to the US 61 through lane; and
- to eastbound I-90 via westbound I-90 to Exit 272 B & A, exiting I-90, crossing under I-90 and re-entering I-90 eastbound.

The project's overall design retains the continuity of the existing MRT through the project area. The MRT would utilize the shoulder of US 61, portions of the existing MRT (on Old Highway 61 in some locations) or new trail sections, to maintain the continuity of the route through the project area. The trail route would also provide Riverfront access. The bridge design will also include provision of structural connections that would allow for support of a future suspended bicycle/pedestrian path on the bridge structure.

The CP Rail corridor would not be changed by the project; several bridges span over the railroad corridor to minimize impacts and make the project's overall design compatible with the addition of new parallel rail trackage along the existing CP Rail right-of-way throughout the project area (the Midwest Regional Rail Initiative high speed rail, proposed for the CP Rail corridor in the Project Area).

The Rest Area would remain open to travelers during initial mobilization and the initial stage of construction. The Rest Area would be closed to the trucking industry for the duration of the project. The Rest Area would also be closed for a one calendar-year period after the initial stage of construction. It is anticipated this would be 2013-2014. It was determined that the Rest Area land would be needed for effective construction staging (i.e., storage of materials, bridge segments, and machinery, among other uses during construction). The southern portion of the Rest Area (approximately 9 acres of land outside of the building and parking areas) would be closed when that area is needed as a staging area, but access to the DNR boat launch and Lock and Dam No. 7 would be maintained at all times , via temporary roads if necessary. Access to the USFWS boat launch downstream of the existing bridge will be subject to periodic closures.

The Rest Area would reopen to the public at the completion of the project. The Rest Area/U.S. FWS entrance road would be reconstructed within this 20 month closure period.

Mitigation for Refuge impacts would include "turning back" (or relinquishing) MnDOT and WisDOT land to the U.S. FWS (to offset right-of-way acquisition), floodplain forest restoration (to offset forest impacts) and wetland restoration/creation (to offset wetland impacts). This and other mitigation commitments are listed in Appendix C.

The project would take place in two states – Minnesota and Wisconsin. Early coordination between the DOTs resulted in the identification of MnDOT as the lead proposing agency for this project. Because two states are involved, coordination has been necessary between and among the states' agencies regarding the preparation, review and distribution of this document, as well as project design, and potential permitting needs and procedures of both states. It is the intention of MnDOT (the lead proposing agency) and WisDOT to continue coordination on the project, and in particular, to proceed in accordance with the WDNR/WisDOT Cooperative Agreement, as appropriate. The Cooperative Agreement establishes that WisDOT-administered projects may not move forward unless WDNR provides concurrence assuring that the project minimizes environmental impacts and fulfills the intent of the natural resource protection laws of the State of Wisconsin.

4.6.2. Construction Staging, Traffic Staging and Project Schedule

Construction is expected to begin in 2012 and continue through 2016. Complete closure of the river crossing would be avoided by completing the new bridges while traffic is maintained on the existing bridge. Traffic would be switched to the new bridges when completed, and the existing bridge would be removed. Construction material staging locations, demolition methods, temporary construction staging and storage locations, pier and bridge construction methods, and river impacts from construction are discussed in Section 4.12.5; potential areas for these activities are shown on Figure 12.

Complex traffic phasing would be required during construction to maintain all current traffic movements. Construction staging details would be determined during final design, but currently developed traffic staging plans allow for traffic to be carried through the existing interchange for the most part while traffic is carried on the existing bridge. Much of the reconfigured I-90/US 61 interchange would be constructed while traffic is maintained on the existing roadways and bridge. Some temporary bypass roads and temporary ramp closures would likely be necessary to facilitate the construction of the interchange.

4.6.3. Temporary Construction Impacts

Complete closure of the river crossing would be avoided by phased construction and traffic staging methods discussed above. A Traffic Management Plan would be created to maintain traffic movements for vehicles, transit, bicyclists, and pedestrians during construction. A detour plan would be developed during final design to ensure that pedestrians and bicyclists are safely accommodated during construction. Construction material staging locations,

demolition methods, temporary construction staging and storage locations, pier and bridge construction methods, and river impacts from construction are discussed in Section 4.12.5.

Construction activities including tree removal and grading are likely to result in noise and dust. Noise and earth borne vibrations are anticipated to occur during pile driving. Refer to Section 4.24 for a detailed discussion of construction odors, noise and dust; and Section 5.8.4 for more discussion of construction-related vibration. Dust generated would be minimized through standard dust control measures such as watering. A vegetation restoration and management plan would be developed and implemented, and permanent cover would be reestablished as soon as practical. The river navigational clearance would remain open except for temporary, short-duration closures. Barge traffic during this time will be maintained and no disruption is anticipated. Section 5.8.9 provides details regarding river traffic construction impacts.

Efforts have been made and will continue to be made in developing construction staging plans to minimize the closure of the Rest Area to the public. While the Rest Area is closed, Minnesota Tourism "Explore Minnesota" staff could be provided a temporary suitable location to provide Travel Information Center services to the public; the location for this function has not yet been determined. Signage would also be provided to alert motorists of the alternative location.

c. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.

See Section 2.0.

*d. Are future stages of this development including development on any other property planned or likely to happen? __Yes _**X**_No*

e. If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.
N/A

*f. Is this project a subsequent stage of an earlier project? __Yes _**X**_ No*

g. If yes, briefly describe the past development, timeline and any past environmental review.
N/A

4.7.Project Magnitude Data

Total project acreage: 216 acres in project area (Figure 3)
Number of residential units:
None.
Commercial, industrial or institutional building area (gross floor space): total square feet:
None.

4.8.Permits and Approvals Required

List all known local, state and federal permits, approvals and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure. All of these final decisions are prohibited until all appropriate environmental review has been completed. See Minnesota Rules, Chapter 4410.3100.

Refer to Section 6.4 for permitting and approval requirements.

4.9.Land Use

Describe current and recent past land use and development on the site and on adjacent lands. Discuss project compatibility with adjacent and nearby land uses. Indicate whether any potential conflicts involve environmental matters. Identify any potential environmental hazards due to past site uses, such as soil contamination or abandoned storage tanks, or proximity to nearby hazardous liquid or gas pipelines.

4.9.1. Land Use and Compatibility

Virtually all of the land in the project area, as well as adjacent land, is in public ownership. Exceptions include CP Rail right-of-way and a few undeveloped parcels in private ownership adjoining the south side of the Wisconsin approach that would not be directly affected by project construction. Public ownership includes the Refuge (owned by U.S. FWS), WisDOT and MnDOT rights-of-way (easements or fee title), Lock & Dam No. 7 (owned by the COE), the Dresbach Travel Information Center (hereafter referred to as the "Rest Area") (owned by MnDOT), and two Mississippi River access areas: the Upper I-90 Mississippi River Public Water Access (owned and operated by the MNDNR), and the Lower I-90 Landing (owned and operated by the U.S. FWS with access road on an easement from MnDOT).

The Preferred Alternative is consistent with existing transportation and recreational focus of the project area. The CP Rail right-of-way would not be changed by the project; several bridges span over the railroad corridor to minimize impacts and make the project compatible with the addition of new parallel rail trackage along the existing railroad throughout the project area (the Midwest Regional Rail Initiative high speed rail, proposed for the CP Rail corridor in the Project Area). The Mississippi River and its islands are protected habitat owned the U.S. FWS as part of the Upper Mississippi River National and Fish Refuge. The River is a major channel for barge traffic and provides residents with recreational opportunities. Existing MnDOT right-of-way extends outside of the project area, including much of the river bluffs. Active public uses include the Rest Area, a U.S. FWS boat launch, a MNDNR boat launch, and Lock & Dam No. 7. At the top of the bluffs are very low density residential and agricultural uses. Four houseboats are seasonally moored along the Minnesota shore south of the U.S. FWS boat launch. The Preferred Alternative spans over the Mississippi River, and would not require the acquisition of any homes or businesses or land with the exception of 1.4 acres of Refuge land that would need to be acquired from the Wisconsin approach area. The acquisition would be offset with turnback land, as described in Section 5.7.

Since the project involves reconstruction of controlled access highways (I-90 and US 61) within the project area, with no local access to privately held land, the project would not affect land use in the project vicinity. Access changes would not create access to new areas.

4.9.2. Potential Environmental Hazards

The presence of potentially contaminated properties (defined as properties where soil and/or groundwater is impacted by pollutants, contaminants or hazardous wastes) is a concern in the development of highway projects because of potential cleanup costs, and safety concerns associated with construction personnel encountering unsuspected wastes or contaminated soil or groundwater. Contaminated materials encountered during highway construction projects must be properly handled and treated in accordance with State and Federal regulations. Improper handling of contaminated materials can worsen impacts on the environment.

A Phase I Environmental Site Assessment (Phase I ESA) provides information on potentially contaminated properties in a subject area. The properties are identified through review of historic land use records and aerial photographs, federal and state agency databases and county/city records, as well as current property condition. Sites of potential concern identified by the Phase I ESA can then be categorized into three risk areas: high, medium, and low environmental risk. In general, high environmental risk sites are properties that have a documented release of chemicals or other strong evidence of contamination such as soil staining or storage of large volumes of petroleum or other chemicals. High risk sites include dry cleaners, sites with non-petroleum contamination enrolled in the Minnesota Pollution Control Agency (MPCA) Voluntary Investigation and Cleanup (VIC) program and sites with petroleum contamination being actively investigated through the MPCA Petroleum Remediation program. Medium environmental risk sites include properties where relatively smaller volumes of petroleum or other chemicals are stored with no documented spills or releases. Medium risk sites also include properties with documented releases that have been "closed" or declared "inactive" (no further cleanup action deemed necessary) by the MPCA. "Closed or "inactive" sites are considered medium risks because residual soil or groundwater contamination may exist at the site. Low environmental risk sites include properties where small volumes of chemicals or hazardous materials are/have been used or stored, such as residences, schools, churches and small manufacturing facilities with no reported chemical releases.

A Limited Phase I ESA in general conformance with the American Society for Testing and Materials standard was completed for the project area. Table 6 shows the locations of environmental concern (Sites 1 through 8) identified within or adjacent to the project area; four more sites (Sites 9 through 12) did not have specific location information, but based on their descriptions, they may be within the project area. All of the sites were identified in the medium risk category based on the potential for contamination. Figure 13 shows identified Site locations.

Table 6 - Known / Potential Contamination Possibly Affected by Preferred Alternative

Site ID	Site Name	Site Address	Environmental Risk	Rationale
1, 2 & 8	MnDOT Bridge Painting Project and MnDOT	I-90 Bridge, La Crescent, Minnesota	Medium	1) Larger quantity Hazardous Waste generator - no longer regulated for disposal of lead-based paint during repainting project; 2) Spill site for two diesel fuel spills of unknown quantity – closed 11/2000; 8) one 2-gallon hydraulic fluid spill which had released to the river – closed 6/2000.
3	Dresbach Travel Information Center	33020 Highway 61 La Crescent, MN	Medium	One 8,000-gallon fuel oil UST removed. Soil analysis indicated all results below targeted parameter limits. 8/91
4	Upper Mississippi River Lock & Dam No. 7	33018 Highway 61 La Crescent, MN	Medium	Former UST and AST, abandoned UST, active ASTs, waste generator, and spill site (oil sheen, mineral oil, and diesel fuel) –all closed.
5	Canadian Pacific Railroad	864 Shores Acres Road La Crescent, MN	Medium	Spill site (unknown quantities of hydraulic oil and diesel fuel). 11/2007
6	River Junction	Railroad Milepost 205 La Crescent, MN	Medium	Spill site (unknown quantity of fuel oil no. 2 to soil) 4/2007
7	Marquette Transportation	River Mile 703 La Crescent, MN	Medium	Spill site (15-gallon fuel oil no. 2 to river) 5/94
9	Canadian Pacific Railroad*	Dresbach Township, Winona County, Minnesota	Medium	Spill site (100-gallon hydraulic fuel to soil)
10	Unknown*	TH 61 / 14	Medium	Spill site (gasoline odor) Closed 1/96.
11	Unknown*	South Highway 61	Medium	Spill site (100-gallon diesel fuel) Closed 1/98.
12	Canadian Pacific Railroad Track*	Dresbach Township, Winona County, Minnesota	Medium	Spill site (unknown quantity of molasses) Closed 1/96

*Unconfirmed location; spill could have occurred within the project area.

Site 1, the I-90 Bridge, was the subject of lead-based paint removal/repainting project in the late 1980s, for which the Larger Quantity Generator status was given; following completion of the removal/painting project the status "No Longer Regulated" was given to the Site. The releases that occurred at the I-90 Bridge (Sites 2 and 8) were indicated at an unspecified location on the bridge. Spilled materials would likely have been washed downstream and south of the construction area. Sites 5 and 6 are located south of the area where excavation and construction would occur, and therefore are not likely to be impacted by the project. Any releases that occurred at Sites 4 and 7 would likely remain on-site, or (based on groundwater flow direction), discharged east into the Mississippi River.

The spills that occurred at Sites 9, 10, 11, 12 were at unconfirmed locations but are suspected to have occurred within the project area. Based on the age of the railway line passing through the project area, there is also a potential for undocumented/unreported spills.

On December 17, 2008, a railroad derailment and crash occurred approximately one mile north of the project area. This incident occurred after the completion of the Phase I ESA for this project, but is discussed here due to the proximity of the crash. The products released from this crash included urea ammonia nitrate fertilizer and locomotive fuel. According to sources with

the MPCA, the majority of the oil release was limited to the crash site and has been remediated. Information from the Minnesota Department of Agriculture indicated that approximately 38,000 gallons of 32 percent urea ammonia nitrate liquid fertilizer was released during the crash, some of which discharged into the river. The environmental risk presented by this identified site is low, because the oil was limited mostly to the site (outside of the Project Area) and was remediated; any fertilizer reaching the river was likely dispersed downstream.

Due to the ambiguity regarding spill site locations, specific areas of additional investigation were not determined. However, prior to construction activities, potential affected areas would be investigated for impacts from the project. If contamination is identified, the extent and magnitude will be determined. If necessary, a plan will be developed for properly handling and treating contaminated soil, sediment, and/or groundwater during construction. Any potentially contaminated materials encountered during construction would be handled and treated in accordance with applicable state and federal regulations.

4.10. Cover Types

Estimate the acreage of the site with each of the following cover types before and after development:

Table 7 - Land Cover Types: Before and After Preferred Alternative

Land Use	Before (acres)	After (acres)
Types 1-8 wetlands	40.5	35.4
Wooded/forest	67.8	60.6
Brush/grassland	21.0	19.1
Cropland	0.0	0.0
Lawn/landscaping	29.2	27.2
Impervious surfaces	57.0	73.4
Storm water pond	0.0	3.0
TOTAL	**215.5**	**218.7**

*If **Before** and **After** totals are not equal, explain why:*
Before and after land cover totals are different due to the increase in impervious surface area over the surface of the river (i.e., the larger bridge structure surface area over the river).

4.11. Fish, Wildlife and Ecologically Sensitive Resources

a. *Identify fish and wildlife resources and habitats on or near the site and describe how they would be affected by the project. Describe any measures to be taken to minimize or avoid impacts.*

The project would occur within an existing transportation corridor along and over the Mississippi River.

Fisheries and Aquatic Habitat

The project area is home to many species of sport fish such as: walleye, sauger, largemouth and smallmouth bass, channel catfish, northern pike, bluegill, and crappies. The East Channel (the inlet located east of the main channel, between the island and the peninsula) supports an important walleye and sauger staging (pre-spawning) area, and a crappie over-wintering area. The main channel is used by numerous fish species during spring spawning movements. Numerous reptiles and amphibians can also be found in the Mississippi River habitats.

The proposed project will include work in the Mississippi River (as discussed in Sections 4.6.2 and 4.6.3 and detailed in Section 4.12.5). Throughout the development of this action, MnDOT has been in coordination with the MNDNR Area Fisheries Manager and the Wisconsin Department of Natural Resources (WDNR) Mississippi River Team Manager.

Project-related impacts on aquatic habitats, the Mississippi River, the East Channel, shorelines and fishery resources will be temporary and localized in nature. To ensure that potential impacts are minimized, the MNDNR and WDNR recommendations listed below will be incorporated into the project plans and construction schedule.

- The MNDNR has provided work exclusion dates for non-trout streams (March 1 through June 1). These dates are to allow for fish migration and spawning. A partial waiver to the exclusion dates is possible, but will depend on type of work being done. Schedules and activities will be coordinated with the MNDNR Area Fisheries Manager and WDNR Mississippi River Team Manager.
- Areas near the bridge are known spawning areas for walleye in the spring, and are also popular fishing areas. This relatively narrow section of the main channel is used by numerous fish species during spring spawning movements. Work will not occur adjacent to, or in the water during this time without prior written approval of the MNDNR and WDNR.
- To protect fisheries and aquatic habitat, river substrate and riverbank disturbance would be minimized and sediment control practices would be used throughout the project area to minimize siltation. Any temporary fill areas (docking area for barges; temporary causeway) would be restored to pre-construction conditions.
- Underwater "bubble walls" (air curtains created by releasing compressed air from underwater diffusers) or other fish repelling methods would be used to dissipate and protect fish during bridge demolition.
- Rubble created during demolition would be removed from aquatic habitats. The contractor would be required to perform a before and after investigation (sonar is often employed for this survey) to ensure that all rubble is removed.

Wildlife

The project will occur within an existing transportation corridor along and over the Mississippi River. A portion of the project area falls within the U.S. FWS Upper Mississippi River National Wildlife and Fish Refuge. Habitat types vary within the corridor, and include wetlands,

floodplain forest, islands, backwaters, the flowing river, riverbanks, landscaped development, steep wooded slopes and rocky bluff outcrops. The variety of habitat types supports a diverse assortment of terrestrial and aquatic organisms.

This project is being advanced under coordination with the U.S. FWS, MNDNR and the WDNR. Efforts to avoid, minimize, or mitigate impacts to wildlife will continue to be analyzed as the project development progresses. Measures identified will be incorporated into the project design /construction practices and will become part of the environmental commitments for this action.

Mussels
See discussion under Federal/State-listed species.

Bats
During a recent field inspection, it was found that a colony of bats is living on the existing bridge structure. Coordination with MNDNR staff is currently underway to determine the appropriate next steps.

Birds
The Mississippi River corridor is an important flyway for migratory birds and the river floodplains provide suitable habitat for many avian species. In the project vicinity, the floodplain forests and wooded shorelines are used for nesting and roosting by bald eagles and wading birds. (Bald eagles in the project area are discussed below.) Since the project is located in the migration flyway, the potential for increased bird/bridge structure collisions was assessed. Although the new bridge would be wider than the existing I-90 bridge, the height and mass of the new bridge will be similar to the existing bridge, so the new bridge structure would not substantially increase the risk of bird/structure collisions.

Ambient lighting can cause confusion for migrating birds. Some research has indicated that the risk of bird/structure collisions may be reduced if downward-facing lights are used (instead of upward-facing lights) and if lower wavelength lights (e.g., blue or violet) are used instead of red or yellow lights. Although the bridge lighting details are not finalized, the main bridge piers below the roadway may be lighted with indirect accent lighting. Input on bridge lighting will be requested from U.S. FWS staff during project final design, to identify lighting that would minimize potential effects on migratory birds.

Bald Eagle
Although no longer listed under the Endangered Species Act of 1973, bald and golden eagles remain protected by several federal laws including the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.

U.S. FWS staff provided information identifying known bald eagle nesting and roosting trees within the general project vicinity. The closest known nest tree is approximately

one mile north of the I-90 bridge (see Figure 3). The U.S. FWS recommends maintaining a 660' buffer zone from nest trees during the nesting season (December – August in northern states). Within this buffered area, human activities such as tree clearing and landscaping should be restricted.

No construction activities will occur within the buffer distance (identified above) of any known nest tree. Refuge staff will be provided with construction schedules and be given notice prior to undertaking any activity that could result in the disturbance of nesting eagles.

The closest known bald eagle roost trees are located approximately 500 feet north of the I-90 bridge over the main channel along the west bank of the river (see Figure 3). To minimize impacts on bald eagle roost sites, the U.S. FWS recommends activities be minimized in the eagles' vicinity. Prior to construction, MnDOT will coordinate with U.S. FWS staff to identify any new nesting or roosting trees and to develop a plan for avoiding/minimizing bald eagle impacts.

Swallows

Cliff swallows and barn swallows, along with a few other species of migratory birds, often build their nests on bridges or highway overpasses. The bridge will be inspected for the presence of nesting activity prior to the start of construction. If nesting activity is identified, appropriate measures would be taken in accordance with the provisions of the Migratory Bird Treaty Act.

Rookery

A heron/great egret/ double-crested cormorant rookery is located approximately 1.5 miles southeast of the I-90 bridge on Minnesota Island (south of the Houston County line on Figure 3). Typically, the peak activity period at rookeries tends to be from April through July. During this time period, construction activities will be concentrated at the bridge site, which is a substantial distance from the known rookery. No long term impacts to the rookery are anticipated as a result of the proposed action.

Invasive Species

The MNDNR noted the designation of the Mississippi River as "infested" with zebra mussels (*Dreissena polymorpha),* a non-native invasive species that will attach to objects and foul beaches, interfere with food webs, smother native mussels, clog water intakes, and are linked to fish and wildlife die-offs. A November 2007 mussel survey reports "small to moderate numbers of the exotic zebra mussel on most of the living mussels" examined in the survey.

The WDNR is concerned about the spread of Viral Hemorrhagic Septicemia (VHS) - a deadly fish virus and an invasive species that was diagnosed as the cause of large fish kills in lakes Huron, St. Clair, Erie, Ontario, and the St. Lawrence River in 2005 and 2006. VHS was first detected in Wisconsin in May 2007 in the Lake Winnebago and Lake Michigan systems.

Because Lake Superior and the Mississippi River are both connected to Lake Michigan, the WDNR suspects that VHS is present in those waters, though it has yet to be confirmed.

In accordance with MNDNR General Permit 2004-0001, all in-water equipment will be inspected and decontaminated prior to removal of in-water equipment or materials from the site to prevent the spread of invasive species.

Vegetation

Staff from the MnDOT's Office of Environmental Services performed a vegetation review of the project area, including Minnesota and Wisconsin, and provided comments (see letter dated November 30, 2007 in Appendix B). The tree species noted in included red oak, bur oak, paper birch, balsam poplar, eastern red cedar, red osier dogwood, smooth sumac, cottonwood, black locust, river birch and silver maple Removal of woody vegetation would result from construction of the proposed project. To prevent potential spread of the invasive emerald ash borer beetle, ash wood will be stored and disposed of in accordance with Minnesota and Wisconsin state laws.

The Mississippi River shorelines can be susceptible to erosion. Since the action will require the removal of some woody vegetation, preventative erosion control measures will be developed accordingly. These measures will involve the development and implementation of a vegetation protection and restoration plan. The plan will include: determining the extent and type of vegetation that will be impacted after more detailed project construction plans are developed; incorporating vegetation protection measures (MnDOT Standard Specification for Construction 2572 – Protection and Restoration of Vegetation) into the project plan; re-vegetating disturbed areas with indigenous/native plant materials; and using cost-effective and efficient methods to restore the area consistent with the surrounding native plant community. In addition, non-compacting construction methods will be used where possible in areas of woody vegetation, to prevent root damage.

Upper Mississippi River National Wildlife and Fish Refuge

The U.S. FWS Upper Mississippi River National Wildlife and Fish Refuge (Refuge) was established in 1924. The 240,000-acre Refuge covers 261 miles of the River valley from Wabasha, Minnesota, to Rock Island, Illinois. The Refuge includes broad pools, islands, braided channels, extensive bottomland forest, floodplain marshes and occasional sand prairie. These habitats support a diverse assortment of terrestrial and aquatic wildlife (including mammals, waterfowl, songbirds and raptors, amphibians and reptiles). For example, the Refuge is home to more than 160 bald eagle nests and a yearly average of 15 active heron colonies with a total of 5,000 nests. The Refuge is home to 119 fish species that support a strong commercial and recreational fishery.

The Refuge is an important resource and feature in the project area. Construction of the proposed action will involve the need to acquire Refuge land (Figures 14c and 14d). Impacts to this land include wetlands impacts and the clearing of forested areas from the center island and

Wisconsin approach areas (Figure 14a). Project wetland impacts and mitigation are discussed in Section 4.12.1 through 4.12.3; and right-of-way impacts and mitigation are discussed in Section 5.10.

