

APPENDIX A: Summary of Project Impacts and Mitigation Commitments:

Social, Economic, or Environmental Impact	Potential Impacts, Commitments, and Mitigation Measures
Geology and Soils	<p>Impact: Soil disturbance during construction.</p> <p>Mitigation: A Stormwater Pollution Prevention Plan (SWPPP) will be developed for this project. All areas disturbed during construction will be stabilized in accordance with the SWPPP and related permitting requirements. In areas with steep slopes, special consideration will be given to prevent erosion during construction, such as erosion control blankets and soil reinforcement.</p>
Water Resources	<p>Impact: There are seven wells located within the study area</p> <p>Mitigation: Known and unknown wells will be sealed in accordance with MDH regulations or Wisconsin Administrative Code NR 812.26.</p>
Water Resources	<p>Impact: A net increase of impervious surface within the study area will lead to additional stormwater runoff.</p> <p>Mitigation: Implementation of a permanent stormwater management system that meets the standards of the MPCA, WiDNR, and local MS4 requirements in Minnesota.</p>
Water Resources	<p>Impact: Disturbance of existing paved and vegetated areas will result in the exposure of underlying soils to precipitation and runoff.</p> <p>Mitigation: Temporary erosion and sediment control measures will be implemented throughout construction activities to mitigate potential effects to aquatic resources. An NPDES Construction Storm Water Permit in Minnesota and a WPDES Transportation Construction General Permit in Wisconsin will be obtained for this project. This permit requires the development of a project SWPPP, which includes directives for both the construction stage pollution prevention measures and temporary and permanent sediment and erosion control. Capped remediation sites will be managed in such a way that infiltration during construction is kept to a minimum and caps will be restored where necessary by the completion of construction. All efforts to avoid BMP placement within wetlands will be explored; if not possible, a function and values assessment of wetland will be conducted.</p>
Water Resources	<p>Impact: Construction dewatering is anticipated to be necessary, some of which may be contaminated.</p> <p>Mitigation: Dewatering BMPs will be identified in the SWPPP, and a project dewatering plan will be attached to the construction documents; a Special Discharge Approval Permits will be obtained during construction to utilize City of Duluth and City of Superior treatment plants to treat contaminated groundwater, and pretreatment will be required onsite or nearsite to reduce solids; if wastewater discharge exceeds municipal systems, an on-site treatment system will be developed.</p>
Water Resources	<p>Impact: Between 2.2 and 2.4 acres of permanent wetland impact is anticipated to result from the project.</p> <p>Mitigation: As engineering advances, wetland impacts will be minimized to the greatest extent possible. Replacement of lost wetlands will be in accordance with Section 404 of the Clean Water Act, Executive Order 11990: Protection of Wetlands, and all state wetland protection regulations; compensatory mitigation will be achieved through the withdrawal of wetland credits.</p>
Water Resources	<p>Impact: Between 6.3 and 7.4 acres of temporary wetland impact is anticipated to result from the project.</p> <p>Mitigation: All temporary wetland impact locations to be restored to pre-construction contours and pre-construction soil conditions, which includes the alleviations of any soil compaction that occurs during construction; vegetation within the wetlands will also be restored to pre-construction conditions as feasible using appropriate native seed mixes.</p>
Water Resources	<p>Impact: A total of 0.4 acres of permanent surface water impact is anticipated to result from the project.</p> <p>Mitigation: Mitigation requirements will be further defined as engineering advances and impacts can be more accurately quantified and disclosed in the required aquatic resource permit applications.</p>
Water Resources	<p>Impact: Between 3.9 and 5.0 acres of temporary surface water impact is anticipated to result from construction of a temporary causeway.</p> <p>Mitigation: Prior to construction, a detailed survey will be conducted to confirm existing topography within wetlands and watercourses. On construction completion, the temporary fill for the causeway will be removed to pre-construction contours as feasible. Any placement of fill for causeway will receive required state and federal approvals in advance of construction. The shoreline will be stabilized and restored prior to the completion of the project. In-water pollution prevention measures will be established as part of the project SWPPP. The St. Louis Bay will be identified as an 'Area of Environmental Sensitivity on the construction plans.</p>

