

ENVIRONMENTAL ASSESSMENT REEVALUATION
AND ENVIRONMENTAL ASSESSMENT WORKSHEET UPDATE

for

SP 156-104-006
Minn. Proj. No. PLHD 2504(160)

Sturgeon Lake Road From Approximately
500 feet west of the intersection of Xcel Road to Wiobata Street

in

The City of Red Wing, Goodhue County, Minnesota
Section 31, Township 114N, Range 15W and
Section 6, Township 113N, Range 15W

Submitted pursuant to 42 USC 4332
by the
FEDERAL HIGHWAY ADMINISTRATION
and
City of Red Wing
and
Prairie Island Indian Community

For

Reconstruction of an approximately 4,300 foot segment of an existing four-lane roadway and construction of a grade-separated crossing at the current at-grade intersection of the Canadian Pacific Railway and Sturgeon Lake Road, including necessary modifications to the supporting roadway network and access points.

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Recommended:

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Mari S. Moga Date 9/5/13
Prairie Island Indian Community

Reviewed and Recommended:

Faust Cabul Date 09/06/2013
District State Aid Engineer

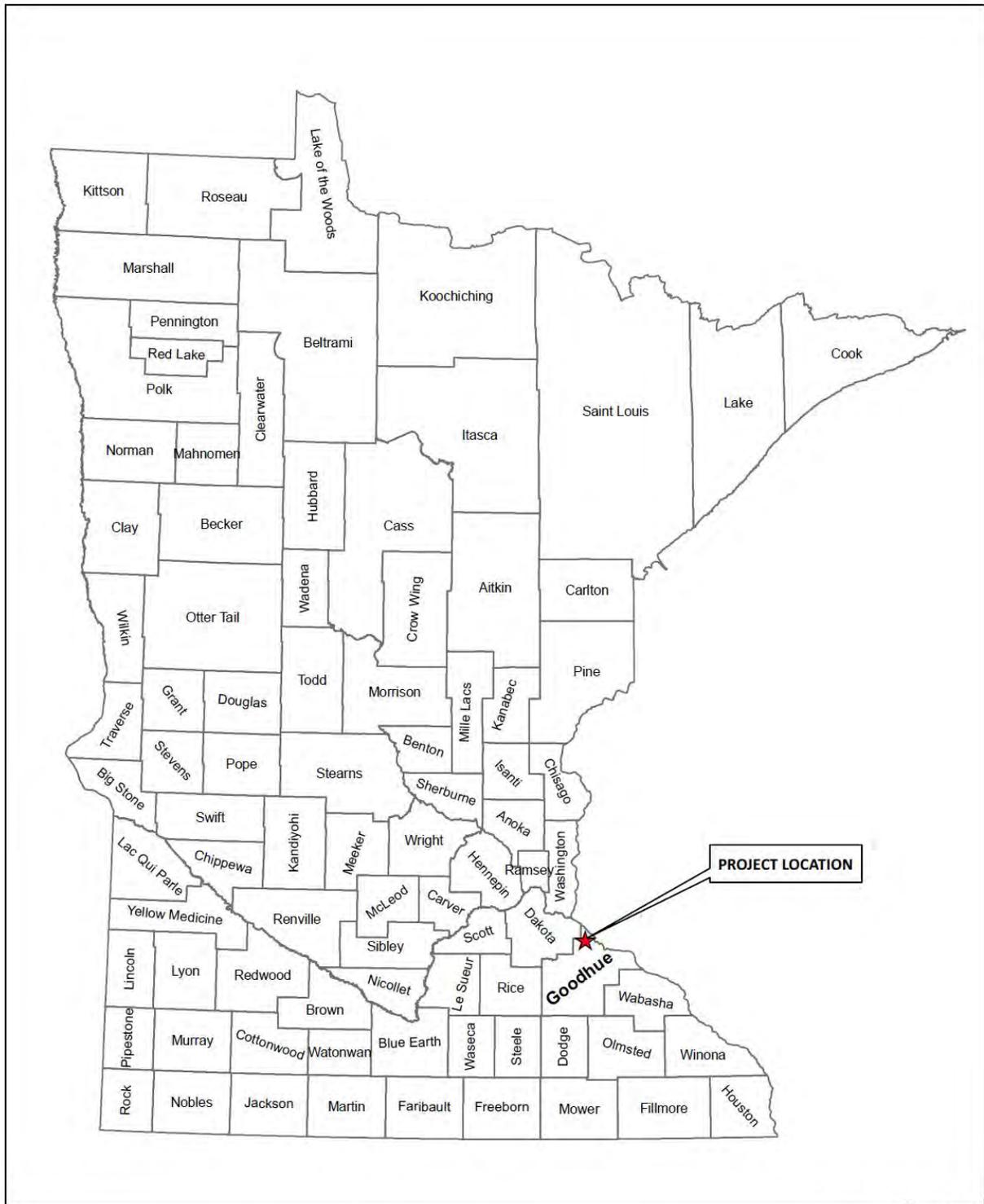
Approved:

J. Jynette Roswell Date 11/4/2013
State Aid Engineer
State Aid For Local Transportation

Approved as per 23 CFR Part 771.119(c):

William R Lohr Date Nov 6, 2013
FHWA - Project Development Engineer

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SP 91-104-02
 STURGEON LAKE ROAD
 CITY OF RED WING, MN

Figure 1. Project Location



0 25 50
 Miles



Figure 2. Project Vicinity

SP 91-104-02
 STURGEON LAKE ROAD
 CITY OF RED WING, MN

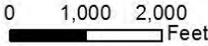


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I. BACKGROUND AND REPORT PURPOSE

The Sturgeon Lake Road Overpass project that is the subject of this environmental review document was previously evaluated in an Environmental Assessment (EA) published in 2005. A Finding of No Significant Impact (FONSI) was issued on this project in 2006, and no action has been taken on the project since that time. The purpose of this EA reevaluation document is to record proposed changes to the project since the FONSI was issued, update existing conditions, and revise relevant impacts and mitigation measures to reflect the current project, as applicable. This document focuses only on the changes between the project evaluated in the 2005 EA, and the currently proposed project. The 2005 EA and 2006 FONSI are incorporated by reference.

The document prepared in 2005 also served as an Environmental Assessment Worksheet (EAW) at the state level. Although an EAW was not required under Minnesota Rules, the Prairie Island Indian Community (PIIC) acting as the Responsible Governmental Unit (RGU) elected to prepare a discretionary EAW at that time. A Negative Declaration was issued in 2006 along with the federal FONSI. This EA reevaluation includes an update to the EAW in Appendix B.

The City of Red Wing is the current project proposer, with PIIC closely involved as a partner and affected jurisdiction. Based on this reevaluation, FHWA and MnDOT will determine that either the findings of the previous EA have not changed substantially, by issuing an updated federal FONSI and state Negative Declaration; or that an Environmental Impact Statement (EIS) is required. An EIS would only be required if the changes to the project or new information result in significant environmental impacts not identified in the 2005 EA.

The proposed project would be funded partially with Federal funds administered through FHWA, thereby necessitating review under the National Environmental Policy Act (NEPA). This EA was prepared to fulfill requirements of both 42 USC 4332 and M.S. 116D. 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.

II. HIGHWAY SECTION DESCRIPTION

Highway Section Termini

From: County Road 18 (Prairie Island Boulevard)

To: shores of Sturgeon Lake

Length: approximately 1.8 miles (actual project length 0.8 mile)

Roadway cross-section:

Sturgeon Lake Road is currently a 4 lane rural undivided highway.

Unusual Traffic or Road / Facility Use:

This roadway is an established evacuation route from Xcel Energy's Prairie Island Nuclear Plant.

Horizontal/Vertical Alignment:

Flat and generally straight

Adjacent Land Use: Commercial, utilities, recreation, residential, public safety building

Bridge Crossing(s): No

Railroad Crossing Location (s): Yes

The project will construct an overpass, bringing Sturgeon Lake Road over the existing CPR line.

Airport Proximity: No

III. PROJECT PURPOSE AND NEED

A. Project Purpose

The purpose of the proposed Sturgeon Lake Road project is to improve traffic mobility by reducing existing and future traffic delays from rail traffic, including enhancing emergency response time to and evacuation time from the island. Additionally, the project should improve traffic safety, while maintaining existing public and private access, connectivity to trails, and maintaining traffic during construction.

B. Project Need

The need for the Sturgeon Lake Road project is very similar to the 2005 EA, but has been updated to reflect current conditions and requirements. The primary and secondary needs for the project are discussed below, as well as other considerations that may be addressed by the project.

Primary Needs:

Sturgeon Lake Road is a four-lane undivided roadway between County State Aid Highway (CSAH) 18 (Prairie Island Boulevard) and the intersection with Wiobata Street. The current traffic volume is approximately 12,600 vehicles per day (vpd) (MnDOT 2011 traffic data), with approximately 60% of the traffic originating at or destined for the Treasure Island Resort and Casino (City turning movement counts performed in 2011). This roadway serves as the only paved vehicle access point for the Prairie Island Indian Community (PIIC) which consists of approximately 90 residences, and also for Xcel Energy's Prairie

Island Nuclear Plant, and U.S. Army Corps of Engineers Mississippi River Lock and Dam #3. In 2025, traffic volumes are expected to be approximately 17,500 vpd.

The major factor contributing to traffic delay on Sturgeon Lake Road is rail traffic on the Canadian Pacific Railway (CPR). Sturgeon Lake Road currently crosses the CPR tracks at-grade just west of the casino.

Traffic Mobility - According to CPR, an average train along this corridor can vary between 7,200 feet and 8,500 feet in length - with a recommended value of 8,200 feet as a reasonable average. The maximum timetable speed for freight trains across Sturgeon Lake Road is 50 MPH, meaning that slower operation is probable; however, no freight train may exceed 60 MPH.¹ Assuming 28 trains per day at 35MPH to 70MPH, from the Federal Railroad Administration Office of Safety Analysis, with an average length of 8,200 feet, the crossing is blocked for approximately 112 seconds per train (including advance warning time). This results in a daily blockage of approximately 52.18 minutes (0.87 hours) each day, or about 3.6% of the total 24-hour period, when there is no ingress or egress to/from the island. This amount of delay may seem small; however, this situation presents a substantial concern when trains block the only entrance/exit to the island for residents and employees, as well as for emergency services (police, fire, medical, homeland security) and emergency evacuation. *The primary goal of this project is to reduce the traffic delay caused by rail traffic.*

Secondary Needs:

Rail Capacity Expansion - CPR has plans to add additional tracks along this rail corridor at some time in the future, which is required for it to expand service from its current usage. Additionally, this rail corridor has been identified as having potential for additional commuter and/or high speed rail tracks added.

Evacuation - Sturgeon Lake Road represents the only road surface to and from the island that is above the 100-year floodplain. In a flooding event, this would be the only evacuation route for leaving the island. In the event that a train derailment or stall blocked Sturgeon Lake Road, any necessary evacuation would be severely hampered, if not impossible. The presence of the Prairie Island Nuclear Plant (Xcel Energy) also presents safety and homeland security concerns. Should an accident or terrorist attack occur at the plant, requiring evacuation of the island, the existing at-grade crossing could potentially block

¹ Nearly every train crossing Sturgeon Lake Road is considered a freight train by CPR. Special status is given to occasional high-priority intermodal trains which may operate at speeds up to 60 MPH and for Amtrak which is allowed to operate at speeds up to 79 MPH based on the CPR Timetables of Operation; Table #7, dated April 7, 2010 (not publicly available). Currently, two Amtrak trains operate each day through this corridor.

the primary, and depending on conditions (such as flooding during such an accident or attack), the only evacuation route. Similar delays are of concern to access and maintenance of US Lock and Dam #3 (US Army Corps of Engineers) during flood conditions or other hazardous events.

Maintenance of Traffic and Access During Construction- Because Sturgeon Lake Road is the only paved public route to/from the PIIC, casino, energy plant, and lock and dam, it should remain open to traffic during construction to the extent practicable. Temporary alignments to maintain traffic during construction must not increase substantially in distance from the existing route in order to minimize traffic delays. Similarly, existing pedestrian and bicycle trails along the corridor should be accommodated to the extent possible as part of the project and accommodated to the extent possible during construction.

Multi-Modal Connectivity - The existing pedestrian/bicycle trail between County 18 Blvd and BIA50, provides important local access to areas businesses and other destination and has been identified by the PIIC as being important to maintain as part of the project but also to maintain its connectivity during construction.

Roadway Safety (Rail Crossing Exposure) - Sturgeon Lake Road crosses the Canadian Pacific Railway's (CPR) River Subdivision at-grade approximately 1,000 feet west of the main access to Treasure Island at a crossing with overhead warning flashers and gates. According to the Federal Railroad Administration Office of Safety Analysis, in 2012 approximately 28 trains per day cross Sturgeon Lake Road; the volume of train traffic has grown in recent years and is expected to continue to grow in the foreseeable future.

Other Considerations:

Other needs or benefits that may be addressed by this project include the following:

High Speed Rail Station - In addition to CPR's plans to increase rail capacity for freight traffic, there has also been some preliminary planning for future commuter rail being added along the CPR corridor. The Red Rock commuter line is considering this corridor, as well as discussions about high speed rail between Minneapolis and Madison and/or Chicago. If these plans move forward, the PIIC desires to have a rail station at this location based on the concentration of employment and destination traffic to this area.

Related Infrastructure Costs - In addition to the cost to build this road project, planning should consider the additional infrastructure needed by others to connect into the project. Costs to build and or maintain additional segments of road by the city or the PIIC will be considered and coordinated with the responsible parties.

Emergency Response - The Goodhue County Dispatcher received approximately 1,050 service calls from Prairie Island and the surrounding area in 2011. Approximately 925 of those calls were from the PIIC and Treasure Island Casino. Ambulance and fire protection service is provided to the island by the City of Red Wing and must use this crossing. It should be noted that there is a cooperative law enforcement agreement between the PIIC, the City of Red Wing, and Goodhue County. This agreement means that the PIIC Police Department responds to calls off of the island as well as City and County responding to calls on the island. This crossing therefore impacts police response times in both directions.

IV. ALTERNATIVES

A. Alternatives Development

No-Build Alternative

Under the No-Build Alternative, the Sturgeon Lake Road Overpass would not be constructed. Roadway improvements would be limited to normal pavement maintenance and possibly minor safety improvements. The mobility concerns as identified in the purpose and need statement would not be addressed.

Therefore, the No-Build Alternative is not considered a reasonable option for Sturgeon Lake Road from an engineering and safety perspective. However, it does provide a basis for comparison regarding social, economic, and environmental impacts from the proposed action. Furthermore, should the project not obtain community acceptance, the No-Build Alternative could be selected in lieu of any grade-separation improvements.

Buffalo Alternative (2005 Alignment)

The build alternative evaluated in the 2005 EA, identified as "the Buffalo Alternative" presented an option for reconstructing Sturgeon Lake Road on a southern alignment. In 2005, the PIIC and City of Red Wing proposed to realign approximately 3,100 feet of Sturgeon Lake Road from approximately 300 feet west of the intersection of Xcel Road and Sturgeon Lake Road to the intersection of Buffalo Slough Trail and Sturgeon Lake Road. This alternative would shift the mainline of Sturgeon Lake Road south and construct a divided four-lane road for much of the proposed new alignment, widen the driving lanes, widen or add turn lanes, and add landscaped medians and boulevards. The eight foot paved sidewalk on the north side would be retained, and a ten foot paved trail on the south side of the proposed roadway would be installed. The feature was an overpass spanning the CPR railway, with a shift of Xcel Road to the south. This alternative also proposed one direct connection between Holmquist Road and Other Day Road, via a single access point onto Sturgeon Lake Road. An area for

stormwater management was identified north of the proposed alignment and on/south of the existing alignment. See attached Figure 6 for an illustration of the Buffalo Alternative evaluated in the 2005 EA.

B. Preferred Alternative

The current Preferred Alternative is very similar to the previously evaluated Buffalo Alternative. The City of Red Wing and PIIC propose to realign approximately 4,300 feet of Sturgeon Lake Road from approximately 500 feet west of the intersection of Xcel Road and Sturgeon Lake Road to the intersection of Wiobata Street and Sturgeon Lake Road (Figure 6). Currently, Sturgeon Lake Road is a four lane undivided roadway with an at-grade crossing of the CPR. The proposed project will shift the mainline of Sturgeon Lake Road approximately 400 feet south of the existing roadway (centerline to centerline) and construct a divided four-lane road for much of the proposed new alignment. Driving lanes will be widened, turn lanes will be widened or added, and landscaped medians and boulevards will be installed. The proposed project will retain the eight foot paved sidewalk on the north side and will install a ten foot paved trail on the south side of the proposed roadway. The project's main feature is the construction of an overpass spanning the railway. This will shift Xcel Road to the south. The project will also provide access to Holmquist Road and Other Day Road, via one access point onto Sturgeon Lake Road.

The project will require the acquisition of temporary and permanent right-of-way to accommodate road and clear zone widening. The new right-of-way will not require the purchase or relocation of homes or businesses. Stormwater management is proposed via ponds located between the new roadway alignment and the realigned Xcel access road.

C. Differences between 2005 Alignment and Current Preferred Alternative Alignment

Since approval of the 2005 EA, changes have occurred in the Sturgeon Lake Road corridor requiring adjustment to the Buffalo Alternative. Most notably, the PIIC public safety building was constructed at the southwest corner of Sturgeon Lake Road and Island Boulevard. To avoid conflict with the public safety building, and to maintain traffic at the existing at-grade rail crossing during construction, the horizontal curve radius at the public safety building has been shortened effectively shifting the proposed Sturgeon Lake Road alignment a maximum of approximately 100 feet further to the south, compared to the Buffalo Alternative. This allows the road to curve in such a way that the alignment passes just north of the public safety building.

Through discussions with the PIIC, access to Other Day Road and Holmquist Road was changed to improve safety and traffic operations for left turning

eastbound Sturgeon Lake Road traffic during special events at the Treasure Island Resort and Casino. The eastbound left turn onto Other Day Road proposed as part of the Buffalo Alternative was eliminated and the access replaced by an eastbound right turn onto Island Boulevard with a proposed grade separated connection under Sturgeon Lake Road, adjacent to and parallel to the CP Rail. This configuration promotes safety and improves traffic operations by eliminating eastbound left turns across Sturgeon Lake Road at Other Day Road.

Table 1. Changes Between 2005 EA and Current Preferred Alternative

Description of Change	Reason for Change
Alignment shifted a maximum of approximately 100 feet south	Avoid new PIIC public safety building
Eliminate Other Day Road intersection	Safety and improved traffic operations
Reduced bridge skew angle so bridge crosses rail at closer to 90-degree angle	Improved bridge geometry
Addition of second bridge span to provide grade separated access to Other Day Road via Island Boulevard	Traffic operations improvement for eastbound Sturgeon Lake Road left turning traffic

V. PROJECT COST, FUNDING & SCHEDULE

The City of Red Wing has \$150,000 available for immediate right-of-way acquisition. Funding for construction of this project has not yet been secured. The PIIC would like to see the project approved before it would support the pursuit of construction funding.

Estimate of Cost:

Roadway Costs: \$8,500,000 (includes retaining walls)
 Bridge/Culvert Bridge Costs: \$3,500,000
 Total: \$12,000,000

Anticipated Funding: (unknown at this time)

Type and amount of Federal and matching funds:

Federal: \$ xxx,xxx STP/BRSTP/BROS/TEA/HPP/other _____
 State Aid: \$ xxx,xxx
 Other State: \$ xxx,xxx
 Local: \$ xxx,xxx

There is currently no construction financing plan established for this project; therefore, it is not listed in the current State Transportation Improvement Plan (STIP).

