

APPENDIX A: HISTORICAL SITES

Lansing Board Of Water and Light
DWSRF Project Plan
Appendix A: Historical Sites

National or State Historical Marker	Historical Site Name	Local Address
State	Saint Paul's Episcopal Church / Saint Paul's Episcopal Church	218 W. Ottawa St., Lansing MI
State	Capital Bank Tower	124 Allegan Street, Lansing MI
State	Town of Michigan / Lansing	124 West Michigan Ave, Lansing MI
State	Michigan Millers Mutual Insurance Company / Michigan Millers Mutual Insurance Company	2425 East Grand River, Lansing MI
State	Lansing Becomes the Capital City / Lansing's First Capitol Building	South Washington Square, Lansing MI
State	Lansing City Market	333 North Cedar, Lansing MI
State	Lansing Community College	610 North Capital, Lansing MI
State	Mount Hope Cemetery	1709 E. Mount Hope Ave, Lansing MI
State	State Bar of Michigan	306 Townsend Street, Lansing MI
State	Delta Mills	Delta Mills Park, Old River Trail, Delta Mills MI
State	Union Depot	637 East Michigan Ave, Lansing MI
State	Little Family Homesite/Malcolm X	4705 S. Martin Luther King Blvd., Lansing MI
State	Bath School Disaster / Bath School Disaster	Main Street-James Couzens Memorial Park, Bath MI
State	Michigan Sheriffs' Association	515 North Capital, Lansing MI
State	Michigan Dental Association	3657 Okemos Road, Okemos MI
State	North Presbyterian Church / North Presbyterian Church	108 W. Cesar E. Chavez Avenue, Lansing MI
State	Ransom Eli Olds / Curved Dash Oldsmobile	240 Museum Drive, Lansing MI
State	Michigan's Three Capitols / Michigan State Capitol	100 Capitol Ave., Lansing MI
State	Delta Township / Delta Charter Township	7716 West Saginaw Highway, Delta Township MI
State	John T. Herrmann House	520 North Capital, Lansing MI
State	Turner-Dodge House / Turner-Dodge House	106 E. North Street, Lansing MI
State	Durant Park / Durant Park Arch	Durant Park, Lansing MI
State	REO Motor Car Company / REO Clubhouse	2100 S. Washington Avenue, Lansing MI
State	Michigan Retail Hardware Association / Michigan Retail Hardware Association	4414 South Pennsylvania, Lansing MI
State	The Kerns Hotel Fire / The Box 23 Club	North Grand Avenue, Lansing MI
State	Morgan B. Hungerford House	602 West Ionia, Lansing MI
State	State Highway Department / Horatio Earle	425 West Ottawa Street, Lansing MI
State	Michigan Licensed Beverage Association	101 S. Washington Square, Lansing MI
State	Grand Trunk Depot	1201 South Washington Avenue, Lansing MI
State	The Grand River / Grand River History	East bank of Grand River North of Shiawassee, Lansing MI
State	Michigan Manufacturers Association / Michigan Manufacturers Association	124 East Kalamazoo Street, Lansing MI
State	Carnegie Library / Carnegie Library	210 W. Shiawassee St., Lansing MI
State	Michigan Society of Professional Engineers	215 North Walnut, Lansing
State	Central United Methodist Church	215 North Capital, Lansing MI
State	Church of the Resurrection / Monsignor John A. Gabriels	1529 East Michigan Ave., Lansing MI
State	Michigan Education Association Building	935 North Washington, Lansing MI
State	Delta Center Methodist Church / Delta Center Methodist Church	7533 W. St. Joseph Hwy, Lansing MI
State	Woodberry-Kerns House	606 Townsend St., Lansing MI
State	Michigan National Guard Armory / 119th Field Artillery	330 Marshall Street, Lansing MI
State	Plymouth Congregational Church / Plymouth Congregational Church	2001 East Grand River, Lansing MI
State	Sophie Turner House	505 North Capital, Lansing MI
State	Roswell Everett House	131 West Miller Rd., Lansing MI
State	Lansing Fire Station No. 8	2300 E. Michigan Avenue, Lansing MI
State	Wolverine Boys' State: The American Legion / Wolverine Girls' State: American Legion Auxiliary	212 North Verlinden, Lansing MI
State	George E. Palmer / Old Newsboys	Wentworth Park, Michigan Ave, Lansing MI
State	Rogers-Carrier House	528 North Capital, Lansing MI
State	Michigan School for the Blind / Administration Building	West Grand River Avenue at Pine Street, Lansing MI
State	Trinity A. M. E. Church / Trinity A. M. E. Church	3500 West Holmes Rd., Lansing MI
State	Optometric Association	530 West Ionia St., Lansing MI
State	First Presbyterian Church / First Presbyterian Church	211 North Chestnut, Lansing MI
State	Lansing Labor Holiday / Lansing Labor Holiday	West Michigan Avenue, Lansing MI
State	The Pulver Brothers / The Filling Station	127 W. Grand River Avenue, Lansing MI
State	John Taylor / John Taylor	Cedar Street, Holt MI
State	Philip Orin Parmelee /Philip Orin Parmelee	4100 Capitol City Boulevard, Lansing MI
State	Michigan Trial Lawyers Association / Michigan Trial Lawyers Association	325 S. Walnut Street, Lansing MI
State	Michigan Pharmacists Association	Kalamazoo Plaza, River Street, Lansing MI
State	Michigan Association Of Counties	935 North Washington Avenue, Lansing MI
National	Brown-Price House	1003 N. Washington Ave., Lansing MI
National	State Office Building	316 S. Walnut St., Lansing MI
National	Moon, Darius B., House	216 Huron St., Lansing MI
National	Eustace Hall	Michigan State University campus, East Lansing MI
National	Federal Building	315 W. Allegan St., Lansing MI
National	Strand Theatre and Arcade	211-219 S. Washington Ave., Lansing MI
National	First Baptist Church	227 N. Capitol Ave., Lansing MI
National	Masonic Temple Building	217 S. Capitol Ave., Lansing MI
National	Knapp, J.W., Company Building	300 S. Washington Ave., Lansing MI