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Contamination/Hazardous Materials/Wastes	<p>Impact: The project is anticipated to impact at least one land-based contaminated property with a high probability for petroleum and non-petroleum-based contaminated properties to have an impact on future right-of-way acquisition and construction activities.</p> <p>Mitigation: To understand more about the contaminated property risks to the project, early-stage Phase II Environmental Site Assessment (ESA) investigations are currently in progress and anticipated to be complete in 2024. Drilling work plans are currently being completed for investigations of the soil and groundwater to establish the presence of and the magnitude of chemical impacts to the environment. Impacts from identified contaminated properties will be mitigated by modifying the project design where warranted and/or avoid encountering contaminated materials during construction. If contaminated materials cannot be avoided, a Response Action Plan (RAP) and materials handling plan with special provisions will be developed to properly handle and treat any contaminated materials encountered during project construction in accordance with applicable regulations.</p>
Contamination/Hazardous Materials/Wastes	<p>Impact: Unknown contamination may be encountered during construction of the project.</p> <p>Mitigation: A Construction Contingency Plan (CCP) and emergency response procedures will be written and incorporated within the RAP and construction special provisions. These documents will discuss how to handle unknown conditions that are encountered.</p>
Contamination/Hazardous Materials/Wastes	<p>Impact: Demolition and construction activities associated with the project will generate construction-related waste materials such as wood, packaging, excess materials, and other wastes.</p> <p>Mitigation: All wastes generated by construction of the proposed project will be recycled or disposed of properly in accordance with applicable regulations. Additionally, wastes that require temporary stockpiling will be managed in a way that prevents any release to the environment in accordance with respective state requirements.</p>
Fish, Wildlife, Plant Communities, and Sensitive Ecological Resources (Rare Features)	<p>Impact: Numerous aquatic invasive species occur in the St. Louis Bay. Invasive species can be moved on construction equipment, landscaping equipment, and other debris.</p> <p>Mitigation: Best management practices to prevent the introduction and spread of invasive terrestrial or aquatic species will be implemented, such as boat, gear, and equipment decontamination and disinfections.</p>
Fish, Wildlife, Plant Communities, and Sensitive Ecological Resources (Rare Features)	<p>Impact: The project may result in a taking of the Wisconsin-threatened plant Seaside Crowfoot.</p> <p>Mitigation: Staging locations and access roads will be located to minimize or avoid takings of this species as is practicable. Any anticipated species “take” will be coordinated with the Wisconsin Department of Natural Resources.</p>
Fish, Wildlife, Plant Communities, and Sensitive Ecological Resources (Rare Features)	<p>Impact: The project will occur during fisheries exclusion dates issued by the MnDNR and the WiDNR and is anticipated to have adverse effects on fisheries during construction.</p> <p>Mitigation: Waivers to work within the exclusion dates will be coordinated with the MnDNR and the WiDNR. Best management practices to avoid potential effects from spills or contamination from project activities will be implemented on site during bridge construction and replacement. These controls include implementing stabilization methods on exposed soils adjacent to wetland and aquatic resources immediately after construction activity has ceased. Revegetation of disturbed soil will include native seed mixes.</p>
Fish, Wildlife, Plant Communities, and Sensitive Ecological Resources (Rare Features)	<p>Impact: When untreated stormwater drains from manmade locations such as construction sites, it can carry sediments and/or pollutants that harm aquatic ecosystems and wildlife.</p> <p>Mitigation: During construction, stormwater best management practices will be implemented to prevent impacts to aquatic ecosystems in accordance with the project’s NPDES permit; best management practices to avoid potential effects from spills or contamination from project activities will be implemented on site during bridge construction and replacement.</p>
Fish, Wildlife, Plant Communities, and Sensitive Ecological Resources (Rare Features)	<p>Impact: Approximately seven to eight acres of tree clearing is proposed.</p> <p>Mitigation: Tree clearing will occur during the winter months (November 1 to March 31) to avoid the active or nesting/breeding season of Northern long-eared bats (<i>Myotis septentrionalis</i>) and migratory birds; additional, more restrictive tree clearing timing may be required near active bald eagle nests. Tree removal must not remove documented NLEB roosts, or trees within 0.25 miles of roosts; or documented foraging habitat any time of the year.</p>
Fish, Wildlife, Plant Communities, and Sensitive Ecological Resources (Rare Features)	<p>Impact: Active bald eagle nests may be impacted by construction of the project.</p> <p>Mitigation: Potential effects to bald eagles will be coordinated with the USFWS as design of the project continues. If “take” is unavoidable, a permit will be obtained from the USFWS.</p>