Anticipated Schedule: (note schedule is TBD; funding is not yet secured)

Environmental Assessment	November 2013
Public Hearing	December 2013
EIS Need Decision	January 2014
Design Study	January 2014
Right-of-Way Acquisition	August 2014

Future Stages Or Improvements

This project is not part of a phased construction plan.

VI. SOCIAL, ECONOMIC, AND ENVIRONMENTAL (SEE) IMPACTS

This section discusses environmental impacts of the current preferred alternative, highlighting existing conditions and impacts that may have changed since the 2005 EA was published. Table 2 summarizes the changes, which are minimal. Each subject area is summarized in the text below.

Table 2. Impact Changes between the 2005 Alignment and Current Preferred Alternative

Impact Category and Section	Change Between 2005 and Current
A. Section 4(f) of the Transportation Act of 1966	N/A; no change
B. Section 6(f) of the Land and Water Conservation Fun Act of 1965	N/A; no change
C. Section 106 of the National Historic Preservation Act of 1966	No resources identified; no change.
D. Endangered Species Act of 1973	Data updated. Same impacts to Blanding's Turtle; no concerns with bald eagle nesting.
E. Right-of-Way	15 acres in 2005; 22 acres current. Change reflective of new connector roadway and slightly longer
F. Hazardous Materials	Data updated; no additional concerns identified.
G. Farmland Protection Policy Act of 1981	No change
H. Air Quality	No change
I. Highway Traffic Noise	Analysis updated to reflect extended project limits.
J. Construction Noise	No change
K. Floodplain Management	Project is located within floodplain; roadway will be constructed above flood levels; No change
L. Wetland Protection	N/A; no change
M. Section 404 of The Clean Water Act	N/A; no change
N. Water Pollution/ MPCA—NPDES	Slight increase in impervious surface with current alignment; mitigated by ponding.
O. Controversial Issues	None anticipated.

Impact Category and Section	Change Between 2005 and Current
P. Environmental Justice	Data updated; no change
Q. State Environmental Review (MEQB)	2005 EAW updated in Appendix B

For the purposes of this evaluation, it has been determined that the No-Build Alternative is not anticipated to incur additional impacts above those identified in the sections below. Therefore, unless otherwise noted, the No-Build Alternative is not discussed under each impact section.

The following text covers the required federal issues and focuses only on changes since the 2005 EA. Any changes in existing conditions are documented, and relevant impacts and mitigation measures are revised to reflect the current project, as applicable. The 2005 EA and 2006 FONSI are incorporated by reference. This EA reevaluation includes an update to the EAW in Appendix B.

A. Section 4(f) Of The Transportation Act Of 1966

The 2005 EA determination that no Section 4(f) properties would be impacted by the project remains valid. The proposed project will not cause adverse impacts to the existing trail, and the sports complex at the southeast quadrant of the Sturgeon Lake Road/Island Boulevard intersection is still fee-based in nature and therefore the previous determination that this is not a Section 4(f) resource remains. A letter discussing this issue was included in the 2005 EA.

B. Section 6(f) Of The Land And Water Conservation Fund Act Of 1965

No Section 6(f) properties exist in the project area.

C. Section 106 Of The National Historic Preservation Act Of 1966

It has been determined, consistent with the findings of the 2005 EA, that no historic properties eligible for or listed in the National Register of Historic Places will be affected by the project. See letter from the MnDOT's Cultural Resources Unit (CRU) in Appendix A.

D. Endangered Species Act Of 1973

A request was sent to the MnDOT Office of Environmental Stewardship, which is authorized to review projects for potential effects to federally-listed threatened or endangered species on behalf of the U.S. Fish and Wildlife Service. As a result of this review, a determination of no effect was made on November 14, 2012. Copies of correspondence are included in Appendix A.

The 2005 EA identified a bald eagle nesting location in vicinity of the project, and concern that noise associated with the construction of the overpass could potentially cause a failed nesting event. Bald eagles are no longer protected under the Endangered Species Act, but they are

protected under the Migratory Bird Act. Correspondence with the MnDNR and USFWS did not identify the current presence of this nest in the project vicinity, but local reports indicate it is still present. Construction schedule restrictions as noted in the 2005 EA will be followed to reduce potential impacts.

The PIIC Conservation Coordinator also noted that Higgin's Eye Mussel has recently been reintroduced in lower Sturgeon Lake, but there is little concern that project activities would impact this mussel/clam population.

E. Right-Of-Way

The 2005 EA identified 15 acres of permanent and temporary easements. The current project will require approximately:

19 acres of permanent right-of-way acquisition from 9 separate areas

2.9 acres of temporary easement from 2 separate areas

In addition, there will be a small area (0.1 acre) of permanent easement acquired on tribal land.

The project will not require residential or business relocations. There will likely be some right-of-way/roadway swapping that takes place regarding the current Xcel Road. An agreement with Xcel Energy is likely.

The new preferred alternative mainline alignment is similar to the previous preferred alternative mainline alignment. The same measures (retaining walls) that were part of the previous preferred alternative to avoid and minimize right-of-way impacts are also used in the new preferred alternative. The preferred alternative has added sideroad connections and mainline widening east of the previous project limit that create additional right-of-way impacts but benefit the affected landowner by providing better access.

During final design minor horizontal and vertical alignment and typical section adjustments will be explored to reduce construction limits.

Acquisition will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

As in the 2005 alternative, all access points will be reconstructed as part of the project. The temporary easements are primarily for this purpose. Access points and temporary and permanent easements are illustrated in Figure 6.

F. Hazardous Materials

A Phase I ESA conducted in 2004 concluded that "there were no recognized environmental concerns at the Property that would warrant further assessment." A review of MPCA's "What's in My Neighborhood?" database revealed similar results for existing conditions and the current preferred

alternative.

Potential for impacts from contaminated properties has been considered, but because of the project location and nature of the planned work, there is little potential for encountering contaminated materials. Any potentially contaminated materials encountered during construction will be handled and treated in accordance with applicable state and federal regulations.

G. Farmland Protection Policy Act Of 1981

Changes to the project do not affect the farmland impacts identified in the 2005 EA. No additional analysis is required.

H. Air Quality

The project is not located in an area in which conformity requirements apply. The project will not significantly impact air quality.

I. Highway Traffic Noise

The project is a Type 1 project under FHWA noise regulation 23 CFR 772. A detailed traffic noise analysis was conducted for the proposed Sturgeon Lake Road project in 2005. The results of the modeling indicated that there would be no traffic noise impacts as a result of the implementation of the project, since the project would not result in noise levels approaching or exceeding the FHWA noise abatement criteria or cause a noise increase of 5dBA or greater.

Since the time of the project EA in 2005, the MnDOT noise policy was updated in July 2011. To address the FHWA noise abatement criteria according to the new noise policy, the following noise analysis has been conducted.

The proposed project has potential for noise impacts as the project will bring highway traffic noise sources closer to some existing noise sensitive land uses. A noise analysis was conducted to determine noise impacts and potential mitigation and is summarized in this environmental documentation.

Noise is defined as any unwanted sound. Sound travels in a wave motion and produces a sound pressure level, which is commonly measured in decibels (dB). A logarithm of the ratio of a sound energy level relative to a reference sound energy can be used to represent a decibel. The way the average person hears sounds causes different weights to be adjusted on high- and low-pitched traffic noise. These adjusted sound levels are measured in "A-weighted decibels" (dBA). A sound increase of 3 dBA is hardly noticeable, a 5 dBA increase is clearly perceived by the human ear, and a 10 dBA increase is twice as loud. For instance, if there is an increase in the noise level by 3

dBa due to traffic doubling, and the sound energy is doubled, it is barely perceptible by humans. When there is a 10 dBA increase in noise energy, or the traffic has increased 10 times the sound energy level, the traffic is perceived as twice as loud.

In Minnesota, traffic noise impacts are evaluated by measuring and/or modeling the traffic noise levels that are exceeded 10 percent of the time during the hours of the day that have the heaviest traffic. These numbers are identified as the L10 sound metric. Similarly, the L50 metric is defined as traffic noise levels that are exceeded 50 percent of the time.

Table 3 provides a rough comparison of the noise levels of some common noise sources.

Table 3. Common Noise Sources

Sound Pressure Level (dBA)	Noise Source
140	Jet Engine (at 75 feet)
130	Jet Aircraft (at 300 feet)
120	Rock and Roll Concert
110	Pneumatic Chipper
100	Jointer/Planer
90	Chainsaw
80	Heavy Truck Traffic
70	Business Office
60	Conversational Speech
50	Library
40	Bedroom
30	Secluded Woods
20	Whisper

Source: "A guide to Noise Control in Minnesota," Minnesota Pollution Control Agency, <http://www.pca.state.mn.us/programs/pubs/noise.pdf> and "Highway Traffic Noise," FHWA, <http://www.fhwa.dot.gov/environment/htnoise.htm>.

Distance to a receptor from the sound's source is a significant factor in the level of traffic noise in addition to the volume of traffic flow and other factors (ex. vehicle speed and landscape of area). Sound level decreases with an increased distance from the source. The common school of thought is used: Outside of 50 feet, every time the distance between a line source (eg. road) and receptor is doubled, the sound level decreases by either 3dB (over a hard surface such as pavement or water) or 4.5 dB (over a "soft surface" such as vegetation.)

Federal and State Noise Standards

This study was conducted in accordance with the 2011 Minnesota Noise Policy, which is an implementation of the FHWA Noise Standard found at 23 CFR 772. Local Public Agencies (LPAs) must address both the FHWA Noise Standards and the Minnesota State Noise Standards (Minn. R. 7030).

Minnesota State Noise Standards are regarded as absolute limits which carry the weight of law; however, Minnesota Statute 116.07 Subd. 2a. lists certain exemptions from the state noise standards, including the following:

"No standards adopted by any state agency for limiting levels of noise in terms of sound pressure level which may occur in the outdoor environment shall apply to (1) segments of trunk highways constructed with federal interstate substitution money, provided that all reasonably available noise mitigation measures are employed to abate noise, (2) an existing or newly constructed segment of a highway, provided that all reasonably available noise mitigation measures, as approved by the commissioners of the department of transportation and pollution control agency, are employed to abate noise and (3) except for the cities of Minneapolis and St. Paul, an existing or newly constructed segment of a road, street, or highway under the jurisdiction of a road authority of a town, statutory or home rule charter city, or county, except for roadways for which full control of access has been acquired."

As the proposed project is not located in the cities of Minneapolis and St. Paul, and the proposed newly constructed segment of roadway will not acquire full control of access, this project is considered EXEMPT from Minnesota State Standards (Table 6) through Minnesota Statute 116.07 Subd. 2a. listed above. Federal Noise Abatement Criteria (NAC) will still apply (Table 5).

Noise impacts are assessed when predicted worst hourly L10 noise levels for future build (2035) alternatives either:

- 1) Approach (within 1 dBA) or exceed the FHWA Noise Abatement Criteria (NAC) in Table 4, or
- 2) Exceed existing noise levels by 5 dBA or more

Table 4. Federal Noise Abatement Criteria

Activity Category	Activity Criteria (1,2) L ₁₀ (h), dBA	Evaluation Location	Activity Description
A	60	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the

Activity Category	Activity Criteria (1,2) L ₁₀ (h), dBA	Evaluation Location	Activity Description
			area is to continue to serve its intended purpose.
B(3)	70	Exterior	Residential
C(3)	70	Exterior	Active sport areas, amphitheatres, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, place of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings
D	55	Interior	Auditoriums, daycare centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios
E(3)	75	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F
F	--	--	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing
G	--	--	Undeveloped lands that are not permitted
Notes (1) L ₁₀ (h) shall be used for impact assessment. (2) The L ₁₀ (h) Activity Criteria values are for impact determination only, and are not design standards for noise abatement measures. (3) Includes undeveloped lands permitted for this activity category. Source: 2011 MnDOT Noise Policy ²			

In addition, the FHWA allows states to define approach and substantially exceed. In Minnesota, approach is defined as being 1 dB less than the NAC, and substantially exceed is defined as being 5 dB greater than existing noise levels.

² MnDOT Noise Policy for Type I Federal-aid Projects as per 23 CFR 772, MnDOT, June 1, 2011

Table 5. Minnesota State Noise Standard

Land Use	Code NAC: Noise Area Classification	Exterior Hourly Noise Level Limit, dBA			
		Daytime 7:00 a.m. to 10:00 p.m.		Nighttime 10:00 p.m. to 7:00 a.m.	
		L ₁₀	L ₅₀	L ₁₀	L ₅₀
Residential	NAC-1	65	60	55	50
Commercial	NAC-2	70	65	70	65
Industrial	NAC-3	80	75	80	75
<p>Notes</p> <ol style="list-style-type: none"> 1. NAC-1 includes household units, transient lodging and hotels, education, religious, cultural entertainment, camping and picnicking land uses 2. NAC-2 includes retail and restaurants, transportation terminals, professional offices, parks, recreational and amusement land uses. 3. NAC-3 includes industrial, manufacturing, transportation facilities (except terminals), and utilities land uses 4. From Minnesota Pollution Control Agency, Minn. Rules sec. 7030.0040 					

As the proposed project is exempt from Minnesota State Noise Standards, only the Federal NAC will apply.

Analysis Methodology

The traffic noise analysis for the noise study consisted of a screening analysis, noise monitoring, traffic noise modeling, and consideration of noise abatement. The screening analysis and noise modeling are briefly described here. Noise monitoring and noise abatement are discussed in later parts.

The screening analysis identified noise sensitive land uses adjacent to the proposed project. In the study area “noise sensitive” land uses include residential sites, a park, and a cultural / religious site. A combination of 8 noise receptors was used to model a total of 8 residential properties, 1 public use building, and a Tribal Pow-Wow ground. The noise receptor points were modeled 5 feet above the ground surface (typical human ear height) in exterior areas of frequent human use such as patios, decks or playgrounds. If no area of frequent human use was identified, the receptor was placed approximately 20 feet from the building surface in the direction of the roadway noise source.

Most receptors represent one land use, such as 1 house. However, at one of the receptor sites (receptor 4), the modeled receptor is used to demonstrate noise levels at three residences, where other nearby residences are the same distance from the roadway with similar topographic features, and no nearby features that might block the line of site differently from any residences represented by the one receptor.

In addition to the 8 noise receptors described above, an additional site is also identified in the measurement section below for 24-hour measurement to determine the highest noise hour. This site is not modeled, as the

measurement data is only evaluated to determine the highest noise hour in the project area.

The traffic noise modeling was conducted using Minnesota’s traffic noise model MINNOISE Version 3.0, a modified version of FHWA’s STAMINA 2.0 traffic noise model. This model uses traffic volumes, speed, class of vehicle, ground cover and typical characteristics (e.g. horizontal and vertical roadway alignment) of the roadway being analyzed to predict sound levels at sensitive noise receptors. For this project, an acoustically “soft” surface was assumed.

Prediction of noise levels and assessment of noise impacts must be done using the worst noise hour for the design year. For this project the worst noise hour was found to be during the PM Peak hour by conducting 24-hour noise measurements in the project area at Receptor M1 (see Figure 3). The measurement results are shown in Figure 5. Therefore, for comparable results, the PM peak hour volumes were used for existing and 2035 future no-build traffic noise predictions as well.

As mentioned above, the analysis was performed for existing as well as future no-build and build conditions. Using the MINNOISE model, noise levels for the three scenarios were calculated at each receptor point. For purposes of this noise study discussion, the noise metric used was the peak noise hour L10, which corresponds to Federal Noise Abatement Criteria (NAC) (see Table 4).

Adjacent Land Uses

Land uses adjacent to the project are mostly residential, with an area use of business as well as a religious Pow-Wow ground next to the study area.

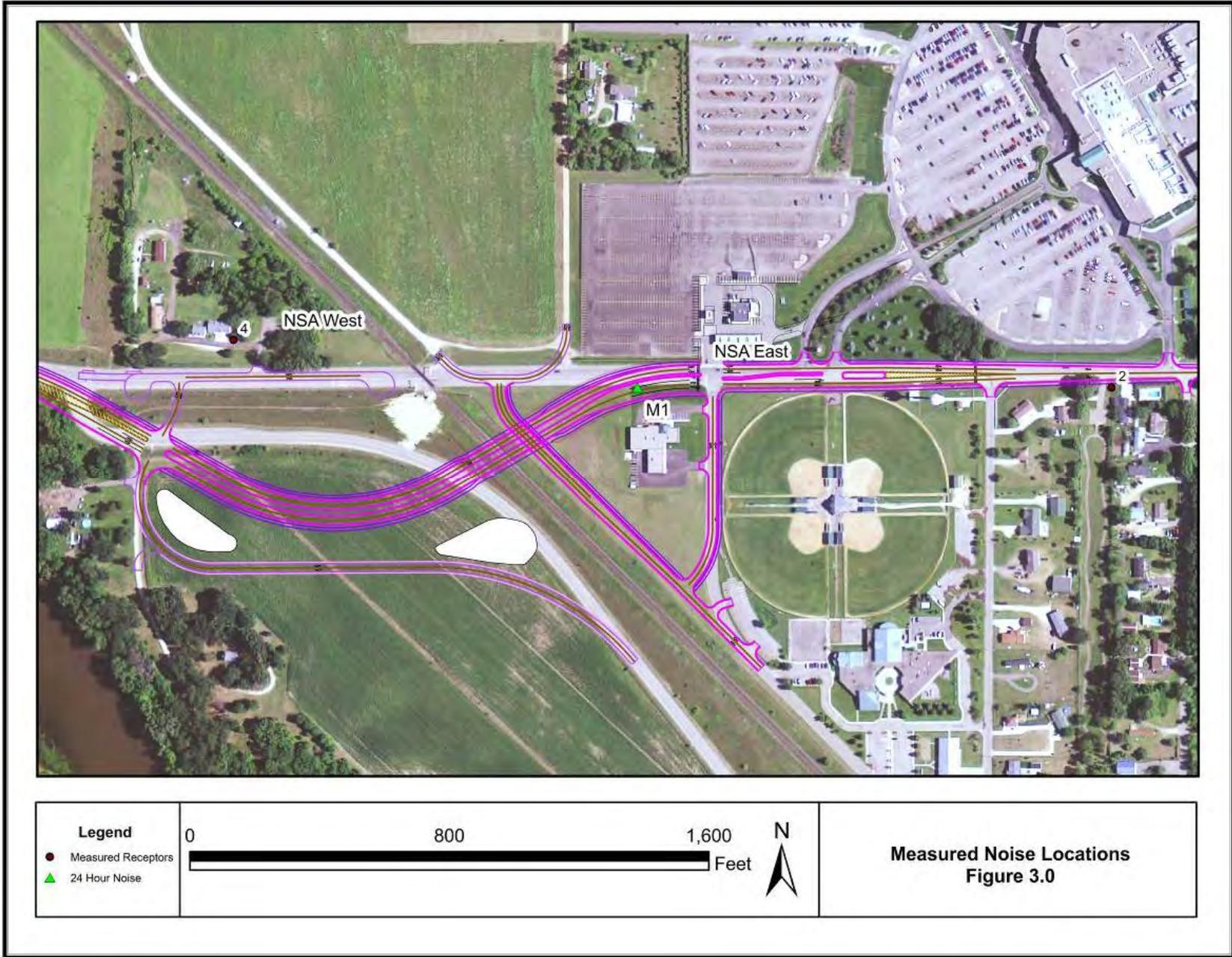
The Noise Sensitive Areas (NSAs) established for this study were geographically contiguous and had similar terrain and levels of traffic noise exposure. The NSAs are documented in Table 6 and are shown in Figure 4.