It is anticipated that approximately 3.9 acres of forest will need to be cleared, as shown on Figure 14a. Refuge staff members have indicated a preference for onsite mitigation. Currently, two potentially suitable locations have been identified. Preliminary calculations indicate that there are approximately 2.3 acres available for reforestation within existing WisDOT right-of-way or on existing Refuge land. However, there are a number of issues that need resolution prior to the purchasing of mitigation land and completion of mitigation. Discussions and coordination between the agencies will continue as each of these sites undergoes evaluation. A draft Memorandum of Understanding (MOU) between the DOTs and the U.S. FWS is included in Appendix D – signatures are anticipated to be obtained in early 2012.

Impacts on the Refuge and its resources were minimized by designing the Wisconsin approach roadways with steep side slopes to narrow the area of wetland and forest impacts and amount of right-of-way to be acquired. The Wisconsin storm water pond location was adjusted to also minimize these types of impacts.

b. *Are any state-listed (endangered, threatened or special concern) species, rare plant communities or other sensitive ecological resources on or near the site*? _X_ Yes ___ No
If yes, describe the resource and how it would be affected by the project. Describe any measures that will be taken to minimize or avoid adverse impacts. Provide the license agreement number (LA-___) and/or Division of Ecological Resources contact number (ERDB _20040480_) *from which the data were obtained and attach the response letter from the DNR Division of Ecological Resources. Indicate if any additional survey work has been conducted within the site and describe the results.*

State-Listed Species

State Listed Species - Minnesota

Staff of the MNDNR Natural Heritage and Nongame Research Program was contacted for information on known occurrences of rare plant or animal species or other significant natural features within the general project vicinity. The MNDNR reported documented occurrences of several species with some level of state protection within approximately a 1-mile radius of the proposed action. In addition, the search identified a "Site of Moderate Biodiversity Significance" located along the bluffs above the I-90/US 61 interchange adjacent to the action/impact area. These sites have varying levels of native biodiversity and may contain high quality native plant communities, rare plants/animals and/or animal aggregations (for a complete list of species identified, see MNDNR letter in Appendix B).

Avoidance of bluff impacts was identified as a high priority for the project. Several alternatives including the Rehabilitation Alternative were eliminated from

consideration because of their higher potential for substantial bluff impacts. The interchange alternatives were designed to avoid/minimize impacts on the bluffs and associated habitats.

State-Listed Species – Wisconsin

The WDNR also reviewed the project area and indicated that several species of state endangered/threatened fish and mussel species are known to occur within the general vicinity of the proposed action (for a complete list of species identified see WDNR letter in Appendix B).

Fish

In order to minimize the potential for fishery impacts, the construction schedule will be adjusted to include the work exclusions dates provided by the MNDNR (see "Fisheries and Aquatic Habitat" discussion at the beginning of Section 4.11). Measures to minimize potential impacts to fisheries are listed in the above discussion on *Fisheries and Aquatic Habit*.

State-Listed Mussels

Based on the information provided by the MNDNR/WDNR, concerns were raised regarding potential impacts to mussel resources. To gain a better understanding of the potential for impacts, a quantitative and qualitative mussel (*Mollusca: Bivalvia: Unionidae*) survey was conducted in November of 2007. The researchers examined the Mississippi River main and back channel (East Channel) areas near the existing bridge piers for mussels. The researchers found that the East Channel had a much higher mussel population density than the main channel. The survey identified fourteen distinct mussel species of the 901 specimens sampled. Several of the species identified, although in small numbers, are currently under some level of state protection (Minnesota and/or Wisconsin). No federally-listed mussel species were identified in the project area. *It should be noted that at the time of the survey, the project was in the early stages of development and the potential impact areas had not yet been clearly identified.*

Since 2007, as project designed advanced, more detailed information has become available regarding potential river bottom impacts, including pier and potential temporary causeway locations, potential barge spudding and activity areas, and staging and fill areas. Based on this new data, the direct and indirect impact areas were re-surveyed in summer of 2010 by the MNDNR. A copy of the survey report is available from the MnDOT Project Manager upon request. No species protected under the Act, the State of Minnesota or the State of Wisconsin were identified during this extensive survey effort.

Federally-Listed Species (Endangered Species Act of 1973, as Amended (Act))

Section 7 of the Act - Consultation

According to the Final ESA Section 7 Consultation Handbook, March 1998, "*Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency...is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined...to be critical.... In fulfilling the requirements of this paragraph, each agency shall use the best scientific and commercial data available."*

Federal agencies or their designated non-federal representatives must consult with the U.S. FWS if there is potential that any such effects may occur as a result of their actions. Consultation with the U.S. FWS is not necessary if the proposed action will not directly or indirectly affect listed species or critical habitat. (The Minnesota FHWA Office has taken the lead on this consultation and has delegated MnDOT as their non-federal representative.)

Federally-listed Species/Designated Critical Habitat within Winona County, Minnesota

In coordination with the U.S. FWS and according to the official County Distribution of Minnesota's Federally-Listed Threatened, Endangered, Proposed, and Candidate Species list, Winona County is within the distribution range of the Higgins eye pearlymussel (*Lampsilis higginsii*) and the Karner blue butterfly (*Lycaeides melissa samuelis*), both federally-listed endangered species. There is no listed critical habitat in Winona County.

Federally-Listed Species/Designated Critical Habitat within La Crosse County, Wisconsin

In coordination with the U.S. FWS and according to the official County Distribution of Wisconsin's Federally-Listed Threatened, Endangered, Proposed, and Candidate Species list, La Crosse County is within the distribution range of the Higgins eye pearlymussel (*Lampsilis higginsii*), a federally-listed endangered species. There is no listed critical habitat in La Crosse County.

Federally-Listed Species within the Action Area

Of the federally-listed species indentified above, only the Higgins eye pearlymussel is known to occur within the general project vicinity. There are known occurrence records of Higgins eye pearlymussel a short distance south of the existing bridge structure at Mississippi River Mile 701.2.

Field Evaluation 2010

To update the data prior to project construction, a survey of all areas of direct/indirect impacts was conducted in the summer of 2010. The MNDNR conducted Level I and Level II surveys on behalf of MnDOT. The data gathered was provided to the U.S. FWS to assist in determining the appropriate consultation path.

Determination

Since no federally-listed species were identified during this extensive survey effort the U.S. FWS and MnDOT agreed that a determination of "May affect, not likely to adversely affect" was the most appropriate consultation path. MnDOT issued a letter requesting concurrence on this determination on January 4, 2011. The U.S. FWS issued their concurrence letter on January 6, 2011, concluding the consultation process under Section 7 of the Endangered Species Act.

The following documents are included in Appendix B for reference:

- MnDOT- Request for Concurrence Letter dated January 4, 2011, and
- U.S. FWS – Concurrence Letter dated January 6, 2011.

4.12. Physical Impacts on Water Resources

Will the project involve the physical or hydrologic alteration — dredging, filling, stream diversion, outfall structure, diking, and impoundment — of any surface waters such as a lake, pond, wetland, stream or drainage ditch? _X_ *Yes* __ *No*

If yes, identify water resource affected and give the DNR Public Waters Inventory number(s) if the water resources affected are on the PWI: #5P . *Describe alternatives considered and proposed mitigation measures to minimize impacts.*

4.12.1. Wetlands

Wetlands are afforded federal protection (the Clean Water Act – Section 404, Executive Order 11990 – Protection of Wetlands), and state protection [Minnesota Wetland Conservation Act (WCA) in Minnesota, and Chapters 30, 31, 281, 283 of Wisconsin Statues and Chapter NR 103, Wisconsin Administrative Code, among others in Wisconsin] that mandate the "no net loss" concept of wetland functions and values. In Minnesota, MN Rule 6115 affords further protection to Public Waters, including the Mississippi River (designated Public Water Inventory # 5P in the project area). These laws further require that projects seek to avoid, then minimize, and finally mitigate any potential impacts (referred to as "sequencing"). In addition, U.S. FWS Refuge policies include specific mitigation requirements for impacts to wetlands within Refuge boundaries (3.1 acres of Refuge wetland would be filled with the Preferred Alternative). Project and Refuge wetland impacts and mitigation are discussed in Section 4.12.3.

In order to comply with federal and state laws, all potentially affected wetlands in the project corridor have been identified and classified, and the project design has attempted to avoid and minimize impacts. The process of identifying these wetlands involved reviewing National Resource Conservation Service (NRCS) Soil Surveys of Winona and La Crosse County, U.S. FWS National Wetland Inventory (NWI) maps, MNDNR State Public Waters (Public Water Inventory) map, Wisconsin Wetland and Designated Waters maps, aerial photographs and finally, performing on-site wetland identification and boundary delineation. The impacted wetland functions were assessed, the impacts determined, and mitigation was identified.

A wetland review and delineation were conducted in the fall of 2007 and updated in June of 2011 to identify and categorize wetlands in the project area. Wetland boundaries were delineated using the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the 2007 Midwest Region Supplemental Manual. Six wetland basins and parts of the Mississippi River shoreline were identified and delineated as wetlands in the project area. The surveyed wetland boundaries were compared with project construction limits to determine areas of impact. The wetlands are listed in Table 8, described below and shown on Figure 15. Table 8 also shows areas of unavoidable areas of impact from the Preferred Alternative.

Table 8 - Wetland Impacts – Preferred Alternative

ID No.	Surrounding Land Use	Vegetation	Circular 39 Type	Cowardin Type	Wetland Area (acres)	Proposed Impact Area (acres of fill)	Shading Impacts (acres)
1-A	River, wooded, light development	Floodplain Forest (cottonwood, elm, silver maple, grape)	1	PFO1A	Extends beyond project area	0.0	0.0
1-B	Wooded, light development	Floodplain Forest (silver maple, reed canary grass, grape)	1	PFO1A	Extends beyond project area	0.0	0.0
2	Freeway and railroad right-of-way	Floodplain Forest / Fresh Wet Meadow (cottonwood, elder, dogwood, reed canary grass, goldenrod)	1	PEM/SS/ FO1C	0.3	0.3	0.0
3	Freeway and railroad right-of-way	Floodplain Forest/ Fresh Wet Meadow (cottonwood, elder, dogwood, reed canary grass, goldenrod)	1	PEM/SS/ FO1C	1.1	1.1	0.0
4	River, wooded	Floodplain Forest (silver maple)	1	PFO1B	Extends beyond project area	0.03[1]	0.3
5[1]	Wooded/ grass, refuge	Floodplain Forest (silver maple)	1	PEM/FO1B	Extends beyond project area	3.1 [2]	0.0
6	Wooded/grass, undeveloped refuge	Floodplain Forest/ Fresh Wet Meadow (cottonwood, silver maple, reed canary grass, smooth brome, grape)	1, 2/7, and 3 / 4	PFO1A	Extends beyond project area	0.6	0.0
MR	River, shore-line, wooded, light development	Floodplain Forest/Fresh Wet Meadow (cottonwood, silver maple, reed canary grass, smooth brome, grape)			Most of River shoreline	0.0	0.0
					TOTALS:	**4.8**	**0.3**
					TOTAL WETLAND IMPACTS:	**5.1 ACRES (Type 1)**	
					REFUGE WETLAND IMPACTS:	**3.7 ACRES**	

[1] Impacts on Wetland 4 include 0.03 acres of fill from the bridge piers; this amount is included in the 3.1 acres of Refuge wetland impact.

[2] 3.1 acres of wetland fill impact within the Refuge.

The Mississippi River shoreline was assessed for wetlands. Some areas were identified and delineated as wetland (Wetland 1-A and 1-B). These shorelines have an abrupt topographical boundary where fine beach sand changes to broad-leaved deciduous forest. These wetland areas would be bridged and thus not impacted.

Other areas characterized by large stacked boulders or smaller rip-rap areas (River Boundaries 1 and 2) did not meet the wetland criteria, and are considered part of the river, rather than wetlands, and therefore are subject to permitting/protection by the COE (see Section 4.12.5).

Wetland 2 is a ditched area wetland within the freeway and railroad right-of-way. It is a PFO1A Type 1L wetland, dominated by cottonwood, an elder species (Sambucus spp.), red-osier dogwood (*Cornus stolonifera*, FACW), a goldenrod species (*Solidago* spp.), and riverbank grape. Reconfiguration of I-90/US 61 commons and interchange would impact this wetland; it is assumed that the entire wetland (0.3 acres) would be filled or caused to no longer function as a wetland.

Wetland 3 is similar in location and composition to Wetland 2, with steeper (5:1) slopes. It receives run-off from the adjacent transportation facilities. Wetland 3 is a palustrine (-P-) type wetland with emergent (-EM-) and broad-leaved deciduous scrub shrub (-SS1-) vegetation, with a seasonally flooded (-C-) water regime. Reconfiguration of I-90/US 61 commons and interchange would impact this wetland. It is assumed that the entire 1.1 acre of wetland would be filled or caused to no longer function as a wetland.

Wetland 4, located on the island in the center of the Mississippi River within the Refuge, includes a channel approximately 200 feet in length by 50 feet wide, that extends north beyond the subject corridor. It is a PFO1Ch Type 1L wetland. Dominant vegetation included silver maple, green ash, eastern cottonwood and American elm. The channel itself is not vegetated, but the surrounding wetland area includes the listed dominant tree species. The tree canopy is thinner directly adjacent to and beneath the existing bridge than in the adjacent wetland area. Standing water, sediment deposits on tree trunks, and drift deposits were observed at this wetland. This wetland would be bridged and therefore fill impacts are limited to the three piers within the wetland.

The proposed bridge will likely create a shading impact to Wetland 4 greater than the existing bridge's impact. This area has been quantified in Table 8 as being the difference between the existing bridge and the proposed bridge area (0.97 acres verses 0.67 acres respectively) as the existing bridge will be removed and the wetland complex reestablished.

Wetland 5, north of I-90 on the peninsula and within the Refuge, is a large wetland complex associated with the Mississippi River floodplain that extends east and north of the project area. Within the project area, the wetlands associated with this complex included a narrow drainage channel near the northwest project area boundary (PFO1Ch Type 1L), and a grassed wetland at the western basin edge (PEMCh Type 2). The Wisconsin approach road and embankment would result in the fill of 3.1 acres of this wetland.

Wetland 6, south of I-90 on the peninsula is also a large Mississippi River floodplain wetland in the Refuge. This basin extends south and east from the south side of the project area. The western portion of the basin is a PFO1A Type 1L wetland, and the eastern portion is a

PFO1/EMB Type 2/7 wetland. This wetland gradually develops into a PEMC/F Type 3/4 as it extends to the south and east outside the project area. Dominant vegetation included cottonwood, silver maple, reed canary grass and smooth brome (*Bromus inermis*). Soil saturation was noted at 8 inches below the ground surface. Construction of the Wisconsin approach road and embankment would result in the fill of 0.6 acres of this wetland. As final design plans develop, avoidance will be a priority.

4.12.2. Sequencing of Wetland Impacts

As preliminary plans and alternative configurations for roads and bridge approaches advanced, opportunities to reduce or avoid wetland impacts (while maintaining acceptable road geometry) were sought. Steeper embankments were used on the Wisconsin approach road to reduce the amount of wetland fill, while retaining the ability to maintain vegetation and prevent erosion where possible. Bridge pier locations were placed outside wetlands where feasible, particularly near the approaches and on the island. Further development of plans and layouts for project components were developed, and shifts in alignment of approach roadway and storm water ponds minimizing wetland impacts on Wetland 6 in Wisconsin.

The selection of interchange configuration included a close examination of impacts to Wetlands 2 and 3 along the northern portion of US 61 (see Section 3.2.4 and Table 4). Some impacts on these narrow ditch wetlands would result with any of the interchange and alignment alternative combinations because of the constraints of the River on the east, the bluffs on the west, and the need to accommodate existing and future rail facilities through this area.

Section 3.3 and Table 5 discuss selection of the Preferred Alternative. This process included coordination with agencies that led to the selection of the alignment with the greatest potential for turnback of acreage to the U.S. FWS. It was felt by the TAC that the Preferred Alternative best meets the transportation facility improvement needs, is preferred by a major stakeholder (U.S. FWS), and minimizes wetland impacts to the greatest extent possible for that alternative. The TAC and U.S. FWS concluded that turnback of land to the Refuge was a preferred outcome, assuming all wetland impacts (for the project as well a for Refuge wetlands) would be mitigated in accordance with applicable regulations.

In a meeting on December 22, 2009, representatives of the project proposer, the COE and WDNR discussed the Preferred Alternative, project impacts and options for wetland impact avoidance and mitigation. The COE expressed the greatest concern for avoiding river-related wetlands protected by the MNDNR. All MNDNR wetlands would be spanned by the proposed bridge and sustain fill related to pier placement only. The COE recognized that with any of the interchange and alignment combinations, the narrow, non-DNR wetlands along US 61 (Wetlands 2 and 3) would sustain some fill; the amount of fill would be slightly more or less depending upon the interchange configuration (see Table 4). However, final design plans for the interchange could alter the areas of fill. It would be MnDOT's intention to avoid wetlands to the greatest extent possible, but a worst-case scenario would be used for permitting, whereby it would be assumed that these two wetlands would be completely filled (or cease to function as

wetlands after construction) with either Alternative 10B, 10B1, or 10C, or any of the interchange sub-alternatives. Mitigation plans would also assume replacement for the entire areas of Wetlands 2 and 3. The COE was not averse to the selection of Alternative 10B or 10C, given 1) the U.S. FWS's acceptance of the northern alignment with the subsequent turnback acreage; 2) the avoidance of impacts on the MNDNR wetlands along the river; and 3) the assumption that mitigation plans would assume replacement for the entire areas of Wetlands 2 and 3.

4.12.3. Wetland Mitigation

Completion of the project would impact (fill) all of Wetlands 2 and 3, and part of Wetlands 4, 5 and 6. Wetlands 4 and 5 would be impacted through introduction of the new bridges that would shade these wetlands, and would mitigate for the fill resulting from the piers, but would not fill them. Despite efforts to avoid or minimize impacts, the close proximity of the wetlands to the existing road system causes impacts to be unavoidable with the project. A total of 5.1 acres of wetland would be impacted with the Preferred Alternative overall, including 3.1 acres of Refuge wetland fill and 0.3 acres of shading impact (Figure 14b).

The potential for creating replacement wetlands within the project area was assessed. Limited available space, steep slopes and the extent of the project within the project area make this an unlikely potential in Minnesota. In Wisconsin the area south of the approach roads was initially considered as potential wetland restoration/mitigation area, however, coordination with the Federal Aviation Administration Advisory (FAA) revealed that the FAA discourages the creation of wildlife/waterfowl habitat within the Air Operations Area of the La Crosse Municipal Airport (a 10,000 foot radius from the airport) (see Section 4.17.b) Other mitigation options identified include creation or restoration of wetlands off-site, use of mitigation banks offsite (i.e., purchasing wetland credits to offset impacts), or a combination of these methods.

Wetland impacts and mitigation were discussed with the COE, MNDNR, WDNR and FWS at meetings held on May 26, 2009, and with WDNR and the COE on December 22, 2009. Discussions indicated a preference for mitigation locations in the following order: first - onsite or in the project area; second - within the watershed; and last - outside the watershed. The Mn/DNR expressed a preference for mitigation within the drainage area, potentially at a wetland mitigation site being site developed by the MnDOT on the Root River. Accordingly, potential replacement sites were sought accordance with recommended approaches of the regulating agencies.

Potential wetland mitigation locations were identified, including:

- onsite mitigation (where the Wisconsin approach road embankment would be removed and right-of-way would be turned back to the Refuge; this location was later dropped from consideration through coordination with FAA as described below);
- MnDOT "Walcker Site" wetland mitigation bank located within the project watershed (on the Root River, in Hokah, Minnesota; see Figure 1) anticipated to have credits available for withdrawal at the time of permitting; and

- offsite Wisconsin mitigation bank outside the project watershed (which may have credits available for withdrawal at the time of permitting, but was given a low priority because of it location outside the watershed).

U.S. FWS staff indicated a preference for onsite (i.e., in the area of impact) wetland mitigation of the 3.06 acres of Refuge wetland impacts Figure 14b). A potential onsite wetland restoration site identified at the east bridge approach (first bullet above) was determined to be within the La Crosse Municipal Airport's Aircraft Operating Area (AOA)(see Figure 14b), within which wildlife attractants (such as ponds and wetlands) are considered a hazard to aerial navigation (as discussed in Section 4.17). Refuge and regulating agency staff then reassessed the feasibility of mitigation at this site, and concluded that an alternative site should be used. Mitigation through use of MnDOT or WisDOT wetland mitigation banking sites (and completed in accordance with applicable regulations) was agreed to be acceptable to the DOTs, COE, MNDNR and WDNR. Discussions and consultation with the U.S. FWS staff are ongoing to ensure wetland mitigation requirements pertinent to Refuge wetland impacts are satisfied.

As discussed previously, the details of the mitigation plan (for Refuge and other wetland impacts) specifying agency-agreed-upon requirements will be developed at the time of permitting, closer to the construction phase. The areas of wetland impacts (and mitigation needed) would be reassessed based on final plans, up-to-date wetland delineations, and the current and applicable state and federal wetland mitigation guidelines and regulatory requirements. The intent of the wetland mitigation plan will be to replace lost wetland functions and restore wetland area to fulfill the regulatory mitigation requirements. The Refuge, state and federal regulating agencies will be involved in mitigation planning. Replacement of lost wetlands will be in accordance with current WCA criteria, Clean Water Act Section 404, MNDNR Public Waters, WisDOT and WDNR Wetland Mitigation Banking Technical Guidelines requirements, and will occur prior to or concurrent with the impacts. Efforts will be made to replace lost wetland functions and values with similar wetland types, and to mitigate losses close to the project site, to the extent possible.

Construction of the causeway would require permitting through the DNR and the COE and coordination with these agencies regarding timing, duration and construction/removal method. The contractor would be required to obtain permits for its preferred construction method. Temporary structures (such as barge mooring areas, temporary causeway) will be removed at the conclusion of the project, likely starting from the river and working towards the shoreline. The rock fill would be removed using heavy equipment and trucks. The river bottom and surrounding shoreline area would be restored to its original or permitted condition.

Mitigation measures to minimize physical impacts to the river will be both temporary and permanent. Permanent water quality mitigation measures for the proposed facility are discussed in 4.17. Various measures would be used to contain the material to the greatest extent practicable; debris that enters the river would be identified and removed using standard dredging practices. Temporary measures will include floating booms where appropriate to

contain concrete dust and debris to the greatest extent practical within the river. Erosion control measures may include silt fences, temporary and/or permanent sediment basins, diversion dikes, and other common practices. Side sonar will be performed before and after the pier removals occur to identify and remove any debris from the river bottom.

4.12.4. Public Waters

The Mississippi River is a MNDNR Public Water (Public Water # 5P), and a Wisconsin Area of Special Natural Resource Interest (discussed further in Section 4.14.3). The project includes removal of the existing piers (seven from the river and East Channel, three from the island) and replacement with nine new pairs of piers (pairs are required for the two separate proposed bridges). Figure 10 shows schematic drawings (plan and cross-sectional view) of the proposed piers relative to the river, island and existing piers. Four of the new bridge piers (two pairs of piers) would be located in the main river channel and eight new bridge piers (four pairs of piers) would be located in the East Channel. Six piers (three pairs) would be located on the island between the channels, outside of the river. The new piers are not expected to change the hydrologic characteristics of the river (see Section 4.14.2); the new pier arrangement results in two obstructions within the main channel (considering each pair as an obstruction), which is one fewer than with the existing pier arrangement. Section 4.14.2 includes a discussion of floodplain impacts.

4.12.5. Mississippi River - Construction and Demolition Impacts

While section 5.8 discusses construction impacts on traffic, air quality and other resources, the physical impacts of construction and demolition on the Mississippi River are discussed in this water-related section.

For the Preferred Alternative, the new bridges would be constructed first, and the existing bridge demolished last, after relocating traffic to the new bridges. Required project permits are listed in Section 6.5, including the Section 404 and Section 10 permits from the Corps of Engineers for excavation work, and Section 401 certification from MPCA and WDNR. A State Disposal System permit may be required from the MPCA for use/disposal of dredged material. In addition, because the Mississippi River was recently listed by the U.S. EPA and MPCA as an impaired water body for polychlorinated biphenyls and mercury, the disposal of dredged material may require additional state permits. As noted in Section 3.4, the project proposers (MnDOT and WisDOT) will coordinate on the project to proceed in accordance with the WDNR/WisDOT Cooperative Agreement, as appropriate.

Commonly-used river-bridge construction and demolition methods that may be used were identified by MnDOT and WisDOT and are discussed in this section. MnDOT prefers not to limit contractors to specific construction or demolition methods to retain flexibility and allow for creativity and innovation in construction. In accordance with MnDOT contracting procedures, the contractor would determine the methods to use, subject to MnDOT, WisDOT and other agency approvals.