National	Dodge Mansion	106 E. North St., Lansing MI
National	Smith-Turner House	326 W. Grand River Ave., Lansing MI
National	Franklin Avenue Presbyterian Church	108 W. Grand River Ave., Lansing MI
National	Lansing Woman's Club Building	118 W. Ottawa St., Lansing MI
National	Mutual Building	208 N. Capitol Ave., Lansing MI
National	St. Mary Cathedral	229 Seymour St., Lansing MI
National	Penfil Apartments	108--110 S. Hosmer St., Lansing MI
National	9622nd Army Air Corps Reserve Recovery Unit--Civil Air Patrol Quonset Huts	16601 Airport Rd., Lansing MI
National	Emery Houses	320--322 and 326--328 W. Ottawa, Lansing MI
National	Somerville Barn	1050 N. College Rd., Alaiedon Township MI
National	Prudden Wheel Company Building	707 Prudden St., Lansing MI
National	Arbaugh's Department Store Building	401 S. Washington, Lansing MI
National	Ottawa Street Power Station	217 E. Ottawa St., Lansing MI
National	Genesee Street School	835 W. Genesee St., Lansing MI
National	Glaister, Richard and Deborah (Brough), House	402 S. Walnut St., Lansing MI
National	Lansing City Hall	N. and S. Washington, Grand, N. and S. Capitol, Michigan Ave., Allegan, Washtenaw, Kalamazoo, Lenawee, and Townsend, Lansing MI
National	Moores, J.H., Memorial Natatorium	2700 Moores River Dr., Lansing MI

APPENDIX B: MNFI AND USFW RARE SPECIES INVENTORY



April 9, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF Well 25-24.

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **April 9, 2024**. During this Review, the project location was checked against known localities for rare species, and 5 State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Indiana bat	Myotis sodalis	E	1974
Little Brown Bat	Myotis lucifugus	T	1958
Showy orchis	Galearis spectabilis	T	1895
Virginia spiderwort	Tradescantia virginiana	T	1923
Woodland vole	Microtus pinetorum	SC	1938

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project will involve the installation of new source water supply infrastructure. The project has an anticipated start date of spring of 2025.

For the 5 State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Indiana bat (Myotis sodalist) State Endangered. A Not Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Little brown bat (Myotis lucifugus) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Showy orchis (Galearis spectabilis) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no



suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1895 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1893 and is considered historical. OHM has determined no effect to this species.