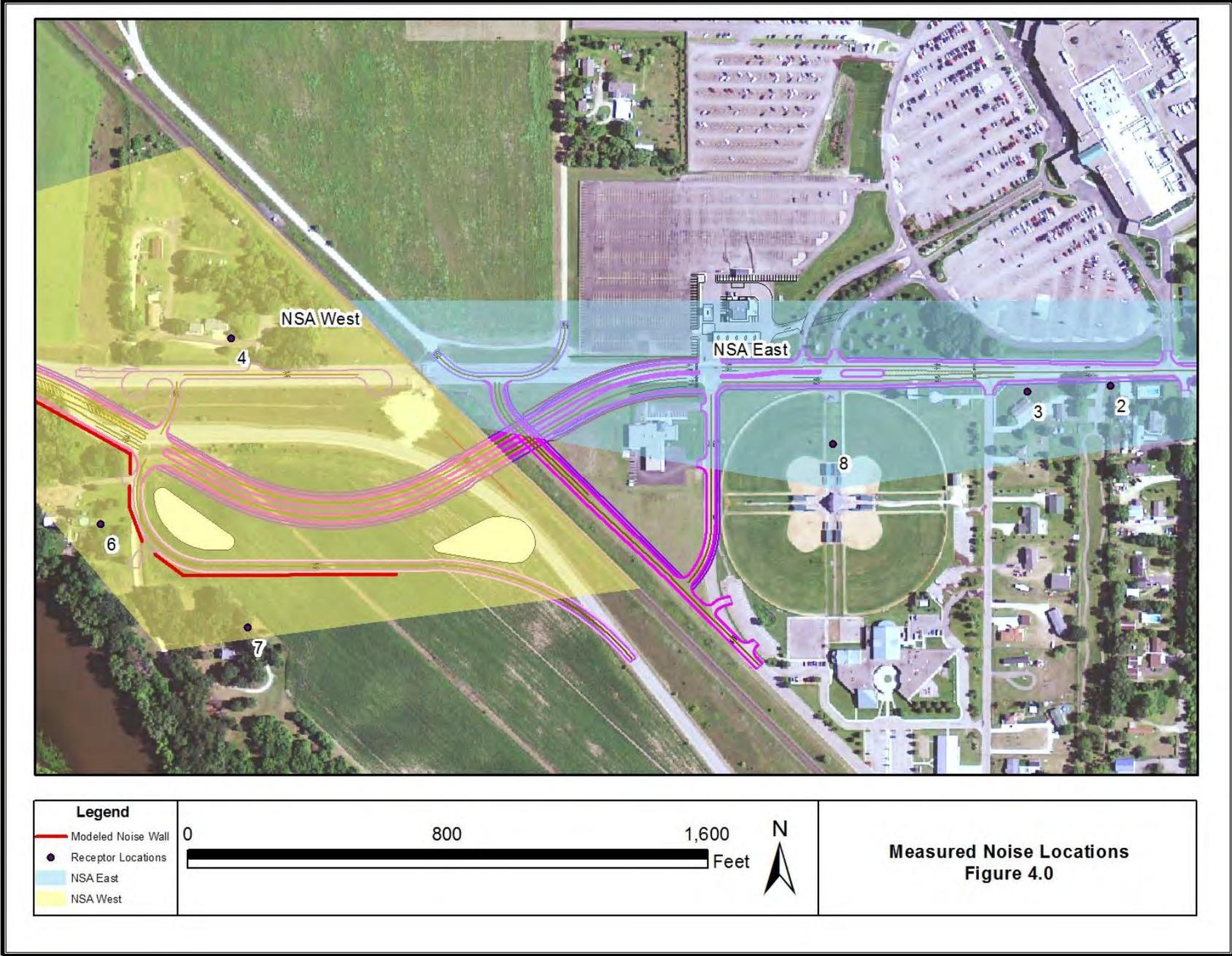
Table 6. Description of Identified NSA Analysis Areas

NSA ID	FHWA Activity Category / Land Use	Description
NSA E	B/Residential	Single family homes
	C/Place of Worship	Tribal Pow-Wow Grounds
NSA W	B/Residential	Single family homes

Traffic

Traffic volume was counted as part of the noise measurement effort. The counted daily traffic volume was 10,750 vehicles. A growth rate of 2% per year, as had been used in the previous EA, resulting in 17,500 ADT in year 2035. Peak hour traffic volume was found to be 10% of the daily traffic volume. The vehicle classification used in the modeling differs east and west of Treasure Island Casino due to busses. West of the casino, the vehicle classification used was 95% automobiles, 5% medium trucks, and 1% heavy trucks. East of the casino, the vehicle classification used was 98% automobiles, 1% medium trucks, and 1% heavy trucks.





Noise Monitoring

The primary purpose for conducting noise measurements for a traffic noise analysis is to validate the traffic noise model. The validated noise model is then used to predict both existing and future traffic noise levels used in assessing noise impacts and to evaluate potential noise abatement options.

Noise measurements were conducted for a full 24-hour period to determine the highest noise hour during a day, as described in the analysis methodology section above. The results of the 24-hour noise measurement show that noise levels are highest during the PM period, with a general increase between approximately 2:00 PM and 8:00 PM. Periodic spikes in the noise levels are due to passing trains on the tracks that run through the middle of the project area. During the 24 hour noise measurement a stalled train blocked the road in the study area. Traffic was rerouted around the study area between the hours of 1:00 PM to 2:00 PM on August 15th. Volume counts were assumed based on the counts before and after the train breakdown. Noise levels have not been adjusted during this time period.

Peak noise hour measurements were conducted in two representative locations across the study area, and are identified in Figure 3. The two locations were at receptor 2 and receptor 4. The noise measurements were performed in accordance with FHWA-PD-96-046 and Minnesota Statute 7030.0060. The noise monitoring was completed with a Type I sound meter (see Table 7) on August 21, 2013. Traffic was counted during the measurement periods and modeled in MINNOISE so that the measured L10 dBA can be compared to the predicted L10 dBA in MINNOISE software (see Table 7). Wind speeds varied between 0 and 3 mph, and Relative Humidity varied between 57 and 70 percent. The sound level meter was calibrated before use according to MnDOT and FHWA policy.

Table 7. Sound Level Measurement Equipment

Equipment	Model	Serial Number	Type	Calibration Date	Certificate Number
Sound Level Meter	Larson Davis LxT	000364	Type-I	July 9, 2013	2013-176294
Field Calibrator	Larson Davis Cal200	10332	NA	July 9, 2013	2013-176092

These peak period field measurements were used to validate the predictions of the computer model, as documented in Table 8. Overall, the MINNOISE model reasonably reflected observed noise levels, deviating by no more than two (2) dBA at the two monitored locations. Figure 3 shows the locations of noise monitoring locations and label each with the appropriate location identifier.

Figure 5. 24-Hour Noise Measurement Results

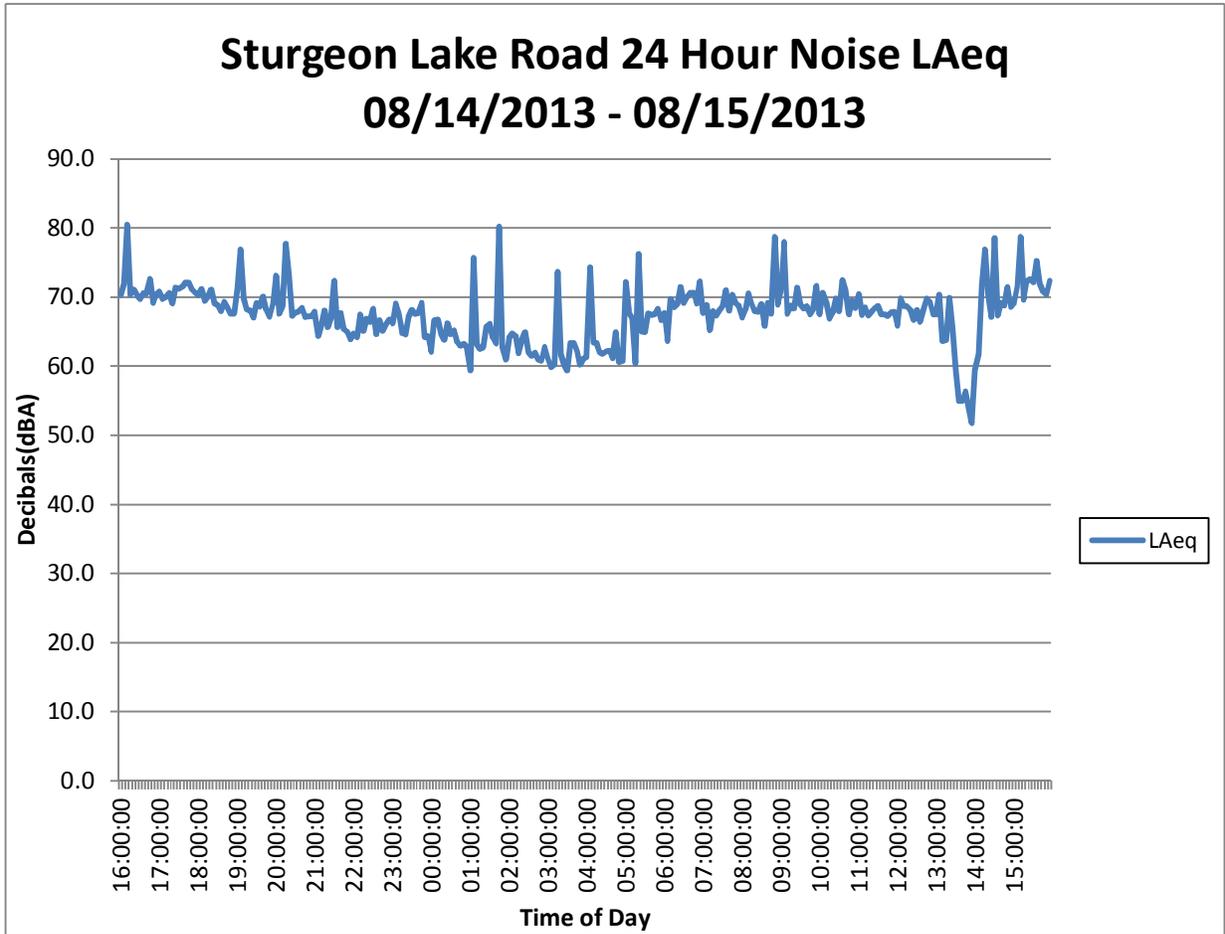


Table 8. Measured Noise Levels and Model Validation, dBA

Location Identifier	NSA	Description	Receptor Address	Time of Day	Measured L ₁₀	Modeled L ₁₀	Modeled Minus Measured L ₁₀
Site 2	E	South of the Far East Entrance to the Casino on the South Side of Sturgeon Lake Rd.	1900 Block of Chakya St. Welch, MN	August 21 3:45-4:00 PM	63.3	63.9	0.6
Site 4	W	100 ft. West of the Railroad Tracks on the North Side of Sturgeon Lake Rd.	6300 Block of Sturgeon Lake Road Welch, MN	August 21 3:00-3:30 PM	61.8	63.7	1.9

Predicted Noise Levels and Noise Impacts

Noise Modeling

The MINNOISE noise model was used to evaluate noise levels at noise sensitive receptors in the study area. A total of eight (8) receptors representing noise sensitive land uses were identified. The receptors comprised of fifteen (10) residential, one (1) office, one (1) entertainment, one (1) section 4F recreation field, and one (1) place of worship land uses. Receptor locations are illustrated in Figure 4.

Noise levels were predicted at receptor locations under three different scenarios: Modeled Existing, Modeled No-Build, and Modeled Build Future traffic conditions. The predicted noise levels at receptors for all three scenarios are summarized in Table 9.

Table 9. Peak Hour L10 Modeled Noise Results, dBA

Receptor ID	Number of Represented Units	Federal NAC	Modeled Existing	Modeled 2035 No-Build	Difference between Existing and No-Build	Modeled 2035 Build Future*	Difference between existing and Build future*
		L10	L10	L10	L10	L10	L10
NSA E							
1	1	70	64.3	66.4	2.1	66.2	1.9
2	2	70	63.9	65.9	2.0	66.2	2.3
3	2	70	62.3	64.4	2.1	64.5	2.2
NSA W							
4	3	70	63.7	68.2	4.5	59.9	-3.8
5	1	70	61.0	65.4	4.4	65.5	4.5
6	1	70	53.6	57.9	4.3	61.3	7.7
7	1	70	49.5	53.7	4.2	58.2	8.7
8	1	70	54.8	65.9	11.1	57.9	3.1

*Bold signifies exceedance of federal noise abatement criteria (>=69 dBA, or increase of >= 5 dBA)

Noise Impacts

If Federal Noise Abatement Criteria apply, according to MnDOT policy, noise impact is assessed when:

1. Project noise levels approach (within 1 dBA) or exceed the Federal NAC (Table 4)
2. Project noise levels for the build year traffic forecast exceed existing noise conditions by at least 5dBA.

The results in Table 9 above show that project noise levels will approach or exceed the Federal NAC at zero (0) residential receptors. Project noise levels will exceed existing noise levels by 5 or more dBA at two (2) representative residential receptors. Therefore, two (2) receptors will experience an impact under the 2035 Build conditions.

Consideration of Noise Abatement

Evaluation of Noise Abatement Measures

Noise abatement is to be considered if traffic noise impacts are recognized according to MnDOT policy. Noise abatement should be evaluated for feasibility and reasonableness. Noise barriers should be considered for noise abatement, at a minimum. There are many alternatives to barriers if they are not feasible, including:

1. Acquiring land within or outside of right-of way for construction of noise barriers. Viable noise abatement measures do not include landscaping or privacy fencing.

2. Traffic control devices indicating prohibition or limitations of use by certain vehicle types, speed limit modification, and exclusive lane designations are among traffic management measures that can be used.
3. Modification of horizontal and vertical alignments.
4. Acquisition of property that could potentially be adversely impact by noise impacts after future development.
5. Activity Category D facilities (Table 4) can be insulated. Federal funding cannot be used for noise insulation post-installation maintenance and operation costs.

Feasibility

For a noise abatement measure to be considered feasible it must achieve a noise reduction of at least 5 dBA for at least one (1) impacted receptor and it must be possible to design and construct the noise abatement meeting the design and safety requirements found in the 2011 MnDOT Noise Policy.

Reasonableness

There are three reasonableness factors or “tests” that must be met for a noise abatement measure to be considered reasonable. First, a noise reduction of at least 7 dBA must be achieved at a minimum of one benefitted receptor for each proposed noise abatement measure. A benefitted receptor is defined as achieving a noise reduction of 5 dBA. Second, a noise abatement measure is considered cost effective if it is within the cost effectiveness threshold of \$43,500 per benefitted receptor, using a cost of \$20 per square foot for noise walls. Third, viewpoints of the property owners and residents of all benefitted receptors shall be solicited and considered in reaching a decision on the abatement measures to be provided in a public approval process.

Noise Barrier Assessment

Noise barriers were evaluated in the NSA W, where sensitive receptors were predicted to be impacted. Noise walls were evaluated in an attempt to provide a substantial noise reduction and block the line-of-sight between the traffic noise source and the impacted receptors. The analyzed wall locations are illustrated in Figure 4.

As Federal NAC apply, the goal of the barrier design is to achieve the design goal of 7 dBA reduction at the maximum number of impacted and adjacent receptors within the cost-effectiveness constraint of \$43,500 per benefitted receptor (see definition of benefitted receptor in section above). The unit cost for estimating noise barrier construction was \$20 per square foot, based on the MnDOT Noise Policy. One wall height was evaluated for each receptor with noise impacts. A wall height 20 feet above the finished ground line was considered for this analysis. According to the MnDOT Noise Policy Section

5.2.2, the maximum height of a noise wall is 20 feet above the finished ground line at the wall.

Noise Sensitive Area W

NSA W represents 7 single family homes. Two residential units are impacted, and a noise wall () was evaluated for the impacted area. A Wall height 20 feet was evaluated.

The 20-foot high wall achieved a 6 dBA reduction at one receptor (representing one unit) and a 1.2 dBA reduction at the other receptor (representing one unit). Based on MnDOT Noise Policy Section 5.2.2, the 20-foot high wall was the only height considered due to 20-feet being the highest wall allowable to construct, and this wall did not achieve the minimum required reduction of 7 dBA. Part two of the test is to consider the feasibility of the wall based on total cost. One potential receiver is benefited by the wall modeled. To be considered reasonable, a wall must cost less than \$43,500 per receiver. With only one receiver achieving the minimum 5-decibel reduction to be considered as a benefitted receiver, the constructed wall would need to cost less than \$43,500. The modeled wall would cost \$581,600. The total cost of the wall does not meet feasibility criteria. Based on these findings no other walls were considered.

Information for Local Officials

The prevention of future traffic noise impacts is an important component of noise control. Local governments, through their authority to regulate land development, can help prevent future traffic noise impacts by prohibiting noise-sensitive land uses from being located adjacent to a highway or by ensuring that developments are planned, designed and implemented in such a way as to minimize noise impacts. The following analysis provides information regarding modeled noise levels adjacent to the proposed Sturgeon Lake Road corridor for use in community and land use planning.

Traffic noise levels were modeled at representative receptor locations at incremental distances from Sturgeon Lake Road west of the casino, where traffic volumes are higher than east of the casino. Receptor locations are modeled at 50-foot increments out to 500 feet from the roadway centerline under the future (2035) Build Alternative. This analysis was based on existing topography, and assumed no intervening barriers or structures between the modeled receptor locations and proposed interchange location. Results of the noise modeling analysis are tabulated in Table 9.

Table 10. Potential Noise Levels for Undeveloped Lands Adjacent to Roadway Corridor

Distance from Roadway Centerline (feet)	L10 dBA
50	75.9
100	70.3
150	67.2
200	65.0
250	63.4
300	62.0
350	60.8
400	59.8
450	58.9
500	58.1
Federal Noise Abatement Criteria (exterior criteria provided for reference)	
Activity Category A (includes lands of extreme serenity)	60
Activity Category B (includes residential activities)	70
Activity Category C (includes hotels, motels, offices, etc.)	70

It is important to note that the results summarized above are representative traffic noise levels, given the assumptions that were used to generate the noise model input files and the model output. However, the results of this analysis can be used as a guide for local governments responsible for land use planning and land use controls to help prevent future traffic noise impacts on currently undeveloped lands.

Statement of Likelihood

Based on the studies thus far accomplished, Goodhue County and the City of Redwing do not intend to install highway traffic noise abatement measures at any location. These preliminary indications of unlikely feasible or reasonable abatement measures are based upon preliminary engineering design. If it subsequently develops during final design that these conditions have substantially changed, abatement measures may be provided. A final decision of the installation of abatement measure(s) will be made upon completion of the project’s final design and the public involvement process.

J. Construction Noise

The construction activities associated with construction of the proposed project will result in increased noise levels relative to existing conditions. These impacts will primarily be associated with construction equipment.

The following table (Table 11) shows peak noise levels monitored at 50 feet from various types of construction equipment. This equipment is primarily associated with site grading/site preparation, which is generally the roadway construction phase associated with the greatest noise levels.

