

Appendix C - Summary of Mitigation Measures

Resource	Mitigation Measures and Commitments
Land Use and Land Use Planning	<ul style="list-style-type: none"> • Where it is not possible to remain within existing right of way, Federal Highway Administration (FHWA) and Wisconsin Department of Transportation (WisDOT) would compensate property owners in accordance with applicable laws and regulations for land acquired from residences, businesses, utilities, and institutions. • Some land currently used as highway right-of-way may potentially no longer be needed as right of way. WisDOT may declare the land excess right of way and it could be converted to a different land use.
Transportation Service	<ul style="list-style-type: none"> • WisDOT will develop a transportation management plan (TMP) to coordinate and manage traffic impacts associated with construction. The TMP will include coordination with emergency service providers, school districts and other stakeholders to mitigate traffic impacts and maintain access during construction. • WisDOT and FHWA will coordinate with the Wisconsin and Southern Railroad and the Canadian Pacific Railway to minimize interruptions to rail service at rail crossings along the study corridor. • WisDOT will coordinate with Madison Metro Transit to minimize impacts to transit services and with municipalities along the study corridor to minimize impacts to pedestrian and bicycle travel during construction. • During final design, and as required, WisDOT will complete an Obstruction Evaluation and complete coordination with Federal Aviation Administration for potential operations interference at the Dane County Regional Airport, the Portage Municipal Airport and the Baraboo-Dells Flight Center. • During final design, WisDOT will coordinate with local county and municipal staff to determine bicycle and pedestrian accommodations and appropriate cost-sharing agreements. • During final design, WisDOT will coordinate with the National Park Service to confirm Ice Age Trail detour routes during construction. • Prior to the start of construction, WisDOT will post detour signage for Ice Age Trail users.
Residential Development	<ul style="list-style-type: none"> • Any property acquisition will be in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, 42 U.S.C. 4601-4655. • Before initiating property acquisition activities, WisDOT will contact property owners and give them a detailed explanation of the acquisition process and Wisconsin's Eminent Domain Law set forth in Wis. Stat. Section 32.05. Any property acquired will be inspected by one or more professional appraisers. The affected property owner will be invited to accompany the appraiser during the inspection to ensure that the appraiser is informed of every aspect of the property. Affected property owners will be given the opportunity to obtain an appraisal by a qualified appraiser that would be considered by WisDOT in establishing just compensation. Based on the appraisals, the value of the property will be determined, and that amount offered to the owner. In the event agreement on fair market value cannot be reached, the owner will be advised of the appropriate appeal procedure.

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Resource	Mitigation Measures and Commitments
Residential Development <i>(continued)</i>	<ul style="list-style-type: none"> • Available data indicate that there are no age, ethnic, handicapped or minority characteristics that would require special relocation consideration for any displacement. If unusual circumstances were to arise during the relocation, WisDOT real estate personnel would be available to provide appropriate services and accommodate any special relocation or services. • Any septic tanks, drain fields or wells on acquired properties would be abandoned in accordance with federal, state regulations and local zoning standards. WisDOT will survey all buildings to be demolished to determine whether asbestos or lead paint is present. All appropriate and applicable engineering and regulatory controls will be followed during the handling and disposal of asbestos-containing material and lead-based paint. • Before a contractor demolishes a building that may contain or is known to contain asbestos, the contractor will notify the Wisconsin Department of Natural Resources (WDNR) and the Wisconsin Department of Health and Family Services at least 10 working days before starting the work, using WDNR Form 48500-113: "Notification of Demolition and/or Renovation and Application for Permit Exemption." • During final design, WisDOT will continue coordination with the impacted property owners within the regulatory floodplain to determine acquisition or other mitigation measures such as floodproofing structures. • WisDOT will mitigate impacts of flood elevation rises under the 2D model through the buying of easements to the limits of allowable under Wis. Stat. s. 86.255. • Prior to building demolition, WisDOT will also inspect buildings for presence migratory bird nests and threatened and endangered bat species. If species are present, WisDOT will coordinate with WDNR and USFWS, as needed, to implement avoidance, minimization and mitigation measures.
Commercial and Industrial Development	<ul style="list-style-type: none"> • Where it was not possible to avoid properties, commercial and industrial acquisitions and relocations will be performed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended. • In addition to providing just compensation for property acquired, additional benefits are available to eligible displaced businesses, including relocation advisory services, reimbursement of moving expenses and down-payment assistance. As required by the Uniform Act and Wisconsin's Eminent Domain Law, no business will be displaced unless a comparable business location is available, or when a comparable location is not available, other compensation is provided. Compensation will be made available to all displaced businesses without discrimination. • Before initiating property acquisition activities, WisDOT will contact property owners and give a detailed explanation of the acquisition process and Wisconsin's Eminent Domain Law set forth in Wis. Stat. 32.05. Any property acquired will be inspected by one or more professional appraisers. The property owner will be invited to accompany the appraiser during the inspection to ensure that the appraiser is informed of every aspect of the property. Property owners will be given the opportunity to obtain their own appraisal, by a qualified appraiser, which will be considered by WisDOT in establishing just compensation. Based on the appraisal(s), the value of the property will be determined and that amount offered to the owner. <p data-bbox="411 1344 642 1372"><i>(continued next page)</i></p>

Resource	Mitigation Measures and Commitments
Commercial and Industrial Development <i>(continued)</i>	<ul style="list-style-type: none"> • Available data indicate that there are no age, ethnic, handicapped or minority characteristics that would require special relocation consideration for any business displacement. If unusual circumstances were to arise during the business relocation, WisDOT real estate personnel would be available to provide appropriate services and accommodate any special relocation or services. • Any septic tanks, drain fields or wells on acquired properties would be abandoned in accordance with federal, state regulations and local zoning standards. WisDOT will survey all buildings to be demolished to determine whether asbestos or lead paint is present. All appropriate and applicable engineering and regulatory controls will be followed during the handling and disposal of asbestos-containing material and lead-based paint. • Before a contractor demolishes a building that may contain or is known to contain asbestos, the contractor must notify WDNR and the Wisconsin Department of Health and Family Services at least 10 working days before starting the work, using WDNR Form 48500-113: “Notification of Demolition and/or Renovation and Application for Permit Exemption.” • During final design, WisDOT will continue coordination with impacted property owners within the regulatory floodplain to determine acquisition or other mitigation measures such as floodproofing structures. • WisDOT will mitigate impacts of flood elevation rises under the 2D model through the buying of easements to the limits of allowable under Wis. Stat. s. 86.255. • Prior to building demolition, WisDOT will also inspect buildings for presence migratory bird nests and threatened and endangered bat species. If species are present, WisDOT will coordinate with WDNR and USFWS, as needed, to implement avoidance, minimization and mitigation measures.
Institutional and Public Services	<ul style="list-style-type: none"> • WisDOT will continue coordination with USFWS to finalize measures to mitigate changes in the 100-year water surface elevation at Baraboo River Waterfowl Production Area field office. WisDOT will also continue coordination with WDNR to finalize measures to mitigate changes in the 100-year water surface elevation at the Pine Island State Wildlife Area. • WisDOT, in coordination with USFWS and WDNR may determine impacted buildings could be moved, protected with earth berms or raised to avoid flood impacts. WisDOT will continue coordinating with Dane County if it’s maintenance building can be relocated on site. • WisDOT will fairly compensate institutions for land acquired or for buildings moved or raised. If Dane County, USFWS and WDNR buildings are relocated as mitigation, WisDOT will coordinate with each agency to select a site that serves Dane County, USFWS and WDNR operations functions. • To mitigate temporary construction impacts in USFWS and WDNR properties, WisDOT will restore disturbed areas to a condition which is at least as good as that which existed prior to construction. In consultation with UWFWS and WDNR, WisDOT will restore habitat with seed mixes and vegetation that USFWS and WDNR specify. • WisDOT will coordinate with USFWS to support the agency’s Compatibility Determination for work in the Baraboo River Waterfowl Production Area. • WisDOT is developing a traffic management plan, which will include coordination with emergency service providers, school districts and other stakeholders to mitigate traffic impacts and maintain access during construction.