Construction of the new piers would likely involve use of a temporary cofferdam at each pier location. Sheet piling would be installed around the location of the pier foundation, and the river bed material excavated from within the sheet piling be excavated to the depth of the bottom of the pier foundation. The piers would then be constructed within the cofferdam, and the sheet piling would be removed after construction. A "tremie seal" mixture (a standard practice in submerged pier construction) would be used within the river pier cofferdams to prevent water from coming up through from the bottom of the excavated cofferdam. The mixture would consist of Portland cement, fine aggregate, coarse aggregate, and water. The entire concrete tremie seal will be below the river bottom ground line. Water pumped out of the cofferdam would be removed from the coffer dam and disposed of offsite at a MnDOT approved site.

Barge spudding (mooring of one or more barges onto temporary pilings placed in the river), docking (tying-up to a temporary dock created by placing sheet piling along the river's western edge), or anchoring onto adjacent piers could be required for construction. Spudding pilings would be installed directly into the river bottom to hold barges in place during construction, then later removed. Similarly, the sheet piling along the river's edge and any fill would be installed directly into the river for docking barges during construction, then later removed. A temporary increase in turbidity during placement and removal of the pilings and fill could occur.

Demolition would occur after the new bridges are constructed, and therefore MnDOT's letting documents will restrict the contractor from imploding the bridge super-structure into the river during demolition to prevent damage to the new bridges and avoid further environmental impacts. MnDOT prefers not to further limit contractors to specific construction or demolition methods to retain flexibility and allow for creativity and innovation in construction. It should be noted that the bridge demolition plan and mitigation measures will be reviewed by the MnDOT Project Engineer and agencies with regulatory authority over the Mississippi River (e.g., Coast Guard, Corps of Engineers, MPCA, WDNR) prior to construction.

Demolition of the existing bridge would be conducted in a manner that will be in compliance with applicable water quality standards. Demolition would likely have temporary impacts on the water quality; however, several steps would be taken to minimize impacts. Demolition methods could include and/or combine the various methods which follow, and other methods as developed by the contractor. The contractor would be required to develop and comply with an approved "Containment Plan" that will outline the means and methods for containment and capture of materials, to prevent material from entering the River. Concrete decking would be cut, jack-hammered or otherwise manipulated into sections or pieces, and transported off of the bridge piece by piece via construction vehicle, or contained via barges or other devices positioned below the bridge to catch the falling rubble and debris. Small amounts of concrete dust and small debris may fall into the river. Steel members would be removed by multiple cranes on barges spudded in the river (as described above for construction) with additional barges for placement and removal of the bridge members.

Removal of the main channel concrete piers would likely involve hydraulic hammers and explosives, similar to that used on other major bridge replacements on the Mississippi River. In this method, the piers would be cut at the water surface elevation utilizing hydraulic hammers, then tipped into a barge similar to the method used in chopping a tree down. The piers below the water surface would then be drilled and loaded with explosives. The contractor would be required to utilize a matt or other device for controlling the explosion of the piers below the water surface, and to use bubble walls and repelling charges to protect aquatic life. The rubble would then be removed with backhoes located on barges. The contractor would be required to perform a before and after investigation (sonar is often employed for this survey) to ensure that all rubble is removed after the explosion.

Construction of the bridge in the East Channel from barges may require dredging to provide a water depth sufficient for barge operations. This area supports a mussel population, is popular with anglers and is an important fishery habitat. Dredging of the East Channel has been encouraged by the U.S. FWS to encourage a deeper habitat; the WDNR similarly encourages the use of barges here for construction. Dredging, if necessary, would occur in the area shown as "Potential Tug and Barge Activity" on Figure 12. The contractor would select the construction method to use, subject to DOT approval and receipt of applicable permits for the activity.

A temporary causeway was discussed by project proposers as an alternative potential construction method for the East Channel bridge spans. A causeway could be constructed as a temporary land peninsula, as a temporary bridge type structure, or a combination of the two. It is expected that the causeway would be built from the land westward into the channel wholly on WisDOT right-of-way. Any portion proposed as a land peninsula would be constructed with a filter fabric placed on the river bottom, then covered with rock and lined with rip rap or sheeting to protect against erosion during construction. A floating silt fence would be required around the entire area to capture silt. At a minimum, the causeway would utilize a temporary bridge structure to allow access to the northern part of the East Channel by maintaining a 15-foot minimum open waterway for recreational access throughout the construction project. Because the causeway would be temporary, the impacts from this work are not included in the wetland impacts discussed in Section 4.12.1 and 4.12.2.

Construction of the causeway would require permitting through the DNR and the COE and coordination with these agencies regarding timing, duration and construction/removal method. The contractor would be required to obtain permits for its preferred construction method. Temporary structures (such as barge mooring areas, temporary causeway) will be removed at the conclusion of the project, likely starting from the river and working towards the shoreline. The rock fill would be removed using heavy equipment and trucks. The river bottom and surrounding shoreline area would be restored to its original or permitted condition.

Mitigation measures to minimize physical impacts to the river will be both temporary and permanent. Permanent water quality mitigation measures for the proposed facility are discussed in Section 4.17. Various measures would be used to contain the material to the

greatest extent practicable; debris that enters the river would be identified and removed using standard dredging practices. Temporary measures will include floating booms where appropriate to contain concrete dust and debris to the greatest extent practical within the river. Erosion control measures may include silt fences, temporary and/or permanent sediment basins, diversion dikes, and other common practices. Side sonar will be performed before and after the pier removals occur to identify and remove any debris from the river bottom.

4.13. Water Use

Will the project involve installation or abandonment of any water wells, connection to or changes in any public water supply or appropriation of any ground or surface water (including dewatering)?
_____*Yes* __**X**__*No*

If yes, as applicable, give location and purpose of any new wells; public supply affected, changes to be made, and water quantities to be used; the source, duration, quantity and purpose of any appropriations; and unique well numbers and DNR appropriation permit numbers, if known. Identify any existing and new wells on the site map. If there are no wells known on site, explain methodology used to determine.

The Rest Area would continue operating as usual during part of the project and after the project is constructed. It would utilize the existing well for water supply. No new wells would be installed, or other wells abandoned for the project, nor would public water supply be changed. The road and bridge permanent improvements would not affect groundwater. Some temporary groundwater dewatering may be required for constructing footings, storm water systems, ponding basins, or other structures. The amount of dewatering that may be required has not yet been determined. The appropriate permits and coordination with the MNDNR and WDNR will be acquired prior to construction. Dewatering is not anticipated to have adverse effects on ground water quality or levels in the area.

4.14. Water-Related Land Use Management District

Does any part of the project involve a shoreland zoning district, a delineated 100-year flood plain, or a state or federally designated wild or scenic river land use district? __***X***__*Yes* __*No*

If yes, identify the district and discuss project compatibility with district land use restrictions.

4.14.1. Land Use Designations

The entire Wisconsin portion and some of the Minnesota portion of the project area lie within the Refuge. The *U.S. FWS Comprehensive Conservation Plan (CCP) for the Upper Mississippi River National Wildlife and Fish Refuge* (2006) guides the management and administration of the Refuge.

The Wisconsin side of the project area is entirely within the Refuge, with the exception of private, undeveloped land (south of and encroaching into the project area) that is landlocked by the Refuge, as identified in Figure 3. On the Minnesota side, the U.S. FWS and MNDNR maintain and operate boat ramps, MnDOT has a Rest Area, and the COE operates Lock & Dam #7.

4.14.2. Floodplain Assessment

The most recent Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) were used for this study (Winona County map 270525 0225 C, dated January 1984; and La Crosse County maps 55063C0231C and 55063C0232C, dated April 2008). The Wisconsin maps delineate floodway areas and flood hazard areas inundated by the 100-year flood; the available Minnesota mapping shows 100-year floodplain areas, but does not show floodway areas. Results of a recent (2002) study by FEMA provided to MnDOT for this project indicate that the floodway in the project area corresponds with the 100-year floodplain. Therefore, for this study, the floodway and the 100-year floodplain have the same limits (Figure 3).

The project area includes floodplain/floodway adjacent to the Mississippi River. The existing Wisconsin approach is built on fill transitioning to a bridge structure with piers located either in floodplain/floodway or in the river channels. The majority of the project area in Minnesota is outside of the floodplain/floodway. As with the current bridge, the Preferred Alternative would transversely cross the floodplain. Roadway embankment, bridge, bridge piers and temporary causeway and fill areas would affect the floodplain longitudinally and transversely, as shown on Table 9 and Figure 3.

Table 9 - Floodplain Impacts – Preferred Alternative

Floodplain	Type of Encroachment	Length (ft)
Mississippi River (bridge over main channel, island and back channel)	Transverse	2,370 feet (west main channel riverbank to East Channel east bank) 9 pairs of piers
	Longitudinal	91 to 110 feet (total width of two new bridges)
Mississippi River (WI side floodplain)	Transverse	2,000 feet (back channel bank to project east terminus; width of roadbed)
Mississippi River	Transverse (potential temporary causeway in WI channel)	590 feet
	Longitudinal	30 feet
Mississippi River	Transverse (potential temporary fill behind sheet piling along east bank for barge mooring)	330 feet
	Longitudinal	50 feet

Permanent Encroachment

The existing bridge and Wisconsin approach roadway cross the 100-year floodplain. The preferred alternative would relocate, but not increase the width of the I-90 embankment in Wisconsin. The existing bridge and its abutments are above the 100-year flood elevation.

Temporary Encroachment

MnDOT anticipates that temporary sheet piling along the west main channel bank for docking barges, and a temporary causeway in the East Channel may be necessary for the construction of the four pairs of eastern bridge piers. The temporary fill and causeway would be constructed to an elevation just over normal pool elevation. Section 4.12.5 discusses the construction activities in the river. Figure 12 shows the areas of potential temporary fill and causeway. The length of time these temporary encroachments will be in the river varies depending on the contractor's preferred construction methods, and other conditions, but it is anticipated that the construction of the Preferred Alternative will take about three years to complete. The amount of temporary flood stage increase from this condition would be insignificant, given the large flood storage capacity in this area of the Mississippi River.

Analysis

A Waterway Analysis performed in 2009 for this project by MnDOT included modeling Preferred Alternative 10B impacts on flood stage. The results indicate the flood stage increase for the 50-year flood would be 0.3 feet; for the 500-year flood would be 0.2 feet; and for the 100-year flood would be 0.3 feet. The analysis showed that the hydrologic characteristics of the Mississippi River are not anticipated to sustain substantial impacts from the proposed project. The river piers for the preferred alternative are normal to the centerline of the bridge and skewed to the flow of the river by 20 degrees. The computed scour for a 500-year flood is 41.7 feet below the river bottom at the pier location. The ramp design change discussed in Section 3.52 would not change the bridge pier design or size. No substantial increase in scour is anticipated to result from the pier modification. A Hydraulic Analysis performed by MnDOT (see Appendix B, letter dated February 1, 2011) verifies the initial study results would not change.

A design refinement that is being considered for Final Design is to align the pier footing and supporting base for the columns with the river flow. This design refinement may reduce the anticipated scour depth to approximately 29 or 27 feet of scour, depending on the pier nose design.

The effects on the floodplain and floodway of the Mississippi River were analyzed with respect to four general areas, consistent with Presidential Executive Order 11988 – Floodplain Management, as discussed below.

<u>Area I. No significant potential for interruption of a transportation facility which is needed for emergency vehicles or provides a community's only evacuation route.</u>

All roadways constructed within the 100-year floodplain limits of the Mississippi River are designed, at a minimum, to be above the 100-year flood elevation of 647 feet above sea level (ASL) at this location along the Mississippi River. No overtopping of the bridge or roadways would occur with a 100-year flood to interfere with emergency service vehicles or evacuation routes.

Area II. No significant adverse impact on natural and beneficial floodplain values.
No permanent fisheries impact is anticipated. Construction operations in the river would not occur from approximately March 1 through June l to protect fish spawning and migration (see Section 4.11.)

The project would not increase runoff flow velocities into the Mississippi River for most flow conditions. The bridge design includes directing bridge run-off eastward or westward to sedimentation ponds that would contain the water and allow sediment to settle out before runoff is directed into the Mississippi River.

The project would not involve any State or Federal (Potential) Wild and Scenic River.
The Mississippi River in the project area is not within the Mississippi River Critical Area.

Other surface water bodies in the project area include highway ditches that direct water toward the Mississippi River, ponds or wetlands. One intermittent stream flows eastward from the Minnesota bluffs into the northern part of the project area. Seasonally flooded wetlands are also in the project area. The Preferred Alternative would retain the existing rural drainage system and general surface flow directions where possible, and utilize best management practices. Impacts on wetlands are discussed in Section 4.12., and would be properly mitigated following state and federal regulations. The bridge runoff would be directed into sedimentation ponds near the ends of the bridge (see Water Quality Section 4.17).

Appropriate turf establishment and erosion control measures would be used. Contractors would comply with MnDOT specifications and NPDES permit requirements regarding erosion control and protection of public waters. As discussed in Section 4.16 Erosion and Sedimentation, an erosion control plan and best management practices would be employed specifying temporary and permanent measures. Measures would include use of temporary seeding, bale ditch checks, silt fences, temporary sedimentation basins, ditch blocks, energy dissipaters and re-vegetation of disturbed areas with native species.

Area III. No significant increased risk of flooding will result.
A total of nine pairs of new piers would be constructed in the floodplain: two pairs in the main channel, three pairs on the island between the main channel and the East Channel, and four pairs in the East Channel (see Figure 10). No substantial increased risk of flooding would result from the loss of this area of flood storage as a result of the project. The embankment work in Minnesota will not encroach into the floodplain beyond the existing conditions. The impacts and displacement volumes of the piers and approach road embankments would be insignificant, given the large flood storage capacity in this area of the Mississippi River.

During construction (for a period of up to 3 years), there would be a temporary flood stage increase when two sets of piers would be in the river, as well as cofferdams, temporary fill and a temporary causeway for pier construction in the East Channel The two sets of river piers existing simultaneously in the river would arise from maintaining the existing bridge for traffic

flow during construction of the new bridge, until traffic can be shifted to the completed new bridge on the second set of piers. The amount of temporary flood stage increase from this condition would be insignificant, given the large flood storage capacity in this area of the Mississippi River. MnDOT is coordinating with the MNDNR, WDNR, COE, U.S. FWS and Coast Guard on the temporary River and floodplain impacts stemming from construction.

Area IV. This project should not result in any incompatible floodplain development.
This project would not support incompatible local development in the floodplain. In addition, no new access to a floodplain area would be created by the project.

Based on the above floodplain assessment, the proposed project would not cause significant floodplain impacts.

4.14.3. Shoreland Zoning Districts and Wild or Scenic River Land Use Districts

The Winona County Zoning Ordinance establishes a Shoreland Zoning District as an overlay district that includes land within 1,000 feet of lakes, ponds or flows (including the Mississippi River) and extends 300 feet from a river or stream or landward extent of a floodplain. Allowed uses are the same as those in the underlying zoning District, but there are additional requirements, lot sizes, lake setbacks, shoreland alteration regulations, setbacks for buildings and septic systems, etc. In this District, the required setback from the ordinary high water level for septic systems is 75 feet (applicable to future Rest Area reconstruction) while the setback requirement for (unsewered) structures is 100 feet. Although MnDOT is not subject to local zoning ordinances, these setbacks would be taken into account in the future reconstruction design.

The Mississippi River is a MNDNR Public Water (Public Water # 5P). The project will require a Public Waters Work Permit, and should meet the conditions of Bridge and Culvert General Permit (GP) Number 2004-0001 (see DNR letter dated January 8, 2008 and attachment in Appendix B) Also, the Mississippi River is a WDNR Area of Special Natural Resource Interest. Work in this area can proceed in accordance with the WisDOT/WDNR Cooperative Agency Agreement without additional permitting requirements.

The project area does not include wild or scenic river land use districts.

4.14.4. Canoe and Boating Route

The stretch of the Mississippi River in this area is designated a Canoe and Boating Route by the MNDNR. Because the bridge piers would not change the flow of the river, the Canoe and Boating Route would not be changed. The boat launch accesses will not be permanently affected as a result of this project. Construction notices would be posted to local and Internet information outlets to inform the public of any temporary closures of launches or impediments to river use during construction. MnDOT would coordinate with MNDNR and WDNR to develop other procedures to notify river users of construction schedules that may interrupt launch use.

4.15. Water Surface Use

*Will the project change the number or type of watercraft on any water body? __Yes __**X**__No*

If yes, indicate the current and projected watercraft usage and discuss any potential overcrowding or conflicts with other uses.

4.16. Erosion and Sedimentation

Give the acreage to be graded or excavated and the cubic yards of soil to be moved:

Acres to be graded: 8 acres

Cubic yards to be moved: 1,306,000 cubic yards

The areas and volumes of soil to be graded, excavated or moved are based on preliminary design and related construction limits.

Describe any steep slopes or highly erodible soils and identify them on the site map. Describe any erosion and sedimentation control measures to be used during and after project construction.

The EAW Guidelines identify steep slopes as slopes of 12 percent or greater. The Natural Resources Conservation Service (NRCS) Soil Surveys of the project area indicates no steep slopes or highly erodible soils in Wisconsin. Steep slopes and highly erodible soils were identified in Minnesota as shown on Figure 3. These areas mostly occur on sides and the tops of bluffs, outside of the project construction impact area.

This project would result in some potential for erosion, as existing ground cover would be disturbed or removed. Also, sedimentation could result where barges would be moored onto temporary pilings for construction (spudding). Construction Storm Water Permits (NPDES Permits) for activities in Minnesota and Wisconsin would be required for this project. Erosion prevention and sediment control requirements would be followed in accordance with the NPDES permit, which includes both temporary and permanent erosion and sediment control plans to be developed. Best management practices (BMPs) contained in MnDOT's and WisDOT's standard specifications, details, and special provisions would also be used. The construction of permanent sedimentation basins to manage the storm water from the bridge and I-90 right-of-way, erosion and sediment control measures would be identified in the project's Storm water Pollution Prevention Plan (SWPPP), erosion control plan, and adhered to as specified in MnDOT's and WisDOT's Standard Specifications, details, and special provisions. Potential locations of temporary and permanent sedimentation basins are shown on Figure 15.

Permanent sediment control measures would consist of establishing vegetation on all exposed soils in accordance with NPDES Permit and as outlined in the SWPPP. Construction BMPs and temporary sediment control measures will minimize erosion potential during construction. Drainage structure outlets would be designed to include outlet stabilization to minimize erosion and turbidity. A vegetative buffer/riparian area along drainage ways would be provided to aid

infiltration. Other runoff would be directed through grass ditches and into detention ponds in the project area.

4.17. Water Quality: Surface Water Runoff

a. Compare the quantity and quality of site runoff before and after the project. Describe permanent controls to manage or treat runoff. Describe any storm water pollution prevention plans.

Identify routes and receiving water bodies for runoff from the site; include major downstream water bodies as well as the immediate receiving waters. Estimate impact runoff on the quality of receiving waters.

Traffic-related pollutants consist of copper, lead, zinc, and phosphorus. A study conducted by the U.S. Environmental Protection Agency (EPA) entitled, "Results of the Nationwide Urban Runoff Program", December 1983 identified the above pollutants as the predominant constituents in highway runoff. Other common pollutants are total suspended solids (TSS) and chloride that are introduced into highway runoff primarily from winter deicing practices. The amounts vary depending upon the application rate and the number of ice/snowfall events in a given year. An effective means of reducing the level of pollutants discharged from a roadway into a receiving stream/water body via surface water runoff is to provide grass side slopes, ditches and sedimentation ponds to aid in settling, treatment and infiltration.

Runoff from the project area currently drains via storm sewer and overland flow to ditches or wetlands, eventually discharging to the Mississippi River. Storm water runoff from the river bridge deck is currently conveyed directly to the river or onto the ground next to the river via scuppers and downspouts. No water quality measures are included in the existing drainage system, as storm sewer discharges directly to the river.

The proposed project would result in increased impervious areas due to the increased river crossing surface and additional roadway surface. To study the change in impervious surface, project designers examined the existing and proposed conditions in three drainage areas (Minnesota, Rest Area, and Wisconsin Drainage areas) generally within the project construction limits. (Note that the construction limit area is limited to the roadway and bridge surfaces affected and added by the project, and is a smaller sub-set of the "project area".) The Minnesota Drainage Area includes all of the project area west of the proposed high point on the river bridges and represents the largest of the three drainage areas. The Rest Area Drainage Area includes the Rest Area building, parking lots, entrances, and portions of the pervious areas surrounding the site. The Wisconsin Drainage Area includes the majority of the river bridge(s) and the Wisconsin approach road. As shown on Table 10, impervious area would increase with the proposed project. The runoff collected from the bridge presently drains directly into the Mississippi River without treatment or rate control. The runoff collected from the remaining impervious areas discharges into adjacent wetlands or mainline culverts that also discharge into the Mississippi River without treatment or rate control. The proposed project

would increase the bridge surface by 3.2 acres (from 6.5 acres to 9.7 acres), and increase the overall impervious surface area by 16.4 acres.

Table 10. - Existing and Proposed Impervious Surface Area Summary

	Existing Impervious Surface Area (acres)	Proposed Impervious Surface Area (acres)	New Impervious Surface Area (acres)
Minnesota Drainage Area	21.7	31.0	9.3
Rest Area Drainage Area (MN)	1.8	5.0	3.1
Wisconsin Drainage Area	6.9	9.5	2.6
Total	**30.4**	**45.5**	**13.2**

To mitigate for the increased impervious surface, the proposed project will collect runoff from the bridge decks and roadways and, as allowed by site conditions, will provide water quality treatment to meet NPDES standards. This will reduce pollutant loading by discharging storm water for treatment to best management practices (BMPs). These BMPs are expected to mitigate the adverse effects of the increased impervious surfaces and pollutant generation and improve the quality of storm water being discharged to the river when compared with existing conditions. In addition to providing water quality treatment, the drainage systems and ponds will also provide discharge attenuation. Potential pond locations are shown on Figure 15.

The North Pond located near the Riverfront access road will provide water quality treatment and rate control for runoff from a portion of I-90 west of the high point on the river bridges, a portion of the Riverfront Access Road, and a portion of the interchange. North Pond is designed to provide the required water quality treatment for the tributary drainage area (1800 cubic feet of dead cubic feet of dead storage volume per acre of project area drainage area), and provide treatment for a water quality volume equivalent to ½-inch of runoff over the new impervious surface area created by the project. North Pond meets the permanent storm water management requirements in the MPCA Construction Storm water permit. The designed water quality and dead storage volume will meet or exceed the required volume.

The Rest Area Pond is located between the River and the Riverfront Access Road. At a minimum, this pond will provide water quality treatment and rate control of runoff from the remainder of the Minnesota Project Drainage Area not treated at the North Pond. The Rest Area Pond will be designed to provide the required water quality treatment for the appropriate drainage areas (1800 cubic feet of dead storage volume per acre of area drained), and provide treatment for a water quality volume equivalent to ½-inch of runoff over the new impervious surface area. This pond meets the permanent storm water management requirements in the MPCA Construction Storm water permit. The designed water quality and dead storage volume will meet or exceed the required volume.

Runoff from "off-site" drainage areas adjacent to and outside the Minnesota and Rest Area Drainage Areas is generally outside of the construction limits. The off-site drainage area includes the bluffs to the west, and the corridor between US 61 and the River. These offsite

areas would discharge to the storm sewer /culvert system, and discharge directly to the Mississippi River, as is the current drainage pattern.

The WDNR regulates storm water management in Wisconsin; the requirements for storm water treatment for highway reconstruction projects are to achieve a reduction of 40% of the sediment load carried in runoff on an average annual basis. The required water quality treatment will be provided by the proposed Wisconsin Pond located at the Wisconsin approach, as shown on Figure 15. The designed water quality performance (removal of 68 % total suspended solids) exceeds the required performance standard (removal of 40 % total suspended solids).