Table 11. Typical Construction Equipment Noise Levels at 50 feet

Equipment Type	Manufacturers Sampled	Total Number of Models in Sample	Peak Noise Level (dBA)	
			Range	Average
Backhoes	5	6	74-92	83
Front Loaders	5	30	75-96	85
Dozers	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. Goodhue County will require that construction equipment be properly muffled and in proper working order. While Goodhue County and its contractor(s) are exempt from local noise ordinances, it is the practice to require contractor(s) to comply with applicable local noise restrictions and ordinances to the extent that is reasonable. Advanced notice will be provided to affected communities of any planned abnormally loud construction activities. It is anticipated that night construction may be required to minimize traffic impacts and to improve safety. However, construction will be limited to daytime hours as much as possible. This project is expected to be under construction for approximately 1 year.

Any associated 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 any bridge construction. High-impact noise construction activities will be limited in duration to the greatest extent possible. The use of pile drivers, jack hammers, and pavement sawing equipment will be prohibited during nighttime hours.

K. Floodplain Management

The project will include non-significant floodplain encroachment as documented in the 2005 EA. Currently, the existing Sturgeon Lake Road grade is above the 100- year flood elevation of the Mississippi River. The proposed modified alignment will tie into the existing alignment and will be built at an elevation of 688.0 ft, above the 100-year flood elevation of 686.9 feet. The provisions of Executive Order 11988 have been complied with.

See Section 14 of the EAW in Appendix B for floodplain analysis.

L. Wetland Protection

The project will not impact or encroach into a wetland.

M. Section 404 Of The Clean Water Act

The project will not involve placement of fill into waters of the U.S. (defined in 33CFR 328).

N. Water Pollution / MPCA--NPDES

The current preferred alternative is expected to require approximately 300,000 cubic yards of common borrow material and 20,000 cubic yards of excavation. Since the construction activities will disturb 1 or more acre of land area (including clearing, grading, & excavation), a Phase II NPDES permit is required. The permit will be submitted to MnDOT State Aid prior to project authorization, and a Stormwater Pollution Prevention Plan (SWPPP) will be included in the construction plan package.

This project is approximately 1 acre larger than what was proposed in 2005. The project will increase the impervious surface area by about 3.6 acres over the existing condition. The 2005 EA had slightly less impervious, but was also a smaller project area. Stormwater ponds have been designed to treat runoff for the new preferred alternative identified in this EA reevaluation.

O. Controversial Issues

The project is not anticipated to be controversial. Step-by-step coordination has taken place between the City of Red Wing, PIIC, and MnDOT since the project was re-initiated. The general public and businesses, including Treasure Island Resort & Casino, Xcel Energy, and CP Rail, have been offered opportunities to provide input, and those opportunities will continue throughout the EA process.

P. Environmental Justice

The purpose of Executive Order 12898 is to identify, address, and avoid disproportionately high and adverse human health or environmental effects on minority and low-income populations. The Sturgeon Lake Road project falls within the political boundaries of the City of Red Wing and the PIIC. The table below summarizes key population characteristics in regards to environmental justice issues, updated to 2010 Census data.

Table 12. Environmental Justice Populations

Geographic Area	Population	Percent Minority	Percent Below Poverty Level (Individuals)
Goodhue County	46,183	5.4%	8.2%
City of Red Wing	16,459	8.5%	10.0%
Greater Project Area (Census Tract 802)	7,204	10.8%	8.9%
Project Area (Census Tract 802, Block Group 6)	1,155	24.5%	11.7 %

As the table demonstrates, the City of Red Wing has a higher minority population than Goodhue County, and a slightly higher percentage of low-income populations than Goodhue County. Also, shown in the table above is that the immediate project area (and greater project area) have a high percent of minority populations and a relatively high percentage of persons below the poverty level. This suggests that high concentrations of minority populations and person below the poverty level live in the Sturgeon Lake Road project area and is consistent with the data evaluated in the 2005 EA/EAW.

As documented in 2005, the proposed action will not have disproportionately high and adverse human health or environmental effects to any minority population or low income population. Additional right-of-way acquisition does not disproportionately affect an environmental justice population.

Q. State Environmental Review (MEQB)

The project does not meet the mandatory EAW or EIS thresholds under Minnesota Rules, Part 4410.4300, Subp. 22 and does not have potential for significant environmental effects. However, in 2005 the PIIC elected to prepare a discretionary EAW. This has been updated and is included as Appendix B.

VII. AGENCY COORDINATION (Not covered in the "SEE" impact section above

Table 13. Permits Required

Permit	Agency	Action Required	Status
Federal			
Environmental Assessment	FHWA MnDOT State Aid	Approval	Pending
Finding of No Significant Impact	FHWA	Approval	Pending
Tribal Trust Land Easement	Bureau of Indian Affairs	Approval	Pending
ARPA Permit	Bureau of Indian Affairs	Approval	In Progress

Permit	Agency	Action Required	Status
Section 106 (Historic / Archeological)	FHWA / SHPO	Approval	Complete
State			
Geometric Layout	MnDOT	Approval	Pending
Construction Plans	MnDOT	Approval	Pending
National Pollutant Discharge Elimination System	Minnesota Pollution Control Agency/US Environmental Protection Agency	Permit	Pending
Local			
EIS Need Decision	City of Red Wing	Approval (update)	Pending
Municipal Consent / Plan Approval	City of Red Wing, PIIC	Approval	Pending
Grading and Filling permit	City of Red Wing	Approval	Pending

DNR Natural Heritage and Nongame Research Program

A coordination letter was sent to the MnDNR Natural Heritage and Nongame Research Program requesting an update to the 2005 determination. A response was received on August 18, 2012. The MnDNR's 2012 search supported the findings of the 2005 EA, identifying the presence of Blanding's turtle and documenting recommendations for turtle protection. It is not anticipated that the overpass construction would adversely affect any Blanding's turtles in the area. The letter includes a summary list of recommendations for avoiding and minimizing impacts to Blanding's turtle populations. See letter from the MnDNR for state species in Appendix A.

The PIIC Conservation Coordinator identified other species in or near the project area (see Appendix A). The PIIC agrees with the MnDNR's recommendations for the Blanding's Turtle, and would also recommend similar protection for the Snapping Turtle, which is currently a state species of special concern. Other species identified as present in the area included Trumpeter Swan, Red-Shouldered Hawk, Cerulean Warbler (all special concern), and the Loggerhead Shrike (threatened); but the PIIC does not believe these species would be affected by the project.

Another species identified by the PIIC was the bullsnake (Gopher Snake), a state species of special concern. According to PIIC, this snake has been documented on and directly adjacent to the project site. The habitat constraints of the bullsnake are ideal across Prairie Island, including the project area. As such, effects of the project could include road mortality, habitat loss, and movement barriers. Mitigation such as road underpasses would reduce road impacts as well

as maintain genetic flow across the landscape. The use of plastic erosion mesh is lethal to hatchling and juvenile bullsnakes under 1.5 feet in length so alternative methods of erosion control are highly advised.

Railroad Company

Coordination will continue to take place with CPR to coordinate any necessary permits as the project moves forward.

VIII. PUBLIC INVOLVEMENT

Several public meetings were held and newsletters sent out between July 2005 and December 2005, as documented in the previous EA. The following meetings have been associated with this reevaluation document.

Public Information Meeting(s) held:

Date: June 19, 2012

Who was invited & how: Tribal members were notified via project newsletter, with tribal mailing coordinated by PIIC. A local press release was also issued.

Concerns raised: Questions were asked regarding the schedule and funding of the project, provisions for pedestrians, and traffic safety concerns.

How they were addressed: Questions were answered at the meeting to the satisfaction of the attendees.

Public Comment Period and Public Hearing:

Comments from the public and agencies affected by this project are requested during the public comment period described on the transmittal letter distributing this Environmental Assessment.

A combined public informational meeting/public hearing will be held after this Environmental Assessment has been distributed to the public and to the required and interested federal, Native American Tribes, state and local agencies for their review.

At the informational meeting/public hearing, preliminary design layouts 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 hearing record.

IX. DESIGN STUDY (will follow as a separate document after the FONSI)

APPENDIX

Figures

Figure 6 - Buffalo Alternative and Current Preferred Alternative
Roadway Typical Section (to accompany design study after FONSI)
Path Typical Section (to accompany design study after FONSI)

Appendix A

MnDOT's Cultural Resources Unit (CRU) letter for Historic/Archaeological
determination

MnDOT's Office of Environmental Services (OES) letter for Federally listed species
determination

MnDNR Natural Heritage Information System Letter & attachments for State listed
species

Appendix B

State Environmental Assessment Worksheet (EAW) Update

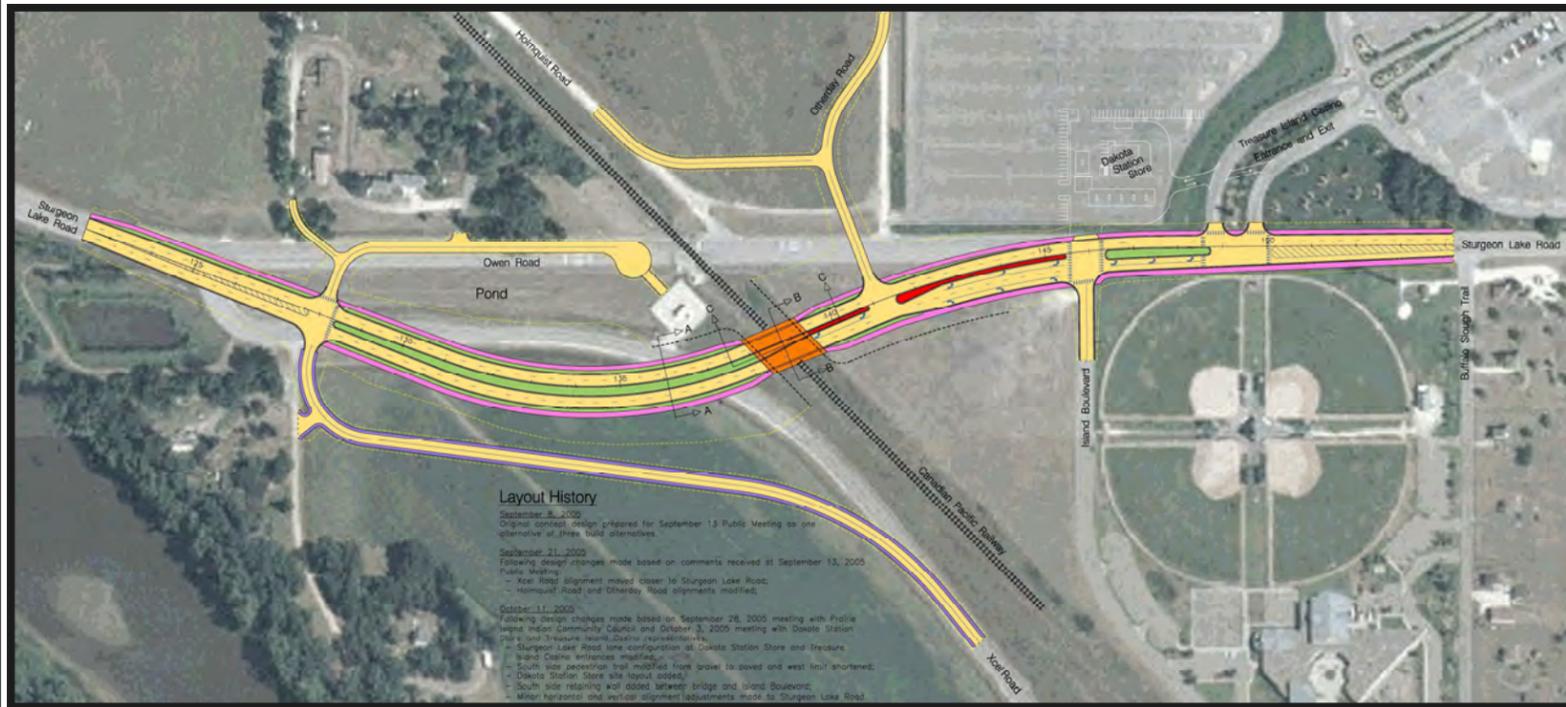
Attachments for each bridge: (to accompany design study after FONSI)

- Structure Inventory
- Bridge Cross-section
- Stream Profile
- Bridge Survey cross-section
- Hydraulic Analysis
- Risk Assessment

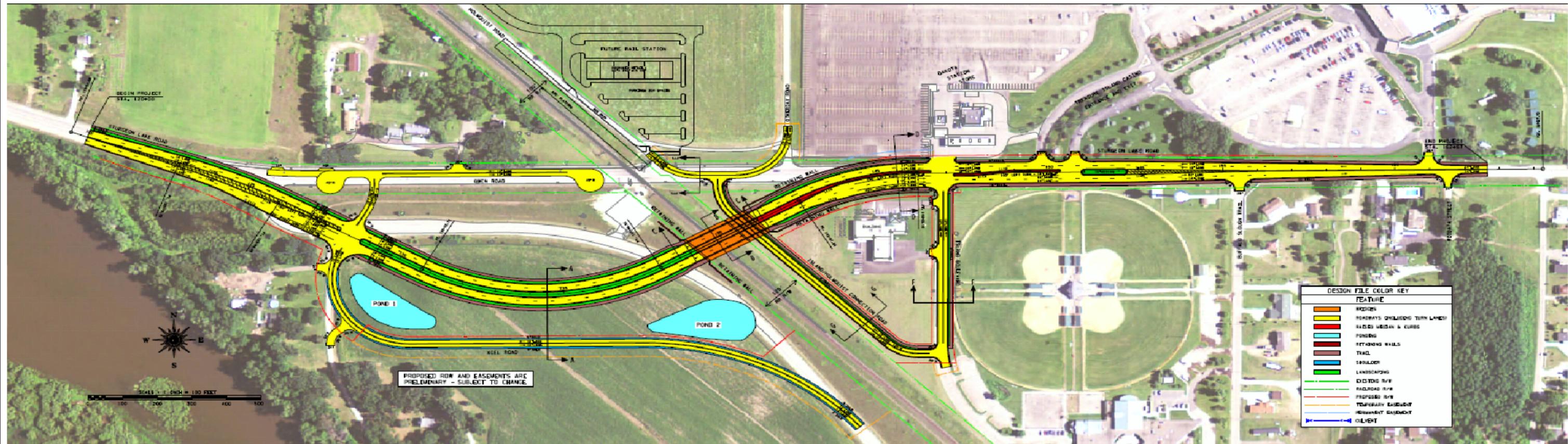
Appendix C

Traffic Volume Count Data for 24-Hour Noise Measurement

FIGURES



2005 Preferred Alternative



Current Locally Preferred Alternative

Figure 6. Proposed Project Layout
 SP 91-104-02
 STURGEON LAKE ROAD
 CITY OF RED WING, MN

APPENDIX A
Agency Correspondence

Laabs, Jessica

From: Alcott, Jason (DOT) <jason.alcott@state.mn.us>
Sent: Wednesday, November 14, 2012 8:50 AM
To: Payne, Ashley
Cc: Reihl, Gary (DOT); Moynihan, Debra (DOT)
Subject: S.P. 156-104-006 - ESA (Section 7) - Determination of No Effect

**Endangered Species Act of 1973, as amended – Section 7 - Determination of No Effect
S.P. 156-104-006, Sturgeon Lake Road
Intersection Improvements
City of Red Wing
Goodhue County**

In response to your request, the proposed action has been reviewed for potential effects to federally-listed threatened, endangered, proposed, candidate species and listed critical habitat. As a result of this review, a determination of **no effect** has been made.

Section 7 of Endangered Species Act of 1973, as amended, requires each Federal agency to review any action that it funds, authorizes or carries out to determine whether it may affect threatened, endangered, proposed species or listed critical habitat. Federal agencies, or their designated non-federal representatives (FHWA has delegated Mn/DOT) as their non-federal representative) must consult with the Service if any such effects may occur as a result of their actions. Consultation with the Service is not necessary if the proposed action will not directly or indirectly affect listed species or critical habitat. If a federal agency finds that an action will have no effect on listed species or critical habitat, it should maintain a written record of that finding that includes the supporting rationale.

Based on the information you have provided, it has been determined that no further action under Section 7 of the Act is required. However, if information becomes available indicating that federally-listed species or designated critical habitat may be affected, please contact this office and consultation with the Service will be initiated, if necessary.

Jason Alcott
Minnesota Department of Transportation
Office of Environmental Stewardship
Mail Stop 620
395 John Ireland Boulevard
St. Paul, MN 55155-1899
Phone: 651-366-3605
Email: jason.alcott@state.mn.us



Minnesota Department of Natural Resources

Division of Ecological and Water Resources, Box 25

500 Lafayette Road

St. Paul, Minnesota 55155-4025

Phone: (651) 259-5107 Fax: (651) 296-1811 E-mail: heidi.cyr@state.mn.us

August 18, 2011

Correspondence # ERDB 20120023

Ms. Ashley Payne
Kimley-Horn and Associates, Inc.
2550 University Avenue West, Suite 238N
St. Paul, MN 55114

RE: Natural Heritage Review of the proposed 20120023;
20120023

Dear Ms. Payne,

As requested, the Minnesota Natural Heritage Information System has been queried to determine if any rare species or other significant natural features are known to occur within an approximate one-mile radius of the proposed project. Based on this query, several rare features have been documented within the search area (for details, please see the enclosed database reports; please visit the Rare Species Guide at <http://www.dnr.state.mn.us/rsg/index.html> for more information on the biology, habitat use, and conservation measures of these rare species). Please note that the following **rare features may be impacted** by the proposed project:

- Blanding's turtles (*Emydoidea blandingii*), a state-listed threatened species, have been reported from the vicinity of the proposed project and may be encountered on site. If Blanding's turtles are found on the site, please remember that state law and rules prohibit the destruction of threatened or endangered species, except under certain prescribed conditions. If turtles are in imminent danger they should be moved by hand out of harm's way, otherwise they should be left undisturbed.

For your information, I have attached a Blanding's turtle fact sheet that describes the habitat use and life history of this species. The fact sheet also provides two lists of recommendations for avoiding and minimizing impacts to this rare turtle. **Please refer to the first list of recommendations for your project.** If greater protection for turtles is desired, the second list of additional recommendations can also be implemented. The attached flyer should be given to all contractors working in the area.

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area. Locations of the gray wolf (*Canis lupus*), federally-listed as threatened and state-listed as special concern, and the Canada lynx (*Lynx canadensis*), federally-listed as threatened, are not currently tracked in the NHIS. As such, the Natural Heritage Review does not address these species.

The enclosed results include an Index Report and a Detailed Report of records in the Rare Features Database, the main database of the NHIS. To control the release of specific location information, which might result in the destruction of a rare feature, both reports are copyrighted. The Index Report provides rare feature locations only to the nearest section, and may be reprinted, unaltered, in an environmental review document (e.g., EAW or EIS), municipal natural resource plan, or report compiled by your company for the project listed above. If you wish to reproduce the index report for any other purpose, please contact me to request written permission. **The Detailed Report is for your personal use only as it may include specific location information that is considered nonpublic data under *Minnesota Statutes*, section 84.0872, subd. 2. If you wish to reprint or publish the Detailed Report for any purpose, please contact me to request written permission.**

This letter does not constitute review or approval by the Department of Natural Resources as a whole. Instead, it identifies issues regarding known occurrences of rare features and potential effects to these rare features. Additional rare features for which we have no data may be present in the project area, or there may be other natural resource concerns associated with the proposed project. For these concerns, please contact your DNR Regional Environmental Assessment Ecologist (contact information available at http://www.dnr.state.mn.us/eco/ereview/erp_regioncontacts.html). Please be aware that additional site assessments or review may be required.

