BWB ECOLOGICAL TECH MEMO

DATE: June 9, 2023

TO: MDOT and AECOM

ECOLOGICAL REVIEW OF THE PROPOSED BLUE WATER BRIDGE PLAZA PROJECT AREA

WSP USA Inc. (WSP) has conducted a review of potential ecological impacts associated with the proposed construction of the Blue Water Bridge Plaza (Project) located in Port Huron, Michigan (Figures 1 and 2). An Environmental Impact Study (EIS) was previously completed for the Blue Water Bridge Project, including the plaza and surrounding areas. However, because the EIS was completed in 2009 and the site has undergone modifications, this ecological review was completed to update the natural resources located within the Project area which may be impacted by the revised Project. This technical memorandum summarizes the findings of the ecological review.

1.0 INFORMATION REVIEW

Publicly available online information was reviewed for the Project area to identify potential areas of natural resources concern. These sources included:

- Natural Resources Conservation Service (NRCS) Soils Map (Figure 3)
- US Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) Map (Figure 4)
- Michigan Department of Environment, Great Lakes, and Energy (EGLE) Wetlands Map (Figure 5)
- Federal Emergency Management Agency (FEMA) Floodplain Map (Figure 6)

WSP also reviewed threatened and endangered (T&E) species information from the USFWS and EGLE, and a site visit was completed to document current conditions in the largest undeveloped spaces within the Project area.

A USFWS Information, Planning, and Consultation (IPaC) review was conducted on May 17, 2023, providing a list of potential species which may be impacted by the Project (Appendix A). WSP reviewed the potential for impacts to these species and received a Consistency Letter from the USFWS (Appendix B), providing concurrence with the Not Likely to Adversely Affect (NLAA) determinations. WSP then completed the Michigan Endangered Species Determination Key through the IPaC tool, reviewing each listed species and further determining the potential for the Project to impact the species (Appendix B). This information was provided to the USFWS on May 17, 2023. USFWS concurrence is anticipated by June 17, 2023 and will be incorporated into the NEPA documentation for the project. The May 17, 2023 IPaC review was conducted to update a previous IPaC Consistency Letter and Biological Assessment (BA) performed on August 18, 2022 and September 1, 2022, respectively (Appendix C), and a September 12, 2022 USFWS response to the BA

(Appendix D).

Since completion of the 2009 EIS, several species with potential presence in the region encompassing the project area have been listed by USFWS as threatened, endangered, proposed, or candidate species under the federal Endangered Species Act and are included in the current IPaC species list for the Project. These species are noted in Table 2, and may not have been evaluated during the 2009 EIS.

A request was submitted to EGLE for a Transportation Preliminary Database Search on August 19, 2022. EGLE provided the results of this search on September 1, 2022 (Appendix E).

On August 22, 2022, WSP completed a site visit to document current conditions within the two largest green spaces within the Project limits. WSP focused on these areas based on review of aerial imagery indicating the presence of trees and potential additional wildlife habitat. Photographs of representative site conditions are included as Appendix F.

2.0 RESULTS

2.1 Online Resource Reviews

According to the NRCS soils map, five soil types were identified within the Project Area. A list of the soil types and hydric status of each is found below in Table 1.

Table 1. Soil Types Within the Project Area

Soil Map Unit Symbol	Soil Map Unit Name	Hydric Rating (%)
AU	*Alluvial land*	-
CCB	*Chelsea-covert sands, 0-6% slopes*	0
LOA	*Londo loam, 0-3% slopes*	8
RO	*Rough broken land*	0
WDA	*Wainola-Deford fine sands, 0-2% slopes*	35

Review of the NWI map indicated no mapped wetlands or surface waterbodies within the Project area, with the exception of the Black River, which is located adjacent to the southwest portion of the Project and is mapped to extend just into the Project area. The EGLE wetlands map does not indicate the presence of wetlands within the Project area but does show areas of wetland soils within the Project area. These soils correspond with the Wainola-Deford fine sands mapped by the NRCS. The FEMA map indicated that a small portion of the Project area is within the mapped 100-year floodplain of the Black River. This area is mapped as Zone AE, which represents areas of 100-year floodplain which have a designated base flood elevation.

2.2 IPaC Review

The USFWS identified ten federally threatened, endangered, proposed, or candidate species which may be found in the vicinity of the Project (Appendix A). No critical habitats were listed in the vicinity of the Project. The ten listed species are found below in Table 2.

Table 2. Federally-Listed Species in the Vicinity of the Project

Common Name	Scientific Name	Species Type	Federal Status
Indiana Bat	*Myotis sodalis*	Mammal	Endangered
Northern Long-eared Bat	***Myotis septentrionalis***	**Mammal**	**Endangered**
Tricolored Bat	***Perimyotis subflavus***	**Mammal**	**Proposed Endangered**
Piping Plover	*Charadrius melodus*	Bird	Endangered
Red Knot	*Calidris canutus rufa*	Bird	Threatened
Eastern Massasauga	***Sistrurus catenatus***	**Reptile**	**Threatened**
Snuffbox Mussel	***Epioblasma triquetra***	**Mussel**	**Endangered**
Round Hickorynut	***Obovaria subrotunda***	**Mussel**	**Threatened**
Monarch Butterfly	***Danaus plexippus***	**Insect**	**Candidate**
Eastern Prairie Fringed Orchid	*Platanthera leucophaea*	Flowering Plant	Threatened

Species in bold font were listed by UFSWS after completion of the 2009 Project EIS.

In addition to the species listed above, the USFWS provided a list of 17 migratory birds which are of particular concern and may be found within the Project location or its vicinity. These species are found below in Table 3.

Table 3. Migratory Birds of Particular Concern to the Project

Common Name	Scientific Name	Reason for Listing
American Golden-plover	*Pluvialis dominica*	Bird of Conservation Concern (BCC) throughout its range in the USA
Bald Eagle	*Haliaeetus leucocphalus*	Protected by Bald and Golden Eagle Protection Act
Black Tern	*Chlidonias niger*	BCC throughout its range in the USA
Black-billed Cuckoo	*Coccyzus erythropthalmus*	BCC throughout its range in the USA
Bobolink	*Dolichonyx oryzivorus*	BCC throughout its range in the USA
Canada Warbler	*Cardellina canadensis*	BCC throughout its range in the USA
Cerulean Warbler	*Dendroica cerulea*	BCC throughout its range in the USA
Chimney Swift	*Chaetura pelagica*	BCC throughout its range in the USA
Eastern Whip-poor-will	*Antrostomus vociferus*	BCC throughout its range in the USA
Lesser Yellowlegs	*Tringa flavipes*	BCC throughout its range in the USA
Marbled Godwit	*Limosa fedoa*	BCC throughout its range in the USA
Red-headed Woodpecker	*Melanerpes erythrocephalus*	BCC throughout its range in the USA
Ruddy Turnstone	*Arenaria interpres morinella*	BCC in particular areas of the USA
Rusty Blackbird	*Euphagus carolinus*	BCC in particular areas of the USA
Short-billed Dowitcher	*Limnodromus griseus*	BCC throughout its range in the USA
Western Grebe	*Aechmophorus occidentalis*	BCC throughout its range in the USA
Wood Thrush	*Hylocichla mustelina*	BCC throughout its range in the USA

2.3 EGLE Database Search

The EGLE Transportation Preliminary Database Search identified four listed species or species groups which have been observed in the vicinity of the Project (Appendix E). All of the species are aquatic and found in the nearby Black River. These species/species groups are identified below in Table 4.

Table 4. State and Federally-Listed Species/Species Groups Observed in the Vicinity of the Project

Common Name	Scientific Name	Species Type	Status
Eastern Pondmussel	*Ligumia nasuta*	Clam	State Endangered
Round Hickorynut	*Obovaria subrotunda*	Clam	State Endangered
Michigan Mussel Group 3		Clam	Federally Endangered
Pugnose Shiner	*Notropis anogenus*	Fish	State Endangered

EGLE also identified the project as being within the limits of USACE Section 10 regulated waterways. Both the St. Clair River and Black River at this location are regulated by the USACE under Section 10 of the Rivers and Harbors Act of 1899.

No occurrences of listed bat species or eastern massasauga rattlesnake were identified in the database search.

2.4 Site Visit

WSP conducted a site visit on August 22, 2022, to further assess site habitat. The site visit was focused on the two largest green spaces within the proposed project area; specifically, Area A which was bounded by Scott Avenue to the south, the I-94 exit to Harker Street to the north, and Pine Grove Avenue to the east. The second area (Area B) was bounded by Pine Grove Avenue to the west, 10th Avenue to the east, Church Street to the north, and Elmwood Street to the south. A portion of Area B is outside of the current Project limits. WSP did not evaluate conditions within or adjacent to the Black River, as it is our understanding that the Project will not extend into or impact the Black River or the Black River floodplain.

Areas A and B are comprised primarily of mowed/maintained lawn with a mixture of young and mature trees. Area A also contains an un-mowed forested berm containing a native and non-native herbaceous understory. Although present as individual plants in some areas, no large patches of common milkweed were observed during the site visit which may be considered important habitat for the Monarch butterfly.

Mature trees within both Areas A and B contained cracks, crevices, splits, and/or peeling bark which could provide roosting habitat for listed bat species.

Approximate tree species totals for individuals with a diameter at breast height (DBH) of ≥3-inches are found below in Table 5. These trees meet the DBH criteria for potential bat roosting habitat, but not all of these trees exhibited other bat habitat characteristics which would make them suitable habitat.

Table 5. Trees ≥3" DBH Identified Within and Adjacent to Portions of the Project Area

Common Name	Scientific Name	Number Identified (Area A)	Number Identified (Area B)
Apple	*Malus pumila*	-	1
Basswood	*Tilia americana*	2	-
Black Locust	*Robinia pseudoacacia*	4	-
Black Walnut	*Juglans nigra*	4	3
Blue Spruce	*Picea pungens*	7	1
Boxelder	*Acer negundo*	2	1
Bur Oak	*Quercus macrocarpa*	1	-
Common Pear	*Pyrus communis*	1	-

Eastern Cottonwood	*Populus deltoides*	47	-
Honey Locust (thornless)	*Gleditsia triacanthos inermis*	3	-
Japanese Pagoda Tree	*Styphnolobium japonicum*	6	-
Northern Catalpa	*Catalpa speciosa*	1	-
Norway Maple	*Acer platanoides*	13	1
Norway Spruce	*Picea abies*	4	-
Peach-leaved Willow	*Salix amygdaloides*	1	-
Red Pine	*Pinus resinosa*	4	-
Red-Cedar	*Juniperus virginiana*	17	-
River Birch	*Betula nigra*	1	-
Silver Maple	*Acer sachharinum*	17	6
Sugar Maple	*Acer saccharum*	2	-
Sweetgum	*Liquidamber styraciflua*	2	-
Sycamore	*Platanus occidentalis*	4	-
Tree-of-Heaven	*Ailanthus altissima*	1	1
Unidentified Elm	*Ulmus sp.*	1	-
Unidentified Pine	*Pinus sp.*	6	-
White Ash	*Fraxinus americana*	2	-
White Birch	*Betula papyrifera*	4	1
White Pine	*Pinus strobus*	3	1
White Poplar	*Populus alba*	3	-
White Spruce	*Picea glauca*	5	1
White-Cedar	*Thuja occidentalis*	4	1
Totals		172	18

WSP did not identify wetlands or surface waters within the Project area that may be affected by the Project. Preferred habitats for the state or federally listed species, other than potential bat roost trees, were not identified within the Project area. The Black River was not included in this assessment, as it is understood that no impacts to the Black River or its floodplain will occur during the Project.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Based upon WSP's review of the Project area and understanding that the Project will not impact the Black River or its floodplain, we have concluded that federally listed species in Table 2 will not be affected by the Project if appropriate Best Management Practices (BMPs) are followed during construction activities. These BMPs include placement of erosion control wattles, silt fence, inlet protection, and/or similar measures in appropriate locations along the limits of construction prior to ground disturbance. They also include USFWS recommendations for tree clearing outside the bat pup season (June 1 – July 31) to avoid take of listed bat species.

Based upon the reviews conducted as part of the Consistency Letter process and the Biological Assessment, WSP has made and USFWS concurrence on No Effect (NE) or NLAA determinations for each of the federally listed species is anticipated by June 17, 2023. No further review is required for these species.

With regards to migratory birds, the following BCC species listed in Table 3 are aquatic species or tend to be associated with habitats found near aquatic systems.

- American Golden-plover
- Bald Eagle
- Black Tern
- Lesser Yellowlegs
- Marbled Godwit
- Ruddy Turnstone
- Rusty Blackbird
- Short-billed Dowitcher
- Western Grebe

For this Project, that habitat is restricted to the Black River and adjacent shoreline habitats. Because the Project will not be impacting the Black River or its floodplain, no impact to these species is expected by the Project. If a bald eagle nest were to be constructed along the Black River near the Project area, additional considerations must be taken; this typically includes establishment of a 660-foot buffer around the nest to avoid disturbance of the nesting eagles. Should this occur, WSP recommends consulting with the USFWS to determine if other avoidance and minimization measures may be acceptable for the Project.

The following BCC species listed in Table 4 are not typically associated with aquatic habitats but prefer other habitat types, primarily woodlands, that are not found or expected to occur within the Project area.

- Black-billed Cuckoo
- Bobolink
- Canada Warbler
- Cerulean Warbler
- Eastern Whip-poor-will
- Wood Thrush

It is WSP's opinion that the most likely BCC species to be found within the Project area are the following two species.

- Red-headed Woodpecker
- Chimney Swift

According to Audubon.org (accessed September 20, 2022), red-headed woodpecker habitat includes shade trees in towns and large scattered trees, while chimney swift habitat includes large hollow trees, chimneys or similar structures.

Although the IPaC review focuses on BCC species, the Migratory Bird Treaty Act (MBTA) provides legal protection over many other bird species, some common and some more imperiled. The Project area does contain habitat for other bird species which may be protected by the MBTA. Where possible, WSP recommends conducting tree and other habitat clearing during non-nesting periods of the year. For most bird species, this timeframe is from March through August in the vicinity of the Project area. Bald eagles may begin nesting earlier (e.g., February). To provide further protection to migratory birds, Project activities could

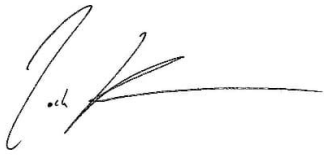
be conducted outside of the primary migration periods; generally, April-June and August-October. During these time periods, a variety of migratory birds may use the site as a temporary stopover. Should BCC species or nests of potential BCC species (e.g., large raptor nests) be identified ahead of Project construction, WSP recommends consulting with the USFWS to determine appropriate impact avoidance and minimization measures.

Species reported by EGLE to have been previously observed in the vicinity of the site are all aquatic species. WSP has determined that there will be no impact upon these species due to the fact that the Project will not impact the Black River.

4.0 WSP STAFF QUALIFICATIONS

Zach Kaiser is a Senior Wildlife Biologist with WSP. He earned a Master of Science degree in biology from Indiana State University and a bachelor's degree in Conservation Biology from the University of Wisconsin-Madison. Mr. Kaiser is a USFWS-permitted bat biologist and has over 15 years of experience conducted field-based research on avian and bat species.

WSP USA Inc.