Woodland vole (*Microtus pinetorum*) State Species of Special Concern) MNFI describes the habitat for this species as deciduous woodlands with loose sandy soils, deep humus, and heavy leaf litter. Although it prefers deciduous forests comprised of oak, maple and/or beech, the woodland vole can potentially be found in any forest type. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1988 and is considered historical. OHM has determined no effect to this species.

If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wade Rose', with a horizontal line extending to the right from the end of the signature.

Wade Rose, OHM Advisors Ecologist



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:
Project Code: 2024-0074759
Project Name: Well 25-24

04/09/2024 18:50:59 UTC

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 >450 feet 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
- Bald & Golden Eagles
- 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: 2024-0074759

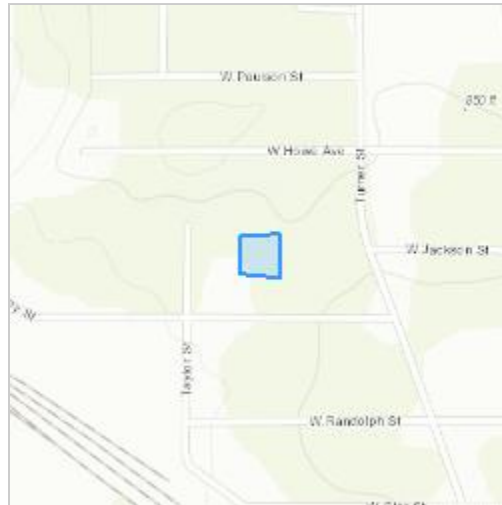
Project Name: Well 25-24

Project Type: Water Supply Pipeline - New Constr - Below Ground

Project Description: The project will involve the installation of new source water supply infrastructure. The project has an anticipated start date of spring of 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.7622423,-84.5575565,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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 3 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 Fisheries¹, 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 <i>Myotis sodalis</i> 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/UQVPYT7CQJBIPJPTFZ754KKFIY/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/UQVPYT7CQJBIPJPTFZ754KKFIY/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> 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 <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25

NAME	BREEDING SEASON
Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Lesser Yellowlegs <i>Tringa flavipes</i> 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
Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

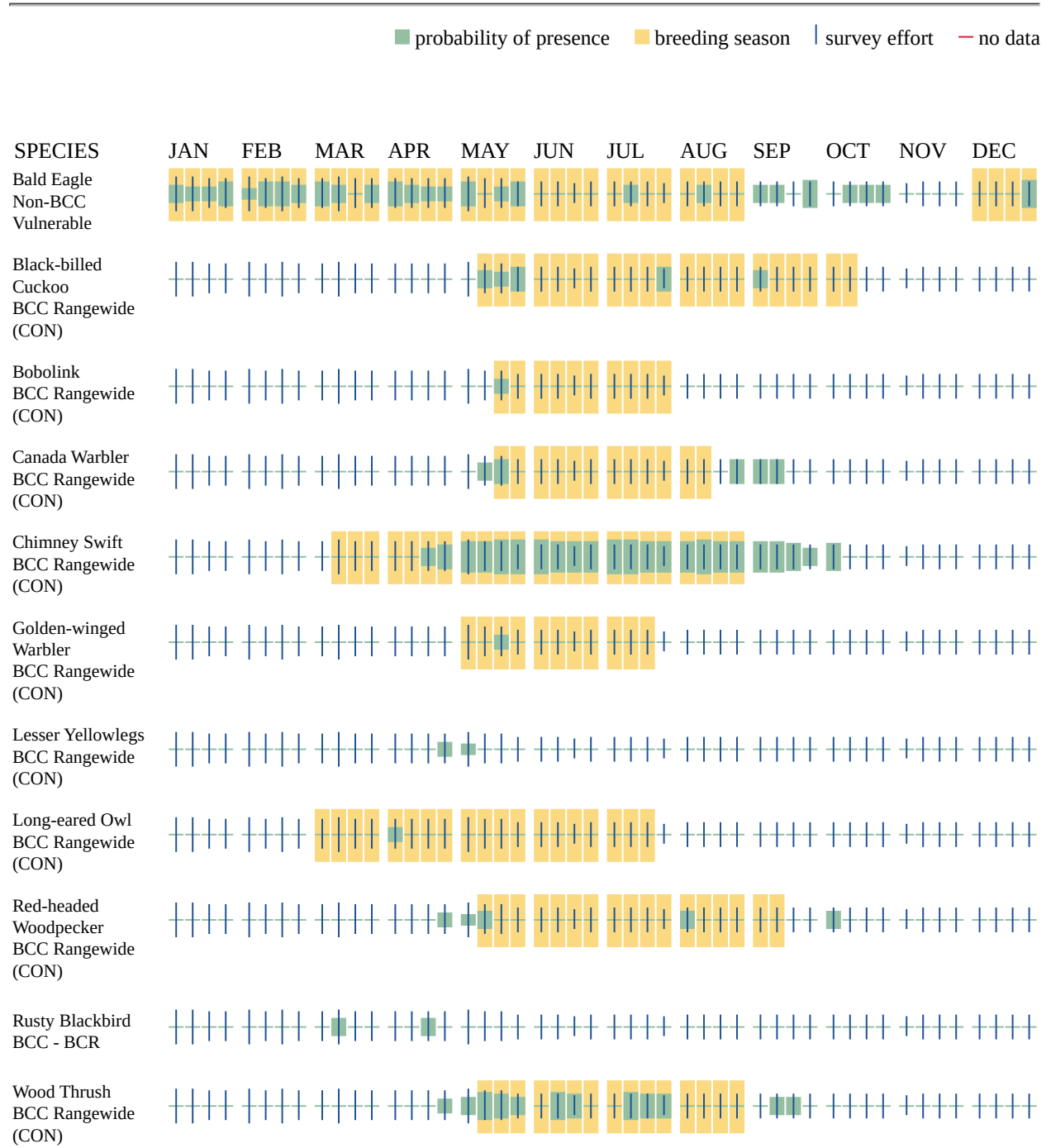
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 04N, Range 02W, Section 4 and Ingham County