Thank you for consulting us on this matter and for your interest in preserving Minnesota's rare natural resources. For environmental review purposes, the results of this Natural Heritage Review are valid for one year, for the project location (noted above), and for the project description provided on the NHIS Data Request Form. Please contact me if project details change or if an updated review is needed. An invoice will be mailed to you under separate cover.

Sincerely,



Heidi Cyr
Natural Heritage Review Specialist

enc. Rare Features Database: Index Report
Rare Features Database: Detail Report
Rare Features Database Reports: An Explanation of Fields
Fact sheets: Blanding's turtles (*Emydoidea blandingii*)



Minnesota Department of Transportation

Office of Environmental Services
Mail Stop 620
395 John Ireland Boulevard
St. Paul, MN 55155-1899

Office Tel: (651) 366-4291
Fax: (651) 366-3603

October 22, 2012

Jessica Laabs, AICP
Kimley-Horn and Associates, Inc.
2550 University Avenue West
St. Paul, MN 55114

Re: S.P. 156-104-006 S.P. 156-104-006 (Previous S.P. 091-104-001; Above-grade crossing of Sturgeon Lake Road over Canadian Pacific Railroad, Redwing, Goodhue County)

Dear Ms. Laabs,

We have reviewed the above-referenced undertaking pursuant to our FHWA-delegated responsibilities for compliance with Section 106 of the National Historic Preservation Act, as amended (36 CFR 800), and as per the terms of the 2005 Section 106 Programmatic Agreement between the FHWA and the Minnesota State Historic Preservation Office.

The project was previously reviewed in 2006 (S.P. 091-104-001), with a finding of no adverse affect on archaeological or historic resources. Currently, the project remains the same as in 2006 and consists of modifying the current at-grade intersection of the Canadian Pacific Railway line and Sturgeon Lake Road to an above-grade crossing, along with associated roadway improvements.

The area of potential effects (APE) for the project consists of the proposed construction area. Because all work will occur within previously disturbed ground and within current right-of-way, it is unlikely that the APE contains intact, significant archaeological resources. There are no historic structures within the APE.

The finding of this office is that there will be **no historic properties affected** by the project as currently proposed. If the project scope changes, please provide our office with the revised information and we will conduct an additional review.

Sincerely,

A handwritten signature in black ink, appearing to read 'Renée L. Hutter'.

Renée L. Hutter
Historian
Cultural Resources Unit

cc: Mn/DOT CRU Project File

-----Original Message-----

From: Gabriel Miller

Sent: Tuesday, December 04, 2012 12:39 PM

To: Marc Mogan

Subject: RE: EA update

Marc,

After perusing the Endangered Species section of the Environmental Assessment for the 2006 Sturgeon Lake Road/Canadian Pacific Railway Intersection project and the wildlife section of the 2012 reevaluation, I have come up with a few items that are not represented, but should be included in the revised EA.

Federally Listed Species:

Bald Eagle: though delisted, the requirements for mitigating disturbance are still intact through the Bald and Golden Eagle Protection Act. The nest alluded to in the 2006 EA is still present and should continue to be (and appears to be) recognized.

Higgin's Eye Mussel: this freshwater mussel/clam species has recently been reintroduced in lower Sturgeon Lake through efforts of state and federal agencies at a "propagation site". This site is 1.5 miles E of the project site; there is little concern that project activities would impact this population based on hydrological patterns and environmental protection requirements that will be followed on the project.

State Listed Species:

Blanding's Turtle: due to the occurrence based on MN DNR records, continue to follow the recommendation of Blanding's turtle as indicated in the 2006 EA.

Snapping Turtle: currently state listed as Special Concern (though will likely be delisted); not uncommon on PI; similar concerns as with Blanding's turtle.

Bullsnake (a.k.a. Gopher Snake): this species of special concern was neglected in the 2006 EA. Bullsnakes have been documented on (and directly adjacent to) the project site through several observations; since 2010 at least three road kills have been documented in the immediate area surrounding the project site and at least 6 live animals have been observed within ½ mile of the project boundaries. The habitat requirements of the species is open habitat types (including prairie, pasture and agriculture), wooded edges of open areas, and a sandy soil available for burrowing. The habitat constraints of the bullsnake are ideal all across Prairie Island including the project area. The effects of the project would be similar to current issues facing bullsnakes on PI; road mortality, habitat loss, and movement barriers. Mitigation such as road underpasses would be ideal as has been suggested for turtles just west of the project site; this would reduce road impacts as well as maintain genetic flow across the landscape. It should be noted that the use of plastic erosion mesh is lethal to hatchling and juvenile bullsnakes under 1.5 ft. in length (strangulation hazard of erosion mesh on bullsnakes and other species has been documented on PI) and alternative methods of erosion control is highly advised.

Trumpeter Swan: this species is currently state listed as Special Concern; it winters within the open waters around PI including Larson Lake which is within 1/10 of a mile from the project

site. Construction during Dec-Mar may distract swans from using Larson Lake, however, this site is likely one of the minimal important in regards to food availability and safety so project impacts will be minor.

Loggerhead Shrike: this is currently a Threatened (likely to be reclassified as Endangered) species in MN. Only a handful are known to nest in the state, however in 2010 and 2011, this species nested on the Upper Island approximately 2 miles from the project site. Nesting did not occur in 2012 however, indicating that the pair either moved to a new site or perished. They occur again during construction of the project, it is not believed that they will be affected due to distance. Migrating Loggerheads have been observed within ¼ mi from the project site, but as birds are highly mobile, it is not believed that the project will significantly impact migrating shrikes. Some mitigation that may aid Loggerhead Shrikes would be to adopt a natural landscaping methodology.

Red-Shouldered Hawk: this is a Special Concern species in MN; it nests within the floodplain forests along the Mississippi and Vermillion River bottoms. There should be no impacts to this species as no nesting sites known to occur within the area of the project and no modifications to floodplain habitat are supposed to occur in the project. There have been observations of migrating hawks within proximity to the project, but they are highly mobile and should actively avoid the project site.

Cerulean Warbler: this is a Special Concern species in MN; it nests within the floodplain forests along the Mississippi and Vermillion River bottoms. There should be no impacts to this species as no nesting sites known to occur near to the project area and no modifications to floodplain habitat are supposed to occur.

Thanks.

Gabe Miller
Wildlife Biologist/Conservation Coordinator
PIIC Dept. Land and Environment
5636 Sturgeon Lake Road
Welch, MN 55089
Office: (651) 385-4141
Cell: (651) 260-5383

APPENDIX B
EAW Update

ENVIRONMENTAL ASSESSMENT WORKSHEET Update

Note to preparers: The Environmental Assessment Worksheet provides information about a project that may have the potential for significant environmental effects. The EAW is prepared by the Responsible Governmental Unit 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 *EQB Monitor*. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

1. **Project title: Sturgeon Lake Road Grade Separation, City of Red Wing, Goodhue County, Minnesota**
2. **Proposer: City of Red Wing**
Contact person: Jay Owens, PE
Title: City Engineer
Address: 229 Tyler Road North
City, state, ZIP: Red Wing, MN 55066
Phone: 651-385-3625
E-mail: jay.owens@ci.red-wing.mn.us
3. **RGU: City of Red Wing**
Contact Person: Jay Owens, PE
Title: City Engineer
Address: 229 Tyler Road North
City, state, ZIP: Red Wing, MN 55066
Phone: 651-385-3625
E-mail: jay.owens@ci.red-wing.mn.us
4. **Reason for EAW preparation** (check one)
EIS scoping: __; Mandatory EAW: __; Citizen petition: __; RGU discretion: X ; Proposer volunteered: X

Because the Sturgeon Lake Road Improvements do not exceed any mandatory EAW threshold, this EAW is considered discretionary with respect to Minnesota Rules. The original EAW was completed in 2005, and a Negative Declaration secured in

2006. This document serves as an update to the 2005 EAW, to document changes in existing conditions and the proposed project alternative. Most of the information from the 2005 EAW is reflected here; edited to reflect changes in existing conditions and changes in impacts as a result of modifications to the current preferred alignment.

This EA 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. This EA evaluates highway improvement alternatives that minimize effects on the surround natural, cultural, and socioeconomic environments.

5. **Project location** County: **Goodhue** City/Township: **Red Wing**

SE ¼ of SW ¼	Section 31	Township 114N	Range 15W
S ½ of SE ¼	Section 31	Township 114N	Range 15W
NE ¼ of NW ¼	Section 6	Township 113N	Range 15W
N ½ of NE ¼	Section 6	Township 113N	Range 15W

Attach each of the following to the EAW:

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

6. **Description**

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

The Prairie Island Indian Community proposes to reconstruct Sturgeon Lake Road by building an overpass spanning the existing CPR. The project would address delay and safety issues with the existing at-grade railway crossing. Safety will also be improved through the addition of turn lanes at key intersections. A multi-use trail would be constructed to better facilitate non-motorized travel. .

- 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.

Project Description

Sturgeon Lake Road was originally constructed in the early 1970s. It is one of two access points onto Prairie Island; Church Road (an unimproved gravel road) to the north is the other access point. Sturgeon Lake Road is the primary access road to Treasure Island Resort and Casino, U.S. Army Corps of Engineer Lock and Dam No. 3, Xcel Energy's Prairie Island Nuclear Plant, and approximately 90 private residences.

The current Preferred Alternative is very similar to the previously evaluated Buffalo Alternative. The City of Red Wing and PIIC propose to realign approximately 4,300 feet of Sturgeon Lake Road from approximately 500 feet west of the intersection of Xcel Road and Sturgeon Lake Road to the intersection of Wiobata Street and Sturgeon Lake Road (Figure 4). Currently, Sturgeon Lake Road is a four lane undivided roadway with an at-grade crossing of the CPR. The proposed project will shift the mainline of Sturgeon Lake Road approximately 400 feet south of the existing roadway (centerline to centerline) and construct a divided four-lane road for much of the proposed new alignment. Driving lanes will be widened, turn lanes will be widened or added, and landscaped medians and boulevards will be installed. The proposed project will retain the eight foot paved sidewalk on the north side and will install a ten foot paved trail on the south side of the proposed roadway. The project's main feature is the construction of an overpass spanning the railway. This will shift Xcel Road to the south. The project will also provide access to Holmquist Road and Otherday Road, via one access point onto Sturgeon Lake Road.

The project will require the acquisition of temporary and permanent right-of-way to accommodate road and clear zone widening. The new right-of-way will not require the purchase or relocation of homes or businesses. Stormwater management is proposed via ponds located between the new roadway alignment and the realigned Xcel access road.

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.

The project purpose and need is discussed in Section II of the EA.

d. Are future stages of this development including development on any outlots planned or likely to happen? Yes No

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

e. Is this project a subsequent stage of an earlier project? Yes No

If yes, briefly describe the past development, timeline and any past environmental review.

7. **Project magnitude data**

Total project acreage: Approximately 23 Total project length: Approximately 4,300 feet (note new alignment is longer than 2005 alignment)

Number of residential units: NA unattached: NA attached: NA

Maximum units per building: NA

Commercial, industrial or institutional building area (gross floor space): NA

Indicate areas of specific uses (in square feet):

Office **None** Manufacturing **None**

Retail **None** Other industrial **None**

Warehouse **None** Institutional **None**

Light industrial **None** Agricultural **None**

Other commercial (specify)

Building height **NA** If over 2 stories, compare to heights of nearby buildings **NA**

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.

Permit	Agency	Action Required	Status
Federal			
Environmental Assessment Reevaluation	FHWA MnDOT	Approval	Pending
Finding of No Significant Impact update	FHWA	Approval	Pending
Tribal Trust Land Easement	Bureau of Indian Affairs	Approval	Pending
ARPA Permit	Bureau of Indian Affairs	Approval	In Progress
Section 106 (Historic / Archeological)	FHWA / SHPO	Approval	Pending
State			
Negative Declaration update	Prairie Island Indian Community	Approval	Pending
Geometric Layout	MnDOT	Approval	Pending
Construction Plans	MnDOT	Approval	Pending
National Pollutant Discharge Elimination System	Minnesota Pollution Control Agency/US Environmental Protection Agency	Permit	Pending

Permit	Agency	Action Required	Status
Local			
Municipal Consent / Plan Approval	City of Red Wing	Approval	Pending
Grading and Filling permit	City of Red Wing	Approval	Pending

9. **Land use.** a) Describe current and recent past land use and development on the site and on adjacent lands. b) Discuss project compatibility with adjacent and nearby land uses. c) Indicate whether any potential conflicts involve environmental matters. d) 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.

Past Land Use and Development

Past land use and development is described in the 2005 EA/EAW. Treasure Island Resort and Casino is the primary land use in the project area. It includes a number of amenities, including a casino, hotel, marina, sports complex, convenience store, and more. Since 2005, the casino complex has also added 230 hotel rooms, an event center, and a family fun center. This expansion was completed in 2009.

Prairie Island is part of the Mississippi floodplain that has become a complex of channels, lakes, and marshes. The island is located between the Mississippi and Vermillion Rivers. Native Americans inhabited the area and early habitation sites may be deeply buried in lowland alluvium and/or flooded by the construction of the lock and dam. There are numerous mounds that have been documented within a 20-mile radius of the Cannon/Mississippi confluence (Red Wing).

Euroamerican settlement began along the river in the 1830s. The rail line was built in 1872 by the St. Paul and Chicago Railway Company as a connection between Red Wing and St. Paul which increased the numbers of settlers to the area. The 1851 Treaty of Mendota opened the area to homesteading. Some of the Dakota population that had been living in this area relocated following the Dakota Conflict in 1862, but a tribal presence continued to exist. Logging and farming activities became the dominant land use. Agriculture has been the primary land use even following the construction of the Mississippi River lock and dam system in the 1930s which flooded the lowland area of the island. Results of the flood control facilities caused considerable expansion of North and Sturgeon Lakes to the north of Prairie Island. Water channel location and floodplain areas have continued to create changes across the landscape.

In 1936, the tribe was reorganized pursuant to the Indian Reorganization Act of 1934 and 534 acres of Prairie Island was returned to the Mdewakanton Dakota as reservation. In 1968, then Northern States Power Electric (now Xcel Energy), built a nuclear power generating facility on the island. In 1984, Treasure Island Bingo was opened, with expanded facilities in 1988 and 1990. In 1993, the Prairie Island Marina was constructed.

In 1996, a 250-room hotel was added; later, a fee-based sports complex including softball fields and a concession stand was added. In 2004, a convenience store was opened on Sturgeon Lake Road. In recent years the hotel has been expanded, adding rooms and event and convention space.

Though not in the immediate vicinity, Sturgeon Lake Road is used as access to the Corps of Engineer's Lock and Dam No.3 Visitor Center.

There are approximately 90 residences on the island.

Current Land Use

Planning and Zoning for the City of Red Wing is guided by a Comprehensive Plan. The Comprehensive Plan serves as a vision statement for the City of Red Wing that anticipates and guides growth. The plan includes long-range goals, policies, and plans related to land use, transportation, housing, infrastructure, parks, trails, and recreation.

The Sturgeon Lake Road project is compatible with adjacent and nearby land uses. The project is located on the fringe of rural and semi-urban settings that include private property, Federal property, Indian reservation, railroad property, and utility-owned property, all of which were documented in the 2005 EA/EAW. Aside from the addition of the PIIC public safety building, no significant changes in land use along the corridor have occurred since 2005.

Zoning

There have been no changes in project area zoning since the 2005 EA/EAW.

Potential Environmental Conflicts

The project area has been previously disturbed, thus no threatened or endangered species and unique habitat or vegetative communities are anticipated to be in the project area. All lands impacted by the project are held in trust by the BIA on behalf of the PIIC, or owned by either a private resident, PIIC, Xcel Energy, or CPR. These the lands have been disturbed to some extent, and do not contain tree or native vegetative communities. The lands do not appear to have a land use or land ownership consistent with general state forest uses.

Potential Environmental Hazards

A Phase I ESA conducted in 1999 concluded that "there were no recognized environmental concerns at the Property that would warrant further assessment". A review of MPCA's "What's in My Neighborhood" database revealed similar results for existing conditions and the current preferred alternative.

10. **Cover types.** Estimate the acreage of the site with each of the following cover types before and after development:

Type	Before	2005	2012
Wetlands	0	0	0
Wooded/Forest	0	0	0
Brush/Grassland	8.9	12.1	0
Lawn/Landscaping	0	0	9.9
Impervious surfaces	7.4	9.6	11
Cropland	6.7	0	0
Stormwater Ponds	0	1.3	1.3
Total	23	23	22

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 site itself is relatively small (22 acres) with areas outside of Sturgeon Lake Road, the rail corridor, Xcel access road, and ball fields comprised of cropland and pasture or hayfields. Within ½ mile of the proposed construction are wetlands and small wooded areas, including Nelson and Larson Lakes to the west and Sturgeon Lake and the Mississippi River approximately one mile to the east. Typical wildlife species utilizing wetland areas to the west include varieties of ducks and geese, small mammals such as raccoon, skunk, muskrat, squirrels, along with deer, and other species such as snakes, turtles, amphibians, fish, and invertebrates. Most of the natural community has been altered by agricultural practices and residential development, as well as the nuclear plant and casino/resort.

Wildlife Resources

- b. Are any state-listed (endangered, threatened or special concern) species, rare plant communities or other sensitive ecological resources such as native prairie habitat, colonial waterbird nesting colonies or regionally rare plant communities on or near the site? Yes No

If yes, describe the resource and how it would be affected by the project. Indicate if a site survey of the resources has been conducted and describe the results. If the DNR Natural Heritage and Nongame Research program has been contacted give the correspondence reference number: **ERDB 20120023**. Describe measures to minimize or avoid adverse impacts.

A coordination letter was sent to the MnDNR Natural Heritage and Nongame Research Program requesting an update to the previous determination. A response was received on August 18, 2012. A letter was also sent to MnDOT's Office of Environmental Services to determine if any federally listed threatened or endangered

species are present in the project area. Copies of correspondence are included in Appendix A.

The MnDNR's 2012 search supported the findings of the 2005 EA/EAW, identifying the presence of Blandings turtles and documenting recommendations for turtle protection.

Blanding's Turtle

It is not anticipated that the overpass construction would adversely affect any Blanding's turtles in the area. The letter includes a summary list of recommendations for avoiding and minimizing impacts to Blanding's turtle populations. Informational sheets discussing the Blanding's turtle and measures to avoid harm to the species during construction will be shared during the preconstruction meeting, posted on the road construction contractor's project board, and distributed to road construction workers prior to the initiation of construction activities.

The PIIC is also considering the potential for constructing turtle crossings at the western end of the proposed project. Such crossings would extend beneath the roadway and allow for safe passage of turtles, as well as other creatures. The details of any such crossings would be developed in conjunction with the MnDNR during the detail design phase of the project.

The 2005 EA identified a bald eagle nesting location in vicinity of the project, and concern that noise associated with the construction of the overpass could potentially cause a failed nesting event. Bald eagles are no longer protected under the Endangered Species Act, but they are protected under the Migratory Bird Act. Correspondence with the MnDNR and USFWS did not identify the current presence of this nest in the project vicinity. If an unknown nest is identified, construction schedule restrictions will be followed to reduce potential impacts.

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? Yes No
If yes, identify water resource affected and give the DNR Protected Waters Inventory number(s) if the water resources affected are on the PWI: Describe alternatives considered and proposed mitigation measures to minimize impacts.

No physical or hydrologic alteration of any surface waters is anticipated as a result of this Project.

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 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.

As stated in the 2005 EA/EAW, this construction project is not anticipated to impact any public or private water supply wells or other water supply systems.