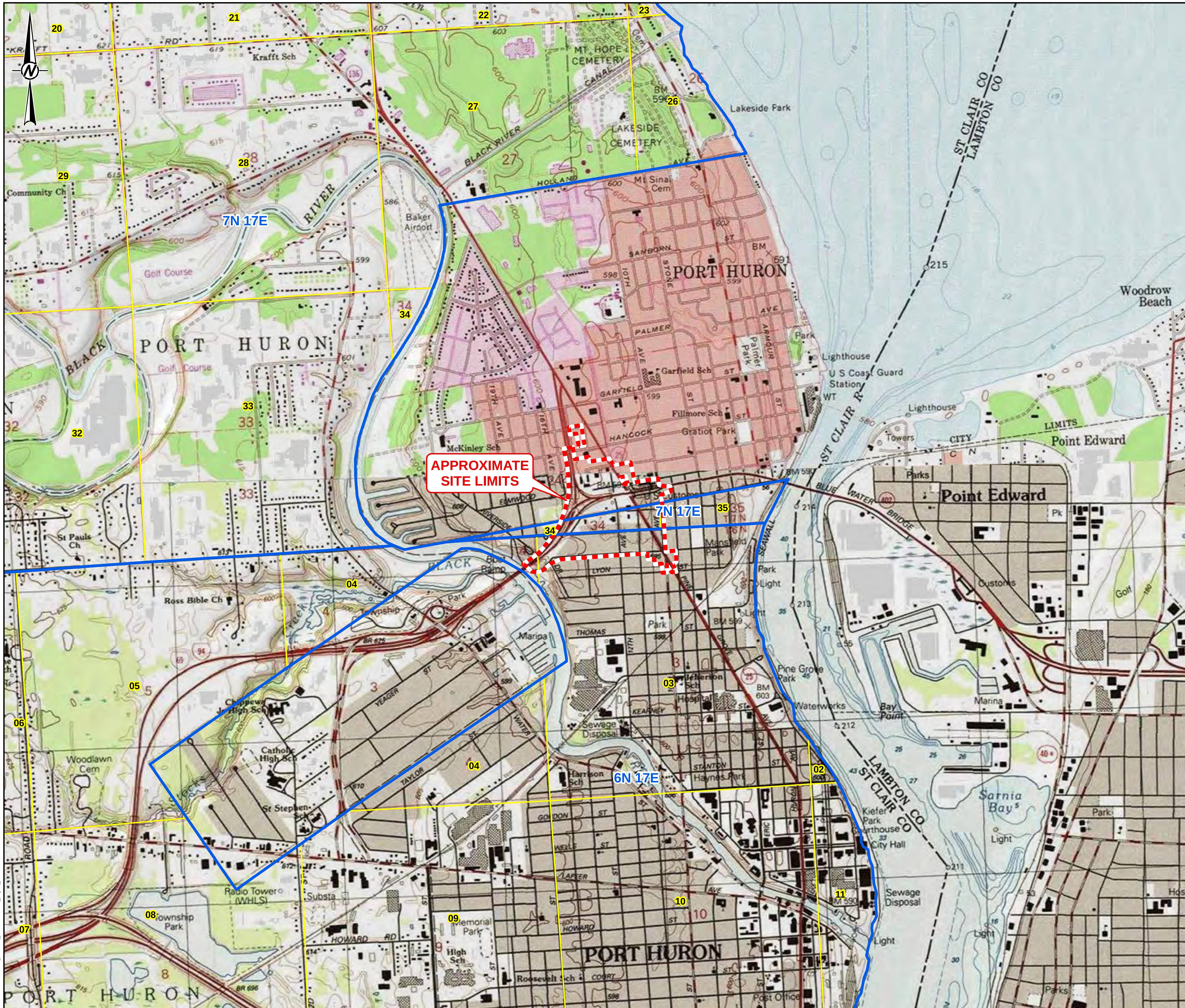
Zach Kaiser

Senior Wildlife Biologist
USFWS-permitted Bat Biologist

Figures:
Figure 1 – Site Location Map (USGS Topographic Map)
Figure 2 – Site Location Map (Aerial Imagery)
Figure 3 – NRCS Soil Survey Map
Figure 4 – National Wetland Inventory Map
Figure 5 – Michigan Wetland Inventory Map
Figure 6 – FEMA 100-Yr Floodplain Map

Appendices:
Appendix A – 2023 USFWS IPaC Species List
Appendix B – 2023 USFWS Consistency Letter & Michigan Endangered Species Determination Key
Appendix C – 2022 USFWS IPaC Consistency Letter and Biological Assessment
Appendix D – 2022 USFWS Response to Biological Assessment
Appendix E - EGLE Transportation Preliminary Database Search
Appendix F – 2022 Site Photos

FIGURES



LEGEND

- APPROXIMATE SITE LIMITS
- SECTION
- TOWNSHIP/RANGE

0 1,000 2,000 4,000 Feet

REFERENCE

1. TOPOGRAPHIC BACKGROUND: ESRI BASEMAP SERVICES. USGS 1:24,000 TOPOGRAPHIC QUADRANGLES SHOWN: LAKEPORT, PORT HURON.

CLIENT
AECOM

PROJECT
BLUE WATER BRIDGE

TITLE
SITE LOCATION MAP
USGS TOPOGRAPHIC MAP

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-09-09
PREPARED	JAM
DESIGN	KJC
REVIEW	XX
APPROVED	XX

PROJECT No.
31000318.001

FIGURE
1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM:
0 1 in

Path: M:\BlueWaterBridge\11x17_31000318.001_Fig01_USGS.mxd

LEGEND

- APPROXIMATE SITE LIMITS
- STREAM/RIVER

0 500 1,000 2,000 Feet

REFERENCE

1. AERIAL IMAGERY: ESRI PROVIDED BASEMAP SERVICE. VIVID. MAXAR. IMAGERY COLLECTED 02/26/2018.
2. STREAMS DATASET: NATIONAL HYDROGRAPHY DATASET (NHD), USGS.

CLIENT
AECOM

PROJECT
BLUE WATER BRIDGE

TITLE
SITE LOCATION MAP
AERIAL IMAGERY

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-09-09
PREPARED	JAM
DESIGN	KJC
REVIEW	XX
APPROVED	XX

PROJECT No.
31000318.001

FIGURE
2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 11 in

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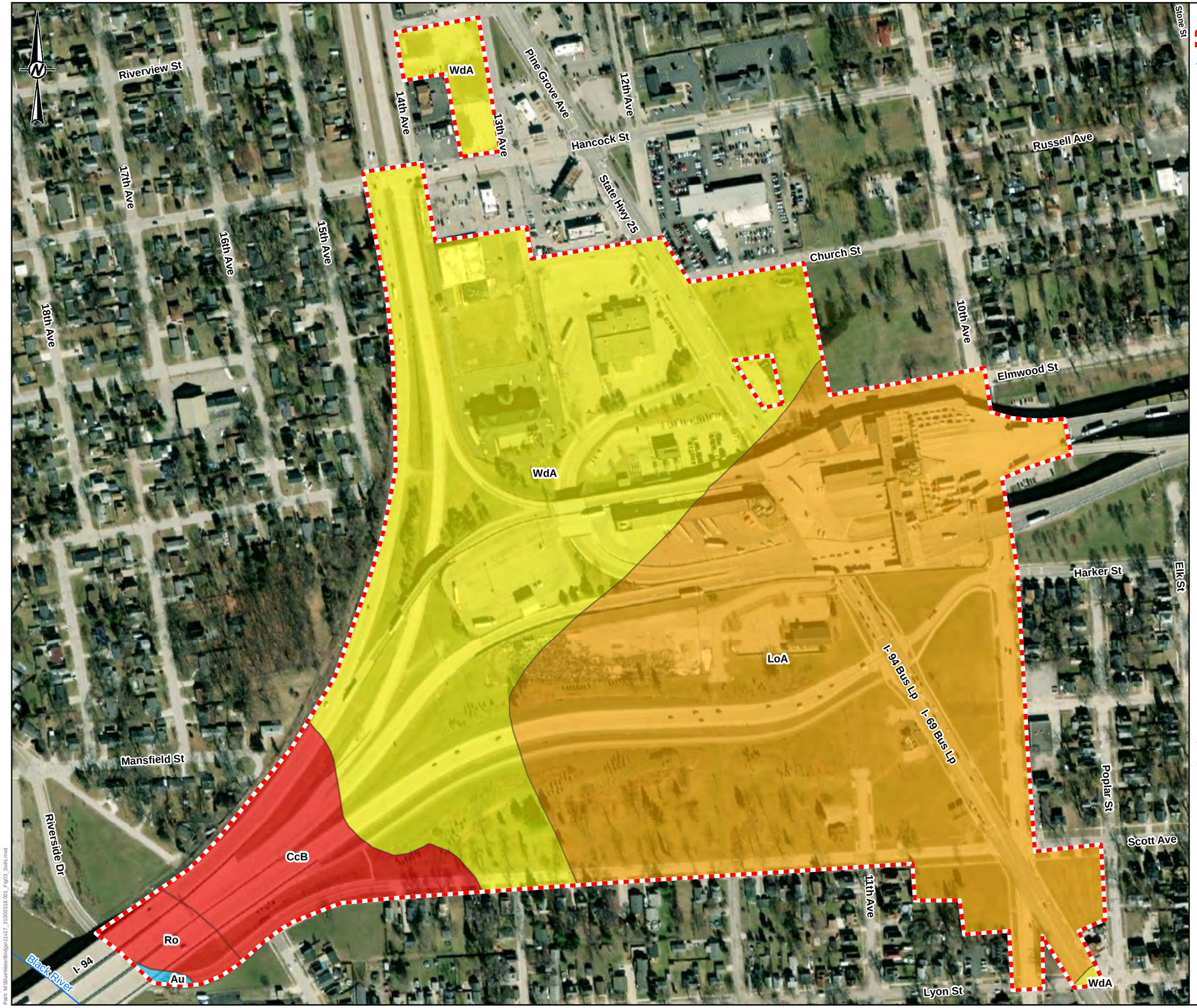

LEGEND

- APPROXIMATE SITE LIMITS
- STREAM/RIVER

NRCS SOIL SURVEY

- NOT HYDRIC (0%)
- HYDRIC (1 TO 32%)
- HYDRIC (33-65%)
- HYDRIC (66 TO 99%)
- HYDRIC (100%)

SOIL TYPE (WITH HYDRIC RATING)

- AU - ALLUVIAL LAND
- CCB - CHELSEA-COVERT SANDS, 0 TO 6 PERCENT SLOPES (0%)
- LOA - LONDO LOAM, 0 TO 3 PERCENT SLOPES (8%)
- RO - ROUGH BROKEN LAND (0%)
- WDA - WAINOLA-DEFORD FINE SANDS, 0 TO 2 PERCENT SLOPES (35%)

0 150 300 600 Feet

REFERENCE

1. AERIAL IMAGERY: ESRI PROVIDED BASEMAP SERVICE. VIVID. MAXAR. IMAGERY COLLECTED 02/26/2018.
2. SOILS DATASET: USDA-NRCS SOIL SURVEY GEOGRAPHIC (SSURGO), USDA/NRCS - NATIONAL GEOSPATIAL CENTER OF EXCELLENCE.
3. STREAMS DATASET: NATIONAL HYDROGRAPHY DATASET (NHD), USGS.

CLIENT
AECOM

PROJECT
BLUE WATER BRIDGE

TITLE
NRCS SOIL SURVEY MAP

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-09-12
PREPARED	JAM
DESIGN	KJC
REVIEW	XX
APPROVED	XX

PROJECT No.
31000318.001

FIGURE
3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 11in

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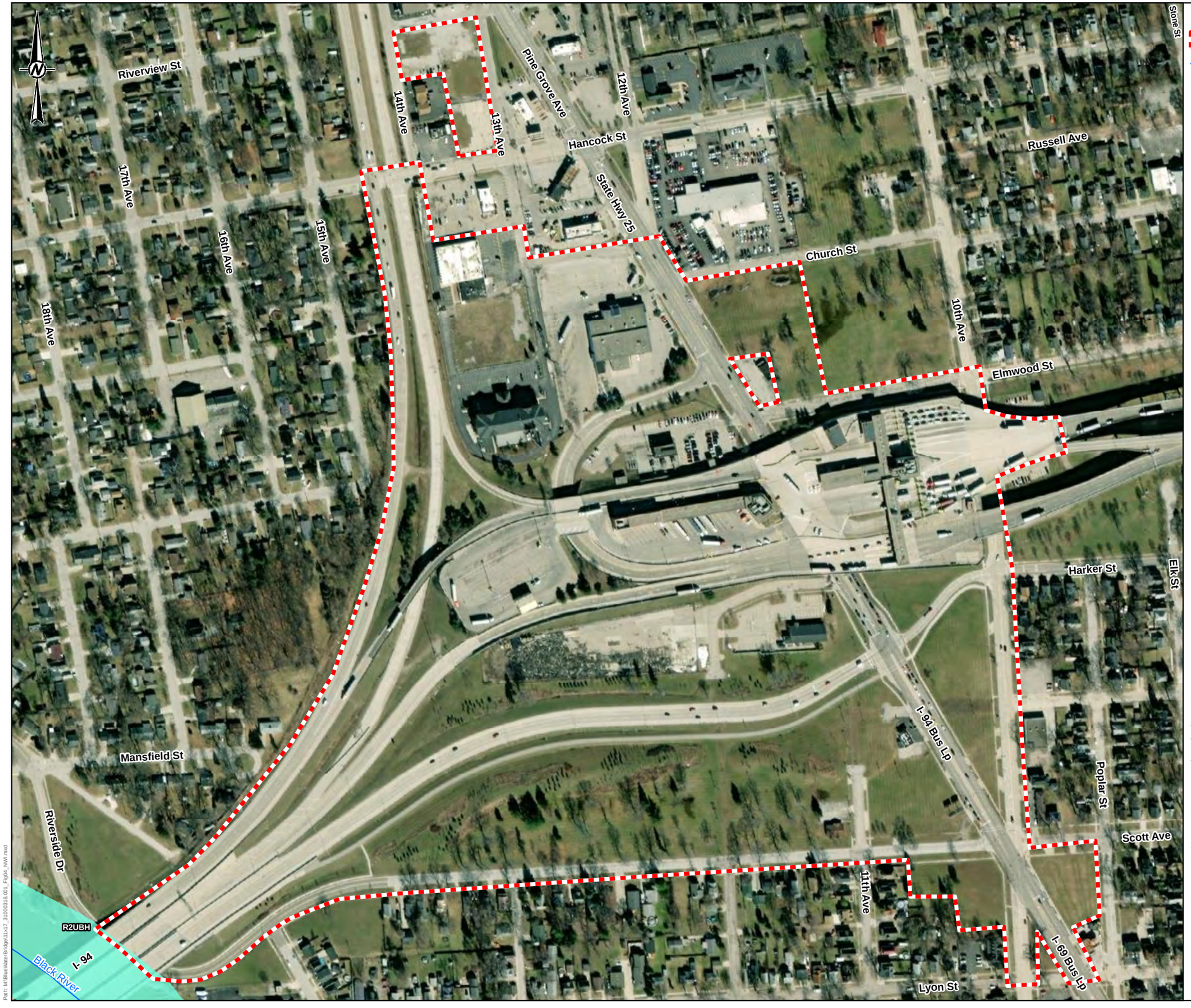

LEGEND

APPROXIMATE SITE LIMITS

STREAM/RIVER

NWI WETLAND TYPE

RIVERINE

Feet

0 150 300 600

REFERENCE

1. AERIAL IMAGERY: ESRI PROVIDED BASEMAP SERVICE. VIVID. MAXAR. IMAGERY COLLECTED 02/26/2018.
2. WETLANDS DATASET: NATIONAL WETLANDS INVENTORY (NWI), US FISH AND WILDLIFE SERVICE.
3. STREAMS DATASET: NATIONAL HYDROGRAPHY DATASET (NHD), USGS.