Query Results Generated on Apr 09, 2024

Displaying Record 1 to 6 of 6 Records Found

Database Updated on Apr 01, 2024

[New Search](#)
[Refine Search](#)
[◀ Previous 25 Records](#)
[Next 25 Records ▶](#)

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham
	Little brown bat	Myotis lucifugus	T	UR	1958			Lansing	UMMZ online catalog for all collections of the species Myotis lucifugus, downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham

	Showy orchis	<i>Galearis spectabilis</i>	T	1895-05-26	Plant	GX	NORTH OF MSU	Skeels, H.C. 1894. May 11 - MSC 26815 (no collection #).	04N	02W	1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T	1877	Plant	GX	LANSING		04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham
	Virginia spiderwort	<i>Tradescantia virginiana</i>	T	1923-06-08	Plant	GX	EAST LANSING	Walpole, B.L. 1923. BLH	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36	Ingham
	Woodland vole	<i>Microtus pinetorum</i>	SC	1938-07-13	Animal	GX		Orwoll, H. 1938. #M-15, 18, 88 MS.	04N	02W	1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14,	Ingham

15, 16,
17, 20,
21, 22,
23, 24,
25, 26,
27, 28,
29, 33,
34, 35, 36

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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:
Project code: 2024-0074759
Project Name: Well 25-24

04/09/2024 18:53:22 UTC

Subject: Verification letter for the project named 'Well 25-24' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **April 09, 2024** your effect determination(s) for the 'Well 25-24' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	No effect
Whooping Crane (<i>Grus americana</i>)	Experimental Population, Non-Essential	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 October varies 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.

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.

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) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide 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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

Well 25-24

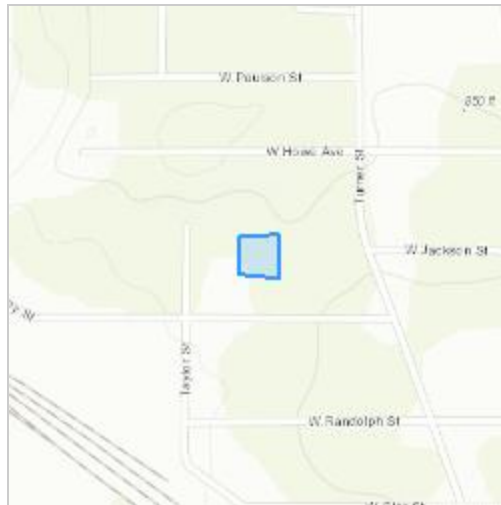
2. Description

The following description was provided for the project 'Well 25-24':

The project will involve the installation of new source water supply infrastructure.