In the event that dewatering is necessary, an evaluation of the volume of water to be removed will be made and water appropriation permits will be obtained from the MnDNR. All dewatering operations will be conducted in accordance with applicable MnDNR regulations.

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? Yes No
If yes, identify the district and discuss project compatibility with district land use restrictions.

The Sturgeon Lake Road project includes a portion of a shoreland zoning district associated with one lake near the project corridor. The shoreland zoning district is administered by the City of Red Wing. No designated trout streams are within or adjacent to the project limits.

Shoreland Districts

A number of MnDNR Public Waters (lakes and wetlands) are accompanied by shoreland districts that extend 1,000 feet from the edge of these waters. Land located within the following distances from public waters may be subject to shoreland district restrictions:

- 1,000 feet from the ordinary high water level of a lake, pond, or flowage
- 300 feet from a river or stream, or the landward extent of a floodplain designated by ordinance on a river or stream, whichever is greater

The limits of shorelands may be reduced whenever the waters involved are bounded by topographic divides which extend landward from the waters for lesser distances and when approved by the commissioner.¹ No Public Watercourses will be affected by the proposed project. According to the City of Red Wing Comprehensive Plan and Land Use Ordinance Section 50-050 (Part A), the Sturgeon Lake Road Corridor lies partially within the Larson Lake Natural Environment shoreland classification, and is subject to a 150 foot structural setback.

¹ City of Red Wing Shoreland Management Ordinance

Although the project is near Nelson Lake, this watercourse does not have a shoreland district classification identified by the City. Nelson Lake is identified on the MnDNR's Public Waters Inventory in conjunction with U.S. Lock and Dam #3 Pool (25-17). No effects are anticipated to Nelson Lake. Sturgeon Lake is considered a Natural Environment (25-0017 01) by the City under the shoreland district classification; the lake is also identified on the MnDNR's Public Waters Inventory in conjunction with U.S. Lock and Dam #3 Pool (PWI Inventory # 25-17). Sturgeon Lake is over one-half mile east of the project area, therefore no effects are anticipated. The 150 foot structural setback would also apply to this lake.

The 150 foot structural setback applies to any permanent ground-based structure constructed more than three feet in height. For the Sturgeon Lake Road project, the structural setback applies to the bridge for the CPR. The bridge is greater than 150 feet from the shoreland zoning district. The project will obtain a Grading and Filling Permit from the City of Red Wing prior to construction, if necessary. The project will adhere to all permit requirements and zoning ordinances including Section 50-050 (Part G) subparts 1 and 2:

G) Placement and Design of New Roads, Driveways, and Parking Areas.

1) Public and private roads and parking areas must be designed to take advantage of natural vegetation and topography to achieve maximum screening from view from public waters. Documentation must be provided by a qualified individual that all roads and parking areas are designed and constructed to minimize and control erosion to public waters consistent with the field office technical guides of the local soil and water conservation district, or other applicable technical materials.

2) Roads, driveways, and parking areas must meet structure setbacks and must not be placed within bluff and shore impact zones, when other reasonable and feasible placement alternatives exist. If no alternatives exist, they may be placed within these areas, and must be designed to minimize adverse impacts.

Floodplains

Federal Emergency Management Agency (FEMA) floodplain map databases and Flood Insurance Study (FIS) were reviewed for the project area. The site is located primarily in flood zone X (outside the 100 year floodplain), but a small portion (approximately 325 feet) transversely encroaches on an area within flood zone AE. According to the FIS, Base Flood Elevations for this river reach are based on historic flood profile data and gaging station rating curves. This means a floodway has not been designated for this area and an accepted FEMA hydraulic model for this river reach is not available at this time.

The floodplain impact analysis is as follows:

- I. Currently, the existing Sturgeon Lake Road grade is above the 100 year flood elevation of the Mississippi River (686.9 ft); the proposed modified alignment

will tie into the existing alignment and will be built above the 100 year flood elevation (688.0 ft).

II. No significant permanent impacts to fisheries or wildlife habitat or beneficial floodplain values is anticipated since the project does not encroach on the river channel or appear to inhibit the conveyance of flood waters more than the existing roadway alignment. The proposed bridge is over the CPR and does not cross a waterway. The section of roadway being constructed in the 100 year floodplain is tying into the existing road. By overlaying the proposed alignment on the Flood Insurance Rate Map (FIRM) panel all but approximately 325 feet of the project is out of the 100-year floodplain. The proposed road grades are above the 100-year water surface elevation. Temporary impacts to beneficial floodplain values, specifically siltation/sedimentation of the construction zone, may occur during construction; use of erosion and sediment control best management practices would alleviate much of this impact. Any potential permanent impacts to beneficial floodplain values from erosion and sedimentation will be mitigated through the placement of rip-rap or other permanent erosion control measures as appropriate.

III. Since this project consists of the upgrading of an existing roadway and the construction of a structure outside the existing floodplain, and since Goodhue County and the City of Red Wing have ordinances controlling floodplain development, this project will not result in incompatible floodplain development. Furthermore, this project will not provide new access to floodplain areas.

15. **Water surface use.** Will the project change the number or type of watercraft on any water body? Yes No

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

16. **Erosion and sedimentation.** Give the acreage to be graded or excavated and the cubic yards of soil to be moved:

Acres: Approximately 22; cubic yards: Approximately 320,000.

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 proposed project will raise Sturgeon Lake Road and the supporting roadway network to overpass the CPR. This will require obtaining approximately 300,000 cubic yards of fill. Fill at the project site will be reused to the extent possible. Additional fill will be obtained from area gravel pits that have been permitted. The

approved fill will not contain contaminated inorganic or organic materials and invasive vegetation. If fill is needed from additional gravel pits, then the pits will go through the permitting process.

In compliance with the amendments of the Clean Water Act, this project will require a National Pollutant Discharge Elimination System (General Stormwater permit) for construction activity since the project will disturb more than one acre of land. The object of this permit is to implement temporary and permanent erosion and sediment control measures to reduce and eliminate erosion and keep sediments on-site during and after construction. These goals can be achieved by implementing best management practices (BMPs) on the project as part of the temporary and permanent erosion control measures. These practices include removing accumulated sediment and repairing or replacing damaged and deteriorated erosion control devices. Temporary erosion control devices may include silt fencing, straw bales, other appropriate sediment trapping devices, and ditch checks.

Erosion control methods will be included in the construction contract specifications. The PIIC's construction plans will include temporary and permanent erosion and sediment control BMPs as suggested by the US Environmental Protection Agency (EPA), the Minnesota Pollution Control Agency (MPCA), and Mn/DOT design standards.

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 stormwater pollution prevention plans.

b. 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.

The proposed overpass project will drain to the east and west along the proposed 4%-5% slopes on the main alignment, and to a lesser extent, will drain over side slopes to the north and south. Storm water along the roadway will be channeled by curb and gutter, collected by a series of catch basins and conveyed via storm sewer to an existing and potential additional storm water retention pond prior to discharge to Larson Lake and associated wetlands on the west end of the project. The water retention time in the storm water ponds will allow for contaminants to settle or be absorbed by soil and vegetation. Pond size and layout will be determined during the final design phase of the project.

Storm water that flows over the vegetated side slopes will generally drain overland toward surface water features or infiltrate into the soil. After roadway reconstruction, the vegetation established within the project area will provide some

water quality treatment, reducing the pollutant load conveyed by highway runoff. The roadside drainage system will also allow pollutants to settle or be absorbed by soil and vegetation.

Sediment control practices will be implemented to minimize adverse effects on surface waters related to project construction, and sediment controls will remain in place until final stabilization has been established. Whenever practicable, the PIIC will construct temporary sediment basins during the initial stages of soil disturbance.

To comply with NPDES General Permit Requirements, the City of Red Wing will design and implement a Stormwater Pollution Prevention Plan (SWPPP) that will identify BMPs to be implemented to control erosion and sedimentation during construction. The City will submit a complete application form and SWPPP to the EPA and MPCA prior to initiating construction activities.

18. **Water quality: wastewaters**

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

None.

b. Describe waste treatment methods or pollution prevention efforts and give estimates of composition after treatment. Identify receiving waters, including major downstream water bodies, 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.

None.

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.

None.

d. If the project requires disposal of liquid animal manure, describe disposal technique and location and discuss capacity to handle the volume and composition of manure. Identify any improvements necessary. Describe any required setbacks for land disposal systems.

None.

19. **Geologic hazards and soil conditions**

a. Approximate depth (in feet) to ground water: 10 to 20 feet
minimum average to bedrock: 100 feet minimum 100 feet average

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.

No significant geologic hazards have been identified in the project area. The project area is within the driftless zone which is characterized by karst topography. However, the specific location of the proposed project is within the Mississippi River and Vermillion River valleys, and is underlain by thick floodplain and river terrace deposits. No karst features have been identified within the specific project area. The water table aquifer is highly susceptible to contamination due to the coarse nature of surficial soils and the shallow depth to groundwater; however this aquifer is not used as a primary source of water.

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

The soil associations² in project area have been formed in outwash or recent alluvium, including:

- Estherville-Waukegan-Alluvial land association – “nearly level to sloping, somewhat excessively drained, well-drained, and poorly drained, medium-textured and coarse-textured”
- Marsh-McPaul-Radford association – “depressional, very poorly drained marshes, and nearly level, moderately well drained and somewhat poorly drained, medium-textured soils”

Sparta Series soils occur at the site. The SCS soil type mapped on the project site are Sparta loamy sand (SpA) with 0 to 3 percent slopes. As stated in the Soil Survey of Goodhue County, Minnesota this soil series “consists of nearly level, excessively, drained soils on benches of major streams. Areas are wide and can make up a large part of the benches, ranging from 5 to 200 acres in size. These soils formed in sandy outwash. The native vegetation consists of a variety of grasses. In a representative profile the surface layer is very dark brown loamy sand about 8 inches thick, and the subsurface layer is very dark brown and dark-brown loamy coarse sand about 11 inches thick. The subsoil is dark-brown, loose coarse sand about 21 inches thick. The underlying material is yellowish-brown coarse sand. Permeability is very rapid and available water capacity is low. Organic matter content is moderately low and the natural fertility is low. Most areas are used for crops or pasture. The main limitation is the hazard of drought. Due to drought, the hazard of erosion or soil blowing is severe in open areas that lack plant or crop cover. Surface runoff is very slight.” Sparta is not on the list of hydric soils.

² USDA SCS Soil Survey of Goodhue County, 1976

Groundwater contamination from wastes, chemicals, or spills on the ground surface is unlikely. However, should a spill occur during road construction activities, the construction contractor would be required to immediately notify the State Duty Officer and implement spill cleanup activities in accordance with MPCA guidelines. The construction contractor will be responsible for developing a spill response plan prior to conducting activities in the project area that have the potential to cause soil or groundwater contamination.

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.

During road construction activities, construction and demolition debris will be generated through pavement removal and other construction related activities. All such demolition debris will be disposed of in accordance with Minnesota Solid Waste Rules.

There will be no animal manure, sludge, or hazardous waste generated by this project.

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 will lead to a regulated waste, discharge or emission, discuss any alternatives considered to minimize or eliminate the waste, discharge or emission.

The road construction will not require the use of or generate toxic or hazardous materials with the exception of petroleum fuels used during the construction process. All such materials will be used and disposed of properly.

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.

None.

21. **Traffic.**

Parking spaces added: **None**.

Existing spaces (if project involves expansion): **NA**

Estimated total average daily traffic generated: **The project itself will not generate traffic; currently an estimated 12,600 vehicles per day use the roadway.**

Estimated maximum peak hour traffic generated (if known) and time of occurrence:
Exact numbers are not available; it is estimated that peak hour traffic is approximately 1,200 vehicles.

Provide an estimate of the impact on traffic congestion on affected roads and describe any traffic improvements necessary. If the project is within the Twin Cities metropolitan area, discuss its impact on the regional transportation system.

NA

The Sturgeon Lake Road overpass construction project is not anticipated to generate additional traffic, but will provide a safer and more efficient roadway segment for the traveling public.

During construction, all reasonable and practicable attempts will be made to keep the roadway open, and access will be provided to all existing residences and businesses. During construction, traffic may be periodically delayed for short periods to accommodate construction operations and equipment. Sturgeon Lake Road will remain open and the railroad safety gates will be functional during construction.

Existing/Future Conditions

Sturgeon Lake Road is a four-lane undivided roadway between the west terminus at CSAH 18 (Prairie Island Boulevard) and the access to Treasure Island Resort and Casino within the PIIC. The current traffic volume is approximately 12,600³ vehicles per day, which empirical evidence suggests approximately 80% of the traffic has an origin or destination at Treasure Island. This roadway serves as the only paved vehicle access point for the PIIC (which consists of approximately 90 residences) and also for the Prairie Island Nuclear Plant. It is estimated that over 17,500 vehicles per day will use the roadway by 2025.

See Section II (Purpose and Need for Project) of the EA for additional information regarding the auto and rail traffic in the project area.

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. Note: If the project involves 500 or more parking spaces, consult *EAW Guidelines* about whether a detailed air quality analysis is needed.

The project is not located in an area in which conformity requirements apply, and the scope of the project does not indicate that air quality impacts would be expected. Therefore, no further air quality analysis is necessary. With the addition of the bridge and the elimination of a stop, the potential for a reduction in air emissions exists. Currently the cars stopping and idling at the train crossing may have a negative impact on air quality in the area; this negative impact would be reduced if the need for stopping for trains were eliminated.

³ MnDOT 2011 Traffic Volume (AADT/HCAADT) Table

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.

No stationary source air emissions are associated with the proposed project.

24. **Odors, noise and dust.** Will the project generate odors, noise or dust during construction or during operation? 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.)

Odors

There will be odors (i.e. exhaust from construction equipment) associated with Sturgeon Lake Road reconstruction activities. Following the completion of the project, there should be no additional odor increase above the levels observed currently.

Construction Noise

Construction activity could cause noise impacts from the operation of construction equipment. Standard noise control specifications will be followed, in addition to local ordinances. Construction equipment will be kept in good operating condition and properly muffled.

Traffic Noise

The issue of traffic noise is addressed in the “Additional Federal Issues” section of this document which immediately follows the EAW section.

Dust

There will be dust associated with Sturgeon Lake Road reconstruction activities. Following the completion of the project, there should be no additional dust increase above the levels observed currently.

Construction activities such as excavation and grading could cause an increase of dust and other particles in the air. Construction of an overpass in an area of flat terrain will require hauling and handling large volumes of soil. Paved roads will be used when possible to access construction areas in an effort to minimize dust from construction equipment. Dust will be minimized through the use of watering trucks and limiting the time periods (windy

conditions) when construction vehicles can operate on gravel surfaces. Permanent vegetation will be established both as an erosion control measure and to minimize dust generation after construction is complete.

Air quality impacts during construction may also result from emission from construction equipment and/or from temporary traffic delays due to construction operations and staging. The impacts are expected to be minimal and of short duration.

25. **Nearby resources.** Are any of the following resources on or in proximity to the site? If yes, describe the resource and identify any project-related impacts on the resource. Describe any measures to minimize or avoid adverse impacts.

a) Archaeological, historical or architectural resources? Yes No

A request was sent to the MnDOT Cultural Resources Unit (CRU) requesting a review of the 2006 finding of no adverse effect on archaeological or historic resources. CRU determined in a letter dated October 22, 2012 that the finding remained valid, and “there will be no historic properties affected by the project as currently proposed.” Correspondence on Section 106 issues is included in Appendix A.

b) Prime or unique farmlands or land within an agricultural preserve? Yes No

c) Designated parks, recreation areas or trails? Yes No

Parkland

Section 4(f)

The 2005 determination that no Section 4(f) properties would be impacted by the project remains valid. The sports complex at the southeast quadrant of the Sturgeon Lake Road/Island Boulevard intersection is owned by the Prairie Island Indian Community and is not considered to be 4(f) because, while recreational in nature, usage is restricted to tribal members only and not open to the general public. A letter discussing this issue is included in Appendix A.

Section 6(f)

No Section 6(f) involvement exists on this project.

Trails

The existing roadway has a trail on the north side. The proposed project will have an 8 foot paved sidewalk on the north side of the road and a 10 foot paved trail on the south side of the road. Both the sidewalk and trail will be separated from the travel lanes by an 8 foot grass boulevard. The proposed bridge will have 10 foot paved shoulders/sidewalks that will be separated from the roadway by a barrier. The proposed project will not cause adverse impacts to the existing trail. The proposed project should improve trail use for all users by separating all-terrain vehicle (ATV) users from the pedestrians, and from the rail line.

d) Scenic views and vistas? ___Yes **X**No

e) Other unique resources? ___Yes **X**No

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.

The proposed Sturgeon Lake Road project shifts the mainline south by a maximum of approximately 350 feet. The new roadway is proposed to have significant change in vertical alignment. The alignment changes will be caused by the proposed overpass and overpass approaches.

As documented in the 2005 EA/EAW, the proposed project will impact visual quality by causing localized changes in the ability of neighbors to see the visual resources of the natural environments. No additional impacts would result from the currently proposed alignment.

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

The portion of the proposed project that is not held in trust by the BIA on behalf of the PIIC is subject to the City of Red Wing's Comprehensive Plan, which was most recently updated in 2007, and the City-adopted Zoning Ordinances.

The Comprehensive Plan establishes city-wide development goals. In addition, the plan is the starting point for other land use controls, such as the zoning ordinances. The proposed project is not subject to any other land use plans. The proposed project would occur on land zoned as Agriculture Residential (AR), General Industrial (I-2), and on land within the PIIC. There is a wide variety of land use types near the project area, including agriculture, rural residencies, and rural residential development. The project is compatible with adjacent and nearby land uses.

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
XNo. 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.)

No additional infrastructure or public services will be required to serve this project. Construction of the overpass will result in changes to existing infrastructure. The overpass will eliminate a railroad crossing and this will result in the removal of the crossing gates. The PIIC will coordinate with CPR and Mn/DOT to design and construct an overpass that will accommodate future rail transportation system plans.

All utility services within the project area are sufficient to serve the proposed project. Other utilities such as gas, electric, fiber optic cable, and phone may exist within the corridor and minor relocations may be required for project construction. All relocations will be coordinated with the appropriate utility companies.

The project proposer is coordinating with local agencies and land owners to reconstruct connecting roadways and driveways that meet their needs and fulfill appropriate engineering design standards.

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

Reasonably foreseeable potential cumulative impacts are limited for the Sturgeon Lake Road project area. The proposed Sturgeon Lake Road overpass project may make the area somewhat more accessible due to delay improvements and a safer roadway section. These improvements could make the Sturgeon Lake Road route more attractive to tourists and recreational users. Residential and recreational use will likely slowly increase in the future; however this increase would occur without the reconstruction of Sturgeon Lake Road. With an increase of tourists and recreational users, an increase of business that cater to those individuals can be expected. Developments that may arise include gas stations, convenience stores, cafes, restaurants, hotels, and/or potentially strip malls that contain these types of businesses.

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 additional environmental impacts are known beyond those documented in this EA/EAW.

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.