CLIENT
AECOM

PROJECT
BLUE WATER BRIDGE

TITLE
NATIONAL WETLAND INVENTORY MAP

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-09-09
PREPARED	JAM
DESIGN	KJC
REVIEW	XX
APPROVED	XX

PROJECT No.
31000318.001

FIGURE
4

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM:
1in
0

Path: M:\BlueWaterBridge\d11x17_31000318.001_Fig04_NWI.mxd

LEGEND

- APPROXIMATE SITE LIMITS
- STREAM/RIVER
- SOIL AREAS WHICH INCLUDE WETLAND
- WETLANDS AS IDENTIFIED ON NWI AND/OR MIRIS
- WETLANDS AS IDENTIFIED ON NWI AND/OR MIRIS MAPS AND SOIL AREAS WHICH INCLUDE WETLAND SOILS

Feet
0 150 300 600

REFERENCE

1. AERIAL IMAGERY: ESRI PROVIDED BASEMAP SERVICE. VIVID. MAXAR. IMAGERY COLLECTED 02/26/2018.
2. WETLANDS DATASET: MICHIGAN GEOGRAPHIC DATA LIBRARY - MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY, FINAL WETLAND INVENTORY.
3. STREAMS DATASET: NATIONAL HYDROGRAPHY DATASET (NHD), USGS.

CLIENT
AECOM

PROJECT
BLUE WATER BRIDGE

TITLE
MICHIGAN WETLAND INVENTORY MAP

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-09-09
PREPARED	JAM
DESIGN	KJC
REVIEW	XX
APPROVED	XX

PROJECT No.
31000318.001

FIGURE
5

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM:
1 in
0

Path: M:\BlueWaterBridge\s11x17_31000318.001_Fig05_MIDEGLE.mxd

LEGEND

- APPROXIMATE SITE LIMITS
- STREAM/RIVER
- FEMA 100-YEAR FLOODPLAIN

ZONE A = AN AREA INUNDATED BY 1% ANNUAL CHANCE FLOODING, FOR WHICH NO BASE FLOOD ELEVATIONS HAVE BEEN DETERMINED.

Feet
0 250 500 1,000

REFERENCE

1. AERIAL IMAGERY: ESRI PROVIDED BASEMAP SERVICE. VIVID. MAXAR. IMAGERY COLLECTED 02/26/2018.
2. FLOODPLAIN DATASET: FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).
3. STREAMS DATASET: NATIONAL HYDROLOGIC DATASET (NHD), USGS.

CLIENT
AECOM

PROJECT
BLUE WATER BRIDGE

TITLE
FEMA
100-YR FLOODPLAIN MAP

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-09-09
PREPARED	JAM
DESIGN	KJC
REVIEW	XX
APPROVED	XX

PROJECT No.
31000318.001

FIGURE
6

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 11in

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APPENDIX A

MAY 17, 2023
IPaC OFFICIAL SPECIES LIST

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Michigan Ecological Services Field Office
2651 Coolidge Road Suite 101
East Lansing, MI 48823-6360
Phone: (517) 351-2555 Fax: (517) 351-1443

In Reply Refer To: May 17, 2023
Project Code: 2023-0082650
Project Name: Blue Water Bridge Plaza Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Official Species List
The attached species list identifies any Federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Under 50 CFR 402.12(e) (the regulations that implement section 7 of the Endangered Species Act), the accuracy of this species list should be verified after 90 days. You may verify the list by visiting the IPaC website (https://ipac.ecosphere.fws.gov/) at regular intervals during project planning and implementation. To update an Official Species List in IPaC: from the My Projects page, find the project, expand the row, and click Project Home. In the What's Next box on the Project Home page, there is a Request Updated List button to update your species list. Be sure to select an "official" species list for all projects.

Consultation requirements and next steps
Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize Federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-Federal representative) must consult with the Fish and Wildlife Service if they determine their project may affect listed species or critical habitat.

There are two approaches to evaluating the effects of a project on listed species.

Approach 1. Use the All-species Michigan determination key in IPaC. This tool can assist you in making determinations for listed species for some projects. In many cases, the determination key

will provide an automated concurrence that completes all or significant parts of the consultation process. Therefore, we strongly recommend screening your project with the **All-Species Michigan Determination Key (Dkey)**. For additional information on using IPaC and available Determination Keys, visit https://www.fws.gov/media/mifo-ipac-instructions (and click on the attachment). Please carefully review your Dkey output letter to determine whether additional steps are needed to complete the consultation process.

Approach 2. Evaluate the effects to listed species on your own without utilizing a determination key. Once you obtain your official species list, you are not required to continue in IPaC, although in most cases using a determination key should expedite your review. If the project is a Federal action, you should review our section 7 step-by-step instructions before making your determinations: https://www.fws.gov/office/midwest-region-headquarters/midwest-section-7-technical-assistance. If you evaluate the details of your project and conclude "no effect," document your findings, and your listed species review is complete; you do not need our concurrence on "no effect" determinations. If you cannot conclude "no effect," you should coordinate/consult with the Michigan Ecological Services Field Office. The preferred method for submitting your project description and effects determination (if concurrence is needed) is electronically to EastLansing@fws.gov. Please include a copy of this official species list with your request.

For all **wind energy projects** and **projects that include installing communications towers that use guy wires**, please contact this field office directly for assistance, even if no Federally listed plants, animals or critical habitat are present within your proposed project area or may be affected by your proposed project.

Migratory Birds
Please see the "Migratory Birds" section below for important information regarding incorporating migratory birds into your project planning. Our Migratory Bird Program has developed recommendations, best practices, and other tools to help project proponents voluntarily reduce impacts to birds and their habitats. The Bald and Golden Eagle Protection Act prohibits the take and disturbance of eagles without a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at https://www.fws.gov/program/eagle-management/eagle-permits to help you avoid impacting eagles or determine if a permit may be necessary.

Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your consideration of threatened and endangered species during your project

planning. Please include a copy of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Michigan Ecological Services Field Office
2651 Coolidge Road Suite 101
East Lansing, MI 48823-6360
(517) 351-2555

PROJECT SUMMARY

Project Code: 2023-0082650
Project Name: Blue Water Bridge Plaza Project
Project Type: Road/Hwy - Maintenance/Modification
Project Description: The Port Huron U.S. Customs and Border Protection (CBP) Land Port of Entry (LPOE) is commonly referred to as the Blue Water Bridge (BWB) Plaza. The Port Huron facility is built on an elevated 11.5-acre plaza at the base of the United States side of the Blue Water Bridge, which connects Port Huron, Michigan with Sarnia, Ontario, across the St. Clair River. The existing plaza site is bordered by Elmwood Street on the north, Harker Street on the south, the M-25 connector on the west, and 10th Street on the east. Pine Grove Avenue (also known as M-25), one of Port Huron's major north-south connector streets, passes beneath the elevated plaza.

The existing facilities were constructed in 1996 and provide for the entry and exit between the United States and Canada. The U.S. BWB Plaza is owned by the Michigan Department of Transportation (MDOT) and partially leased to the General Services Administration (GSA). It is a major border crossing for cars and trucks between the United States - Canada, and Michigan - Ontario. MDOT completed an Environmental Impact Statement (EIS) and obtained a Record of Decision (ROD) through the Federal Highway Administration on May 19, 2009. At that time, the project was divided into four separate phases, with real estate acquisition resulting in the purchase of 125 residences and 16 businesses by MDOT for the plaza and I-94/96 corridor expansion.

The four phases include:
1. Replacement of the I-94/69 Black River Bridge to provide dedicated lanes for traffic heading to Canada.
2. Modernization of the Water Street and Lapeer Connector interchanges to separate local traffic from the international traffic and eliminate interaction with the frequent backups on the I-94/69 freeway.
3. Construction of a new Michigan Welcome Center and rest area west of the Lapeer Connector interchange.
4. The expansion of the BWB Plaza.

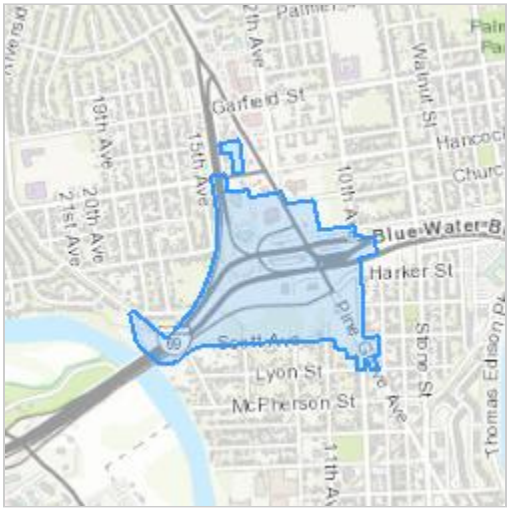
The first three phases of the project have been constructed. The last phase – the expansion of the BWB Plaza, will require an environmental re-evaluation to review any changes in the project design, scope, affected environment or proposed mitigation, and provide updated analysis required by any new laws, regulations, or guidance established since the ROD.

In 2021, MDOT started refining and updating the US BWB Plaza

facilities from the 2009 ROD Selected Alternative to become the proposed 2022 Refined Alternative. The 2022 Refined Alternative primarily consists of expanding the existing plaza to the south and to the north all within the limits of the 2009 environmental clearance limits and will be approximately 30% smaller than the 2009 plaza selected alternative. As part of the Refined Alternative MDOT is completing an environmental re-evaluation and feasibility study with GSA, CBP, and other federal partners.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.997974299999996,-82.43807781834293,14z



Counties: St. Clair County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 10 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 General project design guidelines: https://ipac.ecosphere.fws.gov/project/QUGQKRCZNZBJNKVNFXXF6RECAY/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Piping Plover *Charadrius melodus*	Endangered

Population: [Great Lakes watershed DPS] - Great Lakes, watershed in States of IL, IN, MI, MN, NY, OH, PA, and WI and Canada (Ont.)
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/6039

Red Knot *Calidris canutus rufa*	Threatened

There is **proposed** critical habitat for this species.
This species only needs to be considered under the following conditions:

- Only actions that occur along coastal areas during the Red Knot migratory window of MAY 1 - SEPTEMBER 30.

Species profile: https://ecos.fws.gov/ecp/species/1864

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) *Sistrurus catenatus*	Threatened

No critical habitat has been designated for this species.
This species only needs to be considered under the following conditions:

- For all Projects: Project is within EMR Range

Species profile: https://ecos.fws.gov/ecp/species/2202
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/QUGQKRCZNZBJNKVNFXXF6RECAY/documents/generated/5280.pdf

CLAMS

NAME	STATUS
Round Hickorynut *Obovaria subrotunda*	Threatened

There is **final** critical habitat for this species.
Species profile: https://ecos.fws.gov/ecp/species/9879

Snuffbox Mussel *Epioblasma triquetra*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/4135

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus*	Candidate

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9743

FLOWERING PLANTS

NAME	STATUS
Eastern Prairie Fringed Orchid *Platanthera leucophaea*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/601

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-plover *Pluvialis dominica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Dec 1 to Aug 31

NAME	BREEDING SEASON
Black Tern *Chlidonias niger* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093	Breeds May 15 to Aug 20
Black-billed Cuckoo *Coccyzus erythropthalmus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Canada Warbler *Cardellina canadensis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Cerulean Warbler *Dendroica cerulea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 22 to Jul 20
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will *Antrostomus vociferus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Marbled Godwit *Limosa fedoa* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds May 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Ruddy Turnstone *Arenaria interpres morinella* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Rusty Blackbird *Euphagus carolinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere

NAME	BREEDING SEASON
Short-billed Dowitcher *Limnodromus griseus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Western Grebe *aechmophorus occidentalis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in

the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?
The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of

certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- R2UBH

IPAC USER CONTACT INFORMATION

Agency: Michigan Department of Transportation
Name: Zach Kaiser
Address: 300 Wyandotte St
City: Kansas City
State: MO
Zip: 64105
Email zach.kaiser@wsp.com
Phone: 8122491918

APPENDIX B

MAY 17, 2023
IPaC VERIFICATION LETTER

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Michigan Ecological Services Field Office
2651 Coolidge Road Suite 101
East Lansing, MI 48823-6360
Phone: (517) 351-2555 Fax: (517) 351-1443

In Reply Refer To: May 17, 2023
Project code: 2023-0082650
Project Name: Blue Water Bridge Plaza Project

Subject: Verification letter for the project named 'Blue Water Bridge Plaza Project' for specified threatened and endangered species that may occur in your proposed project location consistent with the Michigan Endangered Species Determination Key (Michigan DKey)

Dear Zach Kaiser:

The U.S. Fish and Wildlife Service (Service) received on **May 17, 2023** your effect determination(s) for the 'Blue Water Bridge Plaza Project' (the Action) using the Michigan DKey within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers and the assistance of the Service's Michigan DKey, you made the following effect determination(s) for the proposed Action:

Species	**Listing Status**	**Determination**
Eastern Massasauga (=rattlesnake) (*Sistrurus catenatus*)	Threatened	NLAA
Eastern Prairie Fringed Orchid (*Platanthera leucophaea*)	Threatened	No effect
Indiana Bat (*Myotis sodalis*)	Endangered	NLAA
Monarch Butterfly (*Danaus plexippus*)	Candidate	No effect
Northern Long-eared Bat (*Myotis septentrionalis*)	Endangered	NLAA
Piping Plover (*Charadrius melodus*)	Endangered	NLAA
Red Knot (*Calidris canutus rufa*)	Threatened	NLAA
Snuffbox Mussel (*Epioblasma triquetra*)	Endangered	No effect
Tricolored Bat (*Perimyotis subflavus*)	Proposed Endangered	No effect

The Service will notify you within 30 calendar days if we determine that this proposed Action does not meet the criteria for a "may affect, not likely to adversely affect" (NLAA) determination

for Federally listed species in Michigan. If we do not notify you within that timeframe, you may proceed with the Action under the terms of the NLAA concurrence provided here. This verification period allows the Michigan Ecological Services Field Office to apply local knowledge to evaluation of the Action, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, the Michigan Ecological Services Field Office may request additional information to verify the effects determination reached through the Michigan DKey.

Your agency has met consultation requirements by informing the Service of your "No Effect" determination(s). No consultation is required for species that you determined will not be affected by the Action.

Please provide sufficient project details on your project homepage in IPaC (Define Project, Project Description) to support your conclusions and the Service's 30-day review period. Failure to disclose important aspects of your project that would influence the outcome of your effects determinations may negate your determinations and invalidate this letter. If you have site-specific information that leads you to believe a different determination is more appropriate for your project than what the Dkey concludes, you can and should proceed based on the best available information.

The Service recommends that you contact the Service or re-evaluate the project in IPaC if: 1) the scope or location of the proposed Action is changed; 2) new information reveals that the action may affect listed species or designated critical habitat in a manner or to an extent not previously considered; 3) the Action is modified in a manner that causes effects to listed species or designated critical habitat; or 4) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project changes are final or resources committed.

For non-Federal representatives: Please note that when a project requires consultation under section 7 of the Act, the Service must consult directly with the Federal action agency unless that agency formally designates a non-Federal representative (50 CFR 402.08). Non-Federal representatives may prepare analyses or conduct informal consultations; however, the ultimate responsibility for section 7 compliance under the Act remains with the Federal agency. If the Federal agency concurs with your determination, the project as proposed has completed section 7 consultation. All documents and supporting correspondence should be provided to the Federal agency for their records.