The Wisconsin Ponds (West and East), shown on Figure 15, are within a 10,000-foot radius of the La Crosse Airport, which is the Airport's Aircraft Operating Area (AOA). Wildlife attractants such as ponds and wetlands within an AOA are considered hazards to navigation [(US DOT Federal Aviation Administration (FAA)] Advisory Circular 150/5200-33B). (The location of this pond relative to the AOA is shown on Figure 14a.) In accordance with FAA procedures, the United States Department of Agriculture (USDA)-Wisconsin reviewed the detention pond proposal, and recommended that, within this AOA, storm water ponds that hold water for periods greater than 48 hours not be constructed. The USDA recommended specific design features to greatly minimize the potential for attracting wildlife if the pond is sited within the AOA (see letter dated July 30, 2009 in Appendix B). (The USDA also discouraged the use of land within the AOA for the creation or restoration of mitigation wetlands, as discussed in Section 4.12.3.) The detention pond will be designed to meet the USDA recommendations and an agreement between MNDOT, WisDOT and the City of La Crosse will be developed to ensure the recommendations are being implemented.

Storm water Pollution Prevention Plans (SWPPP) would be prepared for the project per Minnesota and Wisconsin implementation of the National Pollution Discharge Elimination System (NPDES) requirement and the State of Wisconsin's Storm water Management Plan. Final design would include further study, sizing and shaping ponds to meet discharge, settling rate and volume requirements for the project, and to meet the requirements of MnDOT, WisDOT, WDNR, and MPCA.

4.18. Water Quality: Wastewaters

a. *Describe sources, composition and quantities of all sanitary, municipal and industrial wastewater produced or treated at the site.*

   The Rest Area, which lies within the project area, utilizes a septic system for disposal of sanitary wastewater.

b. *Describe waste treatment methods or pollution prevention efforts and give estimates of composition after treatment. Identify receiving waters, including major downstream water bodies (identifying any impaired waters), and estimate the discharge impact on the quality of receiving waters. If the project involves on-site sewage systems, discuss the suitability of site conditions for such systems.*

Substantial grading will occur in the rest area. A new septic system may be needed for the Rest Area if grading will adversely affect the functioning of the existing drainfield. MnDOT will evaluate this in final design.

c. *If wastes will be discharged into a publicly owned treatment facility, identify the facility, describe any pretreatment provisions and discuss the facility's ability to handle the volume and composition of wastes, identifying any improvements necessary.*

It is anticipated that the onsite septic system will be used or modified if affected by grading and future developments will utilize appropriate treatment methods.

4.19. Geologic Hazards and Soil Conditions

a. *Approximate depth (in feet) to:*

ground water: 0 *minimum* 30 *average;*
to bedrock: 20 *minimum* 50 *average.*

b. *Describe any of the following geologic site hazards to ground water and also identify them on the site map: sinkholes, shallow limestone formations or karst conditions. Describe measures to avoid or minimize environmental problems due to any of these hazards.*

4.19.1. Geology

The 1984 Winona County Geologic Atlas (produced by the Minnesota Geological Survey) indicates no known geologic site hazards to groundwater, such as sinkholes, shallow limestone formations, or karst conditions within the project area.

The surface topography in the project area is typically flat to gently rolling in the valleys, while rugged, steep bluffs parallel the valley plains. The land surface characteristics in Winona County resulted from glacial melting rivers washing and eroding the geological features. The project area is suspected to be in a non-glaciated area, known as the Driftless Zone, within the Paleozoic Plateau region. In Minnesota, the Paleozoic Plateau region is characterized by rugged bluffs and valleys. The original plateau was underlain by Paleozoic Era sedimentary rock, which, after years of erosion and dissection by glacial streams and rivers, alternating with wind depositing loess, becomes exposed on steep bluffs and valleys. Any evidence of glaciations in the region would have been eradicated by the melting glacial river flows.

The Driftless Zone is known for its shallow depth of loess (wind-blown sediments), thinly covering sedimentary rock of limestone, dolomite, shale and/or sandstone. Within the bluffs, exposed higher silt Eau Claire Formation units contain high levels of the green mica-like mineral, glauconite. Ground water from the Eau Claire formation exhibits a greenish color, which can be seen at the surface in frozen ice flows. These conditions give rise to bio-diverse ecosystems along the shallow soil-covered Minnesota bluffs in the project area. The Minnesota bluffs also support visible outcrops of the Franconia Formation sandstone, St. Lawrence

Formation shale, Jordan Sandstone, Prairie Du Chien Group of Oneota and Shakopee Formation dolomite. These bluffs are topped with highly erodible silt loams.

The flatter floodplain valley along the eastern side of the Mississippi River, and some areas of the western side, are typically sandy alluvium mixed soils. The MnDOT Rest Area within the project area is built on sandy alluvium soils overlain with dredged river material placed at that location to raise the rest area elevation.

Impacts on bio-diverse bluffs have been be minimized by designing roads to avoid or minimize cutting backslopes into the bluffs. Maintaining the near vertical backslopes along the bluff in the I-90/US 61 interchange area was identified as a high priority, and the project design was planned to avoid/minimize impacts to the backslopes, thus minimizing disturbance of the existing bluffs. The highly erodible silt loams of the Minnesota area are more susceptible to erosion during construction when topsoil is stripped off. Both permanent and temporary erosion control techniques would be utilized to minimize soil erosion and bluff soil sloughing. Best Management Practices (BMPs), such as silt fencing and slope stabilization (as outlined in the Minnesota Pollution Control Agency's "Protecting Water Quality") would be implemented in accordance with the NPDES permit required for the project. Once the construction process is complete, any temporary erosion control devices would be removed and any exposed areas would be re-vegetated to control erosion on a permanent basis. A slope maintenance plan would be included as part of the construction plan.

4.19.2. Hydrogeology

Published literature identifies sand and gravel aquifers in valley fill deposits as the principle groundwater system underlying the project area. Sand and gravel aquifers in Winona County are reportedly discontinuous in nature and their lateral distribution beneath the project area was unmapped in available sources. Five bedrock aquifers are indicated in the larger Winona County area (Upper Carbonate, St. Peter, Prairie du Chien-Jordan, Franconia-Ironton-Galesville and the Mt. Simon). However, based on the erosional features of the Mississippi River valley, only the Mt. Simon aquifer is likely to be present beneath the project area. In Minnesota, groundwater and surface water flow direction, inferred from regional topography and published literature, is assumed east toward the Mississippi River in both the sand and gravel and Mt. Simon aquifers. In Wisconsin, groundwater and surface water flow direction in the project area is inferred to be west and south/southwest. Based on proximity to the Mississippi River and surface topography, depth to groundwater is expected to have an average depth of 30 feet below ground surface within the project area.

The Minnesota Department of Health (MDH) Wellhead Area Protection Program defines groundwater recharge areas for municipal wells (or well fields) and establishes protective measures against potential groundwater contaminants. A review of MDH records indicates no designated sole source aquifers in the project area.

A search of MDH well records identified three wells within the project area (see Figure 13). The three public supply/non-community transient wells extend to depths between 219 and 305 feet below ground surface (fbg). Two of the wells are located near Lock & Dam No. 7 and have static water levels of 7 and 8 fbg with bedrock present between 21 and 45 fbg. The third well is located at the Rest Area and has a static water level of 28 fbg with bedrock at 102 fbg. Well and boring records indicate the wells are not susceptible because they meet well construction standards and do not present a pathway for contamination to readily enter the water supply. No abandoned wells were identified in the project area, but it is possible that improperly abandoned wells exist within the project area. Should this condition be encountered during construction, the contractor would cap or close the well in accordance with MDH requirements.

A search of Wisconsin Geological and Natural History Survey well records indicated no known wells in the Wisconsin portion of the project area. The project is not located over a drinking water supply management area.

Some temporary groundwater dewatering may be required for constructing footings, storm water systems, ponding basins, or other structures. The amount of dewatering that may be required has not yet been determined. The appropriate permits and coordination with the MNDNR and WDNR will be acquired prior to construction. Dewatering is not anticipated to have adverse effects on ground water quality or levels in the area.

c. *Describe the soils on the site, giving NRCS (SCS) classifications, if known. Discuss soil texture and potential for groundwater contamination from wastes or chemicals spread or spilled onto the soils. Discuss any mitigation measures to prevent such contamination.*

The NRCS Soil Survey of La Crosse and Winona Counties indicates that the soils in Minnesota are predominantly mapped as loamy Udorthents. These soils are nearly level to sloping, have been altered by excavation and/or filling with loamy material and are common in cut-and-fill areas along highways and filled-in sites of poorly drained soils.

In Wisconsin the soils are mapped primarily as Algansee Kalmarville complex, comprised of silts with stratified sandy loam, with some Scotah loamy fine sand. Both the Algansee Kalmarville and the Scotah sand overlie gravelly coarse sand. Isolated areas of palms muck are mapped in the southern part of the project area.

The proposed project does not include the transport, manufacture or distribution of any hazardous wastes or chemicals, other than what is normally used with standard construction practice in the building of roads and bridges. The proposed project would involve limited use of contaminants such as petroleum-based products for construction activities; however, there is limited potential for soil or groundwater contamination from these activities. The contractor would be required to obtain approval from the project engineer for a chemical storage area, provide a chemical spill kit onsite, designate a fueling area for construction vehicles with means to capture any fuel spills, provide pre-treatment runoff prior to infiltration with a structural

pollution control device (or provide for filtration if the depth to groundwater or contamination of in-place soils preclude infiltration) and employ erosion control measures in accordance with the storm water pollution prevention plan. If a spill or leak occurs during construction activities, appropriate action to first respond to and contain, then remediate the situation would be taken immediately in accordance with state guidelines and regulations.

4.20. Solid Wastes, Hazardous Wastes, Storage Tanks

a. Describe types, amounts and compositions of solid or hazardous wastes, including solid animal manure, sludge and ash, produced during construction and operation. Identify method and location of disposal. For projects generating municipal solid waste, indicate if there is a source separation plan; describe how the project will be modified for recycling. If hazardous waste is generated, indicate if there is a hazardous waste minimization plan and routine hazardous waste reduction assessments.

Regulated materials and wastes, including hazardous waste, may be encountered during construction. Prior to construction an asbestos inspection will be completed. Bridge demolition may result in asbestos-containing waste, lead-based paint, fluorescent bulbs, or other hazardous materials. These would be handled in accordance with MnDOT guidelines. Only MnDOT certified and approved staff and contractors would be used on the project construction.

All regulated materials and wastes, including hazardous waste would be removed under separate contract prior to demolition of structures. Demolition debris (inert materials such as concrete, brick, bituminous pavement, wood, glass, trees, rock, and plastics) would be disposed in an MPCA-permitted demolition landfill or separated and recycled. All materials would be handled and disposed in accordance with state guidelines and regulations. A "Notice of Demolition and/or Renovation and Application for Permit Exemption" (NODR) will be completed and submitted to WDNR prior to initiation of work.

b. Identify any toxic or hazardous materials to be used or present at the site and identify measures to be used to prevent them from contaminating groundwater. If the use of toxic or hazardous materials would lead to a regulated waste, discharge or emission, discuss any alternatives considered to minimize or eliminate the waste, discharge or emission.

Toxic or hazardous materials would not be present at the construction site, with the exception of fuels and lubricants needed for construction equipment. Appropriate safety measures would be followed during construction to avoid spills. Leaks, spills or other releases would be responded to in accordance with MPCA and /or WDNR spill, containment and remedial action procedures.

c. Indicate the number, location, size and use of any above or below ground tanks to store petroleum products or other materials, except water. Describe any emergency response containment plans.

No permanent above or below ground storage tanks would be included with the project. Temporary storage tanks for petroleum products may be located in the project area for use in

construction vehicles. Appropriate safety measures would be followed during construction to avoid spills. Leaks, spills or other releases would be responded to in accordance with MPCA and /or WDNR spill, containment and remedial action procedures.

4.21. Traffic

Existing rest area spaces (if project involves expansion): Approximately 58 standard car stalls, 2 handicapped-person accessible car stalls, 5 recreational vehicle stalls and 7 semi-tractor trailer truck stalls are provided at the Rest Area. The U.S. FWS Boat Launch has approximately 21 car/trailer stalls, and 6 car-only car stalls, plus 24 overflow parking car-only stalls. The MNDNR Boat Launch has approximately 28 car/trailer stalls, with additional parking space on the grassed berm along the access road.
Estimated total average daily traffic generated: N/A
Estimated maximum peak hour traffic generated and time of occurrence: See discussion below.
Indicate source of trip generation rates used in the estimates. N/A

If the peak hour traffic generated exceeds 250 vehicles or the total daily trips exceeds 2,500, a traffic impact study must be prepared as part of the EAW. Using the format and procedures described in the Minnesota Department of Transportation's Traffic Impact Study Guidance (available at: http://www.dot.state.mn.us/accessmanagement/pdfchapters/chapter5.pdf) or a similar local guidance, provide an estimate of the impact on traffic congestion on affected roads and describe any traffic improvements necessary. The analysis must discuss the project's impact on the regional transportation system.

Parking spaces added: No parking spaces will be added.

The proposed project would not generate traffic; rather, the project would address roadway safety and operational problems identified in the Purpose and Need. In doing so, it would accommodate long-range average daily traffic (ADT) forecasts for the bridge and interchange ramps identified in Table 11. A primary task of the traffic projections and capacity analysis was to provide a recommendation of the number of lanes necessary to provide a certain Level of Service (LOS) for the river bridge.

Table 11 - Mainline and Ramp Level of Service Forecasts

	2006		2035		2045		2065	
Roadway	ADT	LOS	ADT	LOS	ADT	LOS	ADT	LOS
I-90 Bridge (Mainline)	25,000	A	37,700	B	41,800	C	49,750	C
Westbound off-ramp (I-90 to SB US 61)	5,450	B	7,800	B	8,560	B	10,100	C
Eastbound on-ramp (to I-90 from NB US 61)	5,060	B	7,225	C	7,950	C	9,450	D

ADT – Average Daily Traffic; LOS – Level of Service

Basic Freeway Segment Analysis was used for the mainline bridge, and a Merge Analysis was used for the interchange ramps on the west end of the bridge. Based on the review, a four-lane

bridge was recommended with single lane entrance and exit ramps. Discussions concluded that LOS B would be acceptable for 20 years (2035), and that LOS C would be acceptable for Year 2065. The resultant LOS C on the bridge in 2065 would provide reasonable conditions for roadway users. The resultant LOS D on the eastbound on-ramp in 2065 would also provide acceptable conditions for roadway users, although some delays may be experienced during peak hours. This study's results and additional traffic forecast information are documented in the technical memorandum, *Dresbach Traffic Projections and Capacity Analysis*, dated November 21, 2008 [available from MnDOT contact (Section 4.3) upon request].

La Crosse Municipal Transit Utility (MTU) provides regular route transit service in the La Crosse-La Crescent Area, including eight fixed routes and two flexible routes. Route 10 connects the cities of La Crosse and La Crescent via the US 61/US 14 bridge to the south, which directly connects La Crescent and downtown La Crosse. No regular or flex-route transit service travels through the project area; therefore, no impacts to transit service would result from this project.

4.22. Vehicle-Related Air Emissions

Estimate the effect of the project's traffic generation on air quality, including carbon monoxide levels. Discuss the effect of traffic improvements or other mitigation measures on air quality impacts.

4.22.1. NAAQS

The project area is not in an area where conformity requirements apply (is not in a "non-attainment" area of either Minnesota or Wisconsin), and the scope of the project does not indicate any impacts to the National Ambient Air Quality Standards (NAAQS). Therefore, no regional emission analysis, hot spot analysis or conformity determination is required.

4.22.2. Mobile Source Air Toxics

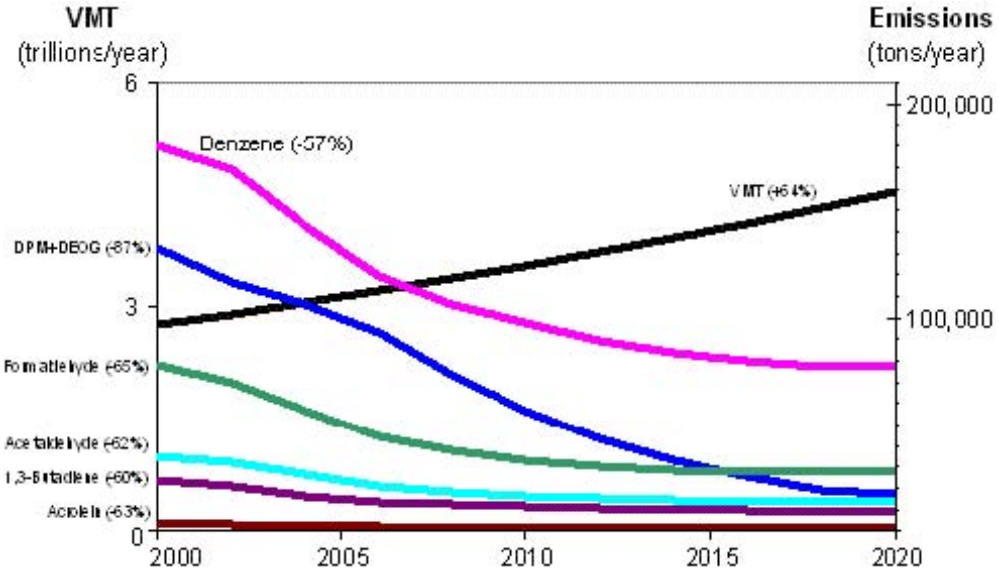
In addition to the criteria air pollutants for which there are NAAQS, the Environmental Protection Agency (EPA) also regulates air toxics. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (e.g., airplanes), area sources (e.g., dry cleaners) and stationary sources (e.g., factories or refineries).

Mobile Source Air Toxics (MSATs) are a subset of the 188 air toxics defined by the Clean Air Act. The MSATs are compounds emitted from highway vehicles and non-road equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline.

The EPA is the lead Federal Agency for administering the Clean Air Act and has certain responsibilities regarding the health effects of MSATs. The EPA issued a Final Rule on Controlling Emissions of Hazardous Air Pollutants from Mobile Sources. 66 FR 17229 (March 29, 2001). This rule was issued under the authority in Section 202 of the Clean Air Act. In its rule, EPA examined the impacts of existing and newly promulgated mobile source control

programs, including its reformulated gasoline (RFG) program, its national low emission vehicle (NLEV) standards, its Tier 2 motor vehicle emissions standards and gasoline sulfur control requirements, and its proposed heavy duty engine and vehicle standards and on-highway diesel fuel sulfur control requirements. Between 2000 and 2020, FHWA projects that even with a 64 percent increase in vehicle miles traveled (VMT), these programs will reduce on-highway emissions of benzene, formaldehyde, 1,3-butadiene, and acetaldehyde by 57 percent to 65 percent, and will reduce on-highway diesel particulate matter (PM) emissions by 87 percent, as shown in the graph below.

U.S. Annual Vehicle Miles Traveled (VMT) vs. Mobile Source Air Toxics (MSAT) Emissions - 2000-2020



Notes: For on-road mobile sources. Emissions factors were generated using MOBILE 6.2. MTBE proportion of market for oxygenates is held constant, at 50%. Gasoline RVP and oxygenate content are held constant. VMT: Highway Statistics 2000, Table VM-2 for 2000, analysis assumes annual growth rate of 2.5%. "DPM + DEOG" is based on MOBILE 6.2-generated factors for elemental carbon, organic carbon and SO4 from diesel-powered vehicles, with the particle size cutoff set at 10.0 microns. Does not include additional benefits from the 2007 MSAT rule.

In February 2007, EPA issued a new rule to reduce hazardous air pollutants from mobile sources. The final standards will lower emissions of benzene and other air toxics in three ways: (1) by lowering the benzene content in gasoline, (2) by reducing exhaust emissions from passenger vehicles operated at cold temperatures, and (3) by reducing emissions that evaporate from, and permeate through, portable fuel containers. The EPA expects that the new fuel benzene standard and hydrocarbon standards for vehicles and gas cans will together reduce total emissions of mobile-source air toxics by 330,000 tons in 2030, including 61,000 tons of benzene. As a result of this rule, new passenger vehicles will emit 45 percent less benzene, gas cans will emit 78 percent less benzene, and gasoline will have 38 percent less benzene overall.

Unavailable Information for Project Specific MSAT Impact Analysis

This EA/EAW includes a basic analysis of the likely MSAT emission impacts of this proposed project. However, available technical tools do not enable us to predict the project-specific health impacts of the emission changes associated with the alternatives in this EA/EAW. Due to these limitations, the following discussion is included in accordance with Council on Environmental Quality (CEQ) regulations (40 CFR 1502.22(b)) regarding incomplete or unavailable information. Note that the language and statistics quoted in this section are derived from "Interim Guidance on Air Toxics Analysis in NEPA Documents," Cynthia J. Burbank, published by FHWA on February 3, 2006.

Information That is Unavailable or Incomplete

Evaluating the environmental and health impacts from MSATs on a proposed highway project would involve several key elements, including emissions modeling, dispersion modeling in order to estimate ambient concentrations resulting from the estimated emissions, exposure modeling in order to estimate human exposure to the estimated concentrations, and then final determination of health impacts based on the estimated exposure. Each of these steps is encumbered by technical shortcomings or uncertain science that prevents a more complete determination of the MSAT health impacts of this project.

- **Emissions**: The EPA tools to estimate MSAT emissions from motor vehicles are not sensitive to key variables determining emissions of MSATs in the context of highway projects. While MOBILE 6.2 (an air quality modeling computer program) is used to predict emissions at a regional level, it has limited applicability at the project level. MOBILE 6.2 is a trip-based model--emission factors are projected based on a typical trip of 7.5 miles, and on average speeds for this typical trip. This means that MOBILE 6.2 does not have the ability to predict emission factors for a specific vehicle operating condition at a specific location at a specific time. Because of this limitation, MOBILE 6.2 can only approximate the operating speeds and levels of congestion likely to be present on the largest-scale projects, and cannot adequately capture emissions effects of smaller projects. For particulate matter, the model results are not sensitive to average trip speed, although the other MSAT emission rates do change with changes in trip speed. Lastly, in its discussions of PM under the conformity rule, EPA has identified problems with MOBILE 6.2 as an obstacle to quantitative analysis.

  These deficiencies compromise the capability of MOBILE 6.2 to estimate MSAT emissions. MOBILE 6.2 is an adequate tool for projecting emissions trends, and performing relative analyses between alternatives for very large projects, but it is not sensitive enough to capture the effects of travel changes tied to smaller projects or to predict emissions near specific roadside locations.

- **Dispersion:** The tools to predict how MSATs disperse are also limited. The EPA's current regulatory models, CALINE3 and CAL3QHC, were developed and validated more than a decade ago for the purpose of predicting episodic concentrations of carbon

monoxide to determine compliance with the NAAQS. The performance of dispersion models is more accurate for predicting maximum concentrations that can occur at some time at some location within a geographic area. This limitation makes it difficult to predict accurate exposure patterns at specific times at specific highway project locations across an urban area to assess potential health risk. The National Cooperative Highway Research Program (NCHRP) is conducting research on best practices in applying models and other technical methods in the analysis of MSATs. This work also will focus on identifying appropriate methods of documenting and communicating MSAT impacts in the NEPA process and to the general public. Along with these general limitations of dispersion models, FHWA is also faced with a lack of monitoring data in most areas for use in establishing project-specific MSAT background concentrations.

- **Exposure Levels and Health Effects:** Finally, even if emission levels and concentrations of MSATs could be accurately predicted, shortcomings in current techniques for exposure assessment and risk analysis preclude us from reaching meaningful conclusions about project-specific health impacts. Exposure assessments are difficult because it is difficult to accurately calculate annual concentrations of MSATs near roadways, and to determine the portion of a year that people are actually exposed to those concentrations at a specific location. These difficulties are magnified for 70-year cancer assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over a 70-year period. There are also considerable uncertainties associated with the existing estimates of toxicity of the various MSATs, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population. Because of these shortcomings, any calculated difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with calculating the impacts. Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against other project impacts that are better suited for quantitative analysis.

Summary of Existing Credible Scientific Evidence Relevant to Evaluating the Impacts of MSATs

Research into the health impacts of MSATs is ongoing. For different emission types, there are a variety of studies that show that some either are statistically associated with adverse health outcomes through epidemiological studies (frequently based on emissions levels found in occupational settings) or that animals demonstrate adverse health outcomes when exposed to large doses.

Exposure to toxics has been a focus of a number of EPA efforts. Most notably, the agency conducted the National Air Toxics Assessment (NATA) in 1996 to evaluate modeled estimates of human exposure applicable to the county level. While not intended for use as a measure of or benchmark for local exposure, the modeled estimates in the NATA database best illustrate the levels of various toxics when aggregated to a national or state level.

The EPA is in the process of assessing the risks of various kinds of exposures to these pollutants. The EPA Integrated Risk Information System (IRIS) is a database of human health effects that may result from exposure to various substances found in the environment. The IRIS database is located at http://www.epa.gov/iris. The following toxicity information for the six prioritized MSATs was taken from the *Weight of Evidence Characterization* in the IRIS database summaries. This information is taken verbatim from EPA's IRIS database and represents the Agency's most current evaluations of the potential hazards and toxicology of these chemicals or mixtures.