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



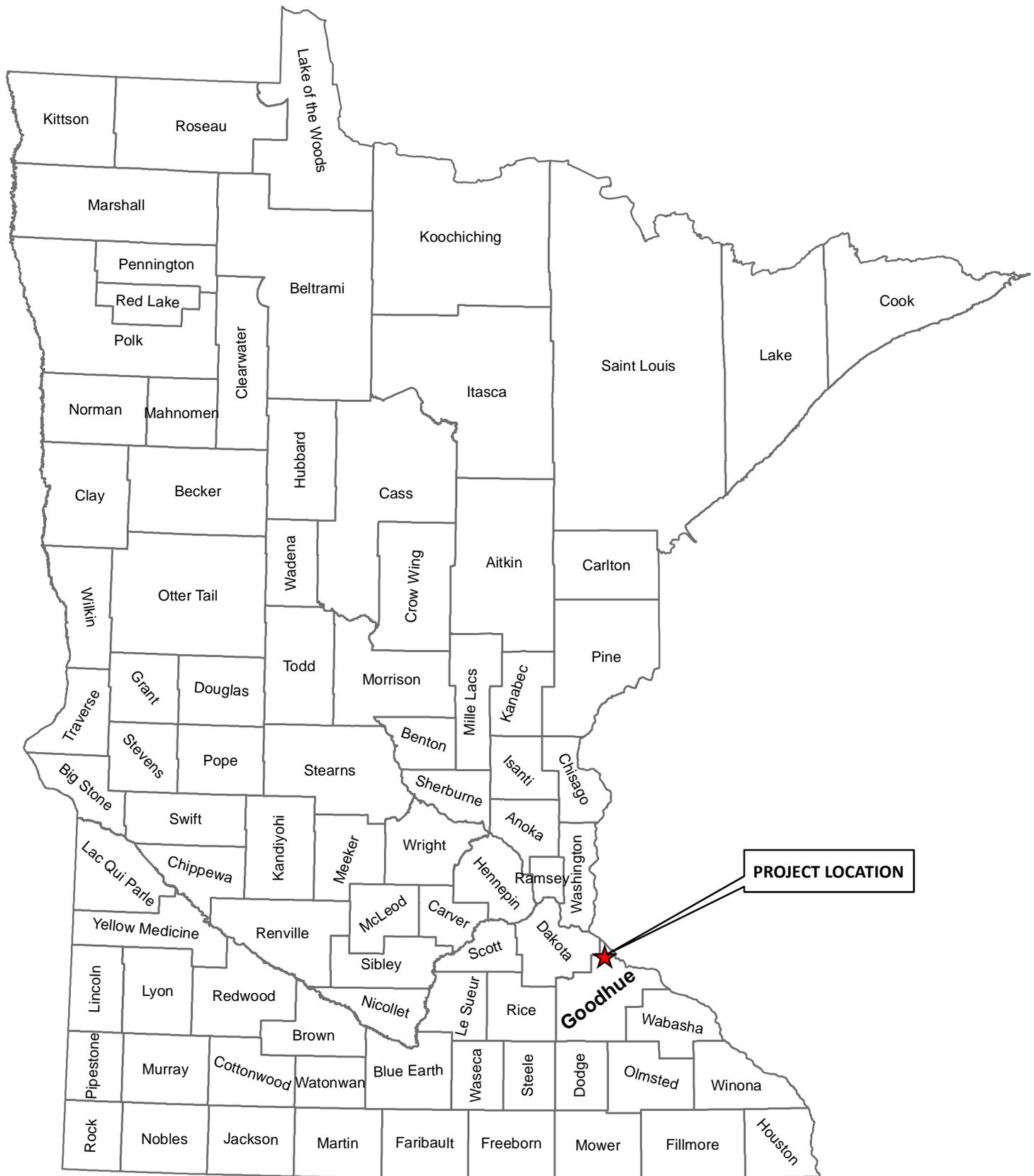
City of Red Wing

11/15/13

Date

Environmental Assessment Worksheet was prepared by the staff of the Environmental Quality Board at Minnesota Planning. For additional information, worksheets or for *EAW Guidelines*, contact: Environmental Quality Board, 658 Cedar St., St. Paul, MN 55155, 651-296-8253, or www.mnplan.state.mn.us

Figures



PROJECT LOCATION

Goodhue

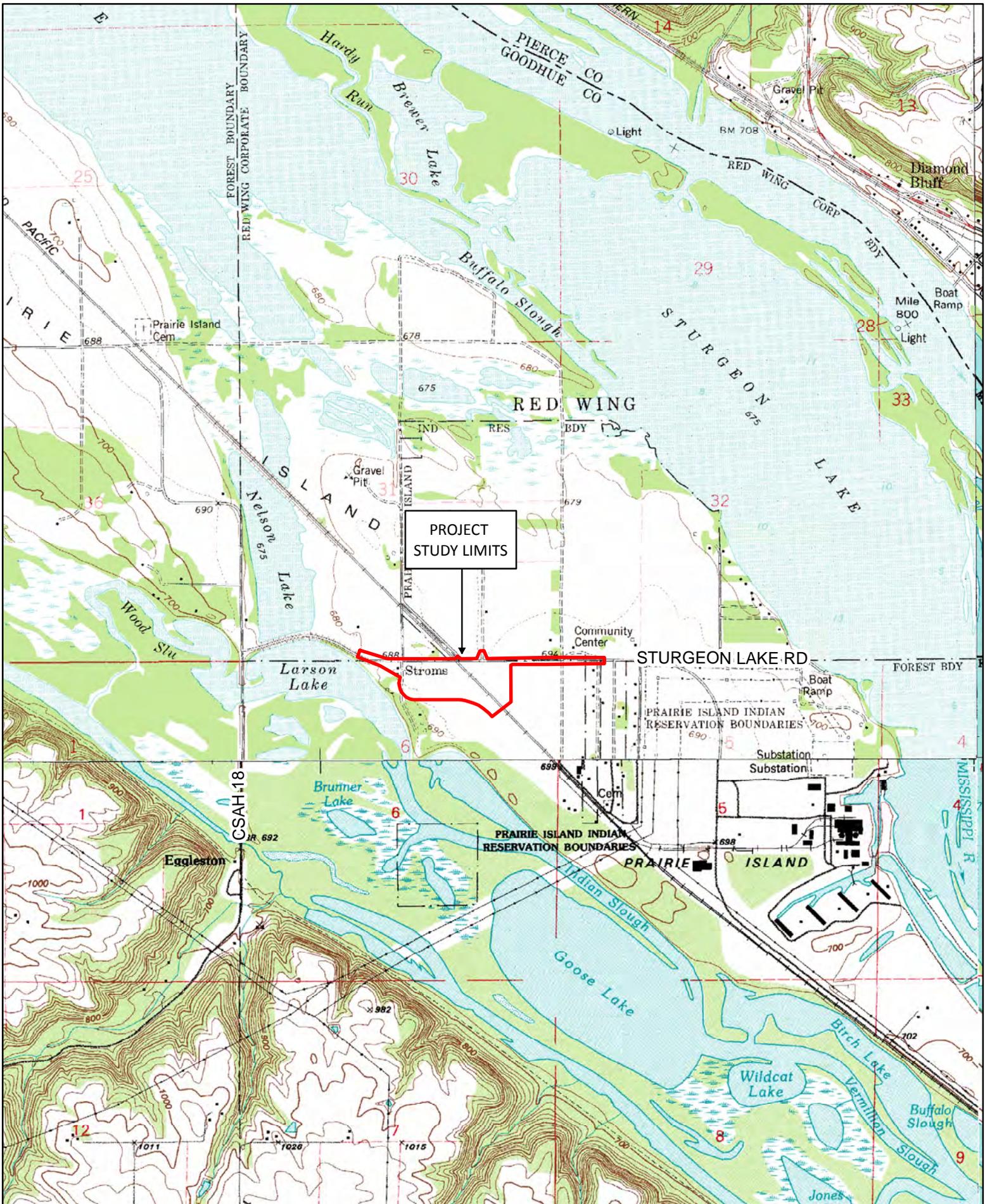


Figure 2. USGS Topographical Map

SP 91-104-02

STURGEON LAKE ROAD
CITY OF RED WING, MN

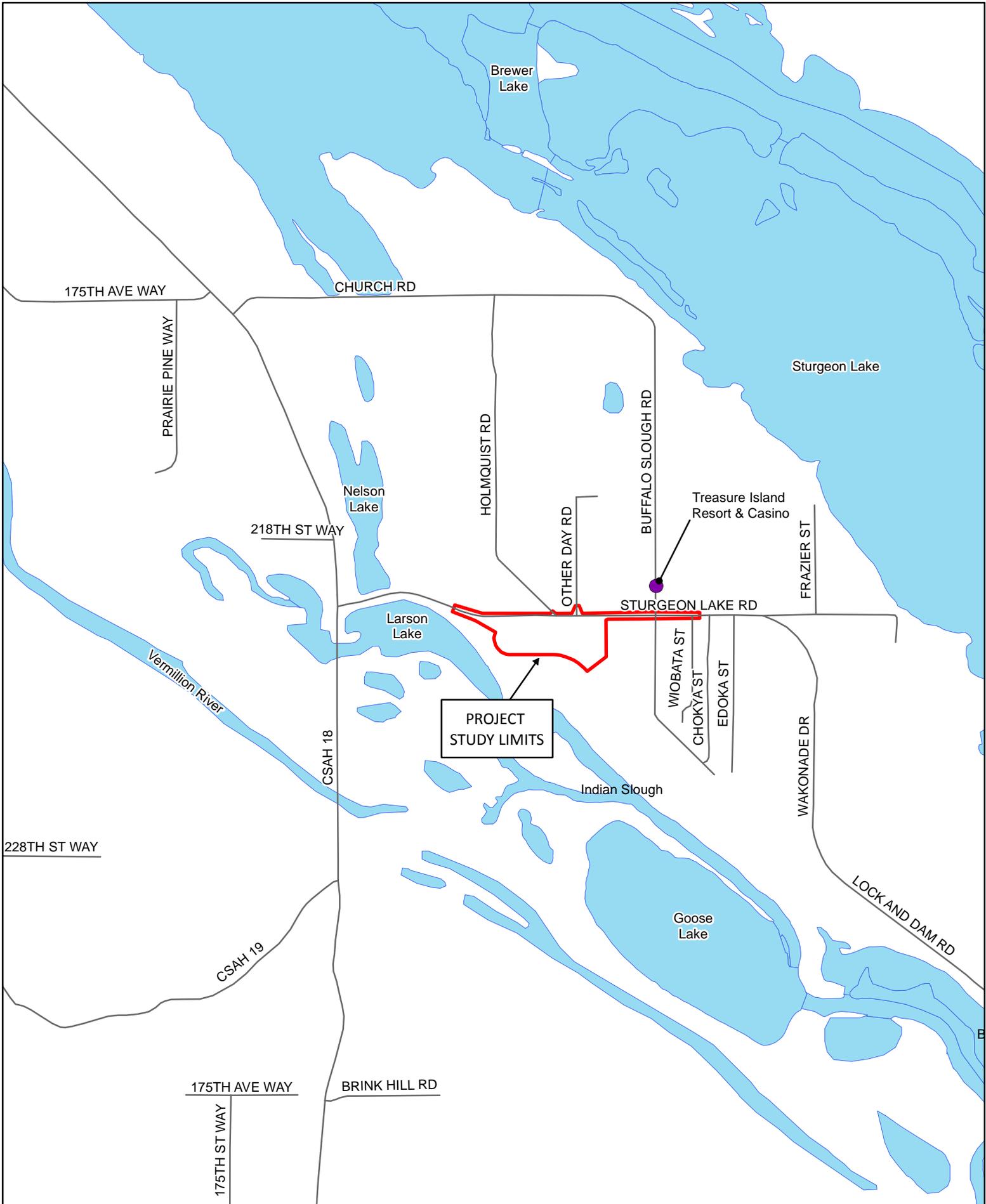
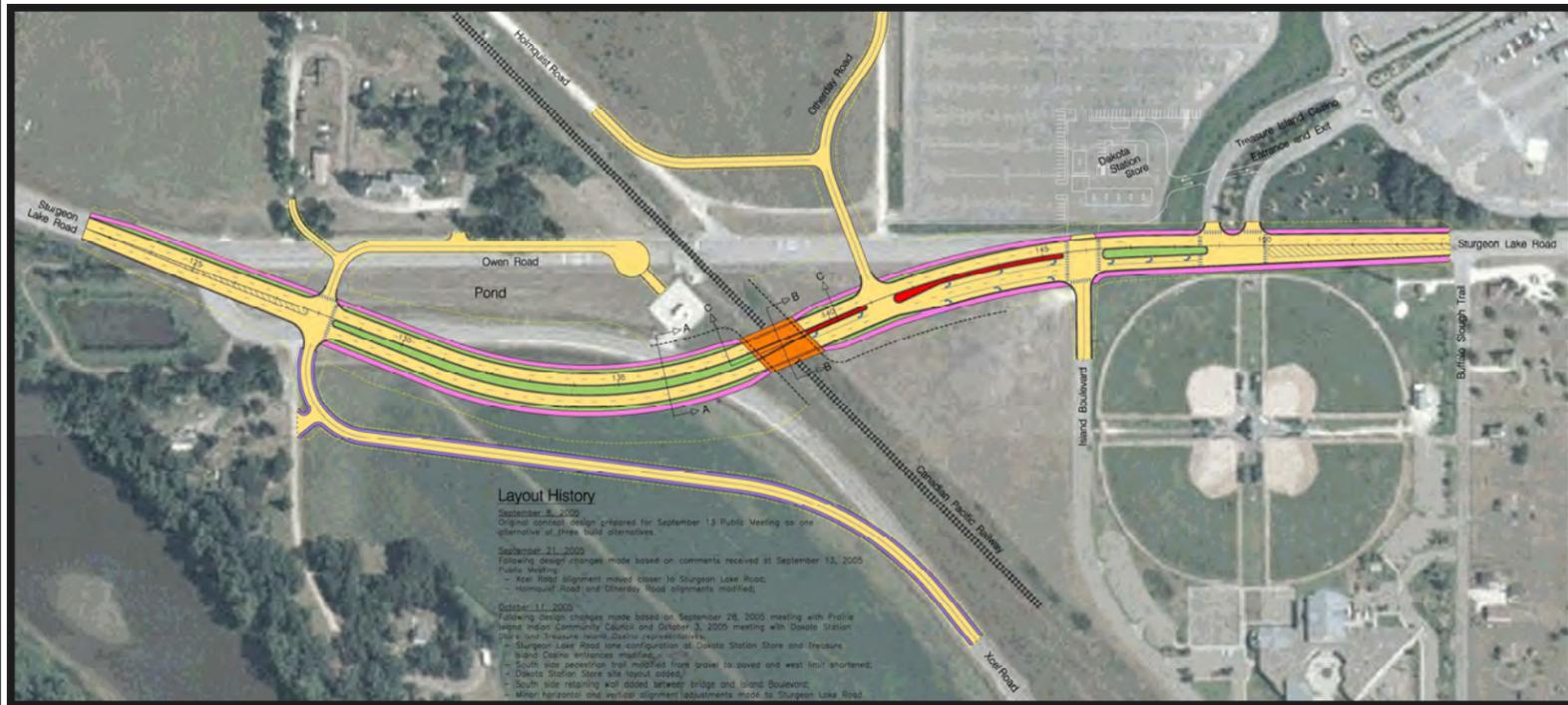


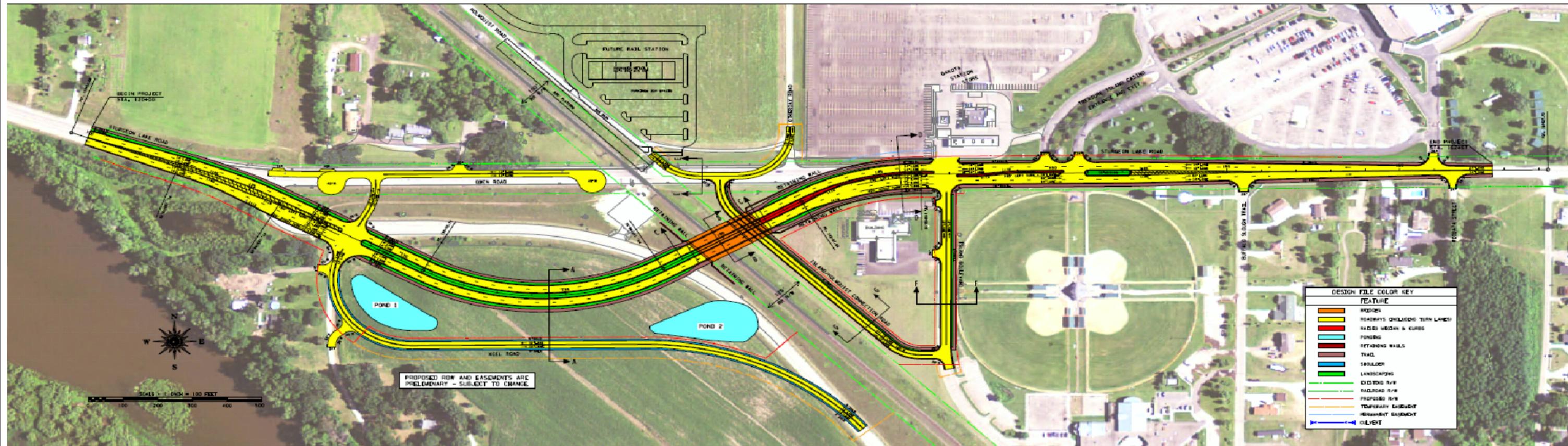
Figure 3. Project Vicinity

SP 91-104-02

STURGEON LAKE ROAD
CITY OF RED WING, MN



Geographical Information System (GIS) Data



Current Locally Preferred Alternative

Figure 4. Proposed Project Layout
 SP 91-104-02
 STURGEON LAKE ROAD
 CITY OF RED WING, MN

Appendix A – Agency Correspondence



Minnesota Department of Natural Resources

Division of Ecological and Water Resources, Box 25

500 Lafayette Road

St. Paul, Minnesota 55155-4025

Phone: (651) 259-5107 Fax: (651) 296-1811 E-mail: heidi.cyr@state.mn.us

August 18, 2011

Correspondence # ERDB 20120023

Ms. Ashley Payne
Kimley-Horn and Associates, Inc.
2550 University Avenue West, Suite 238N
St. Paul, MN 55114

RE: Natural Heritage Review of the proposed 20120023;
20120023

Dear Ms. Payne,

As requested, the Minnesota Natural Heritage Information System has been queried to determine if any rare species or other significant natural features are known to occur within an approximate one-mile radius of the proposed project. Based on this query, several rare features have been documented within the search area (for details, please see the enclosed database reports; please visit the Rare Species Guide at <http://www.dnr.state.mn.us/rsg/index.html> for more information on the biology, habitat use, and conservation measures of these rare species). Please note that the following **rare features may be impacted** by the proposed project:

- Blanding's turtles (*Emydoidea blandingii*), a state-listed threatened species, have been reported from the vicinity of the proposed project and may be encountered on site. If Blanding's turtles are found on the site, please remember that state law and rules prohibit the destruction of threatened or endangered species, except under certain prescribed conditions. If turtles are in imminent danger they should be moved by hand out of harm's way, otherwise they should be left undisturbed.

For your information, I have attached a Blanding's turtle fact sheet that describes the habitat use and life history of this species. The fact sheet also provides two lists of recommendations for avoiding and minimizing impacts to this rare turtle. **Please refer to the first list of recommendations for your project.** If greater protection for turtles is desired, the second list of additional recommendations can also be implemented. The attached flyer should be given to all contractors working in the area.

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area. Locations of the gray wolf (*Canis lupus*), federally-listed as threatened and state-listed as special concern, and the Canada lynx (*Lynx canadensis*), federally-listed as threatened, are not currently tracked in the NHIS. As such, the Natural Heritage Review does not address these species.