Bats of Conservation Concern:
Implementing protective measures for bats, including both federally listed and non-listed species, indirectly helps to protect Michigan's agriculture and forests. Bats are significant predators of nocturnal insects, including many crop and forest pests. For example, Whitaker (1995) estimated that a single colony of 150 big brown bats (Eptesicus fuscus) would eat nearly 1.3 million pest insects each year. Boyles et al. (2011) noted the "loss of bats in North America could lead to agricultural losses estimated at more than $3.7 billion/year, and Maine and Boyles (2015) estimated that the suppression of herbivory by insectivorous bats is worth >1 billion USD globally on corn alone. In captive trials, northern long-eared bats were found to significantly reduce the egg-laying activity of mosquitoes, suggesting bats may also play an important role in

controlling insect-borne disease (Reiskind and Wund 2009). Mosquitoes have also been found to be a consistent component of the diet of Indiana bats and are eaten most heavily during pregnancy (6.6%; Kurta and Whitaker 1998). Taking proactive steps to help protect bats may be very valuable to agricultural and forest product yields and pest management costs in and around a project area. Such conservation measures include limiting tree clearing during the bat active season (April through Octobervaries by location) and/or the non-volant period (June through July), when young bats are unable to fly, and minimizing the extent of impacts to forests, wetlands, and riparian habitats.

Bald and Golden Eagles:
Bald eagles, golden eagles, and their nests are protected under the Bald and Golden Eagle Protection Act (54 Stat. 250, as amended, 16 U.S.C. 668a-d) (Eagle Act). The Eagle Act prohibits, except when authorized by an Eagle Act permit, the "taking" of bald and golden eagles and defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." The Eagle Act's implementing regulations define disturb as "…to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

If the Action may impact bald or golden eagles, additional coordination with the Service under the Eagle Act may be required. For more information on eagles and conducting activities in the vicinity of an eagle nest, please visit https://www.fws.gov/library/collections/all-about-eagles. In addition, the Service developed the National Bald Eagle Management Guidelines (May 2007) in order to assist landowners in avoiding the disturbance of bald eagles. The full Guidelines are available at https://www.fws.gov/media/national-bald-eagle-management-guidelines-0.

If you have further questions regarding potential impacts to eagles, please contact Chris Mensing, Chris_Mensing@fws.gov or 517-351-2555.

Monarch butterfly and other pollinators
In December 2020, after an extensive status assessment of the monarch butterfly, we determined that listing the monarch under the Endangered Species Act is warranted but precluded by higher priority actions to amend the Lists of Endangered and Threatened Wildlife and Plants. Therefore, the Service added the monarch butterfly to the candidate list. The Service will review its status each year until we are able to begin developing a proposal to list the monarch.

The Endangered Species Act does not establish protections or consultation requirements for candidate species. Some Federal and State agencies may have policy requirements to consider candidate species in planning. We encourage implementing measures that will remove or reduce threats to these species and possibly make listing unnecessary.

For all projects, we recommend the following best management practices (BMPs) to benefit monarch and other pollinators.

Monarch and Pollinator BMP Recommendations

Consider monarch and other pollinators in your project planning when possible. Many pollinators are declining, including species that pollinate key agricultural crops and help maintain natural plant communities. Planting a diverse group of native plant species will help support the nutritional needs of Michigan's pollinators. We recommend a mix of flowering trees, shrubs, and herbaceous plants so that something is always blooming and pollen is available during the active periods of the pollinators, roughly early spring through fall (mid-March to mid-October). To benefit a wide variety of pollinators, choose a wide range of flowers with diverse colors, heights, structure, and flower shape. It is important to provide host plants for any known butterfly species at your site, including native milkweed for Monarch butterfly. Incorporating a water source (e.g., ephemeral pool or low area) and basking areas (rocks or bare ground) will provide additional resources for pollinators.

Many pollinators need a safe place to build their nests and overwinter. During spring and summer, leave some areas unmowed or minimize the impacts from mowing (e.g., decrease frequency, increase vegetation height). In fall, leave areas unraked and leave plant stems standing. Leave patches of bare soil for ground nesting pollinators.

Avoid or limit pesticide use. Pesticides can kill more than the target pest. Some pesticide residues can kill pollinators for several days after the pesticide is applied. Pesticides can also kill natural predators, which can lead to even worse pest problems.

Planting native wildflowers can also reduce the need to mow and water, improve bank stabilization by reducing erosion, and improve groundwater recharge and water quality.

Resources:

https://www.fws.gov/initiative/monarchs
https://www.fws.gov/library/collections/pollinators

Wetland impacts:
Section 404 of the Clean Water Act of 1977 (CWA) regulates the discharge of dredged or fill material into waters (including wetlands) of the United States. Regulations require that activities permitted under the CWA (including wetland permits issued by the Michigan Department of Environment, Great Lakes, and Energy (EGLE)) not jeopardize the continued existence of species listed as endangered or threatened. Permits issued by the U.S. Army Corps of Engineers must also consider effects to listed species pursuant to section 7 of the Endangered Species Act. The Service provides comments to the agencies that may include permit conditions to help avoid or minimize impacts to wildlife resources including listed species. For this project, we consider the conservation measures you agreed to in the determination key and/or as part of your proposed action to be non-discretionary. If you apply for a wetland permit, these conservation measures should be explicitly incorporated as permit conditions. Include a copy of this letter in your wetland permit application to streamline the threatened and endangered species review process.

Bat References
Boyles, J.G., P.M. Cryan, G.F. McCracken, T.H. Kunz. 2011. Economic Importance of Bats in Agriculture. Science 332(1):41-42.
Kurta, A. and J.O. Whitaker. 1998. Diet of the Endangered Indiana Bat (Myotis sodalis) on the Northern Edge of Its Range. The American Midland Naturalist 140(2):280-286.

Reiskind, M.H. and M.A. Wund. 2009. Experimental assessment of the impacts of northern long-eared bats on ovipositing Culex (Diptera: Culicidae) mosquitoes. Journal of Medical Entomology 46(5):1037-1044.
Whitaker, Jr., J.O. 1995. Food of the big brown bat Eptesicus fuscus from maternity colonies in Indiana and Illinois. American Midland Naturalist 134(2):346-360.

Summary of conservation measures for your project You agreed to the following conservation measures to avoid adverse effects to listed species and our concurrence is only valid if the measures are fully implemented. These must be included as permit conditions if a permit is required and/or included in any contract language.

To increase human safety and awareness of EMR, those implementing the project must first review the EMR factsheet (available at https://www.fws.gov/media/eastern-massasauga-rattlesnake-fact-sheet), and watch MDNR's "60-Second Snakes: The Eastern Massasauga Rattlesnake" video (available at https://youtu.be/~PFnXe_e02w).

During project implementation, report sightings of any federally listed species, including EMR, to the Service within 24 hours.

The project will not result in permanent loss of more than one acre of wetland or conversion of more than 10 acres of EMR upland habitat (uplands associated with high quality wetland habitat) to other land uses.

Mussels
Avoid any unauthorized direct impacts (e.g., stream/road crossing projects, new storm water outfall discharge, or other in -stream work) or indirect impacts (e.g., vegetation removal in riparian zone, construction, discharge, cut and fill, horizontal directional drilling) to a stream or river.

Rufa red knot
Avoid permanent modification of beaches, dunes, mudflats, peat banks, sandbars, shoals, or other red knot habitats during the red knot migration windows (May 15 through June 15 in the spring OR July 1 through September 30 in the fall). In addition, the project will not result in an increase in human disturbance or predation during the red knot migration windows within suitable habitat during the migration window.

Listed bats
Any cutting/trimming of potential roost trees for Indiana bat (trees ≥5 inches in diameter [at breast height] with cracks, crevices and/or exfoliating bark) or northern long-eared bat (trees ≥3 inches in diameter [at breast height] with cracks, crevices and/or exfoliating bark) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide/herbicide application must also occur outside June-July where potential roost trees are present.

Tree cutting/trimming and/or prescribed burning will not clear ≥20 contiguous acres of forest or fragment a connective corridor between 2 or more forest patches of at least 5 acres.

When installing new or replacing existing permanent lights, you will 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, 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. You will direct temporary lighting away from suitable Indiana bat habitat during the active season

When installing new or replacing existing permanent lights, you will 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, 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. You will direct temporary lighting away from suitable northern long-eared bat habitat during the active season.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Blue Water Bridge Plaza Project

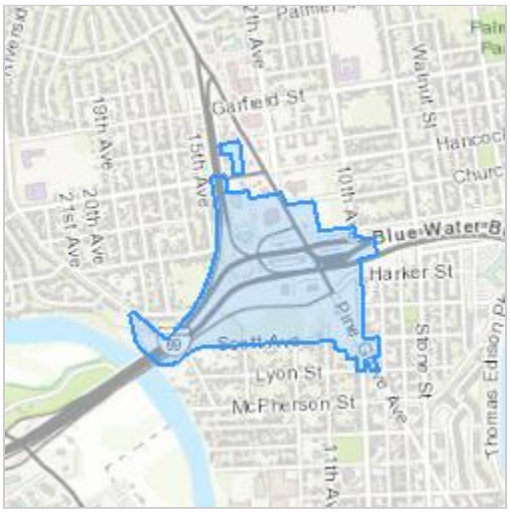
2. Description

The following description was provided for the project 'Blue Water Bridge Plaza Project':

> The Port Huron U.S. Customs and Border Protection (CBP) Land Port of Entry (LPOE) is commonly referred to as the Blue Water Bridge (BWB) Plaza. The Port Huron facility is built on an elevated 11.5-acre plaza at the base of the United States side of the Blue Water Bridge, which connects Port Huron, Michigan with Sarnia, Ontario, across the St. Clair River. The existing plaza site is bordered by Elmwood Street on the north, Harker Street on the south, the M-25 connector on the west, and 10th Street on the east. Pine Grove Avenue (also known as M-25), one of Port Huron's major north-south connector streets, passes beneath the elevated plaza.
>
> The existing facilities were constructed in 1996 and provide for the entry and exit between the United States and Canada. The U.S. BWB Plaza is owned by the Michigan Department of Transportation (MDOT) and partially leased to the General Services Administration (GSA). It is a major border crossing for cars and trucks between the United States - Canada, and Michigan - Ontario. MDOT completed an Environmental Impact Statement (EIS) and obtained a Record of Decision (ROD) through the Federal Highway Administration on May 19, 2009. At that time, the project was divided into four separate phases, with real estate acquisition resulting in the purchase of 125 residences and 16 businesses by MDOT for the plaza and I-94/96 corridor expansion.
>
> The four phases include:
> 1. Replacement of the I-94/69 Black River Bridge to provide dedicated lanes for traffic heading to Canada.
> 2. Modernization of the Water Street and Lapeer Connector interchanges to separate local traffic from the international traffic and eliminate interaction with the frequent backups on the I-94/69 freeway.
> 3. Construction of a new Michigan Welcome Center and rest area west of the Lapeer Connector interchange.
> 4. The expansion of the BWB Plaza.
>
> The first three phases of the project have been constructed. The last phase – the expansion of the BWB Plaza, will require an environmental re-evaluation to review any changes in the project design, scope, affected environment or proposed mitigation, and provide updated analysis required by any new laws, regulations, or guidance established since the ROD.

In 2021, MDOT started refining and updating the US BWB Plaza facilities from the 2009 ROD Selected Alternative to become the proposed 2022 Refined Alternative. The 2022 Refined Alternative primarily consists of expanding the existing plaza to the south and to the north all within the limits of the 2009 environmental clearance limits and will be approximately 30% smaller than the 2009 plaza selected alternative. As part of the Refined Alternative MDOT is completing an environmental re-evaluation and feasibility study with GSA, CBP, and other federal partners.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.997974299999996,-82.43807781834293,14z



QUALIFICATION INTERVIEW

1. Are there any possible effects to any listed species or to designated critical habitat from your project or effects from any other actions or projects subsequently made possible by your project?

   Select "Yes" even if the expected effects to the species or critical habitat are expected to be 1) extremely unlikely (discountable), 2) can't meaningfully be measured, detected, or evaluated (insignificant), or 3) wholly beneficial.

   Select "No" to confirm that the project details and supporting information allow you to conclude that listed species and their habitats will not be exposed to any effects (including discountable, insignificant, or beneficial effects) and therefore, you have made a "no effect" determination for all species. If you are unsure, select YES to answer additional questions about your project.

   Yes

2. This determination key is intended to assist the user in the evaluating the effects of their actions on Federally listed species in Michigan. It does not cover other prohibited activities under the Endangered Species Act (e.g., for wildlife: import/export, Interstate or foreign commerce, possession of illegally taken wildlife, purposeful take for scientific purposes or to enhance the survival of a species, etc.; for plants: import/export, reduce to possession, malicious destruction on Federal lands, commercial sale, etc.) or other statutes. Click yes to acknowledge that you must consider other prohibitions of the ESA or other statutes outside of this determination key.

   Yes

3. Is the action the approval of a long-term (i.e., in effect greater than 10 years) permit, plan, or other action? (e.g., a new or re-issued hydropower license, a land management plan, or other kinds of documents that provide direction for projects or actions that may be conducted over a long term (>10 years) without the need for additional section 7 consultation).

   No

4. Is the action being funded, authorized, or carried out by a Federal agency?

   Yes

5. Does the action involve the installation or operation of wind turbines?

   No

6. Are there at least 30 days prior to your action occurring? Endangered species consultation must be completed before taking any action that may have effects to listed species. The Service also needs 30 days to review projects before we can verify conclusions in some dkey output letters. For example, if you have already started some components of the project on the ground (e.g., removed vegetation) before completing this key, answer “no” to this question. The only exception is if you have a Michigan Field Office pre-approved emergence survey (i.e., if you have conducted pre-approved emergence surveys for listed bats before tree removal, you can still answer yes to this question).

   Yes

7. Does the action involve constructing a new communication tower or modifying an existing communications tower?

   No

8. Does the activity involve aerial or other large-scale application of any chemical (including insecticide, herbicide, etc.)?

   No

9. Does your project include water withdrawal (ground or surface water) greater than 10,000 gallons/day?

   No

10. Will your action permanently affect hydrology?

    No

11. Will your action temporarily affect hydrology?

    No

12. Will your project have any direct impacts to a stream or river (e.g., Horizontal Directional Drilling (HDD), hydrostatic testing, stream/road crossings, new storm-water outfall discharge, dams, other in-stream work, etc.)?

    No

13. Does your project have the potential to indirectly impact the stream/river or the riparian zone (e.g., cut and fill, horizontal directional drilling, hydrostatic testing, construction, vegetation removal, discharge, etc.)?

    No

14. Will your action disturb the ground or existing vegetation? This includes any off road vehicle access, soil compaction, digging, seismic survey, directional drilling, heavy equipment, grading, trenching, placement of fill, pesticide application, vegetation management (including removal or maintenance using equipment or chemicals), cultivation, development, etc.

    No

15. Is the action a utility-scale solar development project?

    No

16. [Hidden semantic] Does the action intersect the MOBU AOI?

    Automatically answered
    Yes

17. Under the ESA, monarchs remain warranted but precluded by listing actions of higher priority. The monarch is a candidate for listing at this time. The Endangered Species Act does not establish protections or consultation requirements for candidate species. Some Federal and State agencies may have policy requirements to consider candidate species in planning. We encourage implementing measures that will remove or reduce threats to these species and possibly make listing unnecessary. If your project will have no effect on monarch butterflies (for example, if your project won't affect their habitat or individuals), then you can make a "no effect" determination for this project. Are you making a "no effect" determination for monarch?

    Yes

18. [Hidden Semantic] Does the action intersect the Eastern massasauga rattlesnake area of influence?

    Automatically answered
    Yes

19. Does your action involve prescribed fire?

    No

20. Will this action occur entirely in the Eastern massasauga rattlesnake inactive season (October 16 through April 14)?

    No

21. Will this action occur entirely in the Eastern massasauga rattlesnake active season (April 15 through October 15)?

    No

22. Will the action result in permanent loss of more than one acre of wetland or conversion of more than 10 acres of uplands of potential Eastern massasauga rattlesnake habitat (uplands associated with high quality wetland habitat) to other land uses?

    No

23. Will you watch MDNR's "60-Second Snakes: The Eastern Massasauga Rattlesnake (EMR)" video, review the EMR factsheet or call 517-351-2555 to increase human safety and awareness of EMR?