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Fish, Wildlife, Plant Communities, and Sensitive Ecological Resources (Rare Features)	<p>Impact: The proposed bridge will be taller than the current one, which could potentially pose a risk to migrating birds.</p> <p>Mitigation: As design continues, bridge construction activities during the ice-free season will need to be considerate of general aquatic habitat use by waterfowl, loons and grebes, seabirds, and any temporary effects from construction. Once the bridge type is selected, the need for further evaluation of migratory bird impacts will be evaluated.</p>
Fish, Wildlife, Plant Communities, and Sensitive Ecological Resources (Rare Features)	<p>Impacts: Temporary and permanent lighting may effect nearby wildlife.</p> <p>Mitigation: Luminaries on the bridge will be selected, as practicable, to address known ecological concerns for adverse impacts to insects, wildlife, rare plants, and adjacent natural areas. Direct temporary lighting, if used, away from wooded areas during the bat active season (April 1 to Oct 31, inclusive). If installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable.</p>
Fish, Wildlife, Plant Communities, and Sensitive Ecological Resources (Rare Features)	<p>Impacts: There are two Wildlife Management Areas (WMA) located adjacent to the project, Interstate Island WMA and Hearing Island WMA.</p> <p>Mitigation: The project will avoid direct impacts to the artificial nesting islands during bridge construction activities. Evaluations of proposed demolition or construction activities will be completed to identify potential to cause extreme or acute noise to the nearby shorebird nesting colony. Construction activities will be evaluated to determine whether extreme or acute noise production during the breeding season (May 1 – July 30) can be avoided.</p>
Historic Properties	<p>Impacts: Construction of the project may directly or indirectly cause alterations in the character or use of historic properties adjacent to the project, if any such properties are present.</p> <p>Mitigation: MnDOT Cultural Resources Unit, on behalf of FHWA, has drafted a project-specific Programmatic Agreement pursuant to 36 CFR § 800.14 (b)(1)(ii); since the identification and evaluation of historic properties is incomplete due to the un-surveyed area in Wisconsin, the Programmatic Agreement will allow FHWA to defer the final identification and evaluation of historic properties.</p>
Historic Properties	<p>Impacts: Culturally significant findings may be encountered during construction of the project.</p> <p>Mitigation: A discovery plan for the project will be developed in collaboration with the Minnesota Indian Affairs Council (MIAC), the Office of the State Archaeologist (OSA) and the Fond du Lac Band. The plan will similarly develop procedures for discoveries within WI.</p>
Visual	<p>Impacts: The size and scale of the proposed interchange include a substantial increase to the profile of the roadway next to a neighborhood of Superior. Given the mainly residential nature of this neighborhood, its proximity to the interchange, and the proposed increase in the scale of the roadway, the new interchange has the potential to depreciate the visual environment within this neighborhood; therefore, this can be considered an adverse visual impact change.</p> <p>Mitigation: Where appropriate, landscaping will be incorporated into the design of the project, with specific attention to this neighborhood. A Visual Quality Manual will be developed for the project which will include stakeholder input from affected residents.</p>
Air	<p>Impacts: Construction will generate temporary fugitive dust emissions during construction.</p> <p>Mitigation: Dust generated during construction will be minimized through standard dust control measures such as applying water to exposed soils and limiting the extent and duration of exposed soil conditions.</p>
Noise	<p>Impact: During construction, areas adjacent to the project will experience noise from construction equipment.</p> <p>Mitigation: Advanced notice will be distributed prior to any planned abnormally loud construction activities; construction will be limited to daytime hours as much as possible.</p>
Traffic	<p>Impact: The project will require the closure of the Blatnik Bridge for multiple years during construction; this closure will require long-term traffic diversions throughout the Duluth-Superior area.</p> <p>Mitigation: Traffic management planning will be conducted prior to construction which will include detailed analysis of construction related delays, detour routes, and their effect on the public and emergency services; additionally, temporary improvements to mitigate construction traffic pattern changes including traffic signal timing changes and temporary ramp lane changes will be implemented as appropriate and public outreach will continue prior to and throughout construction to provide advance notice of transportation impacts. As design advances, MnDOT will conduct a three-phase Accelerated Bridge Construction process to identify strategies that help speed up construction delivery which will alleviate temporary traffic impacts.</p>

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<p>Section 4(f)</p>	<p>Impact: The project will result in impacts to Rice’s Point Access and the Lake Superior State Water Trail.</p> <p>Mitigation: Coordination with the respective Officials With Jurisdiction has been completed and strategies to minimize adverse impacts to these properties have been identified.</p> <p><i>Rice’s Point Access:</i> Affected land would be restored to its pre-construction condition or to a condition agreed upon through coordination with the DNR. Invasive species management will follow MnDNR best practices. During construction, erosion and sediment control best management practices will be implemented to prevent impacts to aquatic ecosystems. Restoration of disturbed areas will utilize native seed mixes and or native tree/shrub species (revegetation plan).</p> <p><i>Lake Superior State Water Trail:</i> The navigational channel would remain open during construction. Signage would be posted at nearby public water access locations to inform users of the trail of construction activities. Waterway Marker Application Permit will be obtained from the WiDNR for the placement of navigational waterway markers. The additional buoys and no-wake postings would be removed and the water trail recreational functions would be fully restored post construction.</p>
<p>Economic</p>	<p>Impact: Temporary closure of the Blatnik Bridge will result in economic impacts.</p> <p>Mitigation: Temporary economic impacts during construction will be mitigated with the creation of a Traffic Management Plan that will ensure motorists and other travelers are aware of construction timelines and required detours.</p>