

**Appendix B**  
**Tables**

**Table 1: Summary Table of Riverway Mitigation Items**

Mitigation Items	Responsible Agencies	Implementation Schedule	Assurance
b2: Extradosed Bridge Design	Transportation Agencies	Bridge construction	Record of Decision (ROD)
c1: Remove Xcel barge unloading facility and mooring cells	Transportation Agencies	1 year after bridge construction is complete	ROD , MOU between Mn/DOT and Xcel Energy
c2: Remove the Terra Terminal building and naturalize shoreline	Transportation Agencies	Building has been removed, remainder during bridge construction	ROD
c3: Remove "BUCKHORN" sign	Transportation Agencies	During bridge construction	ROD, MOU between WisDOT and private landowner
c4: Partial restoration of Wisconsin bluff at approach to Lift Bridge	Transportation Agencies	During bridge construction	ROD
c5: Partial restoration at Kolliner Park	Transportation Agencies	During bridge construction	ROD
c6: Remove vehicular traffic from existing Lift Bridge	Transportation Agencies	After new bridge open to traffic	ROD and Amended Section 106 MOU
d1: Purchase bluffland within ¼ mile of project	Funding: Transportation Agencies  Implementation: WDNR	Funding provided following FHWA funding authorization and before construction begins	ROD, Joint Powers Agreements to be executed b/t Mn/DOT, WDNR, St. Croix County
d2: Covenants on excess properties owned by WisDOT	Transportation Agencies	After bridge construction	ROD, covenants in property deed
d4: Spill Response Plan	Funding: Transportation Agencies  Implementation: NPS	Funding provided following FHWA funding authorization and before construction begins	ROD, Joint Powers Agreements to be executed b/t Mn/DOT and NPS

Mitigation Items	Responsible Agencies	Implementation Schedule	Assurance
e1: Kiosks for interpretation	Funding: Transportation Agencies  Implementation: NPS, MDNR and WDNR in consultation w/SHPO's	After bridge construction	ROD, Joint Powers Agreement to be executed b/t Mn/DOT and NPS
e2: Public boat access	Funding: Transportation Agencies  Implement: MDNR	Funding provided following FHWA funding authorization.	ROD, Joint Powers Agreement to be executed b/t Mn/DOT and MnDNR
e3: Pedestrian/bicycle loop trail	Funding: Transportation Agencies  WisDOT to own until new owner can be found	Approximately 1 year after bridge construction is complete	ROD and Amended Section 106 MOU
e4: Recreation, Education and Restoration	Funding: Transportation Agencies  Implement: NPS	Funding provided following FHWA funding authorization.	ROD, Joint Powers Agreement to be executed b/t Mn/DOT and NPS

**Table 2: Estimates of Fill and Excavation**

Item	Below normal pool (675 feet) <sup>(1)</sup>		Floodplain impacts (675 to 692.6 feet) <sup>(2)</sup>	
	Excavation (cubic yards)	Fill (cubic yards)	Excavation (cubic yards)	Fill (cubic yards)
Minnesota approach roadway <sup>(3)</sup>	0	0	0	0
Piers (Minnesota approach bridge)				
-3 piers in floodplain	0	0	0	500
-4 piers in floodplain	0	0	0	600
-5 piers in floodplain	0	0	0	700
Piers (6 piers in river)				
- P8 - P13 (6 piers in river)	0	24,600	0	3,500
Wisconsin approach roadway <sup>(3)</sup>	0	0	0	0
Stillwater Municipal Barge Facility property access road	0	0	200	10
Stormwater pond – Minnesota	0	0	38,000	2,300 <sup>(5)</sup>
Xcel barge facility mooring cells <sup>(6)</sup>	0	5,000	5,000	0
Shoreline restoration <sup>(7)</sup>	5,000	5,000	5,000	5,000
Loop trail system <sup>(8)</sup>	0	0	500	1,000
<b>TOTALS:</b>				
<b>w/6 piers in river</b>	5,000	34,600	48,700	16,310-16,510

Table notes:

<sup>(1)</sup> Within riverbanks. Does not include excavation of river bottom for pier shafts.

<sup>(2)</sup> Within 100-year floodplain boundary.

- <sup>(3)</sup> Bridge abutments and approach roadways in Minnesota and Wisconsin are located outside of the 100-year floodplain.
- <sup>(4)</sup> Pier assumed to be located outside of 100-year floodplain. Label for pier in Wisconsin would vary depending upon the number of piers in the river.
- <sup>(5)</sup> Stormwater pond berm adjacent to the pond.
- <sup>(6)</sup> Assumes that fill material in mooring cells above normal pool elevation will be allowed to settle to the river bottom when the mooring cells are removed.
- <sup>(7)</sup> Shoreline restoration activities associated with removal of the Terra Terminal building and hazardous material clean up. Assumes approximately 1,500 feet of shoreline restoration in the Stillwater Municipal Barge Facility property.
- <sup>(8)</sup> Pedestrian trail along St. Croix River shoreline in the Stillwater Municipal Barge Facility property would be located within the 100-year floodplain.

Table 3: Proposed Bridge Differences (1996, 2000, 2005)

Year	Placement	Dimensions	Mitigation	Style
1995	Diagonal Alignment Near Stillwater	5500' long 3000' above river 98' wide 140' tall	none	Segmental concrete box or haunched steel girder 8 piers in river
2000	Within natural bluff depression (WI) and developed lands (MN) Perpendicular to river banks	4040' long 2000' above river 98' wide 150' tall	10 member work group plan with alternatives	Arched hybrid 5-7 piers in river
2005	Within natural bluff depression (WI) and developed lands (MN) Perpendicular to river banks	5000' long 3000' above river 120' wide 160' tall	28 member stakeholder plan	Extradosed box girder 'organic' design developed with stakeholders 6 piers in river