- Benzene is characterized as a known human carcinogen.
- The potential carcinogenicity of acrolein cannot be determined because the existing data are inadequate for an assessment of human carcinogenic potential for either the oral or inhalation route of exposure.
- Formaldehyde is a probable human carcinogen, based on limited evidence in humans, and sufficient evidence in animals.
- 1,3-butadiene is characterized as carcinogenic to humans by inhalation.
- Acetaldehyde is a probable human carcinogen based on increased incidence of nasal tumors in male and female rats and laryngeal tumors in male and female hamsters after inhalation exposure.
- Diesel exhaust (DE) is likely to be carcinogenic to humans by inhalation from environmental exposures. Diesel exhaust as reviewed in this document is the combination of diesel particulate matter and diesel exhaust organic gases.
- Diesel exhaust also represents chronic respiratory effects, possibly the primary non-cancer hazard from MSATs. Prolonged exposures may impair pulmonary function and could produce symptoms, such as cough, phlegm, and chronic bronchitis. Exposure relationships have not been developed from these studies.

There have been other studies that address MSAT health impacts in proximity to roadways. The Health Effects Institute, a non-profit organization funded by EPA, FHWA, and industry, has undertaken a major series of studies to research near-roadway MSAT hot spots, the health implications of the entire mix of mobile source pollutants, and other topics. The final summary of the series is not expected for several years.

Some recent studies have reported that proximity to roadways is related to adverse health outcomes --particularly respiratory problems[7]. Much of this research is not specific to MSATs, instead surveying the full spectrum of both criteria and other pollutants. The FHWA cannot evaluate the validity of these studies, but more importantly, they do not provide information

[7] South Coast Air Quality Management District, Multiple Air Toxic Exposure Study-II (2000); Highway Health Hazards, The Sierra Club (2004) summarizing 24 Studies on the relationship between health and air quality); NEPA's Uncertainty in the Federal Legal Scheme Controlling Air Pollution from Motor Vehicles, Environmental Law Institute, 35 ELR 10273 (2005) with health studies cited therein.

that would be useful to alleviate the uncertainties listed above and enable us to perform a more comprehensive evaluation of the health impacts specific to this project.

Relevance of Unavailable or Incomplete Information to Evaluating Reasonably Foreseeable Significant Adverse Impacts on the Environment, and Evaluation of Impacts Based upon Theoretical Approaches or Research Methods Generally Accepted in the Scientific Community.

Because of the uncertainties outlined above, a quantitative assessment of the effects of air toxic emissions impacts on human health cannot be made at the project level. While available tools do allow us to reasonably predict relative emissions changes between alternatives for larger projects, the amount of MSAT emissions from each of the project alternatives and MSAT concentrations or exposures created by each of the project alternatives cannot be predicted with enough accuracy to be useful in estimating health impacts. (As noted above, the current emissions model is not capable of serving as a meaningful emissions analysis tool for smaller projects.) Therefore, the relevance of the unavailable or incomplete information is that it is not possible to make a determination of whether any of the alternatives would have "significant adverse impacts on the human environment."

In this document, MnDOT has provided a qualitative analysis of MSAT emissions relative to the project, and has acknowledged that while the project may result in increased exposure to MSAT emissions in certain locations, the overall emissions are decreasing over time and the concentrations and duration of exposures are uncertain. Because of this uncertainty, the health effects from these emissions cannot be estimated.

As discussed above, technical shortcomings of emissions and dispersion models and uncertain science with respect to health effects prevent meaningful or reliable estimates of MSAT emissions and effects of this project. However, even though reliable methods to accurately estimate the health impacts of MSATs at the project level do not exist, it is possible to qualitatively assess the levels of future MSAT emissions under the project. Although a qualitative analysis cannot identify and measure health impacts from MSATs, it can give a basis for identifying and comparing the potential differences among MSAT emissions-if any-from the various alternatives. The qualitative assessment presented below is derived in part from a study conducted by the FHWA entitled "*A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives*", which can be found at http://www.fhwa.dot.gov/environment/airtoxic/msatcompare/msatemissions.htm.

For the Preferred Alternative, the amount of MSATs emitted would be proportional to the VMT. As shown on Table 12, the daily VMT estimated for the Preferred (build) Alternative is lower than that for the No Build Alternative in 2015 (post construction). The lower estimated VMT for the Build Alternative is attributed to the increased efficiency and safety of the Preferred Alternative bridges, as opposed to the 2015 No Build condition, where existing bridge deterioration would result in compromised efficiency and bridge closures, resulting in

circuitous routes through La Crescent and La Crosse on US 61 to cross the river for local traffic, and through the Twin Cities (on I-94, I-494, I-35) for through traffic. This condition is accentuated in 2035. This decrease in VMT would lead to decreased MSAT emissions for the Preferred Alternative along the I-90 and US 61 mainlines. Because the VMT estimated for the No Build Alternative is higher than for the Build Alternative, higher levels of regional MSATs are not expected. The MSAT emissions decrease would be further augmented by decreased MSAT emission rates due to increased speeds; according to EPA's MOBILE6 emissions model, emissions of all of the priority MSATs except for diesel particulate matter decrease as speed increases. The extent that these speed-related emissions decreases further decrease VMT-related emissions cannot be reliably projected due to the inherent deficiencies of technical models.

Table 12 – Daily Vehicle Miles Traveled (VMT)

	Year 2006	Year 2015		Year 2035	
		No-Build	Preferred Alternative	No-Build	Preferred Alternative
Daily VMT	2,079.5	3,628.0	2,342.0	4,725.3	3,050.4
Percent Increase Over 2006 Existing					
Daily VMT	N/A	74.5 %	12.6%	127.2%	46.7%

Overall MSAT emissions will likely be further lowered from present levels in the design year as a result of EPA's national control programs, which are projected to reduce MSAT emissions by 57 to 87 percent between 2000 and 2020. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

4.22.3. Construction and Post-Construction Mitigation

As MSAT Levels are not projected to substantially increase due to the proposed project, and since MSAT impact criteria have not been defined, no construction or post-construction mitigation is provided.

4.23. Stationary Source Air Emissions

Describe the type, sources, quantities and compositions of any emissions from stationary sources of air emissions such as boilers, exhaust stacks or fugitive dust sources. Include any hazardous air pollutants (consult EAW Guidelines for a listing) and any greenhouse gases (such as carbon dioxide, methane, nitrous oxide) and ozone-depleting chemicals (chloro-fluorocarbons, hydrofluorocarbons, perfluorocarbons or sulfur hexafluoride). Also describe any proposed pollution prevention techniques and proposed air pollution control devices. Describe the impacts on air quality.

There are no stationary sources of air emissions associated with this project.

4.24. Odors, Noise and Dust

Will the project generate odors, noise or dust during construction or during operation?
_X Yes __No
If yes, describe sources, characteristics, duration, quantities or intensity and any proposed measures to mitigate adverse impacts. Also identify locations of nearby sensitive receptors and estimate impacts on them. Discuss potential impacts on human health or quality of life. (Note: fugitive dust generated by operations may be discussed at item 23 instead of here.)

Specific construction impacts are discussed in Section 5.8.

4.24.1. Odors

The proposed project would not generate substantial odors during construction. Potential odors would include exhaust from diesel engines.

4.24.2. Noise

There are no residences in immediate the project vicinity that would be affected by construction or post-construction traffic noise. The nearest residence is located atop the river bluffs in Minnesota, at an elevation that is approximately 485 feet above the elevation of the new interchange, and at a distance of approximately 800 feet from US 61 (south of the interchange), and 1,600 feet from the I-90/US 61 interchange (see Figure 3).

Construction
The construction activities associated with implementation of the proposed project would temporarily result in increased noise levels relative to existing conditions. These impacts will primarily be associated with construction equipment and pile driving.

Noise is defined as any unwanted sound. Sound travels in a wave motion and produces a sound pressure level. This sound pressure level is commonly measured in decibels. Decibels (dB) represent the logarithm of the ratio of a sound energy relative to a reference sound energy. The following table (Table 13), developed by the FHWA and the U.S. Environmental Protection Agency (EPA), shows peak noise levels from various types of construction equipment when monitored at a distance of 50 feet. The equipment listed is primarily associated with site grading/site preparation, which is the roadway construction phase generally associated with the highest noise levels.

Table 13 - Construction Equipment Noise (Range and Average) at 50 Feet

Equipment Type	Manufacturers Sampled	Total No. Models in Sample	Peak Noise Level (dBA)	Range Average (dBA)
Backhoes	5	6	74 - 92	83
Front loaders	5	30	75-96	85
Bulldozers	8	41	65 - 95	85
Graders	3	15	72 - 92	84
Scrapers	2	27	76 – 98	87
Pile Drivers	N/A	N/A	95 – 105	101

Source: United States Environmental Protection Agency and Federal Highway Administration

Elevated noise levels are, to a degree, unavoidable for this type of project. MnDOT and WisDOT will require that construction equipment be properly muffled and in proper working order. Some high-impact equipment noise, such as pile driving, pavement sawing or jack hammering will be unavoidable with construction of the proposed project. Pile driving noise is associated with bridge construction and any sheet piling necessary for retaining wall construction. While pile driving equipment results in the highest peak noise level as shown in Table 13 it is limited to the activities (e.g., bridge construction, retaining wall construction) noted above. During the initial mobilization and construction phase when the Rest Area would be open, the use of pile drivers, jack hammers, and pavement sawing equipment would be prohibited during nighttime hours (between 10 p.m. and 6 a.m. to allow time for motorists utilizing the Rest Area to rest. Advance notice will be provided to Refuge staff prior to activities that would result in loud construction activities, to coordinate construction schedules to minimize impacts to eagles (see Section 4.11).

Completed Project
The project would include reconfiguration of interchange ramps, and a shift in river bridge location. However, as noted previously, there are no residences in immediate the project vicinity.

Other nearby areas of human activity include the boat launches (one located immediately south of the I-90 bridge and another located approximately 1,000 feet north of the interchange), the Rest Area (located adjacent to the interchange area), Lock & Dam No. 7 (located approximately 2,800 feet north of the interchange) and a fishing pier or "float" (located 3,200 feet northeast of the interchange on the left descending bank). Overnight use is not permitted at these other areas of human activity, and none are typically used for activities that are sensitive to noise (i.e., sound recording, sleeping). Since there are no sensitive receptors (i.e., residences) in the project vicinity, a detailed noise analysis was not performed.

4.24.3. Dust
Construction activities would impact air quality temporarily through increased dust, particulates and emissions from the construction equipment and the construction activities. There would be noise and dust associated with the construction activities. No unique concerns have been identified. Standard MnDOT and WisDOT dust control specifications would be followed.

4.25. Nearby Resources

Are any of the following resources on or in proximity to the site?

*Archaeological, historical or architectural resources? _**X**_Yes __No*
*Prime or unique farmlands or land within an agricultural preserve? __Yes _**X**_No*
*Designated parks, recreation areas or trails? _**X**_Yes __No*
*Scenic views and vistas? _**X**_Yes __No*
*Other unique resources? _**X**_Yes __No*

If yes, describe the resource and identify any project-related impacts on the resource. Describe any measures to minimize or avoid adverse impact..

4.25.1. Archaeological, Historical or Architectural Resources

The proposed project has been reviewed pursuant to Section 106 of the National Preservation Act of 1966 as outlined in 36 CFR 800.6[a][3]. This review included findings developed as a result of a survey to identify the potential presence of historic, architecturally, and archaeologically significant properties within the project area of potential effect.

Archaeology

A survey of the project area of potential effect was conducted to identify the potential for archeological resources as documented in *Phase I Archaeological and Geoarchaeological Investigations Dresbach Bridge, Winona County, Minnesota and La Crosse County, Wisconsin; September 2008*. Field investigations revealed that a previously identified archeological site had been destroyed during original highway construction. An additional archeological investigation was directed toward areas that had the potential for near-surface or deeply buried archeological sites. No archaeological features or materials were identified through shovel testing or a survey of surface conditions. Further, soil core samples indicated that the area has low potential for deeply buried deposits. The recommendation of the survey was that no further archaeological investigation was needed.

Historic Architecture

A Phase I Architecture/History Survey was conducted for the project area. The Area of Potential Effect (APE) for architecture/history was defined in consultation with the MnDOT Cultural Resources Unit (CRU). The APE includes the first tier of properties adjacent to the proposed project activities that may be directly or indirectly affected by the proposed project. The FHWA and Advisory Council on Historic Preservation (ACHP) previously determined that several resources in the APE are exempt from consideration as a historic property, including Bridge 9320 (the existing I-90 bridge). Four historic age properties were identified in the APE: the Great River Road (I-90 and US 61/14 alignment along the Minnesota Riverfront), the original St. Paul & Chicago Railroad corridor, a remnant of the original US 61 alignment (currently used as part of the Mississippi River Trail), and Bridge 85811 (used for access/egress between US 61 and the Rest Area). One property located in the project area, the U.S. Army Corps of Engineers Lock & Dam No. 7, had been previously determined eligible for the National Register of Historic Places.

A Phase II Evaluation was conducted to further study the project and properties of concern. The study concluded that the railroad corridor and US 61 remnant are eligible for the National Register of Historic Places, based on criteria that related to historic transportation uses (in both cases) and engineering characteristics (in the case of the US 61 remnant). The Great River Road was not recommended as eligible for the National Register, due to its late design and its exclusion from eligibility as a result of its status as an interstate highway.

MnDOT Office of Environmental Services (OES) Cultural Resources Unit (CRU) utilized the studies and project information to review the project and made a determination that the project would have no adverse effect on historic properties, (MnDOT letter dated April 1 2009; Appendix B). No response stating a position contrary to the determination was received from the Minnesota State Historic Preservation Office (SHPO) within 30 days. Therefore, there is no federal Section 106 involvement for the project. MnDOT OES presented their findings to the Wisconsin SHPO (letter dated December 23, 2010 in Appendix B). In a letter dated January 14, 2010 (also in Appendix B), Wisconsin SHPO concurred with the MnDOT OES finding of no adverse effect**.**

4.25.2. Prime or Unique Farmlands or Land Within an Agricultural Preserve

The project will not cause any adverse impact to agricultural land or operations. No agricultural land would be acquired; the land to be acquired is all forested and/or wetland within the Refuge boundaries in Wisconsin, adjacent to the existing roadway corridor. Since the land to be acquired is not being used for farm production and is located entirely within the Refuge, no federal form AD-1006 (Farmland Protection Policy Act of 1981) was completed for this project.

4.25.3. Designated Parks, Recreation Areas or Trails

Figure 3 shows the recreational resources discussed in this section. Much of the river area and the entire Wisconsin portion of the project area lie within the Upper Mississippi National Wildlife and Fish Refuge. No publicly-owned *parkland* exists within the project area. Sites in the project vicinity used by the public include the Rest Area, the U.S. FWS boat launch, the MNDNR boat launch, and the COE Lock & Dam No. 7, all of which provide recreational opportunities in the project area. Public access to these areas may temporarily be closed during construction, as discussed in Section 5.8.1. The re-alignment of the bridge requires additional highway easement from the Refuge (described in Section 5.7) and reconfiguration of the Rest Area (as addressed throughout this document). The Refuge would sustain both temporary and permanent impacts. Section 5.10 discusses Refuge impacts in the context of federal Section 4(f) and Section 6(f) regulations.

The Mississippi River Trail (MRT), a bicycle/pedestrian route that extends from the Mississippi headwaters in Itasca, Minnesota to the Gulf of Mexico, parallels US 61 through the project area. The Apple Blossom Trail (a scenic byway and designated bicycle route) parallels the river near the project area on the Minnesota bluffs. Both of these routes are designated along roadways, and, therefore, are not federal Section 4(f) resources. The Apple Blossom Trail would not be affected by the proposed project. The proposed project provides a safe route for the MRT through the project area. Additional discussion of bicycle/pedestrian accommodation in the project area is included in Section 5.3.

4.25.4. Scenic Views and Vistas

The expansiveness of the Refuge and river and the mass of the bluffs dominate the visual environment. The proposed bridges replace existing bridges and therefore the project does not introduce a new river crossing where none existed. The height and depth of the new bridge

structure would be similar to the existing bridge, although the two new parallel bridges will be wider than the original structure. The interchange area would include a tiered structure to accommodate various ramps, but this would be located in an area that already has raised bridges and transportation elements. No substantial adverse impact to scenic views or vistas is anticipated to occur as a result of the project. The impacts on visual quality are further discussed in Section 4.26.

4.25.5. La Crosse Municipal Airport

The project area is located southwest of the La Crosse Municipal Airport, a facility on French Island which includes 1,380 acres of land. The eastern portion of the project area is within a two-mile radius of the La Crosse Municipal Airport and the Airport Influence Area. The proximity of the Airport necessitated the review of project impacts to avoid creating height hazards in the path of approaching and departing aircraft as well as consideration of the potential for bird strike hazards related to construction of a proposed storm water treatment pond within 10,000 feet of the airport (the AOA), as discussed in Section 4.17.

The Federal Aviation Administration (FAA) reviewed bridge type alternatives that included towers and issued Determinations of No Hazard to Air Navigation for the proposed main channel bridge type. MnDOT will continue coordination with the FAA, WisDOT Bureau of Aeronautics, and the La Crosse Municipal Airport as the design proceeds.

4.26. Visual Impacts

Will the project create adverse visual impacts during construction or operation? Such as glare from intense lights, lights visible in wilderness areas and large visible plumes from cooling towers or exhaust stacks? _X Yes ___No

If yes, explain.

4.26.1. Visual Impacts During Construction

Visual impacts associated with construction would include the introduction of construction equipment and disruption of the landscape and waterway. These impacts would be noticeable to drivers traveling through the area, Riverfront visitors, and boaters and barge traffic on the river.

4.26.2. Visual Impacts of Completed Project

The following section includes an assessment of the project context, identification of the potential viewers of the project, and assessment of the quality of the visual environment both before and after the project.

Affected Visual Resources

The physical context of the bridge is defined by the geomorphology of the river valley including the river channels and wide backwaters, forested floodplain, and steep bluffs in Minnesota. The flat wide expanse of the river and refuge (approximately 1/3 mile wide near the bridge;

approximately 3 miles wide north of Lock & Dam No. 7) are the primary form and context for the bridge. The steep bluffs are the primary form and context for the Minnesota approach roadways and interchange.

The I-90 transportation corridor (roads, bridges over roads, ramps) and parallel railroad lines with the adjacent lock and dam, and Rest Area are the other dominant features of the area. The project area is not urban in nature, but does include human infrastructure in a more undeveloped setting.

Affected Populations

Primary populations affected by changes in visual character include vehicular users of the bridge and approach roadways, Mississippi River Trail users, employees of and visitors to the Rest Area, and Lock & Dam No. 7, river users including recreational boaters/fishermen and barge personnel and residents of homes on the top of the Minnesota bluff that overlook the interchange and bridge.

Existing Visual Quality

The expansiveness of the Refuge and river and the mass of the bluffs dominate the visual environment and demonstrate a contrast of habitats to viewers in the area. The project area also includes the I-90 bridge and many other bridges, ramps and roads within an existing transportation corridor. Drivers and passengers of vehicles travel at a fast pace through the area, experiencing overall forms, patterns and color rather than design details. On the bridge, the massing of the bluffs and the expanse of the river are the obvious characteristics. On the approach roadways, travelers experience a sense of enclosure along the bluff side contrasted with the expansive openness on the Riverfront side, including a vista of the bridge structure's form and mass. Pedestrians and bicyclists on the MRT experience a transportation corridor with close proximity to the River and bluffs. Views from the bluff of the valley and bridge again are dominated by a sense of expansiveness. Public input received to date has indicated that the views of natural features in the river valley and along the I-90 and US 61 corridors are valued. An appreciation for the context-appropriate design of the existing I-90 bridge was noted.

Impacts on Visual Quality

The project would replace existing major arterial highway, interchanges, ramps, bridges and approach roadways in a transportation corridor already containing these features. Views would not be substantially changed by their replacement. The project would maintain these transportation features, with a few changes notable to viewers. The addition of a "level" to the interchange (three levels where there currently are two) and addition of retaining walls and fill to support mainline and ramps would change the visual character most readily for Rest Area, U.S. FWS boat launch and river users. The addition of a bridge would be most evident to viewers from the bluff, and river users accustomed to a single bridge over the river. The traveling public (motorists passing through the area) would be least visually impacted by the project, as the character will stay that of a transportation corridor.

A large number of design concepts were presented to the TAC and PAC and general public at public information meetings and workshops. Detailed visualizations were created showing various designs from key vantage points (Rest Area, Lock & Dam, U.S. FWS boat launch, westbound I-90). Animations gave a sense of the overall mass and composition of the project from different viewpoints including that of a highway user traveling through the project area. Bridge design alternatives (cable-stayed, arch and extradosed) were eliminated for various reasons including their impact on visual quality stemming from their overhead structures. The concrete box main span portion of the Preferred Alternative provided the "cleanest" visual experience.

Another major design element of the Preferred Alternative is the transition from the concrete box girder span design to the pre-stressed/pre-cast concrete girder. This transition affects bridge underside views, but would not be visible from other key vantage points. The design of the pier would soften the transition between the concrete box and concrete girders.

As the project proceeds through final design, design manuals would be created to guide designers based on input received from TAC, PAC and the public. This would include considerations of key vantage points, like the Rest Area, as well as the experience of both motorized and non-motorized users of the facilities.

4.27. Compatibility with Plans and Land Use Regulations

Is the project subject to an adopted local comprehensive plan, land use plan or regulation, or other applicable land use, water, or resource management plan of a local, regional, state or federal agency? _X_ *Yes* __ *No*

If yes, describe the plan, discuss its compatibility with the project and explain how any conflicts will be resolved. If no, explain.

The U.S. FWS Comprehensive Conservation Plan (CCP) for the Upper Mississippi River National Wildlife and Fish Refuge (2006) guides the management and administration of the Refuge. The Wisconsin side of the project study area is entirely within the Refuge, with the exception of private, undeveloped land that is landlocked by the Refuge and approximately 8 acres of right-of-way currently owned by WisDOT, as shown on Figure 3. In Minnesota, the land on which the U.S. FWS boat launch is situated is also part of the Refuge.

The overall Refuge management approach seeks to balance the needs of fish and wildlife with the needs of the public for recreation. No changes are planned in the CCP for the public boat launch in Minnesota or the use of land in Wisconsin.

The project proposers have coordinated with the U.S. FWS through PAC meetings and ongoing correspondence to identify concerns (protection of boat launch use and access) and mitigation for impacts (desire to receive "turn-back" land; place signage along I-90 indicating the Refuge; replace wetlands in-kind and in-watershed). The U.S. FWS acknowledges the coordination

among the agencies as stated in their letter dated February 11, 2010 (Appendix B). Coordination with the U.S. FWS will continue to guide mitigation planning and design.

As described in Section 4.11, the Preferred Alternative was selected for its design that minimizes impacts on the Refuge by completing the project in a timely manner, avoiding sensitive nesting and spawning periods. The Preferred Alternative would require acquisition of additional right-of-way along the northern edge of a 350' existing highway easement (see Figure 14d, and Section 5.7). This requires a "compatibility determination" by the U.S. FWS Refuge Manager in accordance with 50 CFR Parts 25, 26 and 29. This Environmental Assessment serves as the documentation and public review for that determination. Minor expansion or minor realignment of existing right-of-way to meet safety standards are taken into consideration by current U.S. FWS policy. In this case, a compatibility determination can be made if: 1) the design adopts appropriate measures to avoid resource impacts and includes provisions to ensure no net loss of habitat quantity and quality; 2) restored or replacement habitat areas identified in the design are afforded permanent protection as part of the national wildlife refuge or wetland management district affected by the maintenance; and 3) all restoration work is completed by the applicant prior to any title transfer or recording of easement. Right-of-way acquisition (1.4 acres) would be offset by relinquishing 5.5 acres of the existing highway corridor right-of-way to the Refuge. Wetland impacts in the Refuge would be offset by creating wetlands at a rate and site acceptable to U.S. FWS staff as discussed in Section 4.12.3. Forest impacts would be offset by restoring previously impacted areas to forest, as discussed in Section 4.11.a.

Discussions and coordination between the agencies will continue. A draft Memorandum of Understanding (MOU) between the DOTs and the U.S. FWS is included in Appendix D – signatures are anticipated to be obtained in early 2012. As noted in their February 11, 2010 letter (Appendix B), the U.S. FWS will review this EA/EAW and public comments in making their Compatibility Determination and in assessing potential impacts to resources of the U.S. FWS. Discussions regarding pedestrian and bicycle accommodation through the Refuge also occurred in the summer/fall of 2011, as part of the Feasibility Study described in Section 5.3.