Resource	Mitigation Measures and Commitments
Agricultural Resources	<ul style="list-style-type: none"> • During final design, WisDOT will evaluate measures to further minimize unavoidable impacts to farmlands. • During final design, WisDOT will determine if acquired properties have a farmland preservation agreement and will notify the Bureau of Land and Water Resources in the Department of Agriculture Trade and Consumer Protection (DATCP) to determine if a release is needed. • In the year preceding construction, WisDOT will coordinate with DATCP to resolve matters involving farmland preservation agreements. If design compels the release of land from an effective farmland preservation agreement and requires a landowner to pay a conversion fee under Wis. Stat. Section 91.66(1)(c), WisDOT will compensate the landowner for the release. WisDOT, in coordination with Farm Service Agency (FSA), DATCP and impacted agricultural landowners to identify portions of property enrolled in active CRP and CREP agreements. In the year preceding construction, WisDOT will coordinate with DATCP to determine if CREP easements with expired federal contracts would be impacted by the project. • WisDOT, in coordination with the local FSA and DATCP, will work with agricultural landowners, holding Conservation Reserve Program or Conservation Reserve Enhancement Program contracts, to remove those portions of impacted land from contract, at no cost to the landowner. Post-construction, WisDOT will revegetate lands removed from a conservation program, that are still privately held and are otherwise eligible to re-enroll in a conservation program. • WisDOT will continue coordination with the Natural Resources Conservation Service to avoid acquisition of private properties in the Wetland Reserve Program. • As required by Wis. Stat. s. 88.67(3), WisDOT will also follow up with local county drainage districts during final design to keep them informed and consult on issues of concern, determine where drainage tiles might be located and determine design and construction measures to maintain drainage patterns. • WisDOT will also continue coordination with the impacted property owners within the regulatory floodplain to determine acquisition relocating or elevating structures outside the 100-year flood elevation, floodproofing structures or purchasing a flood easement. • At the conclusion of the Final EIS, WisDOT will provide the Sauk County Land Conservation Department with project route information impacting the Fairfield AEA. • As part of its right of way acquisition process, WisDOT will work with the affected farm owner to locate new access point(s) to the remnant western parcel at the proposed Milwaukee Street Interchange. Prior to construction, WisDOT will provide agricultural operations at least 30 days' notice prior to loss of access, when the loss would occur and duration. Should access be lost, WisDOT will fulfill its responsibilities under Wis. Stat. Section 86.05 to provide a suitable new entrance. • In accordance with Wis. Stat. 88.87, WisDOT will build adequate ditches, culverts and other facilities to prevent obstruction of drainage, protect property owners from damage to lands caused by unreasonable diversion or retention of surface water and maintain, as nearly as possible, the original drainage flow patterns to ensure stormwater and drainage impacts are mitigated on the remnant fields to build adequate ditches, culverts, and other facilities to prevent obstruction of drainage, protect property owners from damage to lands caused by unreasonable diversion or retention of surface water, and maintain, as nearly as possible, the original drainage flow patterns to ensure stormwater and drainage impacts are mitigated on the remnant fields.

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Resource	Mitigation Measures and Commitments
Agricultural Resources <i>(continued)</i>	<ul style="list-style-type: none"> • WisDOT will adhere to its stormwater management standards, which are governed by Wis. Admin. Code Trans 401 Construction Site Erosion Control and Storm Water Management Procedures for Department Actions. • During construction, WisDOT will oversee communication with agricultural landowners and coordinate with construction contractors to keep landowners informed of construction activities and minimize impacts to agriculture operations, including potential damage to drainage tiles.
Utilities	<ul style="list-style-type: none"> • During final design, WisDOT and FHWA will continue coordinating with utilities, municipalities and other service providers to avoid or minimize utility impacts and service interruptions during construction. • WisDOT will coordinate with AT&T to identify measures that avoid and minimize the impact of the increased 100-year flood elevation and may include floodproofing the structure onsite.
Socioeconomics	<ul style="list-style-type: none"> • WisDOT will continue to coordinate with communities during future design phases.
Environmental Justice	<p data-bbox="411 643 722 670">Acquisitions and Relocations</p> <ul style="list-style-type: none"> • The mitigation of residential and business relocations and strip acquisitions will address impacts to the general population and environmental justice populations. Any property acquisition would be in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, 42 U.S.C. 4601-4655 (Uniform Act). • During final design, WisDOT will continue coordination with the affected property owners within the regulatory floodplain to determine acquisition or other mitigation measures such as floodproofing structures. WisDOT will mitigate impacts of flood elevation rises outside the regulatory floodplain through the buying of easements to the limits of allowable under Wis. Stat. s. 86.255. <p data-bbox="411 894 474 922">Noise</p> <ul style="list-style-type: none"> • WisDOT and FHWA determined noise barriers were the most feasible and reasonable method to mitigate traffic noise impacts for the general population and environmental justice populations along the study corridor. • WisDOT found that 12 noise barriers are feasible and reasonable. Feasible and reasonable noise barriers are all located in areas containing minority and/or low-income populations in the Madison area and along I-90/94 between WIS 12 and WIS 23 in Sauk County. Error! Reference source not found. Between US 12/18 and I-94/WIS 30 interchanges, existing noise barrier E1 was analyzed and found to be feasible and reasonable as built. Existing noise barrier E2, also in the south section, would be replaced in-kind. • While both the general population and environmental justice populations would be impacted by traffic noise, mitigation with feasible and reasonable noise barriers benefits both environmental justice populations and the general population. If a simple majority of benefited receptors vote in favor of a feasible and reasonable noise barrier, it will be constructed. <p data-bbox="411 1292 642 1320"><i>(continued next page)</i></p>

Resource	Mitigation Measures and Commitments
Environmental Justice (continued)	<p data-bbox="411 250 615 277">Greenhouse Gases</p> <ul data-bbox="411 293 1913 553" style="list-style-type: none"> <li data-bbox="411 293 1913 386">• The air quality mitigation measures noted below help to reduce GHG emissions. These collective measures would reduce or offset GHG emissions from study corridor construction and benefit all populations, including environmental justice populations, living along the study corridor. <li data-bbox="411 402 1913 553">• Mitigation measures have been identified to minimize construction impacts, including air quality impacts, on environmental justice populations. Prior to construction, WisDOT would develop a plan to establish construction phases, estimated durations, appropriate sequencing, mitigation commitments, and community outreach and communication commitments. WisDOT would continue its public outreach inclusive of minority and low-income populations. Access to and from I-39/90/94 during construction would be maintained to the extent possible, or alternative access would be provided. <p data-bbox="411 570 552 597">Construction</p> <ul data-bbox="411 613 1913 943" style="list-style-type: none"> <li data-bbox="411 613 1913 706">• Prior to construction, WisDOT would develop a plan to establish construction phases, estimated durations, appropriate sequencing and community outreach and communication commitments. WisDOT would continue its target stakeholder outreach inclusive of minority and low-income populations. <li data-bbox="411 722 1913 873">• Construction employment provides opportunities for local business enrolled in WisDOT’s Disadvantaged Business Enterprise (DBE) program. WisDOT has a robust DBE program as evidenced by prior years of participation. Depending on the type of project, WisDOT anticipates the DBE goals to range between 6 percent and 12 percent. The DBE opportunities are tailored to each individual project. If a DBE opportunity does not exist in the individual project, then the DBE goal could be reduced due to lack of opportunities. WisDOT will work collectively with industry to make sure all opportunities are advertised and available. <li data-bbox="411 889 1913 943">• WisDOT will develop a TMP to coordinate and manage impacts. TMP strategies include public information and outreach; staging sequential overpass, underpass and interchange closures to minimize indirection.
Visual Character	<ul data-bbox="411 964 1913 1317" style="list-style-type: none"> <li data-bbox="411 964 1913 992">• During final design, WisDOT will continue design refinements to minimize encroachment impacts on the surrounding viewshed. <li data-bbox="411 1008 1913 1068">• The color of replacement girders on the bridge over Mirror Lake would closely mimic the existing bridge color. During final design, WisDOT will coordinate with WDNR on bridge aesthetics that are compatible with the Mirror Lake State Park aesthetic. <li data-bbox="411 1084 1913 1177">• As part of vegetative restoration of temporarily disturbed areas, WisDOT will follow guidance developed in its Facilities Development Manual (FDM) Chapter 27, Planting and Aesthetic Design, which emphasizes a vegetation management system to foster sustainable, ecologically sound and visually pleasing roadside vegetation in a cost-effective manner. <li data-bbox="411 1193 1913 1253">• During final design, WisDOT would conduct a public involvement process and coordinate with affected property owners to select a design from available options for feasible and reasonable barriers. <li data-bbox="411 1269 1913 1317">• During construction, WisDOT will direct the construction contractor to limit tree removal to the median and avoid clearing vegetation outside existing pavement to the greatest extent practicable.