The enclosed results include an Index Report and a Detailed Report of records in the Rare Features Database, the main database of the NHIS. To control the release of specific location information, which might result in the destruction of a rare feature, both reports are copyrighted. The Index Report provides rare feature locations only to the nearest section, and may be reprinted, unaltered, in an environmental review document (e.g., EAW or EIS), municipal natural resource plan, or report compiled by your company for the project listed above. If you wish to reproduce the index report for any other purpose, please contact me to request written permission. **The Detailed Report is for your personal use only as it may include specific location information that is considered nonpublic data under *Minnesota Statutes*, section 84.0872, subd. 2. If you wish to reprint or publish the Detailed Report for any purpose, please contact me to request written permission.**

This letter does not constitute review or approval by the Department of Natural Resources as a whole. Instead, it identifies issues regarding known occurrences of rare features and potential effects to these rare features. Additional rare features for which we have no data may be present in the project area, or there may be other natural resource concerns associated with the proposed project. For these concerns, please contact your DNR Regional Environmental Assessment Ecologist (contact information available at http://www.dnr.state.mn.us/eco/ereview/erp_regioncontacts.html). Please be aware that additional site assessments or review may be required.

Thank you for consulting us on this matter and for your interest in preserving Minnesota's rare natural resources. For environmental review purposes, the results of this Natural Heritage Review are valid for one year, for the project location (noted above), and for the project description provided on the NHIS Data Request Form. Please contact me if project details change or if an updated review is needed. An invoice will be mailed to you under separate cover.

Sincerely,



Heidi Cyr
Natural Heritage Review Specialist

enc. Rare Features Database: Index Report
Rare Features Database: Detail Report
Rare Features Database Reports: An Explanation of Fields
Fact sheets: Blanding's turtles (*Emydoidea blandingii*)



Minnesota Department of Transportation

Office of Environmental Services
Mail Stop 620
395 John Ireland Boulevard
St. Paul, MN 55155-1899

Office Tel: (651) 366-4291
Fax: (651) 366-3603

October 22, 2012

Jessica Laabs, AICP
Kimley-Horn and Associates, Inc.
2550 University Avenue West
St. Paul, MN 55114

Re: S.P. 156-104-006 S.P. 156-104-006 (Previous S.P. 091-104-001; Above-grade crossing of Sturgeon Lake Road over Canadian Pacific Railroad, Redwing, Goodhue County)

Dear Ms. Laabs,

We have reviewed the above-referenced undertaking pursuant to our FHWA-delegated responsibilities for compliance with Section 106 of the National Historic Preservation Act, as amended (36 CFR 800), and as per the terms of the 2005 Section 106 Programmatic Agreement between the FHWA and the Minnesota State Historic Preservation Office.

The project was previously reviewed in 2006 (S.P. 091-104-001), with a finding of no adverse affect on archaeological or historic resources. Currently, the project remains the same as in 2006 and consists of modifying the current at-grade intersection of the Canadian Pacific Railway line and Sturgeon Lake Road to an above-grade crossing, along with associated roadway improvements.

The area of potential effects (APE) for the project consists of the proposed construction area. Because all work will occur within previously disturbed ground and within current right-of-way, it is unlikely that the APE contains intact, significant archaeological resources. There are no historic structures within the APE.

The finding of this office is that there will be **no historic properties affected** by the project as currently proposed. If the project scope changes, please provide our office with the revised information and we will conduct an additional review.

Sincerely,

A handwritten signature in black ink, appearing to read 'Renée L. Hutter'.

Renée L. Hutter
Historian
Cultural Resources Unit

cc: Mn/DOT CRU Project File

-----Original Message-----

From: Gabriel Miller

Sent: Tuesday, December 04, 2012 12:39 PM

To: Marc Mogan

Subject: RE: EA update

Marc,

After perusing the Endangered Species section of the Environmental Assessment for the 2006 Sturgeon Lake Road/Canadian Pacific Railway Intersection project and the wildlife section of the 2012 reevaluation, I have come up with a few items that are not represented, but should be included in the revised EA.

Federally Listed Species:

Bald Eagle: though delisted, the requirements for mitigating disturbance are still intact through the Bald and Golden Eagle Protection Act. The nest alluded to in the 2006 EA is still present and should continue to be (and appears to be) recognized.

Higgin's Eye Mussel: this freshwater mussel/clam species has recently been reintroduced in lower Sturgeon Lake through efforts of state and federal agencies at a "propagation site". This site is 1.5 miles E of the project site; there is little concern that project activities would impact this population based on hydrological patterns and environmental protection requirements that will be followed on the project.

State Listed Species:

Blanding's Turtle: due to the occurrence based on MN DNR records, continue to follow the recommendation of Blanding's turtle as indicated in the 2006 EA.

Snapping Turtle: currently state listed as Special Concern (though will likely be delisted); not uncommon on PI; similar concerns as with Blanding's turtle.

Bullsnake (a.k.a. Gopher Snake): this species of special concern was neglected in the 2006 EA. Bullsnakes have been documented on (and directly adjacent to) the project site through several observations; since 2010 at least three road kills have been documented in the immediate area surrounding the project site and at least 6 live animals have been observed within ½ mile of the project boundaries. The habitat requirements of the species is open habitat types (including prairie, pasture and agriculture), wooded edges of open areas, and a sandy soil available for burrowing. The habitat constraints of the bullsnake are ideal all across Prairie Island including the project area. The effects of the project would be similar to current issues facing bullsnakes on PI; road mortality, habitat loss, and movement barriers. Mitigation such as road underpasses would be ideal as has been suggested for turtles just west of the project site; this would reduce road impacts as well as maintain genetic flow across the landscape. It should be noted that the use of plastic erosion mesh is lethal to hatchling and juvenile bullsnakes under 1.5 ft. in length (strangulation hazard of erosion mesh on bullsnakes and other species has been documented on PI) and alternative methods of erosion control is highly advised.

Trumpeter Swan: this species is currently state listed as Special Concern; it winters within the open waters around PI including Larson Lake which is within 1/10 of a mile from the project

site. Construction during Dec-Mar may distract swans from using Larson Lake, however, this site is likely one of the minimal important in regards to food availability and safety so project impacts will be minor.

Loggerhead Shrike: this is currently a Threatened (likely to be reclassified as Endangered) species in MN. Only a handful are known to nest in the state, however in 2010 and 2011, this species nested on the Upper Island approximately 2 miles from the project site. Nesting did not occur in 2012 however, indicating that the pair either moved to a new site or perished. They occur again during construction of the project, it is not believed that they will be affected due to distance. Migrating Loggerheads have been observed within ¼ mi from the project site, but as birds are highly mobile, it is not believed that the project will significantly impact migrating shrikes. Some mitigation that may aid Loggerhead Shrikes would be to adopt a natural landscaping methodology.

Red-Shouldered Hawk: this is a Special Concern species in MN; it nests within the floodplain forests along the Mississippi and Vermillion River bottoms. There should be no impacts to this species as no nesting sites known to occur within the area of the project and no modifications to floodplain habitat are supposed to occur in the project. There have been observations of migrating hawks within proximity to the project, but they are highly mobile and should actively avoid the project site.

Cerulean Warbler: this is a Special Concern species in MN; it nests within the floodplain forests along the Mississippi and Vermillion River bottoms. There should be no impacts to this species as no nesting sites known to occur near to the project area and no modifications to floodplain habitat are supposed to occur.

Thanks.

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PIIC Dept. Land and Environment
5636 Sturgeon Lake Road
Welch, MN 55089
Office: (651) 385-4141
Cell: (651) 260-5383

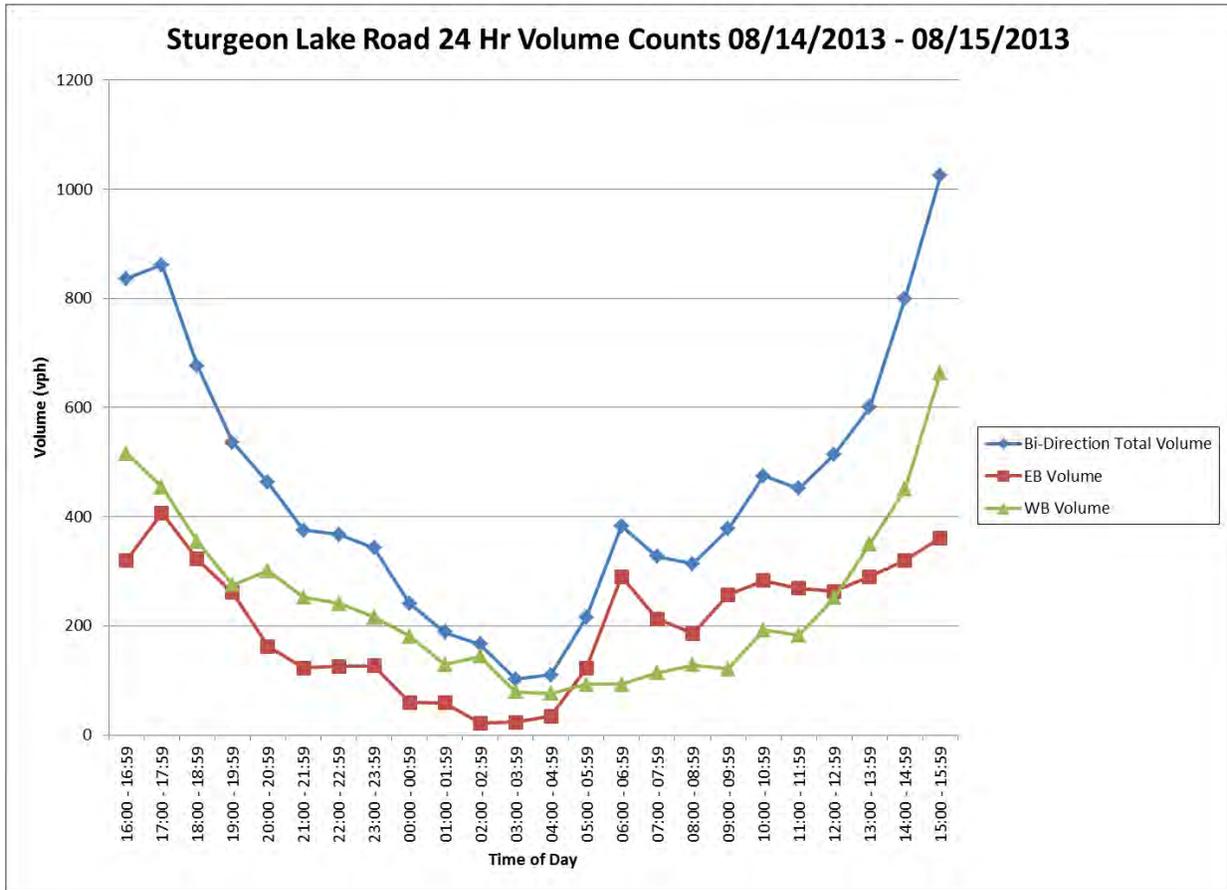
APPENDIX C

Traffic Volume Count Data for 24-Hour Noise Measurement



Figure A1: EB Road Tube Location

Traffic Volume Count Data for 24-Hour Noise Measurement				
August 14, 2013, 6:00 pm through August 15, 2013, 6:00 PM				
Date / Time:	EB	WB	Total	Time
08/14/2013 16:00 - 16:59	320	516	836	16:00 - 16:59
08/14/2013 17:00 - 17:59	407	454	861	17:00 - 17:59
08/14/2013 18:00 - 18:59	322	355	677	18:00 - 18:59
08/14/2013 19:00 - 19:59	261	275	536	19:00 - 19:59
08/14/2013 20:00 - 20:59	162	301	463	20:00 - 20:59
08/14/2013 21:00 - 21:59	123	252	375	21:00 - 21:59
08/14/2013 22:00 - 22:59	126	241	367	22:00 - 22:59
08/14/2013 23:00 - 23:59	127	216	343	23:00 - 23:59
08/15/2013 00:00 - 00:59	60	181	241	00:00 - 00:59
08/15/2013 01:00 - 01:59	59	129	188	01:00 - 01:59
08/15/2013 02:00 - 02:59	22	144	166	02:00 - 02:59
08/15/2013 03:00 - 03:59	23	79	102	03:00 - 03:59
08/15/2013 04:00 - 04:59	34	76	110	04:00 - 04:59
08/15/2013 05:00 - 05:59	122	93	215	05:00 - 05:59
08/15/2013 06:00 - 06:59	290	93	383	06:00 - 06:59
08/15/2013 07:00 - 07:59	213	114	327	07:00 - 07:59
08/15/2013 08:00 - 08:59	186	128	314	08:00 - 08:59
08/15/2013 09:00 - 09:59	257	121	378	09:00 - 09:59
08/15/2013 10:00 - 10:59	283	192	475	10:00 - 10:59
08/15/2013 11:00 - 11:59	269	183	452	11:00 - 11:59
08/15/2013 12:00 - 12:59	263	251	514	12:00 - 12:59
08/15/2013 13:00 - 13:59	290	350	600	13:00 - 13:59
08/15/2013 14:00 - 14:59	320	450	800	14:00 - 14:59
08/15/2013 15:00 - 15:59	361	664	1025	15:00 - 15:59



FIELD NOISE MEASUREMENT DATA

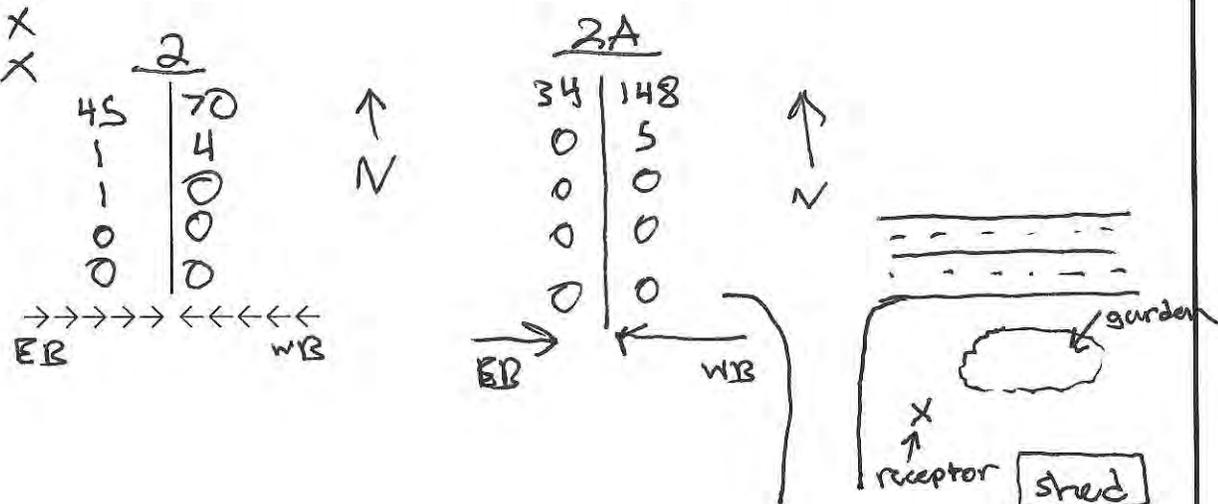
Project Name: Sturgeon Lake Road Page 1 of 2
 Project #: _____ Day / Date: wednesday 8/20/13 My Name: Justin Brican

<u>Sound Level Meter</u>	<u>Calibrator</u>	<u>Weather Meter</u>
Model # <u>LXT1</u>	Model # <u>Cal 200</u>	Model # <u>3500</u> Serial # <u>N14821</u>
Serial # <u>0003364</u>	Serial # <u>10332</u>	
Weighting: <u>A</u> / C / Flat	Pre-Test: <u>-0.7</u> dBA SPL	Terrain: Hard / <u>Soft</u> / Mixed
Response: Slow / <u>Fast</u> / Impl	Post-Test: <u>0.5</u> dBA SPL	Topo: <u>Flat</u> / Hilly (describe)
Windscreen: <u>Yes</u> / No		Wind: <u>Steady</u> / Gusty

ID	Time Start	Time Stop	Leq	Lmin	Lmax	L10	L50	L90	Wind Spd/Dir (mph)	Temp (°F)	RH (%)	Bar Psr (in Hg)	Cloud Cover (%)
<u>2</u>	<u>2:00</u>	<u>2:30</u>	<u>56.4</u>	<u>43.2</u>	<u>70.9</u>	<u>60.3</u>	<u>50.6</u>	<u>46.4</u>	<u>3.0 NE</u>	<u>90.0</u>	<u>70</u>		<u>95</u>
<u>2A</u>	<u>3:45</u>	<u>4:00</u>	<u>60.5</u>	<u>49.4</u>	<u>72.8</u>	<u>63.3</u>	<u>59.4</u>	<u>53.5</u>	<u>3.0 NE</u>	<u>90.0</u>	<u>57</u>		<u>100</u>

Roadway Name Sturgeon Lake Road Location(s) / GPS Reading(s):
 Speed (post/obs) (30,) 44.637734 -92.638088
 Number of Lanes 2
 Width (pave/row)

- 1- or 2- way
- Grade 0%
- Bus Stops X
- Stoplights X
- Street Parking X
- Automobiles
- Medium Trucks
- Heavy Trucks
- Buses
- Motorcycles



Other Noise Sources: distant: aircraft / roadway traffic / trains / landscaping / rustling leaves / children playing / dogs barking / birds vocalizing

Notes and Sketches on Reverse

FIELD NOISE MEASUREMENT DATA

Project Name: Sturgeon Lake Road Page 2 of 2
 Project #: _____ Day / Date: wednesday 8/20/13 My Name: Justin/Brian

<u>Sound Level Meter</u>	<u>Calibrator</u>	<u>Weather Meter</u>
Model # <u>LXT1</u>	Model # <u>Cal 200</u>	Model # <u>3500</u> Serial # <u>N14821</u>
Serial # <u>0003364</u>	Serial # <u>10332</u>	
Weighting: <u>A</u> / C / Flat	Pre-Test: <u>-0.7</u> dBA SPL	Terrain: Hard / <u>Soft</u> / Mixed
Response: Slow / <u>Fast</u> / Impl	Post-Test: <u>0.5</u> dBA SPL	Topo: <u>Flat</u> / Hilly (describe)
Windscreen: <u>Yes</u> / No		Wind: <u>Steady</u> / Gusty

ID	Time Start	Time Stop	Leq	Lmin	Lmax	L10	L50	L90	Wind Spd/Dir (mph)	Temp (°F)	RH (%)	Bar Psr (in Hg)	Cloud Cover (%)
4	3:00	3:30	59.4	44.1	75.9	61.8	58.1	53.8	1.5 NE	90	57		90

Roadway Name Sturgeon Lake Road Location(s) / GPS Reading(s): 44.631634 -92.656734

Speed (post/obs) (45,)

Number of Lanes 2

Width (pave/row) _____

1- or 2- way

Grade 0%

Bus Stops 0

Stoplights 00

Street Parking 0

Automobiles	191	399
Medium Trucks	5	3
Heavy Trucks	2	1
Buses	00	0
Motorcycles	0	0

→→→→→ ←←←←←
 EB WB

The sketch shows a rectangular 'House' to the left of an irregular 'tree line'. A north arrow points upwards. Below the house, another north arrow points upwards. To the right of the tree line, an 'X' is labeled 'receptor'. Further right, a road is depicted with dashed lines and a north arrow pointing upwards. A fence line with 'X' markers runs diagonally across the right side of the sketch.

Other Noise Sources: distant: aircraft / roadway traffic / trains / landscaping / rustling leaves / children playing / dogs barking / birds vocalizing
 Notes and Sketches on Reverse