    Yes

24. Will all action personnel report any Eastern massasauga rattlesnake observations, or observation of any other listed threatened or endangered species, during action implementation to the Service within 24 hours?

    Yes

25. [Semantic] Does the action area intersect the snuffbox area of influence?

    Automatically answered
    Yes

26. [Hidden Semantic] Does the action area intersect the piping plover area of influence?

    Automatically answered
    Yes

27. Will the action occur in suitable piping plover habitat?

    Note: Piping plover habitat consists of Great Lakes islands and mainland shorelines that support, or have the potential to support, open, sparsely vegetated sandy habitats, such as sand spits or sand beaches, that are associated with wide, unforested systems of dunes and inter-dune wetlands.

    No

28. Will the action occur during the piping plover migration season (April 1 through May 1 in spring OR August 15 through September 15 in the fall)?

    Yes

29. [Hidden Semantic] Does the action area intersect the rufa red knot area of influence?

    Automatically answered
    Yes

30. Will the action occur during the red knot migration windows (May 15-June 15 or July 1-September 30?)

    Yes

31. Will the action modify beaches, dunes, mudflats, peat banks, sandbars, shoals, or other red knot habitats? For example, the following actions may modify red kot habitat: groins, jetties, sea walls, revetments, bulkheads, rip-rap, beach nourishment, nearshore dredging, dredge spoil disposal, sand mining/borrowing, beach bulldozing, sandbagging, sand fencing, vegetation planting/alteration/removal, deliberate or possible introduction of non-native vegetation, beach raking/mechanized grooming, boardwalks, aquaculture development.

    No

32. Will the action result in increased human disturbance or predation? For example, is the action likely to indirectly increase access or use of red knot habitats by humans and/or predators at times of year that the birds are typically present (e.g., commercial/residential development, beach access structures, boardwalks, pavilions, bridges/roads/ferries/trails, marinas, posts or other avian predator perches, structures or habitat features likely to encourage predator nesting/denning, trash cans or other predator attractants, feral cat colonies, policy changes likely to increase human use).

    No

33. [Hidden Semantic] Does the action area intersect the area of influence for Eastern prairie fringed orchid?

    Automatically answered
    Yes

34. The project has the potential to affect federally listed bats. Does the action area contain any known or potential bat hibernacula (natural caves, abandoned mines, or underground quarries)?

    No

35. Has a presence/absence bat survey or field-based habitat assessment following the Service's Range-wide Indiana Bat and Northern Long-eared Bat Summer Survey Guidelines been conducted within the action area?

    No

36. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?

    No

37. Does the action include removal/modification of an existing bridge or culvert?

    No

38. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?

    Yes

39. Will you apply the following Avoidance and Minimization Measures for bats?

    1. 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 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.

    2. Direct temporary lighting away from suitable habitat during the active season.

    Yes

40. Does the action include one or more of the following: (1) tree cutting/trimming, (2) prescribed fire, (3) pesticide (including insecticide and/or rodenticide), and/or (4) herbicide/fungicide application?

    Yes

41. Does the action include herbicide application?

    No

42. Will the action clear >10 acres of contiguous forest (i.e., connected by 1,000 feet or less) or fragment a riparian or other connective forested corridor (e.g., tree line) between 2 or more forest patches of at least 5 acres? For more information, see Appendix II.

    No

43. Does the action area contain potential NLEB bat roost trees (trees ≥3 inches in diameter [at breast height] with cracks, crevices, cavities and/or exfoliating bark)? For more information, see Appendix IV.

    Yes

44. Does the action area contain potential Indiana bat roost trees (trees ≥5 inches in diameter [at breast height] with cracks, crevices and/or exfoliating bark)? For more information, see Appendix III.

    Yes

45. Does the action include emergency cutting/trimming of hazard trees in order to prevent imminent loss of human life and/or property?

    No

46. [Semantic] Is any portion of the action area within 5 miles of a known Indiana or northern long-eared bat hibernaculum?

    Automatically answered
    No

47. Will all tree cutting/trimming, prescribed fire, and/or pesticide (i.e., insecticide, rodenticide) application occur OUTSIDE the non-volant ("pup") season for bat (that is, no cutting/trimming, prescribed fire, or pesticide application during June 1 through July 31)?

    Note: Based on the project's location, conducting these activities outside the months of June and July may be sufficient to avoid adverse effects to/take of bat.

    Yes

48. [Hidden Semantic] Does the action area intersect the Indiana bat AOI?

    Automatically answered
    Yes

49. [Hidden Semantic] Does this project intersect the northern long-eared bat area of influence?

    Automatically answered
    Yes

50. [Hidden semantic] Does the action intersect the Tricolored bat AOI/SLA/range?

    Automatically answered
    Yes

51. The tricolored bat was proposed for listing as endangered on September 13, 2022. In Michigan, the tricolored bat was rare pre-white nose syndrome (WNS) and is exceedingly rare post-WNS. The species has been observed in 12 Michigan counties to date, largely during the fall or winter. With very few exceptions, the species has not been observed in Michigan in the summer months, and no maternity colonies have been found. During winter, tricolored bats hibernate in caves, abandoned mines, and abandoned tunnels ranging from small to large in size. During spring, summer and fall months, they roost primarily among leaf clusters of live or recently dead deciduous/hardwood trees.

    Are you making a no effect determination on this project for the tricolored bat?

    Yes

IPAC USER CONTACT INFORMATION

Agency: Michigan Department of Transportation
Name: Zach Kaiser
Address: 300 Wyandotte St
City: Kansas City
State: MO
Zip: 64105
Email zach.kaiser@wsp.com
Phone: 8122491918

APPENDIX C

AUGUST 18, 2022
CONSISTENCY LETTER

SEPTEMBER 1, 2022
BIOLOGICAL ASSESSMENT

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Michigan Ecological Services Field Office
2651 Coolidge Road Suite 101
East Lansing, MI 48823-6360
Phone: (517) 351-2555 Fax: (517) 351-1443

In Reply Refer To: August 18, 2022
Project code: 2022-0076168
Project Name: Blue Water Bridge - Plaza Expansion

Subject: Consistency letter for 'Blue Water Bridge - Plaza Expansion' for specified federally threatened and endangered species and designated critical habitat that may occur in your proposed project area consistent with the Michigan Determination Key for project review and guidance for federally listed species (Michigan Dkey).

Dear Nathan Ring:

The U.S. Fish and Wildlife Service (Service) received on **August 18, 2022** your effect determination(s) for the 'Blue Water Bridge - Plaza Expansion' (the Action) using the Michigan DKey within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers and the assistance of the Service's Michigan DKey, you made the following effect determination(s) for the proposed Action:

Species	Listing Status	Determination
Eastern Massasauga (=rattlesnake) (*Sistrurus catenatus*)	Threatened	NLAA
Eastern Prairie Fringed Orchid (*Platanthera leucophaea*)	Threatened	No effect
Indiana Bat (*Myotis sodalis*)	Endangered	NLAA
Monarch Butterfly (*Danaus plexippus*)	Candidate	May affect
Northern Long-eared Bat (*Myotis septentrionalis*)	Threatened	NLAA
Piping Plover (*Charadrius melodus*)	Endangered	NLAA
Red Knot (*Calidris canutus rufa*)	Threatened	NLAA
Snuffbox Mussel (*Epioblasma triquetra*)	Endangered	May affect

Please carefully review this letter. Your Endangered Species Act requirements are not complete.

For non-Federal representatives: Please note that when a project requires consultation under section 7 of the Act, the Service must consult directly with the Federal action agency unless that agency formally designates a non-Federal representative (50 CFR 402.08). Non-Federal representatives may prepare analyses or conduct informal consultations; however, the ultimate responsibility for section 7 compliance under the Act remains with the Federal agency. Please include the Federal action agency in additional correspondence regarding this project.

Freshwater Mussels:
Federally listed mussels may be present in the Action area. Projects may affect listed mussels if they may permanently affect local hydrology, directly impact a Group 3 stream[1] (e.g., stream/road crossings, new stormwater outfall discharge, dams, other in-stream work, etc.), and/or indirectly impact a Group 3 stream or riparian zone (e.g., cut and fill, horizontal directional drilling, construction, vegetation removal, discharge, etc.). **Please coordinate with the Michigan Ecological Services Field Office to further evaluate effects of the Action on Federally listed mussels.**

Freshwater mussels are one of the most critically imperiled groups of organisms in the world. In North America, 65% of the remaining 300 species are vulnerable to extinction (Haag and Williams 2014). Implementing measures to conserve and restore freshwater mussel populations directly improves water quality in lakes, rivers, and streams throughout Michigan. An adult freshwater mussel filters anywhere from 1 to 38 gallons of water per day (Baker and Levinton 2003, Barnhart pers. comm. 2019). A 2015 survey found that in some areas mussels can reduce the bacterial populations by more than 85% (Othman et al. 2015 in Vaughn 2017). Mussels are also considered to be ecosystem engineers, stabilizing substrate and providing habitat for other aquatic organisms (Vaughn 2017). In addition to ecosystem services, mussels play an important role in the food web, contributing critical nutrients to both terrestrial and aquatic habitats, including those that support sport fish (Vaughn 2017). Taking proactive measures to conserve and restore freshwater mussels will improve water quality, which has the potential to positively impact human health and recreation in the State of Michigan.

---

[1]The Group 3 is a specific list of stream segments within known counties that contain habitat likely to be occupied by listed mussels (see Michigan Freshwater Mussel Survey Protocol and Relocation Procedures for additional information).

Bats of Conservation Concern:
Implementing protective measures for bats, including both federally listed and non-listed species, indirectly helps to protect Michigan’s agriculture and forests. Bats are significant predators of nocturnal insects, including many crop and forest pests. For example, Whitaker (1995) estimated that a single colony of 150 big brown bats (Eptesicus fuscus) would eat nearly 1.3 million pest insects each year. Boyles et al. (2011) noted the “loss of bats in North America could lead to agricultural losses estimated at more than $3.7 billion/year, and Maine and Boyles (2015) estimated that the suppression of herbivory by insectivorous bats is worth >1 billion USD globally on corn alone. In captive trials, northern long-eared bats were found to significantly reduce the egg-laying activity of mosquitoes, suggesting bats may also play an important role in

controlling insect-borne disease (Reiskind and Wund 2009). Mosquitoes have also been found to be a consistent component of the diet of Indiana bats and are eaten most heavily during pregnancy (6.6%; Kurta and Whitaker 1998). Taking proactive steps to help protect bats may be very valuable to agricultural and forest product yields and pest management costs in and around a project area. Such conservation measures include limiting tree clearing during the bat active season (April through Octobervaries by location) and/or the non-volant period (June through July), when young bats are unable to fly, and minimizing the extent of impacts to forests, wetlands, and riparian habitats.

Monarch:
In December 2020, after an extensive status assessment of the monarch butterfly, we determined that listing the monarch under the Endangered Species Act is warranted but precluded by higher priority actions to amend the Lists of Endangered and Threatened Wildlife and Plants. Therefore, the Service added the monarch butterfly to the candidate list. The Service will review its status each year until we are able to begin developing a proposal to list the monarch.

The Endangered Species Act does not establish protections or consultation requirements for candidate species. Some Federal and State agencies may have policy requirements to consider candidate species in planning. We encourage implementing measures that will remove or reduce threats to these species and possibly make listing unnecessary. Please refer to our recommendations in the Monarch and Pollinators section, below.

Bald and Golden Eagles:
Bald eagles, golden eagles, and their nests are protected under the Bald and Golden Eagle Protection Act (54 Stat. 250, as amended, 16 U.S.C. 668a-d) (Eagle Act). The Eagle Act prohibits, except when authorized by an Eagle Act permit, the “taking” of bald and golden eagles and defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” The Eagle Act’s implementing regulations define disturb as “…to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

If the Action may impact bald or golden eagles, additional coordination with the Service under the Eagle Act may be required. For more information on eagles and conducting activities in the vicinity of an eagle nest, please visit https://www.fws.gov/library/collections/all-about-eagles. In addition, the Service developed the National Bald Eagle Management Guidelines (May 2007) in order to assist landowners in avoiding the disturbance of bald eagles. The full Guidelines are available at https://www.fws.gov/media/national-bald-eagle-management-guidelines-0.

If you have further questions regarding potential impacts to eagles, please contact Chris Mensing, Chris_Mensing@fws.gov or 517-351-2555.

Monarch butterfly and other pollinators
In December 2020, after an extensive status assessment of the monarch butterfly, we determined that listing the monarch under the Endangered Species Act is warranted but precluded by higher priority actions to amend the Lists of Endangered and Threatened Wildlife and Plants. Therefore,

the Service added the monarch butterfly to the candidate list. The Service will review its status each year until we are able to begin developing a proposal to list the monarch.

The Endangered Species Act does not establish protections or consultation requirements for candidate species. Some Federal and State agencies may have policy requirements to consider candidate species in planning. We encourage implementing measures that will remove or reduce threats to these species and possibly make listing unnecessary.

For all projects, we recommend the following best management practices (BMPs) to benefit monarch and other pollinators.

Monarch and Pollinator BMP Recommendations

Consider monarch and other pollinators in your project planning when possible. Many pollinators are declining, including species that pollinate key agricultural crops and help maintain natural plant communities. Planting a diverse group of native plant species will help support the nutritional needs of Michigan's pollinators. We recommend a mix of flowering trees, shrubs, and herbaceous plants so that something is always blooming and pollen is available during the active periods of the pollinators, roughly early spring through fall (mid-March to mid-October). To benefit a wide variety of pollinators, choose a wide range of flowers with diverse colors, heights, structure, and flower shape. It is important to provide host plants for any known butterfly species at your site, including native milkweed for Monarch butterfly. Incorporating a water source (e.g., ephemeral pool or low area) and basking areas (rocks or bare ground) will provide additional resources for pollinators.

Many pollinators need a safe place to build their nests and overwinter. During spring and summer, leave some areas unmowed or minimize the impacts from mowing (e.g., decrease frequency, increase vegetation height). In fall, leave areas unraked and leave plant stems standing. Leave patches of bare soil for ground nesting pollinators.

Avoid or limit pesticide use. Pesticides can kill more than the target pest. Some pesticide residues can kill pollinators for several days after the pesticide is applied. Pesticides can also kill natural predators, which can lead to even worse pest problems.

Planting native wildflowers can also reduce the need to mow and water, improve bank stabilization by reducing erosion, and improve groundwater recharge and water quality.

Resources:

https://www.fws.gov/initiative/monarchs
https://www.fws.gov/library/collections/pollinators

Coordination with the Service is not complete if additional coordination is advised above for any species. Please email our office at MIFO_DKey@fws.gov and attach a copy of this letter, so we can discuss methods to avoid or minimize potential adverse effects to those species.

Bat References

Boyles, J.G., P.M. Cryan, G.F. McCracken, T.H. Kunz. 2011. Economic Importance of Bats in Agriculture. Science 332(1):41-42.
Kurta, A. and J.O. Whitaker. 1998. Diet of the Endangered Indiana Bat (Myotis sodalis) on the

Northern Edge of Its Range. The American Midland Naturalist 140(2):280-286.
Reiskind, M.H. and M.A. Wund. 2009. Experimental assessment of the impacts of northern long-eared bats on ovipositing Culex (Diptera: Culicidae) mosquitoes. Journal of Medical Entomology 46(5):1037-1044.
Whitaker, Jr., J.O. 1995. Food of the big brown bat Eptesicus fuscus from maternity colonies in Indiana and Illinois. American Midland Naturalist 134(2):346-360.

Summary of conservation measures for your project You agreed to the following conservation measures to avoid adverse effects to listed species and our concurrence is only valid if the measures are fully implemented. These must be included as permit conditions if a permit is required and/or included in any contract language.