Resource	Mitigation Measures and Commitments
Surface Water	<ul style="list-style-type: none"> • To minimize potential adverse impacts and support TMDL water quality targets, WisDOT will implement stormwater management best practices for the build alternatives. The WisDOT/WDNR Cooperative Agreement contains a Memorandum of Understanding (MOU) regarding stormwater discharge into waters of the state. The MOU requires WisDOT to implement a stormwater management program for its projects that is consistent with Section 402(p) of the Clean Water Act, Chapter 283 Wis. Stat., and Chapter NR 216 Wis. Admin. Code. WisDOT will also conform to TS4 permit requirements. <p>Wis. Admin. Code Chapter NR 151 establishes runoff pollution performance standards for transportation facilities. As it applies to this study, the rule for redevelopment requires removal of 40% of total suspended solids compared to no runoff management controls. The rule for new development, including new interchanges at Hoepker Road and Milwaukee Street, requires removal of 80% of total suspended solids compared to no runoff management controls. WisDOT will incorporate compliance with these rules into final design to the maximum extent practicable.</p> <ul style="list-style-type: none"> • WisDOT will continue refining stormwater management design during final design. Stormwater treatment measures would be evaluated during final design include the following options: <ul style="list-style-type: none"> ▪ Retention Basins (Wet Detention Basins) — Retention basins that have a permanent pool of water year-round that allows pollutant particles in stormwater runoff to settle over an extended period. Nutrient uptake also occurs through increased biological activity. ▪ Dry Detention Basins — A dry detention basin designed to store runoff and discharge it slowly to reduce the peak discharge downstream. ▪ Infiltration Devices — Infiltration devices such as trenches or grass swales used to slow the flow of water to improve infiltration and increase the removal of pollutants from runoff. ▪ Grass-lined Ditches — Ditches that help reduce suspended solids content in runoff as required under NR 151. ▪ Trapezoidal Swale through Infield — This best management practice combines grass ditch treatment with peak flow reduction and provides the same level of suspended solid control as grass ditches. ▪ Vegetated Rock Filters — Rock filters at outfalls to waterways or anywhere concentrated runoff leaves the right of way. It is conceptually similar to a level spreader, which attempts to reintroduce sheet flow and provides a small amount of peak flow and volume reduction. ▪ Swale Blocks/Ditch Checks — Swale blocks/ditch checks are small earthen berms constructed in the bottom of ditches at regular intervals to detain runoff from frequent storms. They provide peak flow reduction and may provide infiltration benefits depending on soil conditions. ▪ Inline Storage — Storm sewer pipes designed larger than normal to provide storage in the sewer during rain, then the water is gradually released after the rain ends. This method is not desirable from a water quality standpoint but would manage water quantity.

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Resource	Mitigation Measures and Commitments
Surface Water (continued)	<ul style="list-style-type: none"> ▪ Biofiltration Basins — Biofiltration basins are similar to infiltration devices and look like a garden area. They use engineered soil, underdrains, native vegetation and shallow detention to allow flows to be stored on the surface and slowly infiltrate to the subsoils, or in cases of contaminated or poorly drained soils, drain through underdrain to a storm sewer. In narrow or restricted land space areas, stormwater biofiltration systems may be used within ditch areas, between mainline and frontage road lanes, or within ramp areas. ▪ Stormwater Trees — Trees may be used in the study corridor or watershed to reduce runoff. Stormwater trees absorb stormwater during a rainfall event, absorb carbon dioxide, serve as an urban canopy to reduce urban heat zones and reduce erosion. • To avoid and minimize impacts to Mirror Lake and other waterways during construction, WisDOT will implement measures in WisDOT’s Standard Specifications for Highway and Structure Construction. WisDOT will prepare a structure removal and clean-up plan as part of an Erosion Control Implementation Plan. WisDOT will remove existing structures conforming to the department-approved structure removal and clean-up plan. Work will also conform to requirements under a USACE Section 404 Permit. The removal plan will include: <ul style="list-style-type: none"> ▪ Methods and schedule to remove the structure ▪ Methods to control potentially harmful environmental impacts ▪ Methods for removing piers and abutments. If blasting in water, include restrictions that regulatory agencies and the contract require ▪ Methods to control dust and contain slurry ▪ Methods for clearing debris from the waterway or wetland ▪ Location of spoil material stockpiles ▪ Stockpiled materials will be placed on an upland site at an adequate distance from the waterway, wetland or open water created by excavation. WisDOT will also install erosion control measures, including storm water control best management practices, between the spoil pile and the waterway, wetland or excavation site. ▪ In addition to the practices above, the construction contractor will coordinate with WDNR and Mirror Lake staff to consider additional measures such as ongoing instream monitoring during construction to keep the waterway clear of debris.
	<p>Stream Crossings</p>
	<p>The Agreement on Aquatic Connectivity at Road-Stream Crossings (ACONN) is an attachment to the WisDOT/WDNR Cooperative Agreement which formalizes departmental commitments to address aquatic connectivity at road-stream crossings on WisDOT administered transportation activities. WisDOT would evaluate the road-stream crossings, with consideration for the recommended ACONN accommodations provided by WDNR, to determine the appropriate structure type, geometry and placement. Such measures could include setting culvert bottoms 1 foot below the existing surveyed stream bed elevation. In coordination with WDNR, WisDOT will evaluate opportunities to provide a forced low flow cell in a multi-cell culvert, which avoids blockage and resulting ponding associated with wide openings and maintains a channel during low flow conditions.</p>
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Resource	Mitigation Measures and Commitments
Surface Water <i>(continued)</i>	<ul style="list-style-type: none"> • WisDOT is currently evaluating the need for stream mitigation with USACE and WDNR, during which the need for additional mitigation measures may be identified. These measures may include reconstructing streams with trapezoidal bottoms to improve drainage and slow water flow, allowing sediment settling. Another measure may involve revegetating disturbed stream beds and banks with salvaged topsoil to maintain the hydric qualities of the original soils. • The USACE has responsibility for determining compensatory mitigation required to offset unavoidable losses of aquatic resource functions. WisDOT will coordinate with the USACE and provide additional stream features worksheets as needed to determine the stream impact severity. WisDOT will continue coordination with USACE regarding jurisdiction of water bodies through a formal jurisdictional determination during design and permitting. WisDOT will continue coordination with the USACE and WDNR regarding stream relocation, enhancement and restoration during final design. • During final design, WisDOT will coordinate with WDNR and USACE to identify locations and measures for stream mitigation. Required compensatory mitigation would occur according WisDOT Wetland Mitigation Banking Technical Guideline. • WisDOT will coordinate with WDNR during design to evaluate opportunities for improved access under the Interstate for canoeists and other users of the Yahara River.
Wetlands	<p>Presidential Executive Order 11990, Protection of Wetlands, requires federal agencies to avoid, to the extent practicable, long- and short-term adverse impacts associated with the destruction or modification of wetlands. More specifically, the order directs federal agencies to avoid new construction in wetlands unless there is no practicable alternative. The order states that where wetlands cannot be avoided, the proposed action must include all practicable measures to minimize harm to wetlands.</p> <p>The Clean Water Act's Section 404(b)1 Guidelines for Specification of Disposal Sites for Dredged or Fill Material (40 CFR Part 230) are administered by U.S. Environmental Protection Agency (USEPA) and USACE. The guidelines state that dredged or fill material should not be discharged into aquatic ecosystems (including wetlands), unless it can be demonstrated that there are no practicable alternatives to such discharge; that such discharge will not have unacceptable adverse impacts; and that all practicable measures to mitigate adverse effects are undertaken.</p> <p>Avoid and Minimize Wetland Impacts</p> <p>Wetlands are present throughout the study corridor, including in ditches draining the freeway, it is not possible to avoid wetland impacts completely with the build alternatives. WisDOT developed the alternatives to stay within existing right-of-way as much as possible. To the extent practicable, widening for an added general-purpose lane would occur inside the existing Interstate median, primarily between the County CS interchange on I-39/90/94 and the US 12/WIS 16 interchange on I-90/94. While wetlands can and do occur in the right of way, the alternatives limit impacts to wetlands that have historically been affected by roadway construction and operation. WisDOT recommends a partial cloverleaf alternative at the WIS 33 Interchange at I-94 instead of the more familiar diamond configuration to avoid 11.5 acres of wetlands.</p> <p><i>(continued next page)</i></p>