The project has an anticipated start date of spring of 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.7622423,-84.5575565,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. 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
31. 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
32. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
33. Does the action include removal/modification of an existing bridge or culvert?
No
34. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
35. 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
36. Does the action include herbicide application?
No
37. 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

38. 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

39. 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

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

No

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

Automatically answered

No

42. Will all tree cutting/trimming, prescribed fire, and/or pesticide 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: that 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

46. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



April 9, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF Well 25-25.

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **April 9, 2024**. During this Review, the project location was checked against known localities for rare species, and 5 State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Indiana bat	Myotis sodalis	E	1974
Little Brown Bat	Myotis lucifugus	T	1958
Showy orchis	Galearis spectabilis	T	1895
Virginia spiderwort	Tradescantia virginiana	T	1923
Woodland vole	Microtus pinetorum	SC	1938

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project will involve the installation of new source water supply infrastructure. The project has an anticipated start date of spring of 2025.

For the 5 State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Indiana bat (Myotis sodalist) State Endangered. A Not Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Little brown bat (Myotis lucifugus) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Showy orchis (Galearis spectabilis) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no



suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1895 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1893 and is considered historical. OHM has determined no effect to this species.

Woodland vole (*Microtus pinetorum*) State Species of Special Concern) MNFI describes the habitat for this species as deciduous woodlands with loose sandy soils, deep humus, and heavy leaf litter. Although it prefers deciduous forests comprised of oak, maple and/or beech, the woodland vole can potentially be found in any forest type. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1988 and is considered historical. OHM has determined no effect to this species.

If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wade Rose', with a horizontal line extending to the right from the end of the signature.

Wade Rose, OHM Advisors Ecologist



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:
Project Code: 2024-0074752
Project Name: Well 25-25

04/09/2024 18:45:48 UTC

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 >450 feet 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
- Bald & Golden Eagles
- 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: 2024-0074752

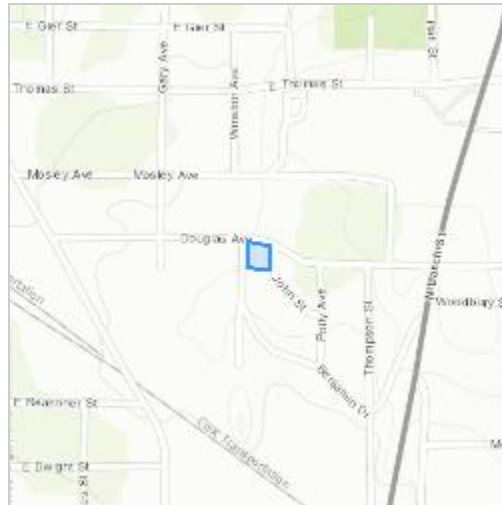
Project Name: Well 25-25

Project Type: Water Supply Pipeline - New Constr - Below Ground

Project Description: The project will involve the installation of new source water supply infrastructure. The project has an anticipated start date of spring of 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.7556249,-84.54773424999999,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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 3 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/YXGSJQ2Z5VFDHFK7IDFVKCYSZA/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/YXGSJQ2Z5VFDHFK7IDFVKCYSZA/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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)

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

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> 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 <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10

NAME	BREEDING SEASON
<p>Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406</p>	Breeds Mar 15 to Aug 25
<p>Eastern Whip-poor-will <i>Antrastomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10678</p>	Breeds May 1 to Aug 20
<p>Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745</p>	Breeds May 1 to Jul 20
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Pectoral Sandpiper <i>Calidris melanotos</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561</p>	Breeds elsewhere
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431</p>	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 "[Supplemental](#)

[Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

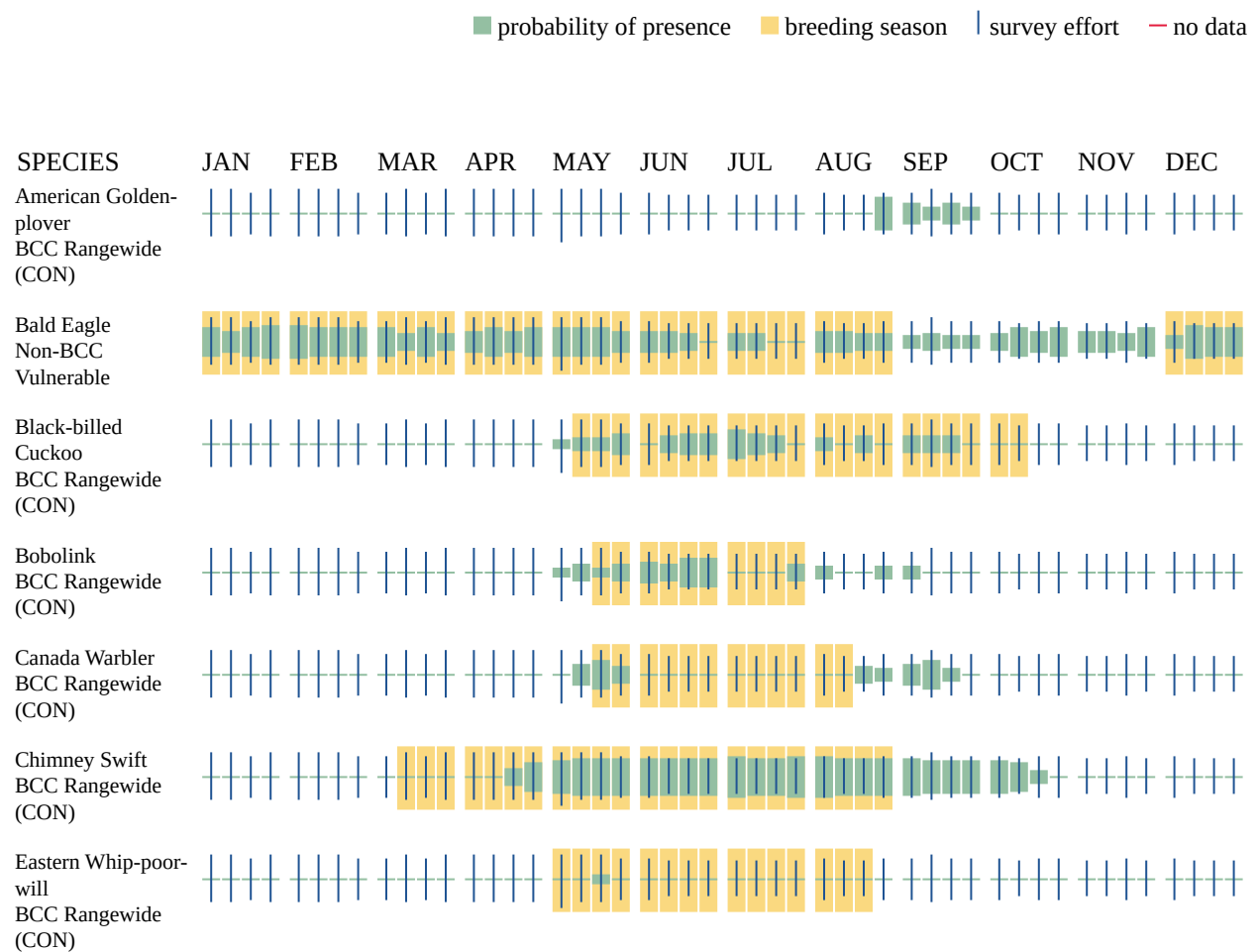
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