Eastern massasauga
Materials used for erosion control and site restoration must be wildlife-friendly. Do not use erosion control products containing plastic mesh netting or other similar material that could entangle eastern massasauga rattlesnake (EMR). Several products for soil erosion and control exist that do not contain plastic netting including net-less erosion control blankets (for example, made of excelsior), loose mulch, hydraulic mulch, soil binders, unreinforced silt fences, and straw bales. Others are made from natural fibers (such as jute) and loosely woven together in a manner that allows wildlife to wiggle free.

To increase human safety and awareness of EMR, those implementing the project must first review the EMR factsheet (available at https://www.fws.gov/media/eastern-massasauga-rattlesnake-fact-sheet), and watch MDNR's "60-Second Snakes: The Eastern Massasauga Rattlesnake" video (available at https://youtu.be/~PFnXe_e02w).

During project implementation, report sightings of any federally listed species, including EMR, to the Service within 24 hours

The project will not result in permanent loss of more than one acre of wetland or conversion of more than 10 acres of EMR upland habitat (uplands associated with high quality wetland habitat) to other land uses.

Rufa red knot
Avoid permanent modification of beaches, dunes, mudflats, peat banks, sandbars, shoals, or other red knot habitats during the red knot migration windows (May 15 through June 15 in the spring OR July 1 through September 30 in the fall). In addition, the project will not result in an increase in human disturbance or predation during the red knot migration windows within suitable habitat during the migration window.

Northern long-eared bat
Based on the project area you entered into IPaC, the project does not occur within 0.25 miles of a known northern long-eared bat hibernaculum. Tree removal, as defined in the 4(d) rule, will not occur within 150 feet of a known occupied northern long-eared bat maternity roost tree.

Any cutting/trimming of potential roost trees for northern long-eared bat (trees ≥3 inches in diameter [at breast height] with cracks, crevices, cavities, and/or exfoliating bark) will be limited to the inactive season (October 1 through April 14). Prescribed fire and/or pesticide/herbicide application will also occur during the inactive season where potential roost trees are present.

Tree cutting/trimming and/or prescribed burning will not clear ≥20 contiguous acres of forest or fragment a connective corridor between 2 or more forest patches of at least 5 acres.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Blue Water Bridge - Plaza Expansion

2. Description

The following description was provided for the project 'Blue Water Bridge - Plaza Expansion':

> Expansion/maintenance of the existing Blue Water Bridge Boarder Plaza.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.99793215,-82.43808415692195,14z

Qualification Interview

1. Are there any possible effects to any listed species or to designated critical habitat from your project or effects from any other actions or projects subsequently made possible by your project?

   Select "Yes" even if the expected effects to the species or critical habitat are expected to be 1) extremely unlikely (discountable), 2) can't meaningfully be measured, detected, or evaluated (insignificant), or 3) wholly beneficial.

   Select "No" to confirm that the project details and supporting information allow you to conclude that listed species and their habitats will not be exposed to any effects (including discountable, insignificant, or beneficial effects) and therefore, you have made a "no effect" determination for all species. If you are unsure, select YES to answer additional questions about your project.

   Yes

2. This determination key is intended to assist the user in the evaluating the effects of their actions on Federally listed species in Michigan. It does not cover other prohibited activities under the Endangered Species Act (e.g., for wildlife: import/export, Interstate or foreign commerce, possession of illegally taken wildlife, purposeful take for scientific purposes or to enhance the survival of a species, etc.; for plants: import/export, reduce to possession, malicious destruction on Federal lands, commercial sale, etc.) or other statutes. Click yes to acknowledge that you must consider other prohibitions of the ESA or other statutes outside of this determination key.

   Yes

3. Is the action the approval of a long-term (i.e., in effect greater than 10 years) permit, plan, or other action? (e.g., a new or re-issued hydropower license, a land management plan, or other kinds of documents that provide direction for projects or actions that may be conducted over a long term (>10 years) without the need for additional section 7 consultation).

   No

4. Is the action being funded, authorized, or carried out by a Federal agency?

   Yes

5. Does the action involve the installation or operation of wind turbines?

   No

6. Are there at least 30 days prior to your action occurring? Endangered species consultation must be completed before taking any action that may have effects to listed species. The Service also needs 30 days to review projects before we can verify conclusions in some dkey output letters. For example, if you have already started some components of the project on the ground (e.g., removed vegetation) before completing this key, answer “no” to this question. The only exception is if you have a Michigan Field Office pre-approved emergence survey (i.e., if you have conducted pre-approved emergence surveys for listed bats before tree removal, you can still answer yes to this question).

   Yes

7. Does the action involve constructing a new communication tower or modifying an existing communications tower?

   No

8. Does the activity involve aerial or other large-scale application of any chemical (including insecticide, herbicide, etc.)?

   No

9. Does your project include water withdrawal (ground or surface water) greater than 10,000 gallons/day?

   No

10. Will your action permanently affect hydrology?

    No

11. Will your action temporarily affect hydrology?

    No

12. Will your project have any direct impacts to a stream or river (e.g., Horizontal Directional Drilling (HDD), hydrostatic testing, stream/road crossings, new storm-water outfall discharge, dams, other in-stream work, etc.)?

    No

13. Does your project have the potential to indirectly impact the stream/river or the riparian zone (e.g., cut and fill, horizontal directional drilling, hydrostatic testing, construction, vegetation removal, discharge, etc.)?

    Yes

14. Are you applying for one of the following Michigan EGLE/Army Corps of Engineers joint permit application Minor Permit (MP) Categories:
MP 3 - Boat Hoist; MP 5 - Boal Wells; MP 7 - Completed Enforcement Actions; MP 12 - Dock;
MP 21 - Fish and Wildlife Habitat Structures;
MP 22 - Ford Stream Crossings for Commercial Forestry Operations;
MP 28 - Maintenance and Repair of Serviceable Structures;
MP 45 - Temporary Recreational Structures;
MP 48 - Wetland Habitat Restoration and Enhancement?

    Verify the MP category number and associated description matches your project/ application (https://www.michigan.gov/documents/egle/WRD-Minor-Project-Categories_733320_7.pdf). If you don't know what category applies for your project, answer no to this question.

    No

15. Are you applying for one of the following Michigan EGLE/Army Corps of Engineers joint permit application General Permit (GP) Categories:
GP A - Aids to Navigation;
GP C - Clear Span Bridge;
GP E - Culverts - Small;
GP J - Dry Fire Hydrant;
GP O - Minor Permit Revisions and Transfers;
GP Q - Mooring Buoy;
GP W - Scientific Measuring Devices;
GP X - Snow Road Stream Crossings for Forestry Operations;
GP Z - Spring Piles and Piling Clusters;
GP DD - Wetland Habitat Restoration and Enhancement?

    Verify the GP category number and associated description matches your project/ application (https://www.michigan.gov/documents/deq/wrd-general-permit-categories_555828_7.pdf). If you don't know what category applies for your project, answer no to this question.

    No

16. Will your action disturb the ground or existing vegetation? This includes any off road vehicle access, soil compaction, digging, seismic survey, directional drilling, heavy equipment, grading, trenching, placement of fill, pesticide application, vegetation management (including removal or maintenance using equipment or chemicals), cultivation, development, etc.

    Yes

17. Is the action a utility-scale solar development project?

    No

18. [Hidden semantic] Does the action intersect the MOBU AOI?

    Automatically answered
    Yes

19. Have you determined that this project will have no effect on the monarch?

    No

20. Is this project funded, authorized, or carried out by the U.S. Fish and Wildlife Service?

    No

21. [Hidden Semantic] Does the action intersect the Eastern massasauga rattlesnake area of influence?

    Automatically answered
    Yes

22. Does your action involve prescribed fire?

    No

23. Will this action occur entirely in the Eastern massasauga rattlesnake inactive season (October 16 through April 14)?

    No

24. Will this action occur entirely in the Eastern massasauga rattlesnake active season (April 15 through October 15)?

    No

25. Will the action result in permanent loss of more than one acre of wetland or conversion of more than 10 acres of uplands of potential Eastern massasauga rattlesnake habitat (uplands associated with high quality wetland habitat) to other land uses?

    No

26. Will you use wildlife safe materials for erosion control and site restoration and eliminate the use of erosion control products containing plastic mesh netting or other similar material that could ensnare Eastern massasauga rattlesnake?

    N/A

27. Will you watch MDNR's "60-Second Snakes: The Eastern Massasauga Rattlesnake (EMR)" video, review the EMR factsheet or call 517-351-2555 to increase human safety and awareness of EMR?

    Yes

28. Will all action personnel report any Eastern massasauga rattlesnake observations, or observation of any other listed threatened or endangered species, during action implementation to the Service within 24 hours?

    Yes

29. [Semantic] Does the action area intersect the snuffbox area of influence?

    Automatically answered
    Yes

30. [Hidden Semantic] Does the action area intersect the piping plover area of influence?

    Automatically answered
    Yes

31. Will the action occur in suitable piping plover habitat?

    Note: Piping plover habitat consists of Great Lakes islands and mainland shorelines that support, or have the potential to support, open, sparsely vegetated sandy habitats, such as sand spits or sand beaches, that are associated with wide, unforested systems of dunes and inter-dune wetlands.

    No

32. Will the action occur during the piping plover migration season (April 1 through May 1 in spring OR August 15 through September 15 in the fall)?

    Yes

33. [Hidden Semantic] Does the action area intersect the rufa red knot area of influence?

    Automatically answered
    Yes

34. Will the action occur during the red knot migration windows (May 15-June 15 or July 1-September 30?)

    Yes

35. Will the action modify beaches, dunes, mudflats, peat banks, sandbars, shoals, or other red knot habitats? For example, the following actions may modify red kot habitat: groins, jetties, sea walls, revetments, bulkheads, rip-rap, beach nourishment, nearshore dredging, dredge spoil disposal, sand mining/borrowing, beach bulldozing, sandbagging, sand fencing, vegetation planting/alteration/removal, deliberate or possible introduction of non-native vegetation, beach raking/mechanized grooming, boardwalks, aquaculture development.

    No

36. Will the action result in increased human disturbance or predation? For example, is the action likely to indirectly increase access or use of red knot habitats by humans and/or predators at times of year that the birds are typically present (e.g., commercial/residential development, beach access structures, boardwalks, pavilions, bridges/roads/ferries/trails, marinas, posts or other avian predator perches, structures or habitat features likely to encourage predator nesting/denning, trash cans or other predator attractants, feral cat colonies, policy changes likely to increase human use).

    No

37. [Hidden Semantic] Does the action area intersect the area of influence for Eastern prairie fringed orchid?

    Automatically answered
    Yes

38. [Hidden Semantic] Does the action area intersect the Indiana bat area of influence?

    Automatically answered
    Yes

39. The project has the potential to affect federally listed bats. Does the action area contain any known or potential bat hibernacula (natural caves, abandoned mines, or underground quarries)?

    No

40. Has a presence/absence bat survey or field-based habitat assessment following the Service's Range-wide Indiana Bat and Northern Long-eared Bat Summer Survey Guidelines been conducted within the action area?

    No

41. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting Indiana bats?

    No

42. Does the action include removal/modification of an existing bridge or culvert?

    Yes

43. [Hidden Semantic] Does the action area intersect the third county tier?

    Automatically answered
    No

44. Does the action include herbicide application?

    No

45. Does the action include tree cutting/trimming, prescribed fire, and/or pesticide (e.g., insecticide, rodenticide) application?

    Yes

46. Will the action clear >10 acres of contiguous forest (i.e., connected by 1,000 feet or less) or fragment a riparian or other connective forested corridor (e.g., tree line) between 2 or more forest patches of at least 5 acres? For more information, see Appendix II.

    No

47. Does the action area contain potential NLEB bat roost trees (trees ≥3 inches in diameter [at breast height] with cracks, crevices, cavities and/or exfoliating bark)? For more information, see Appendix IV.

    Yes

48. Does the action area contain potential Indiana bat roost trees (trees ≥5 inches in diameter [at breast height] with cracks, crevices and/or exfoliating bark)? For more information, see Appendix III.

    Yes

49. Does the action include emergency cutting/trimming of hazard trees in order to prevent imminent loss of human life and/or property?

    No

50. [Semantic] Is any portion of the action area within 5 miles of a known Indiana or northern long-eared bat hibernaculum?

    Automatically answered
    No

51. Will all tree cutting/trimming, prescribed fire, and/or pesticide application occur OUTSIDE the non-volant ("pup") season for Indiana bat (that is, no cutting/trimming, prescribed fire, or pesticide application during June 1 through July 31)?

    Note: Based on the project's location, conducting these activities outside the months of June and July may be sufficient to avoid adverse effects to/take of Indiana bat.

    Yes

52. Will the action clear >10 acres of modeled Indiana bat habitat? To determine whether it is >10 acres, you can download the shapefile or kmz here: Indiana bat model. For more information on the development of the Indiana bat habitat suitability model, see Appendix I.

    No

53. [Hidden Semantic] Does the action area intersect the Indiana bat AOI?

    Automatically answered
    Yes

54. [Hidden Semantic] Does this project intersect the northern long-eared bat area of influence?

    Automatically answered
    Yes

55. Is the project action area located within 0.25 miles of a known northern long-eared bat hibernaculum?

    Automatically answered
    No

56. Will the action involve Tree Removal as defined in the 4(d) rule for northern long-eared bat?

    Yes

57. Is the project action area located within 150 feet of a known occupied northern long-eared bat maternity roost tree?

    Automatically answered
    No

58. [Hidden Semantic] Does the action area intersect the Indiana bat AOI?

    Automatically answered
    Yes

59. Will all tree cutting/trimming, prescribed fire, and/or pesticide/herbicide application be restricted to the inactive (hibernation) season for northern long-eared bat (that is, conducted during October 1 through April 14)?

    Yes

IPaC User Contact Information

Agency: WSP USA
Name: Nathan Ring
Address: 15851 S. US-27, Suite 50
City: Lansing
State: MI
Zip: 48906
Email nathan.ring@wsp.com
Phone: 6169163761

Lead Agency Contact Information

Lead Agency: Department of Transportation

Blue Water Bridge - Plaza Expansion

Biological Assessment

Prepared using IPaC

Generated by Nathan Ring (nathan.ring@wsp.com)

September 1, 2022

The purpose of this Biological Assessment (BA) is to assess the effects of the proposed project and determine whether the project may affect any Federally threatened, endangered, proposed or candidate species. This BA is prepared in accordance with legal requirements set forth under Section 7 of the Endangered Species Act (16 U.S.C. 1536 (c)).

In this document, any data provided by U.S. Fish and Wildlife Service is based on data as of August 21, 2022.