Resource	Mitigation Measures and Commitments
Wetlands (continued)	<p>As design progresses, WisDOT will continue to incorporate measures to avoid and minimize wetland impacts, such as keeping roadway side slopes as steep as practicable; using beam guard; disposing of excavated material on roadway side slopes or in upland areas; using equalizer pipes to maintain wetland hydrology; minimizing sedimentation and siltation into adjacent wetlands by using strict erosion-control measures; and using detention ponds to reduce pollutant loading and protect streams from sedimentation.</p> <p>Wetland Compensation</p> <p>WisDOT would develop a wetland mitigation plan during future project design phases, in consultation with state and federal agencies. Where there is no practicable alternative to filling wetlands, state and federal regulations require compensatory mitigation. Compensation for unavoidable wetland loss will be carried out in accordance with the Wisconsin Department of Transportation Wetland Mitigation Banking Technical Guideline developed as part of the WisDOT/WDNR Cooperative Agreement on Compensatory Wetland Mitigation and the regulations for compensatory wetland mitigation issued jointly by the Corps of Engineers and USEPA in May 2008 (33 CFR Part 325, 33 CFR Part 332, and 40 CFR Part 230 [April 10, 2008]). Replacement of the same or similar wetland amount and type is an objective, lessening the potential for changing wetland composition in the area.</p> <p>In coordination with WDNR and USACE, WisDOT continues to pursue opportunities for additional wetland mitigation sites close to the study corridor.</p>
Floodplains	<ul style="list-style-type: none"> • WisDOT will continue coordinating with WDNR through final design and prior to construction. • WisDOT will request a formal Conditional Letter of Map Revision from FEMA. After construction, WisDOT will submit plans of the Interstate and interchanges, as built, along with the final flood map and request a Letter of Map Revision from FEMA. • WisDOT will minimize risks associated with unavoidable floodplain impacts to the greatest extent possible. The build alternative includes measures to minimize impacts by widening the Interstate lanes to the inside and steepening side slopes. • During final design, WisDOT will continue coordination with property owners affected by potential flood elevation changes and finalize measures to mitigate property impacts, if needed. Potential flood mitigation measures would include acquisition, relocating or elevating structures outside the 100-year flood elevation, floodproofing structures or purchasing a flood easement. • All floodplain crossings would be constructed in accordance with the WisDOT/WDNR Cooperative Agreement. • Floodplain crossings would be consistent with local floodplain management goals and objectives, which include maintaining the natural and beneficial floodplain values and avoiding alternatives which adversely impact the health, safety and vitality of the community. • WisDOT will design floodplain crossings to avoid and minimize impacts to existing flood profiles on adjacent landowners' properties. • Communities surrounding the study corridor have floodplain management regulations in place to prevent inappropriate development. WisDOT is required to assist municipalities in updating their floodplain insurance rate maps (FIRMs) for the affected area and does so through FEMA, WDNR and the County. WisDOT will provide the results of the analysis, the hydraulic models developed, mapping and other exhibits developed for analysis.

Resource	Mitigation Measures and Commitments
Groundwater and Water Supply	<ul style="list-style-type: none"> • WisDOT would implement stormwater best management practices, which are discussed in Surface Water, above. • WisDOT would take several measures to mitigate the potential for road salt to impact groundwater. WisDOT will relocate the salt storage shed within the I-94/WIS 30 Interchange in compliance with NR 811, which requires salt storage sites to have an impermeable base and cover, as well as a holding basin to contain runoff. These requirements help minimize the impact to groundwater from storage facilities. WisDOT sets guidelines, for contracted local municipalities, conducting salt applications as a means to control application rates. Municipalities are also required to report the type and amount of deicer used for each application.
Threatened and Endangered Species	<p>Build alternatives were designed to stay within the existing right of way as much as possible to minimize impacts on potential threatened and endangered species and their habitats along the study corridor. The project will implement avoidance and minimization measures (AMMs), where applicable. The final commitments for avoidance and mitigation measures will be included in final design plans and specifications.</p> <p>Bats</p> <p>AMMs for northern long-eared bat and tricolored bat will be consistent with the measures described in the FHWA, FRA, FTA Programmatic Biological Opinion (PBO) for Transportation Projects in the Range of the Indiana Bat and Northern Long-eared Bat. Although USFWS has not released conservation measures for tricolored bat at this time, the NLEB AMMs should be protective for the tricolored bat. These AMMs are as follows.</p> <ul style="list-style-type: none"> • General AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. • Lighting AMM 1. Direct temporary lighting away from suitable habitat during the active season. • Lighting AMM 2. When 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 (Backlight, Uplight, and Glare) system developed by the Illuminating Engineering Society the goal is to be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable. • Tree Removal AMM 1. Modify all phases/aspects of the build alternatives (e.g., temporary work areas, alignments) to the extent practicable to avoid tree removal in excess of what is required to implement the build alternatives safely. • Tree Removal AMM 2. Apply time of year restrictions for tree removal (when bats are not likely to be present). Tree cutting avoidance periods will occur during the NLEB breeding/ active season from April 1 through October 31. • Tree Removal AMM 3. Ensure tree removal is limited to that specified in build alternative plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits). <p><i>(continued next page)</i></p>

Resource	Mitigation Measures and Commitments
Threatened and Endangered Species <i>(continued)</i>	<p>Mussels</p> <p>AMMs for the Higgin’s eye, sheepnose, and salamander mussels are as follows:</p> <ul style="list-style-type: none"> • Erosion and sediment control best management practices during construction will be used to minimize impacts per WisDOT, WDNR and Chapter Trans 401 Wis. Admin. Code. Erosion control measures must adhere to the Wisconsin Pollutant Discharge Elimination System Transportation Construction General Permit. • Erosion control strategies that may be used to minimize adverse effects during construction include upslope tracking on all slopes longer than 40 feet, application of soil stabilizer for temporary conditions, erosion mat placement, appropriately sized riprap for steeper slopes, ditches and completion of restoration/revegetation in a timely manner. • If necessary, in-stream or river sediment traps and/or turbidity curtains will be used to control erosion and sedimentation within waterways during construction. Authorization (permits) from the appropriate regulatory authorities will be obtained. • Storing of fuels and fueling of construction equipment will be done in upland areas, away from environmentally sensitive locations. Accidental spills during refueling at construction sites or resulting from accidents involving hazardous material haulers will be handled in accordance with local government response procedures. First response will be through local fire departments and emergency service personnel to ensure public safety and to contain immediate threats to the environment. Depending on the nature and/or size of the spill, WDNR may be notified to provide additional instructions regarding cleanup procedures and restoration of any affected resources. • Install permanent stormwater facilities to treat road runoff according to Wisconsin Administrative Code Chapter NR 151. Under this statute redevelopment projects are required to remove 40% of TSS and the new development at the new interchanges are required to remove 80% of TSS compared to no runoff management controls. <p>Flowering Plants</p> <p>WisDOT will implement the following AMM to address the eastern prairie fringed orchid and prairie bush-clover:</p> <ul style="list-style-type: none"> • Implement best management practices to minimize the spread of invasive species, including the inspection and cleaning of equipment/vehicles for invasive plant materials and seeds before entering suitable habitat areas. <p>Birds</p> <p>AMMs for bird species protected under the MBTA include:</p> <ul style="list-style-type: none"> • Removal of trees which are likely to support active nests will be completed between November 1 and March 31, which avoids the nesting season (April 15 through August 31).
	<i>(continued next page)</i>