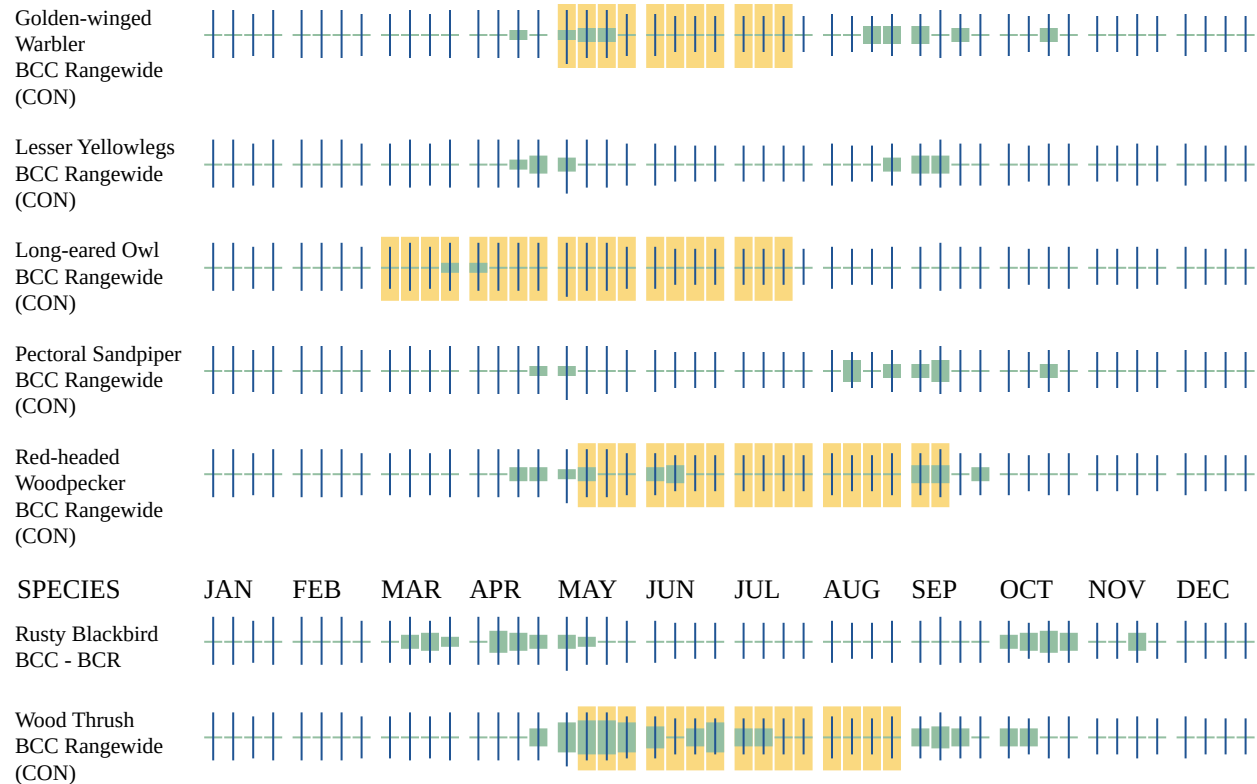
Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 04N, Range 02W, Section 4 and Ingham County




Query Results Generated on Apr 09, 2024

Displaying Record 1 to 6 of 6 Records Found

Database Updated on Apr 01, 2024

[New Search](#)
[Refine Search](#)
[◀ Previous 25 Records](#)
[Next 25 Records ▶](#)

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham
	Little brown bat	Myotis lucifugus	T	UR	1958			Lansing	UMMZ online catalog for all collections of the species Myotis lucifugus, downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham

	Showy orchis	<i>Galearis spectabilis</i>	T	1895-05-26	Plant	GX	NORTH OF MSU	Skeels, H.C. 1894. May 11 - MSC 26815 (no collection #).	04N	02W	1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T	1877	Plant	GX	LANSING		04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham
	Virginia spiderwort	<i>Tradescantia virginiana</i>	T	1923-06-08	Plant	GX	EAST LANSING	Walpole, B.L. 1923. BLH	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36	Ingham
	Woodland vole	<i>Microtus pinetorum</i>	SC	1938-07-13	Animal	GX		Orwoll, H. 1938. #M-15, 18, 88 MS.	04N	02W	1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14,	Ingham

15, 16,
17, 20,
21, 22,
23, 24,
25, 26,
27, 28,
29, 33,
34, 35, 36

New Search

Refine Search

◀ **Previous 25 Records**

Next 25 Records ▶



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:

04/09/2024 18:47:42 UTC

Project code: 2024-0074752

Project Name: Well 25-25

Subject: Verification letter for the project named 'Well 25-25' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **April 09, 2024** your effect determination(s) for the 'Well 25-25' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	No effect
Whooping Crane (<i>Grus americana</i>)	Experimental Population, Non- Essential	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 October varies 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.

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.

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) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide 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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

Well 25-25

2. Description

The following description was provided for the project 'Well 25-25':

The project will involve the installation of new source water supply infrastructure.

The project has an anticipated start date of spring of 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.7556249,-84.54773424999999,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. 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
31. 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
32. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
33. Does the action include removal/modification of an existing bridge or culvert?
No
34. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
35. 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
36. Does the action include herbicide application?
No
37. 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

38. 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

39. 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

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

No

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

Automatically answered

No

42. Will all tree cutting/trimming, prescribed fire, and/or pesticide 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: that 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

46. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



April 9, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF Well 55-04.