Prepared using IPaC version 6.79.0-rc4

Blue Water Bridge - Plaza Expansion Biological Assessment

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1.5.1 **eastern massasauga** materials used for erosion control and site restoration must be wildlife-friendly. do not use erosion control products containing plastic mesh netting or other similar material that could entangle eastern massasauga rattlesnake (EMR). several products for soil erosion and control exist that do not contain plastic netting including net-less erosion control blankets (for example, made of excelsior), loose mulch, hydraulic mulch, soil binders, unreinforced silt fences, and straw bales. others are made from natural fibers (such as jute) and loosely woven together in a manner that allows wildlife to wiggle free. to increase human safety and awareness of EMR, those implementing the project must first review the EMR factsheet (available at https://www.fws.gov/media/eastern-massasauga-rattlesnake-fact-sheet), and watch MDNR's "60-second snakes: the eastern massasauga rattlesnake" video (available at https://youtu.be/~pfnxe_e02w). during project implementation, report sightings of any federally listed species, including EMR, to the service within 24 hours 15
1.5.2 **northern long-eared bat** based on the project area you entered into ipac, the project does not occur within 0.25 miles of a known northern long-eared bat hibernaculum. tree removal, as defined in the 4(d) rule, will not occur within 150 feet of a known occupied northern long-eared bat maternity roost tree. 16
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pesticide/herbicide application will also occur during the inactive season where potential roost trees are present.
tree cutting/trimming and/or prescribed burning will not clear ≥20 contiguous acres of forest or fragment a connective corridor between 2 or more forest patches of at least 5 acres.
17
1.5.5 the project will not result in permanent loss of more than one acre of wetland or conversion of more than 10 acres of EMR upland habitat (uplands associated with high quality wetland habitat) to other land uses. 17
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1 Description Of The Action

1.1 Project Name

Blue Water Bridge - Plaza Expansion

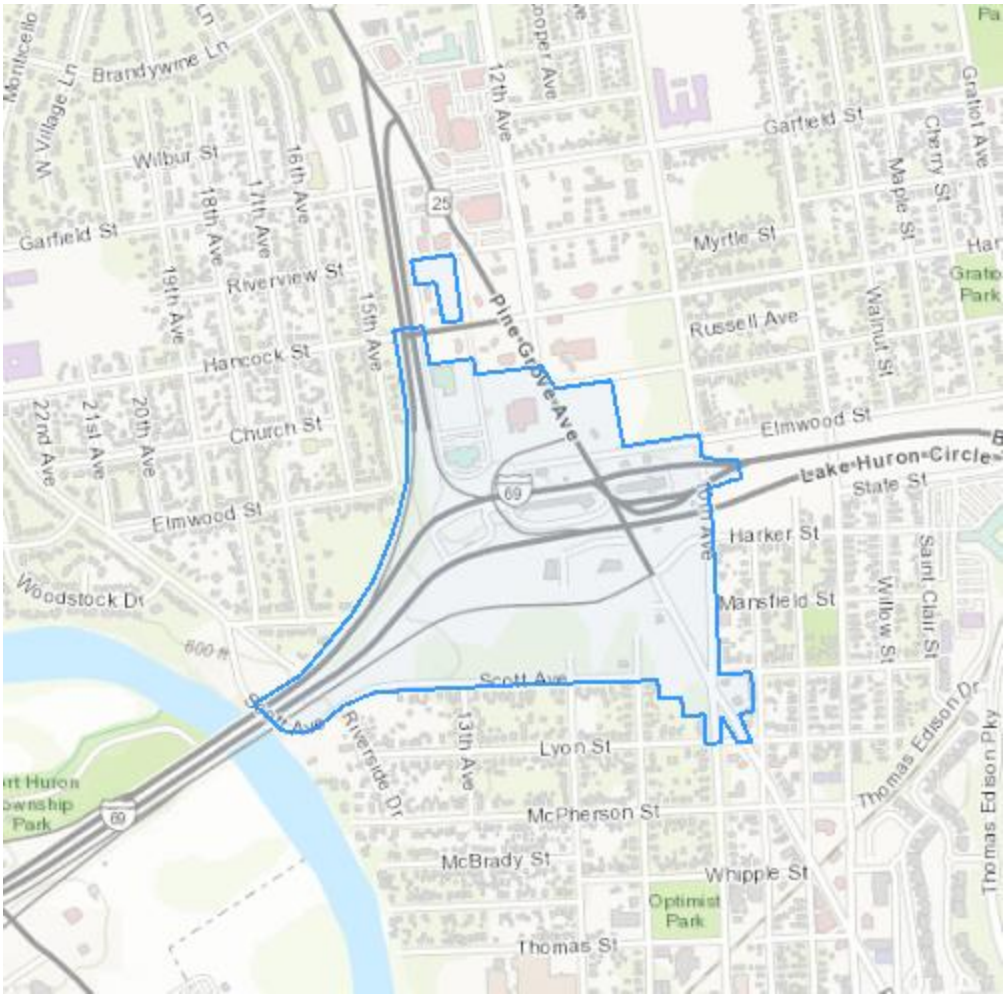
1.2 Executive Summary

This project is not expected to impact critical habitat or any federally listed species. Snuffbox mussels are fully aquatic organisms. This project does not propose impacts to the adjacent Black River. Additionally, the majority of the project area contains maintained commercial and residential land with is not likely to contain a large population or Milkweed species utilized by monarch butterflies.

Effect determination summary

1.3 Project Description

1.3.1 Location



LOCATION
St. Clair County, Michigan

1.3.2 Description of project habitat

The project action area contains predominately mowed or maintained land associated with commercial businesses and residential areas. These commercial and residential areas contain scattered trees in a relatively open and heavily populated area. A large portion of the project area is also occupied by the current Blue Water Bridge Plaza and I-94 corridor. Approximately 500 feet of the project area boarders the Black River along Scott Avenue. The project area along the Black River is primarily maintained/mowed land which has been armored with Rip Rap and/or concrete.

Relevant documentation

- Study Area

1.3.3 Project proponent information

Provide information regarding who is proposing to conduct the project, and their contact information. Please provide details on whether there is a Federal nexus.

Requesting Agency
WSP USA

FULL NAME
Nathan Ring

STREET ADDRESS
15851 S. US-27, Suite 50

CITY
Lansing

STATE
MI

ZIP
48906

PHONE NUMBER
6169163761

E-MAIL ADDRESS
nathan.ring@wsp.com

Lead agency
Department of Agriculture

Department of Transportation

1.3.4 Project purpose

This project has been proposed to increase the safety, security, and efficiency of traffic and goods across the Blue Water Bridge between the United States and Canada.

1.3.5 Project type and deconstruction

This project is a bridge construction project.

1.3.5.1 Project map

LEGEND

Project footprint

Layer 2: Bridge/plaza expansion and maintenance

1.3.5.2 bridge/plaza expansion and maintenance

Activity start date
Unspecified

Activity end date
Unspecified

Stressors

PLANT FEATURES

- Decrease in upland vegetation

Description
Vegetation clearing and grading will likely occur throughout the entire project action area. The majority of the project area contained maintained commercial and residential land or existing roadways thus limiting the impact to vegetation.

1.3.6 Anticipated environmental stressors

Describe the anticipated effects of your proposed project on the aspects of the land, air and water that will occur due to the activities above. These should be based on the activity deconstructions done in the previous section and will be used to inform the action area.

1.3.6.1 Plant Features

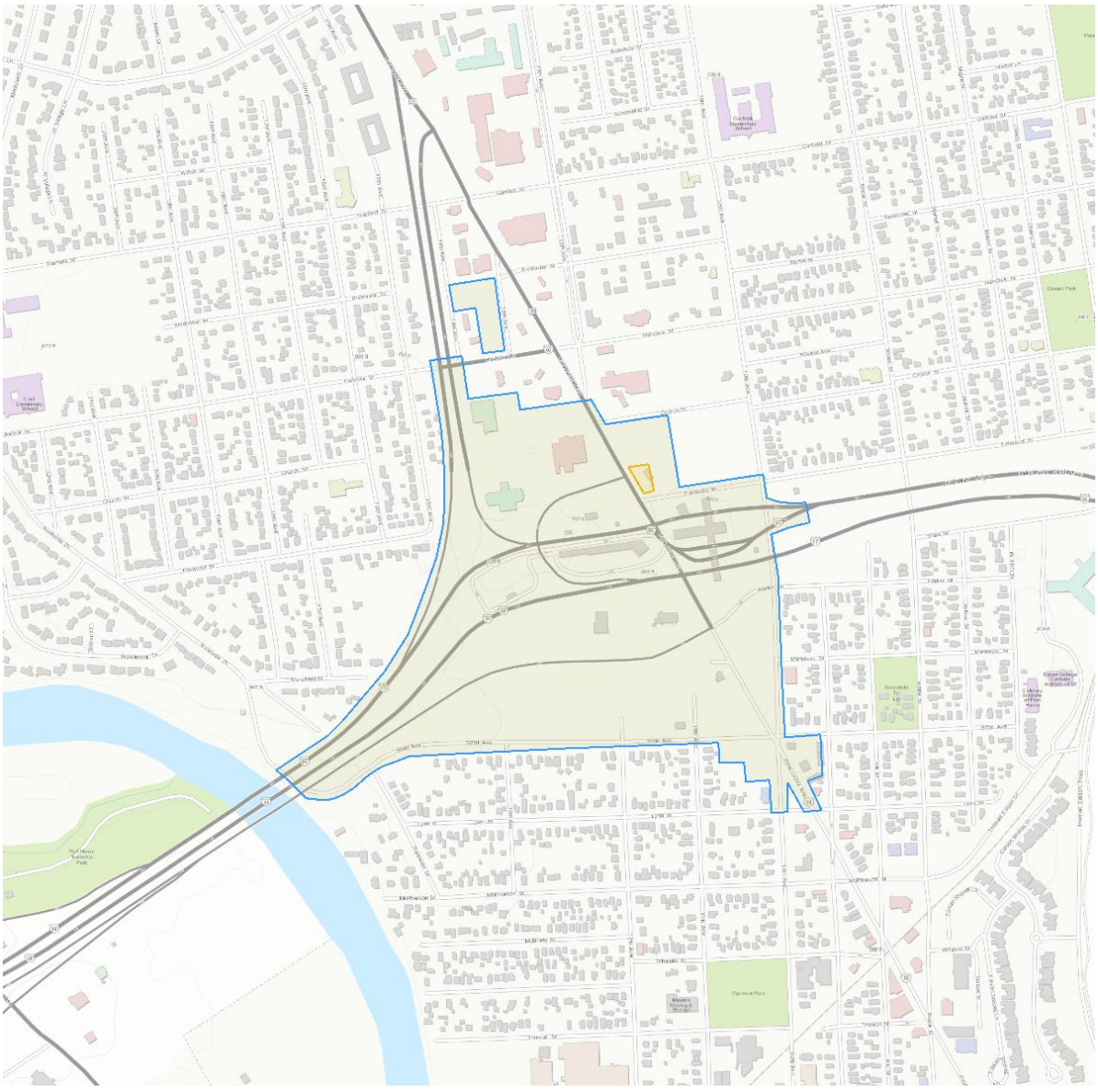
Individuals from the Plantae kingdom, such as trees, shrubs, herbs, grasses, ferns, and mosses. This feature also includes products of plants (e.g., nectar, flowers, seeds, etc.).

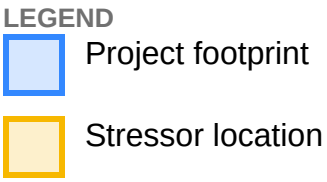
1.3.6.1.1 Decrease in upland vegetation

ANTICIPATED MAGNITUDE

Decrease in upland vegetation will occur throughout the project area from proposed grading and vegetation clearing. The majority of the project area contains maintained commercial and residential land. In addition, multiple roadways also transect the project area.

STRESSOR LOCATION




LEGEND
Project footprint
Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Bridge/plaza expansion and maintenance

1.3.6.2 Miscellaneous

Miscellaneous should only be used if the created feature does not fit into one of the other categories or if the creator is not sure in which category it should be placed.

1.4 Action Area

1.5 Conservation Measures

1.5.1 eastern massasauga materials used for erosion control and site restoration must be wildlife-friendly. do not use erosion control products containing plastic mesh netting or other similar material that could entangle eastern massasauga rattlesnake (EMR). several products for soil erosion and control exist that do not contain plastic netting including net-less erosion control blankets (for example, made of excelsior), loose mulch, hydraulic mulch, soil binders, unreinforced silt fences, and straw bales. others are made from natural fibers (such as jute) and loosely woven together in a manner that allows wildlife to wiggle free. to increase human safety and awareness of EMR, those implementing the project must first review the EMR factsheet (available at https://www.fws.gov/media/eastern-massasauga-rattlesnake-fact-sheet), and watch MDNR's "60-second snakes: the eastern massasauga rattlesnake" video (available at https://youtu.be/~pfnxe_e02w). during project implementation, report sightings of any federally listed species, including EMR, to the service within 24 hours

Description
Project managers will be recommended to watch the MI 60 Second Snake Video and any reported sightings of federally listed species will be reported to the USFWS within 24 hours.

Determination Keys
All Species Michigan Determination Key

1.5.2 northern long-eared bat based on the project area you entered into ipac, the project does not occur within 0.25 miles of a known northern long-eared bat hibernaculum. tree removal, as defined in the 4(d) rule, will not occur within 150 feet of a known occupied northern long-eared bat maternity roost tree.

Description
N/A

Determination Keys
All Species Michigan Determination Key

1.5.3 rufa red knot avoid permanent modification of beaches, dunes, mudflats, peat banks, sandbars, shoals, OR other red knot habitats during the red knot migration windows (may 15 through june 15 in the spring OR july 1 through september 30 in the fall). in addition, the project will not result in an increase in human disturbance OR predation during the red knot migration windows within suitable habitat during the migration window.

Description
N/A

Determination Keys
All Species Michigan Determination Key

1.5.4 any cutting/trimming of potential roost trees for northern long-eared bat (trees ≥3 inches in diameter [at breast height] with cracks, crevices, cavities, and/or exfoliating bark) will be limited to the inactive season (october 1 through april 14). prescribed fire and/or pesticide/herbicide application will also occur during the inactive season where potential roost trees are present. tree cutting/ trimming and/or prescribed burning will not clear ≥20 contiguous acres of forest or fragment a connective corridor between 2 or more forest patches of at least 5 acres.

Description
Required tree felling of bat trees will occur during the winter and/or fall months when bats are not present.

Determination Keys
All Species Michigan Determination Key

1.5.5 the project will not result in permanent loss of more than one acre of wetland or conversion of more than 10 acres of EMR upland habitat (uplands associated with high quality wetland habitat) to other land uses.

Description
The project area contains upland that is not wetland or EMR habitat.

Determination Keys
All Species Michigan Determination Key

1.6 Prior Consultation History
It is likely that there has been prior consultation with the USFWS regarding this project, however, this is the first consultation of my knowledge.

1.7 Other Agency Partners And Interested Parties
Michigan Department of Transportation

1.8 Other Reports And Helpful Information
N/A

2 Species Effects Analysis

This section describes, species by species, the effects of the proposed action on listed, proposed, and candidate species, and the habitat on which they depend. In this document, effects are broken down as direct interactions (something happening directly to the species) or indirect interactions (something happening to the environment on which a species depends that could then result in effects to the species).

These interactions encompass effects that occur both during project construction and those which could be ongoing after the project is finished. All effects, however, should be considered, including effects from direct and indirect interactions and cumulative effects.

2.1 Monarch Butterfly

2.1.1 Status of the species

This section should provide information on the species' background, its biology and life history that is relevant to the proposed project within the action area that will inform the effects analysis.

2.1.1.1 Legal status

The Monarch Butterfly is federally listed as 'Candidate' and additional information regarding its legal status can be found on the ECOS species profile.

2.1.1.2 Recovery plans

Available recovery plans for the Monarch Butterfly can be found on the ECOS species profile.

2.1.1.3 Life history information

Note - the monarch is a candidate species and not yet listed or proposed for listing. Consultation with U.S. Fish and Wildlife Service under section 7 of the Endangered Species Act is not required for candidate species, like the monarch. We encourage agencies, however, to take advantage of any opportunity they may have to conserve the species.

For information on monarch conservation, visit https://www.fws.gov/savethemonarch/, http://www.mafwa.org/?page_id=2347, and, for the West, https://wafwa.org/committees-working-groups/monarch-working-group/.

Adult monarch butterflies are large and conspicuous, with bright orange wings surrounded by a black border and covered with black veins. The black border has a double row of white spots, present on the upper side of the wings. Adult monarchs are sexually dimorphic, with males having narrower wing venation and scent patches. The bright coloring of a monarch serves as a warning to predators that eating them can be toxic.