Resource	Mitigation Measures and Commitments
Threatened and Endangered Species <i>(continued)</i>	<ul style="list-style-type: none"> As the Project is expected to span four construction seasons, bridge demolition will occur outside of the nesting season, or physical deterrents such as netting may be installed to deter migratory birds from nesting on existing I-39/90/94 bridges. If physical deterrents are determined to not be prudent or reasonable, and/or bridge demolition cannot be completed outside of the nesting season, a migratory bird depredation permit will be obtained as a last resort. USFWS guidance recommends an Incidental Take permit for all construction activities conducted within the breeding season and located within 330 to 660 feet of a bald eagle nest, except for if similar activities have been conducted within 660 feet and eagles are tolerant of past disturbances. The WDNR NHI database indicated one bald eagle nest near the study corridor (within 330 to 660 feet). Construction activity is anticipated to be visible from the nest location and proposed activities will not be able to avoid the entire bald eagle nesting season (December – August). However, the close proximity of the eagle nest to the existing study corridor indicates that the eagles are tolerant of high-traffic interstate disturbances and would likely be tolerant of the proposed disturbances. WisDOT is consulting with USFWS and will determine if an Incidental Take Permit would be required prior to construction. If additional bald eagle nests are identified in the study corridor, WisDOT will notify USFWS and follow “Bald Eagle Management Guidelines and Conservation Measures” located online at https://www.fws.gov/media/national-bald-eagle-management-guidelines.
	<p>Insects</p>
	<ul style="list-style-type: none"> Avoidance and minimization measures (AMMs) will be implemented during all phases of the build alternatives’ development including vegetation management, active construction, and maintenance activities.
	<p><i>Karner Blue Butterfly</i></p>
	<p>AMMs for Karner blue butterfly are as follows:</p>
	<ul style="list-style-type: none"> In final design, areas of suitable habitat within the species’ range will be surveyed for native wild blue lupine using the monitoring protocols outlined in the WDNR’s Karner Blue Butterfly Habitat Conservation Plan User Guide. Surveys will be repeated if they are more than five years old at the time of construction. In final design, areas determined to contain native wild blue lupine at a sufficient density to support Karner blue butterflies will be surveyed for adult Karner blue butterflies following the WDNR monitoring protocols. Surveys will be repeated if they are more than five years old at the time of construction. Where Karner blue butterfly is confirmed to be present, disturbance and vegetation clearing will be minimized to the extent practical. Seed mixes containing a diversity of native flowering plants, including native wild blue lupine, will be used to re-seed existing suitable habitat areas that require re-vegetation/restoration. The use of BMPs during construction and vegetation management activities to prevent the spread of invasive species will help to maintain greater plant diversity along the study corridor.
	<p><i>(continued next page)</i></p>

Resource	Mitigation Measures and Commitments
Threatened and Endangered Species (continued)	<p data-bbox="411 250 695 277"><i>Rusty Patched Bumble Bee</i></p> <p data-bbox="411 293 737 321">AMMs for RPBB are as follows:</p> <ul data-bbox="411 337 1913 829" style="list-style-type: none"> <li data-bbox="411 337 1850 391">• In final design, areas within HPZs may be further evaluated using the Rusty Patched Bumble Bee Habitat: Assessment Form & Guide or another comparable habitat evaluation method to better define habitat quality and/or refine the extent of project impacts. <li data-bbox="411 407 1913 461">• In areas with medium to high quality RPBB suitable habitat within HPZs, temporary and permanent impacts will be minimized to the extent practical. <li data-bbox="411 477 1913 531">• In areas with medium to high quality RPBB nesting and overwintering habitat within HPZs, ground disturbance will be minimized or avoided when RPBB may be present, when practical (i.e., during inactive season in overwintering habitat or during active season in nesting habitat). <li data-bbox="411 547 1913 600">• In areas of medium to high quality RPBB nesting habitat within HPZs, habitat may be made unsuitable for RPBB nesting prior to the start of the active season through stripping of vegetation/topsoil and/or frequently mowing of vegetation, when practical. <li data-bbox="411 617 1913 670">• In areas of medium to high quality RPBB overwintering habitat, hand tools (depending on clearing area size/ location) and felling (cutting but not removing trees) will be utilized for tree clearing when practical for work conducted during the winter. <li data-bbox="411 686 1787 740">• Seed mixes containing a diversity of native flowering plants will be used to re-seed existing suitable habitat areas that require re-vegetation/restoration within HPZs. <li data-bbox="411 756 1913 810">• The use of BMPs during construction and vegetation management activities to prevent the spread of invasive species will help to maintain greater plant diversity along the Project corridor. <p data-bbox="411 829 499 857">Reptiles</p> <p data-bbox="411 873 989 901">AMMs for the eastern massasauga rattlesnake include:</p> <ul data-bbox="411 917 1913 1159" style="list-style-type: none"> <li data-bbox="411 917 1787 971">• Implement best management practices to minimize the spread of invasive species, including the inspection and cleaning of equipment/vehicles for invasive plant materials and seeds before entering eastern massasauga rattlesnake suitable habitat areas. <li data-bbox="411 987 1850 1040">• Re-vegetate areas of suitable habitat with appropriate native species to ensure habitat is restored to condition that is equal to or better than current conditions. <li data-bbox="411 1057 1913 1159">• Install exclusionary silt fence with “J-turns” at silt fence ends adjacent to wetlands and open water areas in suitable habitat to exclude and redirect the rattlesnake from the work area. Exclusionary silt fence will be installed during the rattlesnake’s inactive season (mid-November through early April), prior to emergence from their overwintering habitats. <p data-bbox="411 1208 642 1235"><i>(continued next page)</i></p>