4.28. Impact on Infrastructure and Public Services

Will new or expanded utilities, roads, other infrastructure or public services be required to serve the project? __Yes _X No

If yes, describe the new or additional infrastructure or services needed. (Note: any infrastructure that is a connected action with respect to the project must be assessed in the EAW; see EAW Guidelines for details.)

4.29. Cumulative Potential Effects

Minnesota Rule part 4410.1700, subpart 7, item B requires that the RGU consider the "cumulative potential effects of related or anticipated future projects" when determining the need for an environmental impact statement.

Identify any past, present or reasonably foreseeable future projects that may interact with the project described in this EAW in such a way as to cause cumulative potential effects. (Such future projects would be those that are actually planned or for which a basis of expectation has been laid.)

Describe the nature of the cumulative potential effects and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to these cumulative effects (or discuss each cumulative potential effect under appropriate item(s) elsewhere on this form).

In addition to the state of Minnesota definition of cumulative potential effects given above, cumulative impacts are defined by the Council on Environmental Quality (CEQ) as "impacts on the environment that result 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 158.7). The findings below pertain to both cumulative potential effects and cumulative impacts. In the discussion that follows, the terms "cumulative potential effects" and "cumulative impacts" are used interchangeably.

The purpose of a cumulative potential impacts analysis is to look for impacts that may be individually minimal, but which could accumulate and become significant and adverse when combined with the effects of other actions. Cumulative potential effects are not necessarily causally linked to the proposed project. Rather, they are the total effect of all known actions (past, present, and future) in the vicinity of the proposed project with impacts on the same types of resources.

Scope of Cumulative Potential Effects

The cumulative potential effects analysis is limited to those resources, ecosystems, and human communities affected by the proposed project – Refuge land; fisheries, wildlife habitats and federal- and state-protected species; floodplains; storm water quality and quantity; and wetlands.

The geographic scope of this analysis varies by the resource being examined, but in general is limited to an area within the immediate vicinity of the proposed project. The temporal scope of the analysis attempts to consider previous impacts to the resources that have occurred as a result of human activity over time. The year 2020 is considered the current limit of comprehensive planning activities for the area which include transportation and land use planning), and so 2020 was used as the basis for future cumulative impact assessment.

Past Actions – Resulting in Existing Conditions

Past actions in the project vicinity include construction of the existing bridge/highway, and construction of other infrastructure (e.g., railroads, lock and dam), which created the existing transportation corridor and Riverfront area. Construction of the Lock and Dam in the 1930's resulted in a substantial change in the river flow, extent of "normal pool" and flooding characteristics. The geographic and physical constraints of the Minnesota area (steep slopes on

the west; river on the east) and Wisconsin area (river; floodplain) have limited development other than the transportation and Riverfront uses in the immediate project vicinity.

Future Actions Anticipated

The projects (listed below) that were considered for this analysis are consistent with the recent Minnesota State Supreme Court Ruling regarding cumulative potential effects inquiry under state statute (i.e., the projects: 1) are either existing, actually planned for, or there is a basis of expectation that has been laid; 2) are located in the surrounding area; and 3) might reasonably be expected to affect the same natural resource). Given these parameters, the following potential future actions were considered in the assessment of cumulative potential effects:

- High speed rail (Midwest Regional Rail Initiative) within the CP Rail corridor in the Project Area (see Figure 3 for CP Rail corridor location),
- Rebuild/expand WisDOT La Crosse I-90 Rest Area (2011/2012) (see Figure 2 for location),
- U.S. 53/35 Interchange and I-90 pavement/structures reconstruction, including auxiliary lanes to TH 157 interchange (2013 -14) (see Figure 1 for location), and
- I-90 corridor bicycle/pedestrian trail (see Section 5.3 for further discussion). As described in Section 5.3, a future bicycle/pedestrian trail is currently included in the La Cross Area Planning Committee (LAPC) 2035 Coulee Region Bicycle Plan. This long-range planning document describes a potential trail system that crosses the Mississippi River on the Dresbach bridge and continues easterly along I-90 beyond the project terminus. This potential trail, proposed by LAPC, is not currently funded and it is unknown if or when it may be constructed. The potential for impacts are described further in a feasibility study described in sec. 5.3.

Evaluation of Cumulative Potential Effects

Refuge

Existing Conditions

The 240,000-acre Upper Mississippi River National Wildlife and Fish Refuge is located in five states along the Mississippi River. The U.S. FWS owns the Refuge land and has responsibility for its management for support of wildlife and fish. The boat launch, main channel island and much of the Wisconsin-side bridge approach within the project study area are owned by the U.S. FWS.

Impacts from the Proposed Action

The Refuge would be impacted through right-of-way taking, vegetation clearing (from forested land and from forested floodplain wetlands), pier placement and construction. MnDOT, WisDOT, and the U.S. FWS have coordinated on these impacts and mitigation, and will execute a Memorandum of Understanding outlining mitigation for these impacts, including right-of-way turnback and wetland and floodplain forest mitigation.

Impacts from Other Actions

No other actions will involve Refuge land.

Potential for Cumulative Effects

As no further impacts are anticipated from other foreseeable actions in the vicinity, no potential cumulative effects to the Refuge would result.

Fisheries, Wildlife and Federal- and State-Protected Species

Existing Conditions

***Fish/Fisheries*:** The river and back channel are noted habitat and staging areas for fish.

***Mussels*: S**tate-listed and federally-listed protected mussel species have been found in the Mississippi River in the project vicinity.

***Migratory Birds*:** The Mississippi River corridor is a major flyway for migratory birds. Some species nest on bridge structures.

Protected Birds: Bald eagles nest and roost in the Refuge.

Impacts from Proposed Action

***Fish/Fisheries*:** Construction activities can cause erosion of staging habitat. Construction activities will be seasonally scheduled and timed to avoid disturbing these habitats in accordance with recommendations from the U.S. FWS, WDNR and MNDNR.

***Mussels*:** The project will disturb mussel habitat. Coordination with state and federal is occurring, and will continue. In addition, to protect mussel habitat, river substrate and riverbank disturbance would be minimized and sediment control practices would be used throughout the project area to minimize siltation.

To address concerns for mussels, the direct and indirect mussel impact areas were surveyed in summer of 2010 by the MNDNR on behalf of MnDOT. No evidence was found for populations of any federal or state Threatened or Endangered mussel species within the impact zone of the proposed project. The data gathered was provided to the US FWS to assist in determining the appropriate consultation path. Because no evidence of populations of any federal or state Threatened or Endangered mussel species was found during this extensive survey effort, the US FWS and MnDOT agreed that a determination of "May affect, not likely to adversely affect" was the most appropriate consultation path. MnDOT issued a letter requesting concurrence on this determination on January 4, 2011. The US FWS issued their concurrence letter on January 6, 2011, concluding the consultation process under Section 7 of the Endangered Species Act. This consultation and the study results will be provided to and reviewed by the project proposers and the affected resource agencies. Any recommendations will be incorporated into the construction plans and/or project documentation as appropriate.

***Migratory Birds*:** The main bridge piers below the roadway will be lighted with indirect accent lighting. Ambient lighting in the flyway can cause confusion for migrating birds; however, this low level lighting is not expected to affect migratory birds.

Protected Birds: Construction noise and vibrations are disturbing to nesting and/or roosting eagles. Construction activities will be seasonally scheduled and timed to avoid disturbing eagles in accordance with recommendations from U.S. FWS and MNDNR.

Impacts from Other Actions

Fish/Fisheries: Other foreseeable actions will not involve construction in the river and therefore will not impact fisheries.

***Mussels*:** Other actions will not involve construction in the river and therefore will not impact protected mussel species.

***Migratory Birds*:** None of the foreseeable future actions would result in impediments to bird migration within the Mississippi River flyway.

Protected Birds: Other actions will not involve construction near identified nesting and roosting areas.

Cumulative Potential Effects

Since none of the other foreseeable future actions would affect the fishery and wildlife resources affected by the proposed action, no cumulative potential effects would result.

Floodplains

Existing Conditions

As shown on Figure 3, the project study area is partially within the 100-year floodplain. The Mississippi River floodplain in this location is fairly wide in the bridge area, and wider still upstream of Lock & Dam No. 7.

Impacts from Proposed Action

The new bridge will encroach on the 100-year floodplain of the Mississippi River (4,500 foot transverse encroachment) and piers will be located in the river. The existing bridge creates a similar encroachment and has piers located in the river. Given the size of the floodplain, and minimal area of impact (480 square feet), no changes to the flood elevation are anticipated.

Impacts from Other Actions

Other actions will not involve construction in the 100-year floodplain.

Cumulative Potential Effects

As no further impacts are anticipated from other foreseeable future actions in the project vicinity, no potential cumulative floodplain effects would result.

Storm water Quality and Quantity

Existing Conditions

Runoff from the project study area drains via storm sewer and overland flow to ditches or wetlands, eventually discharging to the Mississippi River. Storm water runoff from the river bridge deck is conveyed directly to the river or onto the ground next to the river via scuppers and downspouts. No water quality measures are included in the existing roadway/impervious surface conveyance system, other than treatment that occurs within roadside ditches and in wetlands.

Impacts from Proposed Action

The proposed project results in increased impervious areas due to the increased river crossing surface and additional impervious surface. However, storm water from the project will be conveyed, detained and treated, consistent with current regulatory requirements.

Impacts from Other Actions

The other foreseeable actions will also be required to include storm water conveyance and treatment.

Cumulative Potential Effects

Storm water from the proposed project plus other foreseeable actions will be detained and treated consistent with regulatory requirements, therefore, adverse cumulative effects on water quality and quantity are not anticipated.

Wetlands

Existing Conditions

Wetlands in the project area include floodplain and drainage way wetlands.

Impacts from Proposed Action

The proposed project results in unavoidable fill of 2.7 acres. However, mitigation will be completed consistent with applicable regulatory requirements.

Impacts from Other Actions

The other foreseeable actions will also be required to implement sequencing in the planning phases, and provide mitigation.

Cumulative Potential Effects

Wetlands impacted by the proposed project plus other foreseeable actions will be mitigated consistent with applicable regulatory requirements; therefore, adverse cumulative effects on wetlands are not anticipated.

Conclusion
Based on the findings of the previous discussion, no significant cumulative potential effects would result from the proposed project plus other foreseeable future actions in the vicinity.

4.30. Other Potential Environmental Impacts

If the project may cause any adverse environmental impacts not addressed by items 1 to 28, identify and discuss them here, along with any proposed mitigation.

No other potential environmental impacts have been identified.

4.31. Summary of Issues

Do not complete this section if the EAW is being done for EIS scoping; instead, address relevant issues in the draft Scoping Decision document, which must accompany the EAW.

List any impacts and issues identified above that may require further investigation before the project is begun. Discuss any alternatives or mitigative measures that have been or may be considered for these impacts and issues, including those that have been or may be ordered as permit conditions.

This section presents a brief summary of the issues and mitigative measures discussed in detail elsewhere in this document. Appendix C presents a list of the commitments for mitigation made by MnDOT and WisDOT.

4.31.1. Fisheries and Aquatic Habitat

Project-related impacts on aquatic habitats, the Mississippi River, the East Channel, shorelines and fishery resources will be temporary and localized in nature. To ensure that potential impacts are minimized, the MNDNR and WDNR recommendations listed below will be incorporated into the project plans and construction schedule.

- The MNDNR has provided work exclusion dates for non-trout streams (March 1 through June 1). These dates are to allow for fish migration and spawning. A partial waiver to the exclusion dates is possible, but will depend on type of work being done. Schedules and activities will be coordinated with the MNDNR Area Fisheries Manager and WDNR Mississippi River Team Manager.
- Areas near the bridge are known spawning areas for walleye in the spring, and are also popular fishing areas. This relatively narrow section of the main channel is used by numerous fish species during spring spawning movements. Work will not occur adjacent to, or in the water during this time without prior written approval of the MNDNR and WDNR.
- To protect fisheries and aquatic habitat, river substrate and riverbank disturbance would be minimized and sediment control practices would be used throughout the project area to minimize siltation. Any temporary fill areas (docking area for barges; temporary causeway) would be restored to pre-construction conditions.

- Underwater "bubble walls" (air curtains created by releasing compressed air from underwater diffusers) or other fish repelling methods would be used to dissipate and protect fish during bridge demolition.
- Rubble created during demolition would be removed from aquatic habitats. The contractor would be required to perform a before and after investigation (sonar is often employed for this survey) to ensure that all rubble is removed.

4.31.2. Wildlife

This project is being advanced under coordination with the U.S. FWS, MNDNR and the WDNR. Efforts to avoid, minimize, or mitigate impacts to wildlife, including bats nesting on the bridge, will continue to be analyzed as the project development progresses. Measures identified will be incorporated into the project design /construction practices and will become part of the environmental commitments for this action.

4.31.3. Invasive Species

In accordance with MNDNR General Permit 2004-0001, all in-water equipment will be inspected and decontaminated prior to removal of in-water equipment or materials from the site to prevent spread of invasive species.

4.31.4. Birds

Although the bridge lighting details are not finalized, the main bridge piers below the roadway may be lighted with indirect accent lighting. Input on bridge lighting will be requested from U.S. FWS staff during project final design, to identify lighting that would minimize potential effects on migratory birds.

Bald Eagles No construction activities will occur within the buffer distance (660') of any known nest tree. Refuge staff will be provided with construction schedules and be given notice prior to undertaking any activity that could result in the disturbance of nesting eagles. The closest known bald eagle roost trees are located approximately 500 feet north of the Interstate 90 bridge over the main channel along the west bank of the river. To minimize impacts on bald eagle roost sites, the U.S. FWS recommends activities be minimized in the eagles vicinity. Prior to construction, MnDOT will coordinate with U.S. FWS staff to identify any new nesting or roosting trees and to develop a plan for avoiding/minimizing bald eagle impacts.

Swallows Cliff swallows and barn swallows, along with a few other species of migratory birds, often build their nests on bridges or highway overpasses. The bridge will be inspected for the presence of nesting activity prior to the start of construction. If nesting activity is identified, appropriate measures would be taken in accordance with the provisions of the Migratory Bird Treaty Act.

Rookery A heron/great egret/double-crested cormorant rookery is located approximately 1.5 miles southeast of the I-90 bridge on Minnesota Island (south of the Houston County line on

Figure 3). During this peak rookery activity period (April through July), construction activities will be concentrated at the bridge site, which is a substantial distance from the known rookery.

4.31.5. Refuge

Impacts to the Refuge include land acquisition by the DOTs, wetlands impacts and clearing of forested areas from the center island and Wisconsin approach areas. To mitigate for the 1.4 acre of U.S. FWS Refuge land that will be needed from the northern edge of the existing right-of-way, 5.5 acres of MnDOT and WisDOT right-of-way will be relinquished to the U.S. FWS. Refuge wetland impacts (3.1 acres) will be mitigated through restoration of wetlands in accordance with applicable laws and regulations, potentially through the use of MnDOT or WisDOT wetland mitigation banking sites. Floodplain forest impacts will be mitigated through reforestation of suitable land in the area. Preliminary calculations indicate that there are approximately 2.3 acres available for reforestation within existing WisDOT right-of-way or on existing Refuge land. However, there are a number of issues that need resolution prior to the purchasing of mitigation land and completion of mitigation. Discussions and coordination between the agencies will continue as each of these sites undergo evaluation. A draft Memorandum of Understanding (MOU) between the DOTs and the U.S. FWS is included in Appendix D – signatures are anticipated to be obtained in early 2012. The U.S. FWS will consider the public comments on this EA/EAW in making a Compatibility Determination for the project.

4.31.6. Vegetation

Vegetation, including woody vegetation would be removed for construction. To prevent potential spread of the invasive emerald ash borer beetle, ash wood will be stored and disposed of in accordance with Minnesota and Wisconsin state laws. Preventative erosion control measures will be developed and implemented through a vegetation protection and restoration plan for the project. The plan will include: determining the extent and type of vegetation that will be impacted after more detailed project construction plans are developed; incorporating vegetation protection measures (MnDOT Standard Specification for Construction 2572 – Protection and Restoration of Vegetation) into the project plan; re-vegetating disturbed areas with indigenous/native plant materials; and using cost-effective and efficient methods to restore the area consistent with the surrounding native plant community. In addition, non-compacting construction methods will be used where possible in areas of woody vegetation, to prevent root damage.

4.31.7. State-Listed Species

Fish The MNDNR reported documented occurrences of several species with some level of state protection within approximately a 1-mile radius of the proposed action. The WDNR reviewed the project area and indicated several species of state endangered/threatened fish and mussel species are known to occur within the general vicinity of the proposed action. In order to minimize the potential for fishery impacts, the construction schedule will be adjusted to include the work exclusions dates provided by the MNDNR (see Section 4.31.1).

Mussels Since 2007, as project designed advanced, more detailed information has become available regarding potential river bottom impacts, including pier and potentially temporary causeway locations, potential barge spudding and activity areas, and staging and fill areas. Based on this new data, the decision was made to re-survey the direct and indirect impact areas in summer of 2010. The results and recommendations of the 2010 survey were reviewed (see related discussion below for federally-listed species). No evidence was found for populations of any federal or state Threatened or Endangered mussel species within the impact zone of the proposed project. These results will be provided to and reviewed by the project proposers and the affected resource agencies. Any recommendations will be incorporated into the construction plans and/or project documentation as appropriate.

4.31.8. Federally-Listed Species

The Higgins eye pearlymussel is known to occur within the general project vicinity. There are known occurrence records of Higgins eye pearlymussel a short distance south of the existing bridge structure at Mississippi River Mile 701.2. To ensure that the most current data is available prior to project construction, a survey of all areas of direct/indirect impacts was conducted in the summer of 2010. The MNDNR conducted Level I and Level II surveys on behalf of MnDOT. The data gathered was provided to the US FWS to assist in determining the appropriate consultation path. As discussed above, no evidence of populations of any federal or state Threatened or Endangered mussel species was found.

Since no federally-listed species were identified during this extensive survey effort, the US FWS and MnDOT agreed that a determination of "May affect, not likely to adversely affect" was the most appropriate consultation path. MnDOT issued a letter requesting concurrence on this determination on January 4, 2011. The US FWS issued their concurrence letter on January 6, 2011, concluding the consultation process under Section 7 of the Endangered Species Act.

4.31.9. Wetlands

Completion of the project would impact (fill) a total of 5.1 acres of wetland, including 3.1 acres of Refuge wetland fill. Mitigation for 5.1 acres of unavoidable wetland impacts would be completed through use of MnDOT or WisDOT wetland mitigation banking sites (and completed in accordance with applicable regulations). Discussions and consultation with the U.S. FWS staff are ongoing to ensure wetland mitigation requirements pertinent to Refuge wetland impacts are satisfied. The details of the mitigation plan (for Refuge and other wetland impacts) specifying agency-agreed-upon requirements will be developed at the time of permitting, closer to the construction phase. The areas of wetland impacts (and mitigation needed) would be reassessed based on final plans, up-to-date wetland delineations, and the current and applicable state and federal wetland mitigation guidelines and regulatory requirements.

The intent of the wetland mitigation plan will be to replace lost wetland functions and restore wetland area to fulfill the regulatory mitigation requirements. The Refuge, state and federal regulating agencies will be involved in mitigation planning. Replacement of lost wetlands will

be in accordance with current WCA criteria, Clean Water Act Section 404, MNDNR Public Waters, WisDOT and WDNR Wetland Mitigation Banking Technical Guidelines requirements, and will occur prior to or concurrent with the impacts. Efforts will be made to replace lost wetland functions and values with similar wetland types, and to mitigate losses close to the project site, to the extent possible.

4.31.10. Public Waters

The Mississippi River is a MNDNR Public Water (Public Water # 5P), and a Wisconsin Area of Special Natural Resource Interest. The project includes removal of the existing piers (seven from the river and East Channel, three from the island) and replacement with nine new pairs of piers (pairs are required for the two separate proposed bridges). Four of the new bridge piers (two pairs of piers) would be located in the main river channel and eight new bridge piers (four pairs of piers) would be located in the East Channel. Six piers (three pairs) would be located on the island between the channels, outside of the river. The new piers are not expected to change the hydrologic characteristics of the river; the new pier arrangement results in two obstructions within the main channel (considering each pair as an obstruction), which is one fewer than with the existing pier arrangement.

4.31.11. Mississippi River – Construction and Demolition Impacts

Required project permits include Section 404 and Section 10 permits from the COE for excavation work, and Section 401 certification from MPCA and WDNR. A State Disposal System permit may be required from the MPCA for use/disposal of dredged material. In addition, because the Mississippi River was recently listed by the U.S. EPA and MPCA as an impaired water body for polychlorinated biphenyls and mercury, the disposal of dredged material may require additional state permits. The project proposers (MnDOT and WisDOT) will coordination on the project to proceed in accordance with the WDNR/WisDOT Cooperative Agreement, as appropriate.

MnDOT prefers not to limit contractors to specific construction or demolition methods to retain flexibility and allow for creativity and innovation in construction. In accordance with MnDOT contracting procedures, the contractor would determine the methods to use, subject to MnDOT, WisDOT and other agency approvals.

Identified contractor requirements include:

- Development and compliance with an approved "Containment Plan" outlining the means and methods for containment and capture of materials to prevent material from entering the River.
- MnDOT's letting documents will restrict the contractor from imploding the bridge super-structure into the river during demolition to prevent damage to the new bridges and avoid further environmental impacts.
- Bridge demolition plan and mitigation measures will be reviewed by the MnDOT Project Engineer and agencies with regulatory authority over the Mississippi River (e.g., Coast Guard, Corps of Engineers, MPCA, WDNR) prior to construction.

- The contractor would be required to obtain permits for its preferred construction method.
- Water from dewatering cofferdams will be disposed of offsite at a MnDOT approved site.
- Spudding pilings, sheet piling and any temporary fill for construction would be removed after completion.
- A matt or other device will be used for controlling the explosion of the piers below the water surface.
- Bubble walls and repelling charges will be used to protect aquatic life.
- Rubble would be removed from the river bottom.
- A before and after investigation of the river bottom will be completed (sonar is often employed for this survey) to ensure that all rubble is removed.

Impact minimization methods will include:

- A filter fabric would be placed on the river bottom, then covered with rock and lined with rip rap or sheeting to protect against erosion during construction.
- A floating silt fence would be required around the entire temporary causeway area to capture silt.
- The causeway would allow access to the northern part of the East Channel by maintaining a 15-foot minimum open waterway for recreational access throughout the construction project.
- Permitting will be completed through the DNR and the COE and the DOTs will coordinate with these agencies regarding timing, duration and construction/removal method.
- Temporary structures (such as barge mooring areas, temporary causeway) will be removed at the conclusion of the project, likely starting from the river and working towards the shoreline. The rock fill would be removed using heavy equipment and trucks.
- The river bottom and surrounding shoreline area would be restored to its original or permitted condition.
- Temporary measures (floating booms, silt fences, temporary and/or permanent sediment basins, diversion dikes,) will be used to contain dust, debris and erosion.

4.31.12. Water Use

Some temporary groundwater dewatering may be required for constructing footings, storm water systems, ponding basins, or other structures. The amount of dewatering that may be required has not yet been determined. The appropriate permits and coordination with the MNDNR and WDNR will be acquired prior to construction. Dewatering is not anticipated to have adverse effects on ground water quality or levels in the area.

4.31.13. Floodplain Assessment

Permanent Encroachment The existing bridge and Wisconsin approach roadway cross the 100-year floodplain. The preferred alternative would relocate, but not increase the width of the I-90

embankment in Wisconsin. The existing bridge and its abutments are above the 100-year flood elevation. The hydrologic characteristics of the Mississippi River are not anticipated to sustain substantial impacts from the proposed project.

Temporary Encroachment The temporary fill for construction would be constructed to an elevation just over normal pool elevation. The length of time these temporary encroachments will be in the river varies depending on the contractor's preferred construction methods, and other conditions, but it is anticipated that the construction of the Preferred Alternative will take about three years. The amount of temporary flood stage increase from this condition would be insignificant, given the large flood storage capacity in this area of the Mississippi River.

A waterway analysis showed that the hydrologic characteristics of the Mississippi River are not anticipated to sustain substantial impacts from the proposed project. A Hydraulic Scour Confirmation letter will be issued after reviewing the preliminary bridge plan and foundations report to verify initial assumptions.