During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (primarily Asclepias spp.), and larvae emerge after two to five days. Larvae develop through five larval instars (intervals between molts) over a period of 9 to 18 days, feeding on milkweed and sequestering toxic chemicals (cardenolides) as a defense against predators. The larva then pupates into a chrysalis before emerging 6 to 14 days later as an adult butterfly. There are multiple generations of monarchs produced during the breeding season, with most adult butterflies living approximately two to five weeks; overwintering adults enter into reproductive diapause (suspended reproduction) and live six to nine months.

In many regions where monarchs are present, monarchs breed year-round. Individual monarchs in temperate climates, such as eastern and western North America, undergo long-distance migration, and live for an extended period of time. In the fall, in both eastern and western North America, monarchs begin migrating to their respective overwintering sites. This migration can take monarchs distances of over 3,000 km and last for over two months. In early spring (February-March), surviving monarchs break diapause and mate at the overwintering sites before dispersing. The same individuals that undertook the initial southward migration begin flying back through the breeding grounds and their offspring start the cycle of generational migration over again.

Identified resource needs

Milkweed species

N/a

2.1.1.4 Conservation needs

Monarch butterflies require prairie habitat for food and milkweed species for

larval habitat and food.

2.1.2 Environmental baseline

*The environmental baseline describes the species' health **within the action area only** at the time of the consultation, and does not include the effects of the action under review. Unlike the species information provided above, the environmental baseline is at the scale of the Action area.*

2.1.2.1 Species presence and use

Monarch butterflies (*Danaus plexippus*) are likely not common in the project area. Monarchs feed predominantly on plants found within prairie habitats and utilize milkweed species (*Asclepias* spp.) for breading and larval habitat. While these prairie species monarchs utilize may be present, given the abundance of land development within and surrounding the project action area, it is unlikely that milkweed and other prairie species are abundant.

2.1.2.2 Species conservation needs within the action area

Habitat required for monarch butterflies does not appear to be common in the action area. Monarchs need prairie habitat with milkweed species. The action area appears to be primarily maintained commercial and residential land with multiple roadways and does not likely contain habitat required for monarch survival.

2.1.2.3 Habitat condition (general)

milkweed species (N/A)

Based on initial review of aerial imagery, it does not appear that milkweed is likely common within the project area. While it is possible that there is some milkweed within the project area, the project area appears to be predominantly maintained commercial and residential land with multiple roadways transecting the area. It is unlikely that milkweed are common.

2.1.2.4 Influences

The project areas current and historical land use has likely discouraged the presence of monarch butterflies within the area. Prairie and milkweed plant species have likely not been common within the project area since at lease the initial construction of the Blue Water Bridge.

2.1.2.5 Additional baseline information

N/A

2.1.3 Effects of the action

This section considers and discusses all effects on the listed species that are caused by the proposed action and are reasonably certain to occur, including the effects of other activities that would not occur but for the proposed action.

2.1.3.1 Indirect interactions

RESOURCE NEED	STRESSORS	CONSERVATION MEASURES	AMOUNT OF RESOURCE IMPACTED	INDIVIDUALS AFFECTED
Milkweed species (n/a)	Decrease in upland vegetation		There may be some impacts to milkweed while clearing and grading the site, however, given the commercial and residential land use within and surrounding the site, these impacts are likely not substantial	***No individuals will be affected*** It does not appear that milkweed is likely common within the project area. While it is possible that there is some milkweed within the project area, the project area appears to be predominantly maintained commercial and residential land with multiple roadways transecting the area. Minor impacts to milkweed is not likely to adversely impact the monarch butterfly population.

2.1.3.2 Direct interactions

No direct interactions leading to effects on species are expected to occur from the proposed project.

2.1.4 Cumulative effects

No known additional future state or private activities are anticipated to impact monarch butterflies within the project area.

2.1.5 Discussion and conclusion

Determination: NLAA

Compensation measures
N/A

2.2 Snuffbox Mussel

This species has been excluded from analysis in this environmental review document.

Justification for exclusion

Snuffbox mussels are fully aquatic organisms. The project action area adjoins the Black River, but does not overlap with the river. Additionally, soil erosion BMPs will be in place to limit impacts from the project on the adjacent Black River.

3 Critical Habitat Effects Analysis

No critical habitats intersect with the project action area.

4 Summary Discussion, Conclusion, And Effect Determinations

4.1 Effect Determination Summary

SPECIES (COMMON NAME)	SCIENTIFIC NAME	LISTING STATUS	PRESENT IN ACTION AREA	EFFECT DETERMINATION
Eastern Massasauga (=rattlesnake)†. **This species or critical habitat is covered by a DKey.**	Sistrurus catenatus	Threatened		NLAA
Eastern Prairie Fringed Orchid†. **This species or critical habitat is covered by a DKey.**	Platanthera leucophaea	Threatened		NE
Indiana Bat†. **This species or critical habitat is covered by a DKey.**	Myotis sodalis	Endangered		NLAA
Monarch Butterfly	Danaus plexippus	Candidate	Yes	NLAA
Northern Long-eared Bat†. **This species or critical habitat is covered by a DKey.**	Myotis septentrionalis	Threatened		NLAA
Piping Plover†. **This species or critical habitat is covered by a DKey.**	Charadrius melodus	Endangered		NLAA
Red Knot†. **This species or critical habitat is covered by a DKey.**	Calidris canutus rufa	Threatened		NLAA
Snuffbox Mussel	Epioblasma triquetra	Endangered	No	NE

† This species or critical habitat is covered by a DKey.

4.2 Summary Discussion

This project as proposed is not expected to have impacts to critical habitat or federally listed species.

4.3 Conclusion

Overall, this project is not expected to impact critical habitat or any federally listed species. Snuffbox mussels are fully aquatic organisms. This project does not propose impacts to the adjacent Black River. Additionally, the majority of the project area contains maintained commercial and residential land with is not likely to contain a large population or Milkweed species utilized by monarch butterflies.

APPENDIX D

SEPTEMBER 12, 2022 USFWS RESPONSE TO BIOLOGICAL ASSESSMENT

Tollenaere, Keith

Subject: FW: [EXTERNAL] Golder/WSP - Blue Water Bridge Plaza Expansion - IPaC Review

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From: Kane, Michelle E <michelle_kane@fws.gov>
Sent: Monday, September 12, 2022 9:14 AM
To: Ring, Nathan <nathan.ring@wsp.com>
Cc: Galloway, Shaughn L <shaughn_galloway@fws.gov>
Subject: Re: [EXTERNAL] Golder/WSP - Blue Water Bridge Plaza Expansion - IPaC Review

Hello Nate,

Thank you for using IPaC to review your project and for following up with our office! I have reviewed your project materials. Based on your biological assessment, you are making a no effect determination for snuffbox mussel. You are not required to consult on a species if it will not be exposed to any consequence of your action, and the USFWS does not provide written concurrence for no effect determinations. In addition, as noted on page 3 of your dkey letter, monarch butterfly is listed as a candidate species. The Endangered Species Act does not establish protections or consultation requirements for candidate species. Since your project is not funded, authorized, or carried out by the US Fish and Wildlife Service, you are not required to consult on monarch butterfly. The consistency letter you received from IPaC serves as our official concurrence with your NLAA determinations for eastern massasauga, Indiana bat, northern long-eared bat, piping plover, and red knot. Please retain a copy of that letter, your biological assessment, and this email for your records.

The consultation package builder can be a helpful tool, and you are always welcome to use it if you would like to. However, so that you are aware for any future projects, we are not recommending applicants use the consultation package builder at this time, because the functionality has not been fully developed in Michigan. If you are using IPaC for project review in Michigan, we recommend you complete the All-Species Michigan Determination Key, and then carefully review and follow any additional steps in your letter to complete your review. If you have any questions, please let me know!

Have a great day,

Michelle

Michelle Kane
U.S. Fish & Wildlife Service
Michigan Ecological Services Field Office
2651 Coolidge Road, Suite 101
East Lansing, MI 48823
she/her/hers

517-351-5350
michelle_kane@fws.gov

From: Ring, Nathan <Nathan_Ring@golder.com>
Sent: Friday, September 9, 2022 1:12 PM
To: East Lansing, FW3 <EastLansing@fws.gov>
Cc: Tollenaere, Keith <Keith_Tollenaere@golder.com>
Subject: [EXTERNAL] Golder/WSP - Blue Water Bridge Plaza Expansion - IPaC Review

Hello,

Golder / WSP respectfully submits the attached species list, determination key, and biological assessment for the proposed Blue Water Bridge Plaza Expansion (IPaC Project: Blue Water Bridge – Plaza Expansion). These documents were drafted and/or generated using the USFWS IPaC tool. If you have any questions or need any additional information, please do not hesitate to reach out to myself or Keith Tollenaere (copied above).

Best Regards,
Nate

Nathan Ring
Associate Consultant, Ecologist, WPIT

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WSP GOLDER

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APPENDIX E

SEPTEMBER 1, 2022
EGLE TRANSPORTATION SCREENING

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
LANSING

GRETCHEN WHITMER
GOVERNOR

LIESL EICHLER CLARK
DIRECTOR

September 1, 2022

VIA EMAIL

WSP Golder USA
Nathan Ring
15851 S. US-27
Suite 50
Lansing, Michigan 48906

Dear Nathan Ring:

SUBJECT: Transportation Preliminary Database Search
Project Name: Blue Water Bridge - Plaza Expansion
Site Name: 74 - Blue Water Bridge - Plaza Expansion
Submission Number: HPM-14T3-PK8B7
Location: T07N, R17E, Section 34

This letter provides the results of the Transportation Preliminary Database Search that was requested on August 19, 2022, for the above subject project. The Transportation Preliminary Map/Database Review includes a database search for the following concerns within 500-feet of the project location:

- Occurrences of state-listed threatened or endangered (T&E) species within the MNFI database*
- Tier 1 Eastern Massasauga Rattlesnake (EMR) designated habitat
- Michigan Mussel Protocol Group 1/Group 2 (state) and Group 3 (federal) T&E Mussels
- Known contamination locations
- State-regulated 303 wetlands
- Section 10 regulated waterways

The following T&E species are listed in the database as having been observed within 500 feet of your project area:

- Eastern pondmussel (*Ligumia nasuta*); State-listed endangered species. Species are in the Black River.
- Pugnose shiner (*Notropis anogenus*); State-listed endangered species. Species are in the Black River.

If all the work performed is outside of the Black River, impact to the listed species is not expected, otherwise, you will need to consult with the Michigan Department of Natural Resources (MDNR) for further guidance prior to performing work or applying for permits. MDNR contact information is provided further below.

- Round hickorynut (*Obovaria subrotunda*); State-listed endangered species. Species are in the vicinity of I-94 & 1-69 at the Black River.

Given the presence of the T&E species in your project area, you will need to consult with the MDNR for further guidance prior to performing work or applying for permits. MDNR contact information is provided further below.

The following Michigan mussels are listed in the database as having been observed within 500 feet of your project area:

- Michigan mussel Group 3; Federally listed endangered species. Mussels are in the Black River.

If all the work performed is outside of the Black River, impact to the mussels is not expected, otherwise, you will need to consult with the United States Fish and Wildlife Service (USFWS) for further guidance prior to performing work or applying for permits. USFWS contact information is provided further below.

The following contamination site is listed in the database as having been observed within 500 feet of your project area:

- Clark Oil #635 – NW corner of Lyon Street and Poplar Street.

The database review also shows that your project area lies within the United States Army Corps of Engineers (USACE) Section 10 regulated waterways area. You will need to contact USACE to determine whether any specific areas of the project fall under Section 10 jurisdiction. You will also need to confirm whether any existing wetlands within the project area fall under federal jurisdiction.

The database did not indicate occurrences of the Northern long-eared bat or the Indiana bat which are federally listed as an endangered species. Indiana bats; however, are considered potentially present wherever suitable habitat exists within their range. Your project location is within the range of the Indiana bat in Michigan. You should consult with the USFWS prior to performing work or applying for permits.

The database search did not indicate any occurrences for EMR habitat and mapped wetlands (note wetlands may still be present).

** Occurrence data for state-listed T&E species were provided to the Water Resources Division (WRD) by the Michigan Natural Features Inventory (MNFI). These data are not based on a comprehensive inventory of the state. The lack of data for any geographical area shall not be construed to mean that no significant features are present. In addition, although the MNFI maintains high standards of quality control, there is no warranty as to the fitness of the data for any purpose, nor that the data are necessarily accurate or complete.*

The only way to obtain a definitive statement on the status of threatened and endangered species is to have a qualified biologist perform a complete field survey of the proposed project area. Under Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, "a person shall not take, possess, transport, . . . fish, plants, and wildlife indigenous to the state and determined to be endangered or threatened," unless first receiving an endangered species permit from the MDNR. The presence of threatened or endangered species does not preclude activities or development but may require alterations to the project. To obtain or submit an endangered species permit, please contact Casey Reitz, MDNR, at 517-284-6210 or reitzc@michigan.gov or Amy Bleisch, MDNR at 517-449-4630 or bleischa@michigan.gov.

This review does not include a comprehensive search for federally listed species. The project location must be screened using the self-service USFWS IPaC website. If your project will potentially impact a federally listed T&E species, you should contact USFWS Ecological Services Field Office at 517-351-2555 or eastlansing@fws.gov to begin the consultation process. If your project requires a permit from the WRD, the application submission should include documentation from USFWS of concurrence/approval.

This letter does not include a review of potential lake, stream, wetland, or floodplain impacts caused by your project that may require a permit from our office. A copy of this letter should be provided as an attachment to any future Joint Permit Application submitted for this location. If you have any questions, please feel free to contact me at prysbym1@michigan.gov; 517-899-7316, or Environment, Great Lakes, and Energy (EGLE), WRD, P.O. Box 30458, Lansing, Michigan 48909.

Sincerely,

Michael Prysby

Michael Prysby, P.E.
EGLE – WRD
Transportation Review Unit

cc: USFWS
USACE
Casey Reitz, MDNR
Amy Bleisch, MDNR

APPENDIX F

AUGUST 22, 2022
SITE PHOTOS

Client: AECOM

Project Number: 31000318.001

Site/Project Name: Blue Water Bridge

County, State: St. Clair County, Michigan

Date: August 22, 2022

PHOTOS 1-4 (clockwise from top left) – Blue and white spruce (*Picea pungens* and *P. glauca*), Japanese pagoda tree (*Styphnolobium japonicum*), various maple and other species, and paper birch (*Betula papyrifera*) identified within Site A.

Client: AECOM

Project Number: 31000318.001

Site/Project Name: Blue Water Bridge

County, State: St. Clair County, Michigan

Date: August 22, 2022

PHOTO 1

Description:

Representative photo of Project area showing mowed/ maintained lawn with young to mature trees present. Photo depicts silver maple with dead branches which may provide bat habitat.

PHOTO 2

Description:

Representative photo of Project area showing existing paved areas with surrounding mowed/ maintained lawn and young to mature trees.

Client: AECOM

Site/Project Name: Blue Water Bridge

Project Number: 31000318.001

County, State: St. Clair County, Michigan

Date: August 22, 2022

PHOTO 3

Description:

Representative photo of Project area showing mowed/ maintained lawn with adjacent paved infrastructure. Photo depicts silver maple with dead branches which may provide bat habitat.

PHOTO 4

Description:

Representative photo of Project area. Photo depicts un-mowed forested berm within Site A with some non-wetland areas displaying hydrophytic vegetation such as common reed (*Phragmites australis*).

Client: AECOM

Site/Project Name: Blue Water Bridge

Project Number: 31000318.001

County, State: St. Clair County, Michigan

Date: August 22, 2022

PHOTO 5

Description:

Photo of stormwater drain within depressional area of Site A. Area located within upland mowed/maintained lawn.

PHOTO 6

Description:

Representative photo of Project area showing mowed/ maintained lawn with young to mature trees present.