Resource	Mitigation Measures and Commitments
Threatened and Endangered Species <i>(continued)</i>	<ul style="list-style-type: none"> Utilize wildlife safe erosion control products (ex. leno weave). The products will consist of materials that are 100% biodegradable and use a loose weave that allow animals to wiggle free. To minimize wildlife entanglement and plastic debris pollution, temporary erosion and sediment control products that either do not contain netting, or that contain netting manufactured from 100% biodegradable non-plastic materials such as jute, sisal, or coir fiber, will be used. Degradable, photodegradable, UV-degradable, oxo-degradable, or oxo-biodegradable plastic netting (including polypropylene, nylon, polyethylene, and polyester acceptable alternatives and will not be used. All netting materials used will have a wildlife-safe, loose-weave design with movable, non-welded joints between the horizontal and vertical twines, allowing the twines to move independently and thus reducing the potential for wildlife entanglement. Conduct preconstruction sweeps for the rattlesnake prior to vegetation or ground disturbance in suitable habitat areas during its active season (early April to mid-November). Sweeps will be conducted by a qualified and permitted biological monitor. If any eastern massasauga rattlesnakes are encountered, the biological monitor will attempt to capture and relocate them to adjacent suitable habitat outside of the work area. Project personnel will be instructed to report any eastern massasauga rattlesnake observations during construction to the USFWS within 24 hours.
Other Natural Resources/Uplands	<ul style="list-style-type: none"> WisDOT will include design measures such as steepened slopes to further avoid and minimize impacts. Temporary construction impacts will be mitigated by replanting and reseeding disturbed areas with native species, including planting trees and reseeding native grass and flowering plants. Such measures will be determined in coordination with the WDNR during design. WisDOT will coordinate with the Capital Area Regional Planning Commission to adjust Environmental Corridor maps where impacts are unavoidable.
Noise	<ul style="list-style-type: none"> Of 39 new noise barriers analyzed in the study corridor, 12 noise barriers were found feasible and reasonable. Existing noise barrier E1 was analyzed and found to be feasible and reasonable as built and will remain in place. Existing noise barrier E2 is considered a replacement in kind. During the final design phase, as the roadway profiles are more accurately defined relative to the surrounding areas, the location of feasible and reasonable noise mitigation will be reassessed. If final design results in substantial changes in roadway design from the conditions modeled for the Draft EIS, noise abatement measures will be reviewed. Based on the studies thus far accomplished, WisDOT is likely to incorporate the noise barriers shown as feasible and reasonable, pending final design and public involvement. WisDOT will initiate a separate public involvement process to determine whether or not the benefited owners and tenants support noise barrier construction.
Air Quality	<p>WisDOT will follow its Standard Specifications for Highway and Structure Construction (WisDOT 2024). The WisDOT Standard Specifications is updated annually and set forth up-to-date standards of highways and structures, as well as emission control and requirements for construction activities to address pollution reduction/containment measures for the contractors. WisDOT will also implement the following mitigation measures to help reduce GHG emissions, as appropriate to the size and scale of each construction project:</p> <p><i>(continued on next page)</i></p>

Resource	Mitigation Measures and Commitments
Air Quality (continued)	<ul style="list-style-type: none"> • Implement detours and strategic construction timing where feasible to reduce construction delays, including vehicle idling from backups. • Set up active construction zones, staging areas and material transfer sites in a way that reduces standing wait times for equipment. Reducing idling times reduces GHG emissions from passenger cars and construction vehicles. • Work with contractors and subcontractors to reduce idling times. An example would be for contractors and subcontractors to complete and submit idling logs of construction vehicles/equipment every 6 months and monitor by comparing a baseline log at inception of the project. • Communicate with local municipalities and neighborhood groups, including groups focused on serving environmental justice populations, as to the location of staging areas and material transfer sites. Work with the same municipalities and groups to minimize the impacts of staging areas and material transfer sites. • Encourage construction contractors to use ridesharing and other commute trip reduction efforts to reduce GHG emissions from commute vehicles of employees working on the project. <ul style="list-style-type: none"> ▪ WisDOT will evaluate areas in proximity to the jobsite where construction staff and equipment parking could occur, and that results in distribution of GHG emissions. ▪ WisDOT will post signs to encourage construction staff to use public transport or rideshare. • Some anticipated TDM/TSMO measures to be included are freeway monitoring and advisory information, crash investigation sites and law enforcement pads, traffic detectors and enhanced mile-marker posts. • Recycle construction and demolition materials to the extent possible. Asphalt, concrete and rubble are often recycled into aggregate or new asphalt and concrete products. Metals—including steel—are also valuable commodities to recycle. • Use LED bulbs in new lighting installed along the study corridor. LEDs use less electricity than traditional light bulbs, which in turn reduces the amount of fuel being burned to generate electricity. • Plant stormwater trees in the study corridor. Trees absorb stormwater and reduce erosion during a rainfall event; they also absorb CO₂ and serve as an urban canopy to reduce urban heat zones. • Construction of the study corridor will follow WisDOT project site air quality specifications. This includes establishing staging zones for trucks waiting to load and unload; locating staging zones where idling of diesel-powered equipment will have minimal impact on abutting properties and the general public; having trucks queue up in these zones when practicable; and encouraging drivers to shut down diesel trucks as soon as it appears likely they will be queued up for more than 10 minutes. • WisDOT will continue to coordinate with the city of Madison and Madison Metro Transit throughout design and construction to support transit service implementation and avoid and minimize transit service disruption during construction. The additional bicycle and pedestrian facilities that are part of the build alternatives would support alternative transportation choices.

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Resource	Mitigation Measures and Commitments
Air Quality (continued)	<ul style="list-style-type: none"> • Prior to construction, WisDOT will develop a plan to establish construction phases, estimated durations, appropriate sequencing and community outreach and communication commitments. • WisDOT would continue its public outreach inclusive of minority and low-income populations. Access to and from the Interstate during construction would be maintained to the extent possible, or alternative access would be provided. If alternative access is not available, the specific construction activity would be reviewed to determine whether it could occur during non-peak hours. <p>See also Construction Mitigation Measures and Commitments below for additional mitigation measures to reduce construction-related air quality impacts. These collective measures would reduce or offset GHG emissions and other air quality impacts from study corridor construction and benefit all populations, including environmental justice populations, living along the study corridor.</p>
Hazardous Materials	<ul style="list-style-type: none"> • During final design and as applicable, WisDOT will conduct follow-up Phase 2 or Phase 2.5 investigations to determine if sites present an environmental risk. • During final design, WisDOT will develop remediation measures for contaminated sites that cannot be avoided. Disturbance near potentially contaminated sites will be minimized to the extent possible and practicable. As applicable, contract special provisions will include a Notice to Contractor describing the potential contamination with names and locations of sites. • Contractors must comply with USEPA regulations; National Emission Standards for Asbestos; the Occupational, Safety, and Health Administration regulations on asbestos removal; local government regulations; and all other applicable regulations. The most recent editions of all applicable standards, codes, or regulations shall be used. Additionally, any person performing asbestos abatement must comply with all training certification requirements, rules, regulations, and laws of the State of Wisconsin regarding asbestos removal. • The regional WisDOT office will work with concerned parties to ensure the disposition of any contamination is resolved to the satisfaction of WDNR, WisDOT and FHWA before acquisition. • During final design, WisDOT will inspect bridges that would be replaced for presence of lead-based paint and asbestos-containing materials. WisDOT will make copies of inspection reports available at the WisDOT region office. • During the project's real-estate acquisition phase, WisDOT will survey all buildings and structures that would be acquired and demolished to determine whether asbestos or lead-based paint is present. All appropriate and applicable engineering and regulatory controls will be followed during the handling and disposal of asbestos containing materials and lead-based paint.
Historic Properties	<p>WisDOT and FHWA have consulted with the State Historic Preservation Officer (SHPO) as required under Section 106 of the National Historic Preservation Act. The SHPO concurred that the study alternatives will not have an adverse effect on historic properties.</p>
Archaeological Resources	<ul style="list-style-type: none"> • The Forest County Potawatomi Tribe is a consulting party under Section 106. As requested by the Tribe, in the event an inadvertent discovery occurs at any phase of the undertaking, as defined, and human remains or archeological materials are exposed as a result of project activities, work will cease immediately, and the Tribe will be included with the SHPO in any consultation regarding treatment and disposition of the find.