4.31.14. Shoreland Zoning Districts and Wild or Scenic River Land Use Districts

The project area does not include wild or scenic river land use districts. A portion of the project would lie within the Winona County Shoreland Zoning District. Although MnDOT is not subject to local zoning ordinances, local setback requirements will be taken into account in the Rest Area reconstruction design.

The Mississippi River is a MNDNR Public Water (Public Water # 5P). The project will require a Public Waters Work Permit, and should meet the conditions of Bridge and Culvert General Permit (GP) Number 2004-0001 (see DNR letter dated January 8, 2008 and attachment in Appendix B). Also, the Mississippi River is a WDNR Area of Special Natural Resource Interest. Work in this area can proceed in accordance with the WisDOT/WDNR Cooperative Agency Agreement without additional permitting requirements.

4.31.15. Canoe and Boating Route

Because the bridge piers would not change the flow of the river, the Canoe and Boating Route would not be changed. Construction notices would be posted to local and Internet information outlets to inform the public of any temporary closures of launches or impediments to river use during construction. MnDOT would coordinate with MNDNR and WDNR to develop other procedures to notify river users of construction schedules that may interrupt launch use.

4.31.16. Erosion and Sedimentation

This project would result in some potential for erosion, as existing ground cover would be disturbed or removed. Also, sedimentation could result where barges would be moored onto temporary pilings for construction (spudding). Construction Storm Water Permits (NPDES Permits) for activities in Minnesota and Wisconsin would be required and adhered to for this project. Erosion prevention and sediment control requirements would be followed in accordance with the NPDES permit (including both temporary and permanent erosion and

sediment control plans). Best management practices (BMPs) contained in MnDOT's and WisDOT's Standard Specifications, details, and special provisions would also be used. The construction of permanent sedimentation basins to manage the storm water from the bridge and I-90 right-of-way, erosion and sediment control measures would be identified in the project's Storm water Pollution Prevention Plan (SWPPP), erosion control plan, and adhered to as specified in MnDOT's and WisDOT's Standard Specifications, details, and special provisions. Permanent sediment control measures would consist of establishing vegetation on all exposed soils in accordance with NPDES Permit and as outlined in the SWPPP.

4.31.17. Water Quality – Surface Water Runoff

The proposed project would result in increased impervious areas due to the increased river crossing surface and additional roadway surface. Storm water ponds would be constructed, and a SWPPP would be prepared for the project per NPDES requirements. Final design would include further sizing and shaping of pond design to meet discharge, settling rate and volume requirements for the project; and to meet the requirements of MnDOT, WisDOT, WDNR and MPCA.

4.31.18. Water Quality – Wastewaters

The Rest Area septic system would not be modified.

4.31.19. Traffic

The proposed project would not generate vehicular traffic; rather, the project would address roadway safety and operational problems identified in the Purpose and Need. The improved bicycle/pedestrian facility could increase bicycle and pedestrian traffic on the Minnesota side of the project area.

4.31.20. Nearby Resources

Airport Federal Aviation Administration (FAA) reviewed bridge type alternatives that included towers and issued Determinations of No Hazard to Air Navigation of the La Crosse Municipal Airport for the proposed main channel bridge type. The bridge and proposed Wisconsin bridge-end storm water pond design will be will be coordinated with the FAA, WisDOT Bureau of Aeronautics, the USDA and the La Crosse Municipal Airport as the project design proceeds.

4.31.21. Visual Impacts

As the project proceeds through final design, design manuals would be created to guide the project design, emphasizing the desired themes identified through public input.

RGU CERTIFICATION. *(The Environmental Quality Board will only accept* ***SIGNED*** *Environmental Assessment Worksheets for public notice in the EQB Monitor.)*

I hereby certify that:

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minnesota Rules, parts 4410.0200, subparts 9b and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

Signature: _____ Date: 12/16/11

Title: Chief Environmental Officer

Environmental Assessment Worksheet was prepared by the staff of the Environmental Quality Board at the Minnesota Department of Administration, Office of Geographic and Demographic Analysis. For additional information, worksheets or for *EAW Guidelines*, contact: Environmental Quality Board, 658 Cedar St., St. Paul, MN 55155, 651-201-2492, or http://www.eqb.state.mn.us

This Page Left Intentionally Blank

5.0 ADDITIONAL FEDERAL ISSUES

5.1. Accessibility

The proposed project must comply with provisions set by the Americans with Disabilities Act of 1990 or by state or local access codes if they contain more stringent requirements. The project would comply with the required accessibility provisions.

The proposed project includes a bicycle/pedestrian trail along US 61 through the I-90/US 61 intersection that would be made accessible. The project also includes sidewalks, signalized intersections, and ramps that will be designed to be accessible to and usable to people with disabilities.

5.2. Social Impacts

The potential for social impacts due to right-of-way acquisition, noise, access changes, visual quality and environmental justice issues is addressed elsewhere in this EA/EAW. The proposed project would occur within an existing controlled-access transportation facility corridor with no adjacent commercial or residential development. Access to public Riverfront areas would be improved following project construction. Therefore, no adverse social impacts (e.g., access to community facilities/employment, separation of neighborhoods, and community cohesion) have been identified associated with the proposed project. No categories of people uniquely sensitive to transportation (i.e., children elderly, minorities, persons with mobility requirements) would be adversely impacted by the project.

Temporary impacts would result from the temporary closure of the Rest Area. Green View, Inc. is a MnDOT contractor that employs elderly (age 55 and older) and low income individuals to provide custodial services in MnDOT-operated rest areas. During the closure, these workers could temporarily be displaced from the Rest Area; however, these services could be contracted for the temporary facility for Travel Information Center (TIC) operations at an as yet undetermined location. In addition, "Service for the Blind" – a separate contractor who employs disabled (visually impaired) personnel to operate vending machines at the Rest Area - would sustain temporary loss of revenue while the Rest Area is closed. Based on 2008 dollars and sales, it is estimated that the revenue loss for a 20-month closure would be approximately $9,000. It is not anticipated that the vending service would be extended to the temporary trailer for TIC operations. MnDOT Maintenance staff will not be affected by the temporary closure of this Rest Area because their work at this location is intermittent and other work will be assigned.

5.3. Considerations Relating to Pedestrians and Bicyclists

The project area includes a portion of the Mississippi River Trail as well as walking trails around the Rest Area and Riverfront. Near Lock & Dam No. 7 several sidewalks allow visitors to see the locks in operation. The existing I-90 Dresbach Bridge does not accommodate pedestrian or bicycle facilities; it is illegal for pedestrians and bicyclists to use Interstate travel lanes or shoulders.

The MRT is envisioned as a series of connected bicycling routes, including trails and paved shoulders, traversing the length of the river from its headwaters to the Gulf of Mexico. Currently, a portion of Riverfront trail runs along the old US 61 alignment between I-90 and the railroad, just north of the I-90/US 61 interchange. South of I-90, bicyclists use the shoulder of US 61. An alternate route for the MRT runs along County State Aid Highway (CSAH) 1 and Apple Blossom Drive at the top of the river bluffs.

Although the Apple Blossom route provides panoramic views, it is not considered by MRT route planners to be an adequate substitute for the lower-elevation route adjacent to US 61, since access to the top of the bluff is steep and there is little potential for bicycle support facilities (e.g., commercial uses, service stations, etc.) on the bluff top. Furthermore, because it does not provide access to the Riverfront, the Apple Blossom route is not seen as a preferred MRT route through the project area.

The MRT and Apple Blossom Trail are designated bicycle facilities in the City of La Crescent's Bicycle Plan, which identifies connections to the heart of La Crescent and to La Crosse via the US 61 bridge. Furthermore, the Feasibility Study for the La Crescent Bikeway/Shared Use Trail (December 2008) explored three options for connections from the I-90/US 61 interchange south to La Crescent: on shoulders, on a two-way facility adjacent to the bluff, and on a two-way facility between US 61 and the railroad. Because of space constraints and resultant costs, continued use of shoulders was seen as the most economical and feasible solution in the short term. Thus, the Preferred Alternative's design retains the continuity of the MRT through the project area, including a bicycle facility that connects southbound bicyclists with the southbound shoulder, as explained in Section 4.6 (Project Description). A bicycle/pedestrian trail would be constructed utilizing the shoulder of US 61, portions of the existing MRT (on Old Highway 61 in some locations) or new trail sections, to maintain the continuity of the MRT route through the project area. The trail would also provide Riverfront access.

During the early stages of the project preliminary design, which started in 2008, MnDOT and WisDOT representatives met with local bicycle/pedestrian planning representatives, including the LAPC, to consider the feasibility of and potential local desire for including a trail on the I-90 river crossing bridge between Minnesota and Wisconsin. These meetings and subsequent review by the project team determined that in order to create a useful, connecting trail that includes an I-90 river crossing, an additional trail of approximately 1.7 miles in length along I-90 would be necessary to connect with streets on French Island. This trail would have impacts on the wetlands, floodplain, wildlife habitat and federal property of the U.S. FWS Refuge. It would require additional right-of-way acquisition through difficult terrain, and require the addition of several water-crossings to reach a potential trail connection point on French Island. Because of the combined expense, right-of-way and environmental considerations – along with the local plan focus on the US 61 river crossing to the south as the primary bicycle/pedestrian route between Minnesota and Wisconsin in this area – a trail facility on the I-90 bridge was not included in the preferred alternative that was defined, and for which preliminary layout plans were developed by February 2010.

In May 2010, language was added to the LAPC's 2035 Coulee Regional Bicycle Plan indicating the recommendation to "…design the capacity for bicycle and pedestrian accommodations into all projects within the I-90 corridor between the Minnesota MRT and US 53/TH 35 (Exit 3), including the Dresbach bridge…". The feasibility of providing a bicycle/pedestrian trail accommodation – or possibly just inserting fittings or strengthening the design of the bridge to accommodate a future bicycle/pedestrian facility on either of the new Dresbach bridges across the Mississippi River -- was again discussed among MnDOT's District 6, the MnDOT Bridge Office and FHWA. This discussion considered review of previous assessments as well as new information. A number of concerns, including but not limited to the combined expense, right-of-way and environmental considerations – along with the local bicycle plan's more detailed plans for the bicycle/pedestrian route at the US 61 river crossing between Minnesota and Wisconsin, a few miles to the south of I-90 – ultimately resulted in re-confirmation of the decision to not provide for the trail accommodation at the I-90 Dresbach bridge crossing. The rationale for this decision was outlined in a January 2011 letter to the LAPC. A copy of the letter is included in Appendix F. Feedback from the LAPC Policy Board and others, including a resolution dated May 18, 2011 indicated a strong regional desire for bicycle/pedestrian accommodations on the proposed Dresbach bridge. Additionally, the LAPC Policy Board and a local bicycle advocacy group also raised concerns with decision-making on this issue.

In July, 2011, representatives from the LAPC, city of La Crosse and a local bicycle advocacy group met with FHWA-MN to request a review of the decision-making process for the preferred alternative, asserting that there was an inadequate amount of public engagement prior to reaching the recommendation not to incorporate the capacity for future bicycle/pedestrian accommodations on the proposed river bridge.

A *Bicycle/Pedestrian Accommodation Feasibility Study* (Feasibility Study) was undertaken in response to LAPC and bicycle advocacy concerns and to address the May 2010 addition of language in the LAPC's 2035 Coulee Regional Bicycle Plan. The Feasibility Study was intended to achieve the following objectives: 1.) to document trail accommodation alternatives studied for the Dresbach bridge river crossing and beyond; 2.) to document feedback from Federal, State, and local agencies that may be required to issue permits or provide funding for a potential bicycle/pedestrian facility, whether as part of the current project or separate, future projects; 3.) to provide an analysis of studied trail options in light of technical and regulatory findings, and 4.) to provide a means of communicating a recommendation regarding the feasibility of bicycle/pedestrian accommodations on the Dresbach Bridge.

The Feasibility Study [available from MnDOT contact (Section 4.3) upon request] is incorporated by reference into this EA/EAW document. The Feasibility Study alternatives included four general alignment options, with two sub-alternatives that allowed for consideration of reduced costs (but with increased environmental impacts). A summary of the Feasibility Study findings and conclusions is included below:

"The study findings show that there appears to be no explicit legal requirement that an accommodation be made specifically on the Dresbach bridge. However, in light of current policy that strongly encourages incorporation of these facilities, a closer examination of opportunities and challenges associated with bicycle/pedestrian accommodations was undertaken.

The study considered a host of different issues, including current bicycle and pedestrian plans completed by LAPC, potential environmental impacts, costs, constructability issues, and funding. Each of the alternatives considered in this Study has benefits and challenges associated with them. Equally important in the study findings is the amount of uncertainty that remains for the Wisconsin trail segment under consideration.

The exact timing for potential trail implementation east of the Dresbach bridge is uncertain, given that:

1) It will be approximately 25-30 years before WisDOT would need to do major bridge reconstruction that could lead to possible trail accommodation,
2) There is currently no funding identified in state or local transportation plans, and
3) It is uncertain if a local agency will agree to perform maintenance of future Wisconsin trail segments.

There are potential environmental impacts to wetlands and the Refuge that could result from trail corridor construction. Input received to date from USACE and USFWS staff -- plus the current Refuge easement restrictions – appear to indicate that additional, more detailed study will be required to determine if there are any regulatory 'fatal flaws' with each of the alternatives. Given this uncertainty, the ultimate ('permit-able') corridor location for alternatives requiring additional right-of-way and project impact area (e.g., north or south of I-90 lanes) cannot be determined at this time.

Based on these findings, current planning efforts, and a desire to accommodate the capacity for a future trail system, this Study recommends that the Middle alternative (Option 3) providing structural connections for a future suspended path on the bridge structure, be included in the Dresbach Bridge project.

This recommendation provides the maximum flexibility for accommodation of a future I-90 trail given that the location of the off-bridge segments (especially in Wisconsin) is not currently known and not likely to be known in the foreseeable future, given the lack of preferred trail alignment and lack of construction funding. It provides for the future trail accommodation while minimizing risk to the taxpayer and without committing extensive investment in structural accommodation now, for a facility where future construction is uncertain.

Furthermore, Option 3 does not predetermine the outcome of future NEPA processes. In conclusion, Option 3 (middle option) is recommended since it provides the best balance and flexible approach to not precluding a future trail accommodation, for the reasons identified above and throughout this study."

Based on the findings of the Feasibility Study, the features of Option 3 -- providing structural connections for a future suspended path on the bridge structure, are proposed to be included as part of the preferred alternative.

5.4.Navigational Channel

Within the project area, the Mississippi River is a navigable river. Lock and Dam No. 7 is located immediately upstream of the I-90 bridge. No barge docks or staging areas are presently located in the project area. The existing navigation channel is located between piers 1 and 2, and is 411 feet wide, with a vertical clearance of 52 feet.

Table 14 presents the annual tonnage of materials, annual total lockages, (operation of the lock, regardless of number of vessels within) and number of recreational lockages that passed through the lock during the ten-year span from 1998 – 2007. This information demonstrates the number, size and types of vessels that used the lock, but does not reflect other vessels that commonly use the river in the area of the project, but that may not pass through the lock (such as canoes and kayaks, and other recreational or fishing boats that remain one side or the other of the lock). As the table shows, annual tonnages and commercial lockages have been trending downward, while recreational lockages have remained more constant. Recreational lockages have contributed consistently about one-half of all the vessel traffic through this lock. This trend and pattern are expected to continue for the near future with the current economic state suppressing commercial trade and fishing and recreation remaining more constant on the Mississippi River.

Table 14 – Lock and Dam No. 7 Annual Usage [1]

Year	Annual Tonnage	Annual Commercial Lockages	Annual Recreational Lockages	Total Lockages
1998	14,185,600	2,559	2,766	5,627
1999	15,857,400	2,842	2,820	5,817
2000	14,809,119	2,395	2,764	5,439
2001	11,981,487	1,795	2,365	4,606
2002	14,460,872	2,257	2,564	5,199
2003	12,297,061	2,074	2,731	5,023
2004	10,786,169	1,751	2,691	4,613
2005	10,391,612	1,870	2,873	4,803
2006	10,913,036	1,779	2,627	4,522
2007	10,428,410	1,795	2,467	4,307
10-Year Total	126,110,766	21,117	24,201	45,649
Average Size of Lockage	12,611,077	2,112	2,420	4,564

[1] Source: U.S. Army Corps of Engineers Lock Data, 1975 to 2007

[2] Includes other non-specified vessels.

The U.S. Coast Guard served as a cooperating agency on the project and provided input on the bridge design (Coast Guard letters, Appendix B). The U.S. Coast Guard requires, as a minimum, that the existing navigational channel vertical and lateral clearances be maintained. Approval of the location and plan for the bridge must be obtained from the Coast Guard prior to commencing construction. During construction, the navigational channel would remain open except for temporary encroachment into the vertical clearance from form travelers (molds for concrete bridge deck construction) and temporary encroachment into the horizontal clearance (reduced to 390 feet) from cofferdams. Barge traffic during this time will be maintained and no disruption is anticipated except for temporary, short-duration closures. The contractor would be required to coordinate activities in the navigational channel with the Coast Guard and COE. Efforts to minimize any impacts with the barge community would include radio communication, a helper boat, and buoys. A safety zone could also be established.

After completion of both bridges, the new navigational channel will be at least 442 feet in width (31 feet wider than the existing) and meet the vertical clearance requirements. No permanent impacts to commercial waterway operations would result from the proposed project.

A bridge demolition plan will be prepared by the contractor and submitted to the COE, Coast Guard, MPCA and MNDNR for approval. Demolition during the winter months when the river is closed to navigational travel would have no impact on barge travel. However, timing of the bridge demolition may occur when the navigational season is open. The COE Lock #7 operators will work with the USCG and the contractor during construction activities to minimize disruption of barge traffic between the project area and the lock.

During deck and pier construction and demolition activities within the river channel, recreational boats would be impacted similar to the barge traffic impacts described above. Some impacts to recreational navigation may be "No Wake Zones" in lieu of closures. The USGC, the COE and the contractor will coordinate timing of construction activities and any limitations on recreational boating as it relates to the safety of the boaters and the workers through the use of Navigational Safety Zones. The safety of boaters and workers is most important in such coordination. The Navigational Safety Zones may require no wake areas, full closures, buoys, and perhaps the presence of local water law enforcement patrol during critical times. Recreational boats will be sequenced with barge traffic to pass through the lock as usual in this location; the COE is not expected to limit recreational boats through the lock.

5.5. Environmental Justice

Executive Order 12898 – *Environmental Justice in Minority Populations and Low-income Populations*, requires that federal agencies consider and address disproportionate adverse environmental impacts of proposed federal projects on minority and low-income populations. The U.S. DOT integrated the goals of Executive Order 12898 into the Department of Transportation Final Order on Environmental Justice, DOT Order 5608.1 Environmental Justice (February 17, 1997).

There are no residential or commercial properties located within the immediate vicinity of the proposed project. Therefore, there are no 'populations' located in the project vicinity to be adversely affected. In addition, no adverse human health or environmental effects have been identified to result from the Preferred Alternative. As a result, it has been determined that the proposed project would not cause disproportionately high and adverse human health or environmental effect on minority or low-income populations.

5.6. Economics

The Preferred Alternative would not involve the acquisition of private property; therefore no loss of local property tax income would result from the project. Positive economic benefits may result from the project, since the Dresbach Bridge and its interchange with US 61 are vital components of both interstate and regional transportation, as described in Section 2.7 and shown on Figure 1. Improving traffic flow and decreasing congestion could be beneficial to local and/or regional commerce. According to the 2000 census, over 5,500 people commute between La Crosse County and either Houston County or Winona County. Furthermore, 19 percent of Houston County residents work in La Crosse County. The bridge's importance in interstate commerce is reflected by the high volumes of trucks that use the bridge, accounting for 13 percent of daily trips. Section 5.2 addresses possible temporary loss of jobs and revenue from the temporary closure of the Rest Area.

The temporary closure of the Rest Area may also result indirectly impact local tourism-related businesses that rely on information disseminated from the Rest Area for business and advertising. The temporary facility could mitigate the complete loss of this function, however, the location change may decrease visitation, and therefore indirectly decrease exposure for tourism-related businesses.

5.7. Right-of-Way and Relocation

In Minnesota, the Preferred Alternative falls entirely within existing rights-of-way, so no right-of-way acquisition or relocations would be required. No construction easements are needed.

In Wisconsin, 1.4 acres of U.S. FWS Refuge land from along the northern edge of the existing right-of-way would need to be acquired for the proposed project; in return, 5.5 acres of MnDOT and WisDOT right-of-way would be relinquished to the U.S. FWS (Section 5.10). No temporary construction easements on U.S. FWS Refuge land would be required. Methods to minimize land disturbances and impacts would be stipulated in construction documents. A detailed description of the Refuge right-of-way impacts is presented in Section 5.10.

5.8. Construction and Demolition

The Preferred Alternative construction would require removal and reconstruction, or new construction of all of the Minnesota approach roads; grading and embankment/retaining wall construction; construction of the two new bridges; demolition and removal of the existing

bridge; and reconstruction of the Wisconsin approach roads. Construction and demolition impacts on the Mississippi River are discussed in Section 4.12.5. The Preferred Alternative construction and demolition would also have temporary impacts on vehicular traffic, surrounding soils and slopes, access to the Riverfront area and river users (traffic flow, use of the canoe/boat launch areas and the rest area), and the physical environment through generation of dust, noise and vibration. Construction and demolition impacts and methods to reduce the impacts are summarized below.

5.8.1. Traffic

Complete closure of the existing bridge will be avoided by completing the new bridges while traffic is maintained on the existing bridge. Traffic will be switched to the new bridges when completed, and the existing bridge will be demolished and removed. Complex traffic phasing plans will be developed to maintain all current traffic movements to the extent possible. Construction and demolition staging details will be further developed during final design. Some traffic disruptions (e.g., ramp closures, lane shifts or speed reductions) would occur during various stages of construction. Bridge users may experience traffic delays, detours and lane shifts as the construction progresses. Construction staging plans would specify sequencing and traffic flow management techniques. It is estimated that construction of the Preferred Alternative would take a maximum of four construction seasons for completion of the project. Standard traffic control measures would be in accordance with the Minnesota Manual of Uniform Traffic Control Devices (MMUTCD) to provide safety warnings, to protect both motorists and construction workers. A Traffic Management Plan will be created to maintain traffic movements for vehicles, transit, bicyclists, and pedestrians during construction. Detour plans will be developed during final design to ensure that pedestrians and bicyclists are safely accommodated through the project area during construction.

Public outreach will occur regarding the final construction staging plan to address issues and/or concerns of the parties affected by the traffic impacts during construction of the project, including emergency responders. The contractor will be required to continue this public outreach effort during the construction phase.

5.8.2. Access to Riverfront

The Rest Area would remain open to travelers during initial mobilization and the initial stage of construction. The Rest Area would be closed to the trucking industry for the duration of the project. The Rest Area would also be closed for a one calendar-year period after the initial stage of construction. It is anticipated this would be 2013-2014. During this time, Rest Area staff would be relocated to a temporary location to provide travel information. The southern portion of the Rest Area (approximately 9 acres of land outside of the building and parking areas) would be closed when that area is needed as a staging area, but access to the DNR boat launch and Lock and Dam No. 7 would be maintained at all times , via temporary roads if necessary. Access to the USFWS boat launch downstream of the existing bridge will be subject to periodic closures. Specific information regarding the closure of the USFWS boat launch will be detailed

as traffic control plans and staging evolve during final design. Additional outreach with USFWS and other stakeholders will take place during final design.

5.8.3. Air Quality

The construction activities would impact air quality temporarily through increased dust, particulates and emissions from the construction equipment and the construction and demolition activities. No unique concerns have been identified. Standard dust control specifications would be followed.

5.8.4. Noise and Vibrations

Noise and vibrations would also be generated by the construction and demolition equipment. No unique concerns have been identified. Standard MnDOT noise control specifications would be followed. All construction equipment would be required to be properly muffled and held to the manufacturer's specifications as they pertain to operational noise levels.

5.8.5. Excess Material

Disposal and storage of excess material would be in compliance with MnDOT and WisDOT standard specifications, and would not occur in wetlands, floodplains, or other sensitive areas beyond the impact areas documented in this report. Excess fill material may be utilized in the Rest Area site reconstruction.

5.8.6. Borrow Material

Construction would require additional fill to be borrowed or obtained, likely from outside the project area. This work would be performed in compliance with MnDOT and WisDOT standard specifications, and would not impact wetlands, floodplains or other sensitive areas.