Resource	Mitigation Measures and Commitments
Cemeteries and Burials	<ul style="list-style-type: none"> • During construction, WisDOT will arrange monitoring by a qualified archaeologist at four burial sites located in the Area of Potential Effect. • If human remains are inadvertently/accidentally discovered during implementation of the build alternatives, all ground disturbing activities in the immediate area of the discovery shall halt until the following actions have been carried out, in accordance with Wisconsin Statute 157.70 and the Native American Graves Protection and Repatriation Act, as required. WisDOT shall immediately implement measures to protect the human remains from inclement weather and vandalism and notify appropriate law environment officials to determine whether or not the remains are subject to a criminal investigation by local or federal authorities.
Recreational Properties	<p>WisDOT designed the build alternatives to stay within existing right of way as much as possible to minimize the impacts to private recreational properties near the study corridor. During final design, WisDOT may require temporary easements to allow room for construction equipment and grading.</p> <ul style="list-style-type: none"> • At Spring Brook Golf Course, WisDOT will continue design refinements to minimize temporary construction impacts at the seventh hole. If the hole cannot be restored to its current configuration, WisDOT will coordinate with the golf course to develop a modified configuration. • During final design WisDOT will continue design refinements at the Trappers Turn Golf Course to avoid and minimize property acquisition to avoid modifications at the golf course fourth and fifth hole and will identify an alternate site for the relocated shed. • Following construction, WisDOT will restore resource activities and features to current uses. <p>Where permanent property acquisition is required, WisDOT will follow state and federal requirements to fairly compensate the owner(s) and restore the function and use of the resource(s) to the extent practicable. Where it is not possible to avoid properties, acquisitions will be in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, 42 U.S.C. 4601-4655 (Uniform Act).</p> <ul style="list-style-type: none"> • Before initiating property acquisition activities, WisDOT will contact affected property owners to give a detailed explanation of the acquisition process and Wisconsin’s Eminent Domain Law set forth in Wis. Stat. Section 32.05. Any property acquired will be inspected by one or more professional appraisers. The property owner will be invited to accompany the appraiser during the inspection to ensure that the appraiser is informed of every aspect of the property. Property owners will be given the opportunity to obtain an appraisal by a qualified appraiser that will be considered by WisDOT in establishing just compensation. Based on the appraisal(s), the value of the property will be determined, and that amount offered to the owner.
Construction	<p>WisDOT will implement measures mitigating construction-related impacts construction document specifications.</p> <p>Environmental Justice</p> <p>Construction employment provides opportunities for local business enrolled in WisDOT’s Disadvantaged Business Enterprise (DBE) program. WisDOT has a robust DBE program as evidenced by prior years of participation. Depending on the type of project, WisDOT anticipates the DBE goals to range between 6 percent and 12 percent. The DBE opportunities are tailored to each individual project. If a DBE opportunity does not exist in the individual project, then the DBE goal could be reduced due to lack of opportunities. WisDOT will work collectively with industry to make sure all opportunities are advertised and available.</p> <p><i>(continued next page)</i></p>

Resource	Mitigation Measures and Commitments
Construction (continued)	<p>Noise</p> <p>WisDOT will conduct a public involvement process to inform noise-sensitive receptors about construction activities. Construction noise will be controlled in accordance with WisDOT Facilities Development Manual Procedure 23-40-1, including strategies listed below.</p> <ul style="list-style-type: none"> • WisDOT Standard Specifications 107.8(6) and 108.7.1 will apply. This includes checking for and complying with local ordinances governing the hours for operation of construction equipment and obtaining the engineer’s written approval for operations from 10:00 P.M. until 6:00 A.M. Motorized construction equipment will be required to have mufflers constructed in accordance with the equipment manufacturer’s specifications or a system of equivalent noise-reducing capacity. WisDOT will also require that mufflers and exhaust systems are maintained in good operating condition, free of leaks and holes. <p>Vibration</p> <ul style="list-style-type: none"> • Prior to construction, WisDOT will coordinate with adjacent property owners of buildings near construction areas that are in poor structural condition and complete crack and damage surveys as needed. WisDOT will notify potentially affected residents prior to vibration-intense activities. WisDOT will meet the city of Madison and other affected municipalities with vibration ordinances. <p>Air Quality (Emissions and Dust)</p> <p>Construction vehicle emission impacts will be mitigated through implementing and maintaining a comprehensive traffic control plan, enforcing emission standards for gasoline and diesel construction equipment, and stipulating that unnecessary idling and equipment operation is to be avoided. In addition, WisDOT will work with the applicable local units of government when identifying haul routes in the final construction plans and specifications to minimize construction traffic from using roadways near schools, daycare facilities and parks when possible.</p> <p>Several air-quality construction mitigation best practices are available to assist in reducing diesel emission impacts from construction equipment. Off-road diesel engines can contribute significantly to the levels of particulate matter and nitrogen oxides in the air. Several air quality construction mitigation best practices are available to assist in reducing diesel emission impacts from construction equipment. In recent years, USEPA has set emissions standards for engines used in most new construction equipment. However, construction equipment can last for a long time, and it may take years before all equipment is furnished with engines that meet USEPA standards. To address this, WisDOT and FHWA will implement several strategies to reduce emissions from the older engines in operation today. Example strategies include the following.</p> <ul style="list-style-type: none"> • Reducing unnecessary idling at the construction site to reduce emissions and fuel consumption. • Properly maintaining of the diesel engines so that engines perform better and emit less pollution. • Switching to fuels that contain lower levels of sulfur to reduce particulate matter. Using ultra-low sulfur diesel does not require equipment changes or modification. Using fuels that contain a lower level of sulfur also tends to increase the effectiveness of retrofit technologies. <p><i>(continued next page)</i></p>

Resource	Mitigation Measures and Commitments
Construction (continued)	<ul style="list-style-type: none"> • Retrofitting off-road construction equipment with diesel-emission control devices to reduce particulate matter, nitrogen oxides, carbon monoxide, or hydrocarbons, in addition to other air pollutants. Diesel particulate filters can be used to physically trap and oxidize pollutants in the exhaust stream. In the final design phase, WisDOT will consider including measures on a voluntary or mandatory basis. • USEPA’s comments during the Scoping period suggested several measures to reduce emissions from construction equipment during construction, see Appendix B. In final design, WisDOT will consider including the measures on a voluntary or mandatory basis. • Fugitive dust impacts generated by construction will be mitigated by standard dust control measures. The measures may include frequent watering of construction sites that have large expanses of exposed soil, watering debris generated during the demolition of existing structures, washing construction vehicle tires before they leave construction sites, and securing and covering equipment and loose materials prior to travel. • Dust and particulates control during construction will be accomplished in accordance with WisDOT’s current Standard Specifications for Highway and Structure Construction, which requires applying water or other dust control measures during grading and on haul roads. The location and operation of concrete batch plants will be in accordance with WisDOT Standard Specifications, and any special provisions developed during coordination with WDNR regarding air-quality standards and emissions. Any portable material plants would be operated in accordance with WDNR air-quality requirements and guidelines. Demolition and disposal of residential or commercial buildings is regulated under WDNR’s asbestos renovation and demolition requirements (Wisconsin Wis. Administrative Admin. Code, Chapter NR 447 Control of Asbestos Emissions). • See also Air Quality Mitigation Measures and Commitments above. <p>Traffic, Construction Staging, Transit, Bicycles and Pedestrians</p> <p>WisDOT will begin developing the construction staging plan during design. After the construction staging plan is developed, WisDOT will analyze how much traffic would be diverted from the Interstate and the routes to which the traffic would divert. WisDOT, as part of their analysis, will determine if improvements to these routes are necessary before traffic diversions begin. Impacts of needed improvements on other routes will be evaluated in separate environmental review documents, in accordance with NEPA, as required.</p> <p>While there are no current transit, pedestrian or bicycle routes directly on the Interstate, there are several crossings that could be impacted during construction. Pedestrian and bicyclists that cross I-39/90/94 may need to temporarily modify their routes during construction. Local street construction will be staged to minimize impacts to the local route crossings. Local Metro routes that use Hanson Road, US 151, High Crossing Boulevard, Milwaukee Street and Cottage Grove Road may need to be temporarily modified during construction.</p> <p>WisDOT’s transportation management planning process includes outreach to communicate construction plans and schedules to the general public, including environmental justice populations, emergency service providers, schools and transit providers.</p> <p>Construction staging plans will be developed to ease disruptions to the extent possible. WisDOT will analyze these plans and assess the amount of traffic estimated to be diverted and develop a Transportation Management Plan to minimize delay and disruption of normal traffic flow. Other mitigation factors may include:</p> <ul style="list-style-type: none"> • Holding workshops to determine methods to reduce the effects of construction on local communities <p>(continued next page)</p>

Resource	Mitigation Measures and Commitments
Construction <i>(continued)</i>	<ul style="list-style-type: none">• Creating and implementing a public involvement plan to inform the public of real time construction activities• Encouraging use of transit and other alternative modes of transportation• Encouraging businesses to modify work schedules and/or shipping schedules to avoid peak-period traffic• Improving detour routes to accommodate diverted traffic resulting from construction• Identifying bicycle and pedestrian detour routes and staging local street closures to minimize or avoid closure of adjacent streets at the same time.

Resource	Mitigation Measures and Commitments
Construction (continued)	<p data-bbox="411 250 1919 342">There are few schools and other areas where children congregate near the Interstate, but some facilities are present in the vicinity of the I-94/WIS 30 Interchange. To the extent practicable, the transportation management plan would instruct contractors to route construction traffic away from these facilities.</p> <p data-bbox="411 363 659 391">Water Quality/Erosion</p> <ul data-bbox="411 407 1919 805" style="list-style-type: none"> • Construction in and near waterways will be performed in accordance with WisDOT’s Standard Specifications for Highway and Structure Construction, Wis. Admin. Code Chapter TRANS 401-Construction Site Erosion Control and Stormwater Management Procedures, and the WisDOT/WDNR Cooperative Agreement - Memorandum of Understanding on Erosion Control and Stormwater Management. • Appropriate techniques and best management practices (BMPs), as described in the WisDOT Facilities Development Manual Chapter 10 – Erosion Control and Storm Water Quality, will be employed to prevent erosion and to minimize siltation to environmentally sensitive resources in the project area. Erosion control devices will be installed before erosion-prone construction activities begin. • WisDOT’s construction contractor will adhere to the Wisconsin Pollutant Discharge Elimination System Transportation Construction General Permit (TCGP) for stormwater discharges and use standard erosion control devices and BMPs to reduce and control the deposit of sediment into environmentally sensitive resources before erosion-prone construction begins. The construction contractor will be required to prepare an Erosion Control Implementation Plan that includes all erosion control commitments made by WisDOT while planning and designing the project. The construction plans and contract special provisions must include the specific erosion control measures agreed on by WisDOT in consultation with WDNR. WDNR will review the Erosion Control Implementation Plan. <p data-bbox="438 818 1052 846">The following measures may be used during construction:</p> <ul data-bbox="438 859 869 1292" style="list-style-type: none"> ○ Minimizing the amount of land exposed at one time ○ Silt fencing ○ Sedimentation traps ○ Dust abatement ○ Turbidity barriers ○ Street sweeping ○ Inlet protection barriers ○ Temporary seeding ○ Erosion mats ○ Ditch or slope sodding ○ Seeding and mulching exposed soils <p data-bbox="411 1341 642 1369"><i>(continued next page)</i></p>

Resource	Mitigation Measures and Commitments
Construction (continued)	<ul style="list-style-type: none"> • Under the WisDOT/WDNR Cooperative Agreement, Memorandum of Understanding on Erosion Control and Stormwater Management, following construction, disturbed land will be re-seeded with a mix of fast-growing grasses. Drainage systems will be maintained, restored or re-established in a manner that would not impound water. • Additional construction impact mitigation techniques, as prescribed in the WisDOT Facilities Development Manual Chapter 10 and the WisDOT Construction and Materials Manual Section 130, may include the following – as needed to manage water quality and erosion – at any particular locations: <ul style="list-style-type: none"> ○ If dewatering is required, dirty water will be pumped into a settling basin before it would be allowed to re-enter a stream. ○ Trenched-in erosion bales will be installed in areas of moderate velocity runoff; clean-aggregate ditch checks will be installed in ditches with moderate- to high velocity runoff during and after construction; and ditches will be protected with erosion bales and matting in conjunction with seeding. ○ Storing and fueling construction equipment will be done in upland areas, away from environmentally sensitive areas. Accidental spills during refueling at construction sites or as a result of an accident involving hazardous material haulers will be handled in accordance with local government response procedures. First response would be through local fire departments and emergency service personnel to ensure public safety and to contain immediate threats to the environment. Depending on the nature of the spill, the construction contractor will notify WDNR to receive additional instructions regarding cleanup and restoration of any affected resources. The cost of cleanup operations will be the responsibility of the contractor or carrier involved in the spill. Further, per WisDOT’s Standard Specifications, public safety and environmental protection measures will be enforced by the construction contractor. ○ Pursuant to Wis. Admin. Code Chapter NR 40, contractors will be required to follow WDNR guidelines for ensuring that construction equipment used in or near waterways is adequately decontaminated for aquatic plants and aquatic animals. ○ Dispose of slash and debris piles associated with clearing and grubbing ○ Install and maintain erosion control devices such as erosion matting, silt fencing and silt screens to prevent soil erosion, and which comply with USFWS guidelines for wildlife safe devices. ○ Install tracking pads at entrances to construction sites to minimize soil transportation on/off the site ○ Revegetate all disturbed areas with appropriate plant species ○ WisDOT and FHWA are also required to take specific actions, as directed from Section 7 consultation with USFWS, that may overlap with the control of invasive plant species, including inspecting and cleaning equipment and vehicles for invasive plant materials, seeds, and aquatic animals • See also Surface Water Mitigation Measures and Commitments to avoid and minimize impacts to Mirror Lake during bridge demolition and construction activities.

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Construction
(continued)

Material Source and Disposal Sites

- The contractor will use material source sites that WisDOT has verified no sensitive resources are adversely impacted, including wetlands, threatened or endangered or cultural resources. Unusable excavated material will be disposed of by the contractor in accordance with WisDOT's Standard Specifications for Highway and Structure Construction or special provisions to ensure protection of wetlands and waterways. The construction contractor will abide by all local zoning regulations and requirements, prepare a reclamation plan as required and obtain any other required local, state and federal approvals for material source/disposal sites.
- Soil and excavated material, including vegetation, will be stockpiled or disposed of in an upland area, away from wetlands, streams and other open water. Where applicable, silt fence or other sediment control device, will be placed between the disposal area and any wetland and open water areas.
- If any material sources are necessary to construct the project, appropriate erosion control measures will be applied to these sites during and following construction; and following use, such site will be properly seeded, mulched and protected from erosion.
- Any portable materials plants will be properly managed to prevent erosion and WisDOT will coordinate with WDNR to review site plans, including any gravel-washing operations, high-capacity wells and site closure/restoration.
- To the extent practicable and in consultation with WDNR, WisDOT will consider implementing USEPA's recommendation for opportunities to reuse and/or recycle exiting pavement and other practices outlined in USEPA's Sustainable Management of Construction and Demolition Materials webpage.

Noxious Weeds and Invasive Species

Mitigation and control of noxious weeds and invasive species will be conducted in accordance with Wis. Admin. Code Chapter NR 40 Invasive Species Identification, Classification and Control. Techniques and BMPs used to minimize and mitigate the spread of noxious weeds are described under WisDOT Standard Specification 213 Finishing Roadway and 628 Erosion Control. These include but are not limited to the following:

- Destroying noxious weeds within the right of way
- Dispose of slash and debris piles associated with clearing and grubbing
- Install and maintain erosion control devices such as erosion matting, silt fencing and silt screens to prevent soil erosion, and which comply with USFWS guidelines for wildlife safe devices, such as biodegradable netting.
- Install tracking pads at entrances to construction sites to minimize soil transportation on/off the site
- Revegetate all disturbed areas with appropriate native or non-invasive plant species

WisDOT and FHWA are also required to take specific actions, as directed from Section 7 consultation with USFWS, that may overlap with the control of invasive plant species, including, inspecting and cleaning equipment and vehicles for invasive plant materials, seeds and aquatic animals.

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Resource	Mitigation Measures and Commitments
Construction <i>(continued)</i>	Cultural Resources See mitigation measures discussed under Archeological Resources and Cemeteries and Burials, above. If previously unrecorded cultural resources are found during construction, activities in the site area would be immediately halted, and the WisDOT construction project manager would immediately notify WisDOT’s Bureau of Technical Services, who would then notify FHWA and any interested consulting parties. No work would occur in the area until consultation with aforementioned parties is complete.