5.8.7. Erosion and Sedimentation

Both permanent and temporary sedimentation basins would be constructed as part of the project to meet NPDES construction storm water permit requirements. The construction of permanent sedimentation basins to manage the storm water from the Preferred Alternative bridges and I-90 right-of-way would also be in accordance with the State of Wisconsin's Storm water Management Plan (see Section 4.17). Other temporary and permanent erosion control methods may include silt fences, flotation silt curtains, retention basins, detention ponds, interceptor ditches, seeding and sodding, riprap of exposed embankments, erosion control mats, and mulching.

Barge spudding (mooring of one or more barges onto pilings placed in the river) is likely to be required for construction and demolition. Piling installation and removal and all construction methods would be subject to review and permitting through the NPDES and SWPP approvals, and COE, and/or MNDNR/WDNR permits.

5.8.8. Habitat

Construction of the bridge piers and abutments for the Preferred Alternative, and demolition of the existing bridge may result in impacts to aquatic and avian habitat. Construction impacts on wildlife and river habitat are similar in nature to overall project impacts. These impacts are described in Section 4.11.

5.8.9. River Traffic

Section 5.4 discusses the navigation channel; Section 4.12.5 discusses construction and demolition impacts on the river. Construction of the bridge piers and removal of existing bridge piers would result in short-term, temporary impacts to various river users. Construction activities may include transporting materials to the construction site via barge, setting bridge pier and support materials in place with cranes from barges, shoreland or the adjacent bridge, demolition of the existing bridge in a similar manner, barge docking, temporary access roads and other activities in and around the river. Barge and crane operations, including the use of form travelers, would cause short duration temporary channel obstructions although commercial and recreational river use would not be prohibited. Construction sequencing would not interfere with access to or operation of Lock & Dam No. 7. Construction plans would be reviewed by MNDNR, WDNR, the US Coast Guard and the Corps of Engineers to ensure that adequate channel clearance for river vessel passage is maintained during the construction period.

5.8.10. Hazardous or Contaminated Materials

Some construction activities include use of hazardous or toxic substances, resulting in the potential for spills or leaks of pollutants. If such an incident would occur during construction, the response would be in accordance with state of Minnesota and/or Wisconsin containment and remedial action procedures.

5.9. Indirect Effects

Indirect effects, as defined by the Council on Environmental Quality (CEQ) in 40 CFR 1508.7, are effects resulting from an action that occur later in time or farther removed in distance, but are still reasonably foreseeable. The indirect effects identified that could potentially result from the proposed project include the potential for changes in vegetation under the new I-90 bridge structure as a result of the structure shading the forested areas below (described in Section 4.11.a) and the potential for temporary impacts on local tourism-related businesses that rely on information disseminated from the Rest Area for business and advertising. The temporary closure of the Rest Area could decrease visitation, and therefore indirectly temporarily decrease exposure for tourism-related businesses. Operation of visitor's services from a temporary facility could mitigate the loss of this function.

5.10. Section 4(f)/6(f)

5.10.1. Introduction

Section 4(f) legislation as established under the Department of Transportation Act of 1966 (49 USC 303, 23 USC 138) and as revised in 2005 by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) [which included moving the Section 4(f) regulations to 23 CFR 774] provides protection for publicly owned parks, recreation areas, historic sites, wildlife and/or waterfowl refuges from conversion to a transportation use.

Additional protection is provided for outdoor recreational lands under the Section 6(f) legislation (16 USC 4602-8(f) (3)) where Land and Water Conservation (LAWCON) funds were used for the planning, acquisition or development of the property. These properties may be converted to a non-outdoor recreational use only if replacement land of at least the same fair market value and reasonably equivalent usefulness and location is assured. The purpose of examining the Section 4(f) and Section 6(f) property impacts is to provide the information required by the Secretary of Transportation to make the decision regarding the use of properties protected by Section 4(f) and/or Section 6(f) legislation with the Preferred Alternative. There are no Section 6(f) lands located within the project impact area. Section 4(f) impacts are described below.

5.10.2. Section 4(f)

The Section 4(f) process requires that any impacts from use of a park, recreation area, historic site, wildlife or waterfowl refuge for highway purposes be evaluated in context with the proposed highway construction/reconstruction activity. An inventory of these types of properties was completed based on a review of the design concept drawings and the project's impact on these properties to determine if a Section 4(f) Evaluation was needed for any of the resources. As described in Section 4.25.1 there was no Section 106 involvement of the historic resources in the project area; therefore, no Section 4(f) review of those properties is required. Additionally, the MRT and Apple Blossom Trail are bicycle routes designated on existing roadways (rather than on an independent facility), and, therefore, are not federal Section 4(f) resources. The only Section 4(f) resource in the project area is the Upper Mississippi River National Wildlife and Fish Refuge (the Refuge) (see Figure 2).

The Refuge, established by an Act of Congress on June 7, 1924, encompasses approximately 240,000 acres of Mississippi River floodplain in a more-or-less continuous stretch of 261 river-miles from near Wabasha, Minnesota to near Rock Island, Illinois. The Refuge includes broad pools, islands, braided channels, extensive bottomland forest, floodplain marshes and occasional sand prairie. These habitats are critical to mammals, waterfowl, songbirds and raptors, amphibians and reptiles. In the project area, the Refuge consists of the Mississippi River main channel and backwaters, wetlands and forested floodplain, and is used heavily by boaters, anglers, waterfowl-hunters and others for water-related and recreational activities. The Refuge is primarily administered by the Department of the Interior's U.S. FWS, the federal agency primarily responsible for conserving and enhancing the nation's fish and wildlife populations and their habitats.

The Wisconsin side of the project area in the vicinity of the Refuge includes:

- Refuge land,
- a privately-owned, undeveloped landlocked parcel (surrounded by Refuge land),
- an approximately-8 acre parcel currently owned by WisDOT, and
- WisDOT highway easement for the much of the I-90 right-of-way through the Refuge (see Fig 3).

Refuge jurisdiction extends into Minnesota; the lower boat launch (Lower I-90 Landing) is operated by the U.S. FWS, with an access road on an easement from MnDOT. MnDOT owns all of the land in fee for road right-of-way in Minnesota.

Permanent 4(f) Impacts – The Preferred Alternative construction would necessitate the acquisition of approximately 1.4 acres of forested Refuge land for road right-of-way (as shown on Figure 14d, and discussed below); result in forest impacts on the right-of-way to be acquired for the project (Figure 14a, Section 4.11); and result in the filling of 3.1 acres of wetland on the right-of-way to be acquired for the project (Figure 14b, Section 4.12.3). Table 15 summarizes the areas of impact and mitigation for these impacts.

Table 15 – Summary of Permanent Refuge Impacts and Mitigation

Refuge Right of Way Impacts

TO BE ACQUIRED (acres)			TO BE CONVEYED TO FWS (acres)		
MN	**WIS**		**MN**	**WIS**	
N/A	Parcel A	Parcel B	Owned in Fee	Owned in Fee	Easement
	0.3	1.1	1.4	2.1	2.0
Subtotal = 0	Subtotal = 1.4		Subtotal = 1.4	Subtotal = 4.1	
Acquired Total = 1.4			Conveyed to FWS Total = 5.5 (3.5 in fee)		

Refuge Wetland Impacts

WETLANDS FILLED (acres)		WETLANDS MITIGATED (acres)	
MN	**WIS**	**MN**	**WIS**
0 (Project wetland impacts **outside** the Refuge total 2.0 acres Type 1.)	3.1 (Type 1 Wetland)	Refuge wetland impacts will be mitigated in conjunction with overall project wetland mitigation (5.1 acres of impact total), through use of the MnDOT or WisDOT Wetland Mitigation Banks in accordance with the ratio prescribed by current state and federal regulations (i.e., at a ratio of about 2:1) **Approximately 10.2 acres.**	
3.1 acres in Refuge (5.1 acres wetland impact for project; all Type 1 Wetlands)			

Refuge Forest Impacts [1]

FOREST IMPACTS (acres)		FOREST REVEGETATED (acres)	
MN	**WIS**	**MN**	**WIS**
0	3.9	0	2.3
Total = 3.9			

[1] Forest impacts were calculated based on impacts to trees only, regardless of land ownership or habitat; i.e., all forest impacts in Wisconsin, and in wetlands and uplands were included in the impact area.

To offset the right-of-way acquisition (1.4 acre), the project proposers would relinquish to the Refuge land from three areas currently in I-90 road right-of-way in Wisconsin and Minnesota.

In Minnesota, immediately adjacent to the U.S. FWS boat launch, a 1.4 acre parcel would be relinquished (Figure 14c). In Wisconsin, forested land on the main channel island (2.0 acres) would be relinquished; and an additional 2.1 acre parcel would be relinquished further to the east (see Figure 14d), conveying a total of 5.5 acres to the U.S. FWS.

Mitigation would also be provided for the 3.1 acres of Refuge wetland impact. Wetland mitigation opportunities have been explored and discussion with the U.S. FWS and other regulating agencies are ongoing (see Figure 14.b and Section 4.12.3).

Mitigation would be provided for the 3.6 acres of forest impacts. Preliminary calculations indicate that there are approximately 3.8 acres available for reforestation (Figure 14.a, Section 4.11). These areas are within existing WisDOT right-of-way or on existing Refuge land. However, there are a number of issues that need resolution prior to the purchasing of mitigation land and completion of mitigation. Discussions and coordination between the agencies will continue as each of these sites under go consideration.

A draft Memorandum of Understanding (MOU) between the DOTs and U.S. FWS documenting the mitigation actions pertinent to the Refuge is presented in Appendix D.

Since the project has minor impacts on the resource (the 1.4 acre taking is considerably less than 1 percent of the 240,000-acre Refuge) and attributes (wetland and floodplain forest impacts will be mitigated), a Section 4(f) *de minimis* finding is proposed for the Refuge impact, because the impact does not adversely affect the activities, features or attributes of the Refuge. Discussions with Refuge staff to date have indicated that they agree with the *de minimis* finding, in principle, but they will allow the public to comment on the EA/EAW before providing written concurrence with the finding (see the U.S. FWS letters dated February 11, 2010 and October 12, 2011 in Appendix B). The FHWA will make a determination regarding the proposed *de minimis* finding following the public comment period for the EA/EAW and receipt of U.S. FWS written concurrence that the impact does not adversely affect the activities, features or attributes of the Refuge.

Temporary Occupancy – All construction activities would occur within existing WisDOT or MnDOT land or right-of-way. Intrusion onto Refuge land would not be required for construction. Figure 12 shows the temporary construction staging areas, barge activity areas, temporary causeway and project construction location. All activities would occur outside Refuge land; no temporary construction easements would be required. No temporary occupancy of Section 4(f) land would result from the Preferred Alternative.

6.0 PUBLIC INVOLVEMENT AND RESOURCE AGENCIES

6.1.Informational Process

6.1.1. Technical Advisory Committee (TAC)

The TAC meets regularly throughout the project development process to provide regular and ongoing technical oversight regarding preliminary design, environmental review and public involvement. Members included representatives from FHWA, MnDOT District 6, MnDOT Office of Environmental Services, MnDOT Bridge Office, MnDOT Office of Technical Support, Wisconsin DOT, and the LAPC - the area's metropolitan planning organization (MPO).

6.1.2. Public Involvement Plan

The TAC developed a Public Involvement Plan to provide guidance for public and agency participation activities (described below). MnDOT District 6 developed a list of area and agency stakeholders with whom to communicate, sent out press releases and newsletters in advance of public information meetings, and maintained a web site that provides project information to the public.

6.1.3. Project Advisory Committee (PAC)

A Project Advisory Committee (PAC) was established to provide periodic project updates and obtain input from local stakeholders and agencies with jurisdiction over planning and permitting. Stakeholders invited to participate on the PAC included the U.S. FWS; the Departments of Natural Resources from Minnesota and Wisconsin; Minnesota Office of Tourism; the U.S. Army Corps of Engineers; the U.S. Coast Guard; the Cities of La Crosse, Onalaska and La Crescent; the Counties of Winona, Houston and La Crosse; LAPC; the La Crosse Area Chamber of Commerce; and the La Crosse Area Convention and Visitors Bureau. In addition, the PAC also included MnDOT and WisDOT staff on the TAC.

Meetings were held at key project decision points starting in late 2007, to allow for PAC review/comment on project progress. The PAC played a primary role in identifying the importance of full access to the Minnesota Riverfront; they expressed concerns over maintenance of traffic during construction; and they provided input into aesthetic design options. .

6.1.4. Roadway and Bridge Workshops

Day-long technical workshops were conducted at key decision-making points during the development, screening and refinement of project alternatives. Sets of roadway and bridge workshops were held, respectively, on April 9th and June 25th, 2008; and on November 11th and 25th, 2008.

6.1.5. Aesthetics Workshop

A workshop was held on March 17th, 2009 that addressed bridge design elements to receive input on issues related to visual quality and aesthetics, including pier type, abutment treatment, bridge railings, and lighting. Invitees included local stakeholders and PAC members.

6.1.6. Public Meetings / Public Hearing

Public information meetings were held to provide opportunities for the public to review plans, ask questions, and provide input. An introductory public information meeting was held on March 20th, 2008, which provided information on the project scope, previous work, and existing project area conditions. A second public information meeting on November 6th, 2008 presented a set of three roadway interchange and four bridge types as well as environmental considerations for public feedback and discussion. An additional public open house meeting/hearing will be held during the EA/EAW public comment period.

6.2. Agency Coordination

6.2.1. Environmental Agency Coordination

On October 1st, 2008, project consultants and MnDOT staff hosted a workshop for environmental agencies to review and discuss the project's Purpose and Need, environmental considerations, and project alternatives developed to date. Agency representatives did not express any particular concerns related to the project's Purpose and Need or the development and screening of preliminary project alternatives. Key items addressed included MNDNR restrictions on river work during fish spawning season (March 1st through June 1st) and the potential for a waiver; MNDNR's prohibition of dropping materials into the water; construction specifications to avoid zebra mussel and other invasive species contamination; WDNR requirements for an Erosion Control Implementation Plan; avoidance of nesting sites; the need for a special use permit for staging on refuge land; and potential for use of dredged material for fill in the project area.

On February 4th, 2009, MnDOT and WisDOT project representatives met with representatives from state and federal environmental agencies to update them on the development and screening of alternatives. The focus of the meeting was on identifying environmental and socioeconomic factors that would differentiate among alternatives being considered. The main differentiating factor identified was the alignment of a new main channel crossing. An important issue was minimizing impacts on Refuge land. The slope of the fill for the Wisconsin approach was discussed, including wetland impacts, reestablishing vegetation on the slope, and slope stability. The design and maintenance of a storm water pond proposed on the south side of the approach was discussed, including FAA guidance related to wildlife hazard mitigation. Wetland regulatory agencies discussed relative wetland area impacts for the alignment alternatives. Other issues discussed include construction staging/methods and environmental mitigation.

In December 2009 and January 2010, the proposing agencies (MnDOT and WisDOT) coordinated with WDNR regarding the WDNR/WisDOT Cooperative Agreement. WDNR staff emphasized that in Wisconsin, WisDOT is exempt from having to obtain permits from WDNR for projects that affect waters of the state; this exemption applies only as long as the project is carried out in accordance with interdepartmental liaison procedures specified in the Cooperative Agreement. The Cooperative Agreement establishes that WisDOT-administered projects may not move forward unless WDNR provides concurrence assuring that the project

minimizes environmental impacts and fulfills the intent of the natural resource protection laws of the State of Wisconsin. At the time of concurrence, WDNR will consider providing state water quality certification under Section 401 of the Clean Water Act. It is the intention of MnDOT (the lead proposing agency) and WisDOT to proceed in accordance with the Cooperative Agreement, as evidenced by participation of the WDNR in the PAC and Environmental Agency meetings.

6.2.2. U.S. Fish and Wildlife Service (U.S. FWS) – Refuge

Starting in May of 2009, MnDOT and WisDOT project representatives held meetings with representatives of the U.S. FWS to discuss issues of concern to the U.S. FWS. Discussion items included Refuge impacts and mitigation, the U.S. FWS compatibility determination (permit for right-of-way), Section 4(f) impacts, and the overall environmental review process.

6.2.3. U.S. Coast Guard

Starting in April of 2008, project representatives have met with the U.S. Coast Guard. Discussion items have included river navigation and bridge design issues, including vertical/horizontal clearance, pier reinforcement, life-cycle costs, main span alternatives, bridge skews and bridge tapers.

6.2.4 Corps of Engineers (COE), WDNR and U.S. FWS - Wetlands Coordination

The COE concurred with the project Purpose and Need at a meeting on October 1, 2008, and attended PAC meetings throughout the project where the alternatives were discussed and narrowed and the project overall plan was developed. Starting in 2009, project representatives have met numerous times with the COE, WDNR and FWS to review the development and selection of the preferred alternative, receive input from the COE regarding the measures taken to avoid and minimize wetland impacts, and to discuss potential wetland mitigation locations.

6.3. Other Coordination

6.3.1. Native American Tribes

The Cultural Resource Unit of MnDOT and WisDOT staff consulted with tribal groups who have expressed a potential interest in reviewing projects in this area of Minnesota and Wisconsin. None of the tribes responded with an interest in the project.

6.3.2. High Speed Rail Stakeholders

On February 27th, 2008, MnDOT and WisDOT staff discussed the effects that a future high speed rail track/corridor, part of the Midwest Regional Rail Initiative, might have on the project. The Midwest Regional Rail Initiative is an ongoing effort to provide an improved and expanded passenger rail system in the Midwest. Sponsors are the transportation agencies of nine states: Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Nebraska, Ohio and Wisconsin. Issues addressed included the vertical and lateral clearance needs of a potential new track, train speeds, portal width need, and potential for bridge piers in the railroad right-of-way. These discussions led to the project's overall design being compatible with the addition of new

parallel rail trackage (the Midwest Regional Rail Initiative high speed rail, proposed for the CP Rail corridor in the Project Area; see Figure 3 for CP Rail corridor location).

6.3.3. Canadian Pacific Railway

On May 22nd, 2008, project representatives met with representatives from CP Rail. Agenda items included the number and spacing of tracks; lateral clearance requirements; location of piers; and railroad cross sections.

6.3.4. Bicycle/Pedestrian Stakeholders

On February 28, 2008 MnDOT, WisDOT and local planning agency staff toured the project area and vicinity to assess the potential for accommodation of a bicycle/pedestrian trail across the I-90 bridge, identify through-connection deficiencies and identify areas needing improvement in the project area. At this meeting, a lack of connectivity from I-90 to other bicycle/pedestrian facilities in Wisconsin was noted. LAPC staff also noted that an alternate bicycle/pedestrian route connecting La Crescent and La Crosse via the TH61 bridges across the Mississippi River was currently being planned.

On December 15th, 2008, MnDOT and LAPC staff met with the Bicycle/Pedestrian Advisory Committee (BPAC) of the LAPC. Primary agenda items included how the each of the remaining two roadway alternatives, 3B and 10B, accommodated the MRT; and the results of the study that evaluated alternatives for connections southward along US 61 to La Crescent. During 2009 and early 2010, additional contact/coordination occurred primarily with the LAPC contact at TAC and PAC meetings.

On April 11, 2011, MnDOT and LAPC staff met with the Bicycle/Pedestrian Advisory Committee to the LAPC. The primary agenda item was to address the issue of the ability of the Dresbach bridge to carry bicycle/pedestrian traffic when it is constructed or at some time in the future. Questions and comments were taken from the BPAC and several members of the bicycling community. Throughout summer and fall of 2011, correspondence and discussions with LAPC and bicycle advocacy groups continued, including meetings to discuss the Feasibility Study (see Section 5.3 above).

6.4. Permits and Approval Requirements

Table 16 summarizes the project's required permits and approvals. The project would take place in two states – Minnesota and Wisconsin – and coordination has been necessary between and among the states' agencies regarding the preparation, review and distribution of this document, as well as project design, and potential permitting needs and procedures of both states. It is the intention of MnDOT (the lead proposing agency) and WisDOT to continue coordination on the project, and in particular, to proceed in accordance with the WDNR/WisDOT Cooperative Agreement, as appropriate. The Cooperative Agreement establishes that WisDOT-administered projects may not move forward unless WDNR provides concurrence assuring that the project minimizes environmental impacts and fulfills the intent of the natural resource protection laws of the State of Wisconsin. The WDNR considers state

water quality certification under Section 401 of the Clean Water Act at the time of Cooperative Agreement concurrence.

Table 16 - Permits and Approvals

Permits / Review	Agency	Action Required
FEDERAL		
Environmental Assessment document	FHWA	Approval
EIS Need Decision	FHWA	Decision
Section 4(f) *de minimis* finding	FHWA	Determination
Section 106 (Historical/Archaeological)	FHWA (MnDOT CRU/ FHWA)	Determination
Endangered Species Act (Section 7 Consultation)	FHWA (MnDOT OES/FHWA)	Informal Consultation-Determination of May Affect, Not Likely to Adversely Affect
Endangered Species Act (Section 7 Consultation)	U.S. FWS	Concurrence
Interstate Access Modification and Design Exceptions	FHWA	Approval
Section 404 Permit –General Permit; Section 10 Permit	U.S Army Corps of Engineers	Approval
Section 9 Permit	U.S. Coast Guard	Approval
Project Review/Circular 39 Review	FAA / WisDOT Aeronautics	Determination of No Hazard to Navigation
Project Compatibility Determination	U.S. FWS	Determination
Section 4(f) *de minimis* finding	U.S. FWS	Concurrence
STATE		
EA/EAW Document	MnDOT, WisDOT	Approval
EIS Need Determination	MnDOT	Negative Declaration
Construction Plans – Bridge Preliminary Plan	MnDOT; WisDOT	Approval
Construction Plans – Roadway/Geometric Layout	MnDOT; WisDOT	Approval
MN Wetland Conservation Act (Replacement Plan)	MnDOT/WisDOT with review by Board of Soil and Water Resources	Approval/Review
Design Exception for US 61 Northbound to Eastbound I-90 Ramp	MnDOT	Approval
Wisconsin DNR/WisDOT Cooperative Agency Agreement	WDNR, WisDOT	Concurrence
Public Waters Work Permit (General Permit 2004-0001)	MNDNR	Permit

Permits / Review	Agency	Action Required
Notice of Demolition and/or Removal and Application for Permit Exemption	WDNR	Approval
Section 106 Cultural Resourced Review (Historic/Archaeological)	Minnesota SHPO	Consultation
Minnesota Threatened and Endangered Species Take Permit	MNDNR	Permit
Incidental Take Authorization	MNDNR	Authorization (if required)
Section 401 Water Quality Certification	MPCA; WDNR	Certification
NPDES Construction Stormwater Permit	MPCA; WDNR	Permit
LOCAL		
Stormwater Management Plan	Winona County, La Crosse County	Coordination
Erosion and Sediment Control Plan	Winona County, La Crosse County	Coordination

6.5.EA/EAW Public Comment Period and Public Hearing

Comments from the public and agencies affected by this project are requested during the public comment period as described in the transmittal letter distributing this EA/EAW. A combined public hearing/open house meeting will be held after the EA/EAW has been distributed to the public and to the required and interested federal, state and local agencies for their review.

At the open house meeting/public hearing, preliminary design layouts for the alternatives under consideration along with other project documentation will be available for public review. The public will also be given the opportunity to express their comments, ideas and concerns about the proposed project. These comments will be received at the hearing and during the remainder of the comment period, and will become a part of the official project record.

6.5.1. Report Distribution

Copies of this document have been sent to agencies, local governmental units, libraries, and others as per Minnesota Rule 4410.1500 (Publication and Distribution of EAW) (thus satisfying the Wisconsin review process, as MnDOT is the lead agency).

6.5.2. Process Beyond the Public Comment Period

Following the comment period, the DOTs and the FHWA will make a determination as to the adequacy of the environmental documentation. If further documentation is necessary it could be accomplished by preparing an Environmental Impact Statement (EIS), by revising the EA, or by providing clarification in the Findings of Fact and Conclusions, whichever is appropriate.

If an EIS is not necessary, as currently anticipated, MnDOT would prepare a "Negative Declaration," concluding the Minnesota environmental review requirements. MnDOT will also prepare a request for a "Finding of No Significant Impacts" (FONSI) that will be submitted with

concurrence from WisDOT's to the Minnesota Division of the FHWA. If the FHWA agrees that this finding is appropriate, it will issue a FONSI.

Notices of the federal and state decisions and availability of the above documents will be placed in the Federal Register and the Minnesota Environmental Quality Board (MEQB) Monitor. MnDOT will also distribute the decisions to the EAW distribution list, to WisDOT for dissemination to Wisconsin libraries, and publish notices in local (MN and WI) newspapers announcing the environmental and project alternative decisions that were made.