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **March 14, 2024**. During this Review, the project location was checked against known localities for rare species, and **17** State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Bald eagle	<i>Haliaeetus leucocephalus</i>	SC	2019
Black and gold bumble bee	<i>Bombus auricomus</i>	SC	1952
Blue-eyed Mary	<i>Collinsia verna</i>	T	1995
Cattail sedge	<i>Carex typhina</i>	T	2021
Creek heelsplitter	<i>Lasmigona compressa</i>	SC	1934
Hairy-fruited sedge	<i>Carex trichocarpa</i>	SC	1947
Hemlock-parsley	<i>Conioselinum chinense</i>	SC	1882
Indiana bat	<i>Myotis sodalis</i>	E	1974
Least shrew	<i>Cryptotis parva</i>	T	1945
Little Brown Bat	<i>Myotis lucifugus</i>	T	1958
Raven's-footed sedge	<i>Carex crus-corvi</i>	E	1924
Round pigtoe	<i>Pleurobema sintoxia</i>	SC	2017
Showy orchis	<i>Galearis spectabilis</i>	T	1895
Slippershell	<i>Alasmidonta viridis</i>	T	2001
Yellow banded bumble bee	<i>Bombus terricola</i>	SC	1948
Virginia spiderwort	<i>Tradescantia virginiana</i>	T	1923
Woodland vole	<i>Microtus pinetorum</i>	SC	1938

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project will involve the installation of new source water supply infrastructure. The project has an anticipated start date of spring of 2025.

For the **17** State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Bald Eagle (*Haliaeetus leucocephalus*) State Species of Special Concern. MNFI describes the nesting habitat for this species as a wide variety of habitats that provide suitable nest sites close to open water. Nests may be



placed in snags or large live trees as well as on constructed platforms or utility poles. Field surveys will be conducted to determine if an active nesting site is within ¼ mile of the work zone. If present MDNR BMP's will be implemented regarding timing of construction activities.

Black and gold bumble bee (*Bombus auricomus*) State Species of Special Concern. MNFI describes the habitat for this species as prairies and grasslands and is rarely associated with extensive forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1952 and is considered historical. OHM has determined no effect to this species.

Blue-eyed Mary (*Collinsia verna*) State Threatened. MNFI describes the habitat for this as moist soil rich beech-maple forests with a rich humus layer, and on levees and terraces within floodplain forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1995 and is considered historical. OHM has determined no effect to this species.

Cattail sedge (*Carex typhina*) State Threatened. MNFI describes the habitat for this species as bottomland forests in southern Lower Michigan, usually within first and second bottoms. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 2021. OHM has determined no effect to this species.

Creek heelsplitter (*Lasmigona compressa*) State Species of Special Concern. MNFI describes the habitat for this species as creeks and small rivers in a variety of substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 1934 and is considered historical. OHM has determined no effect to this species.

Hairy-fruited sedge (*Carex trichocarpa*) State Species of Special Concern. MNFI describes the habitat for this species as margins of floodplain forests and in open wetlands along streams and marsh borders. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1947. OHM has determined no effect to this species.

Hemlock parsley (*Conioselinum chinense*) State Species of Special Concern. MNFI describes the habitat for this species as Southern Michigan in moist peat in tamarack and cedar swamps, often with a significant hardwood component, and along stream banks. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1882 and is considered historical. OHM has determined no effect to this species.

Indiana bat (*Myotis sodalist*) State Endangered. A Not Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Least shrew (*Cryptotis parva*) State Threatened. MNFI describes the habitat for this species as dry upland meadows with dense coverage of grasses and forbs. It can also be found in marshy areas, fencerows, and woodland edges. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1945 and is considered historical. OHM has determined no effect to this species.



Little brown bat (*Myotis lucifugus*) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Raven's-footed sedge (*Carex crus-corvi*) State Endangered. MNFI describes the habitat for this species as southernmost Michigan in wet depressions in forested floodplains. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1924 and is considered historical. OHM has determined no effect to this species.

Round pigtoe (*Pleurobema sintoxia*) State Species of Special Concern. MNFI describes the habitat for this species as mud, sand, or gravel substrates of medium to large rivers. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2017. OHM has determined no effect to this species.

Showy orchis (*Galearis spectabilis*) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1895 and is considered historical. OHM has determined no effect to this species.

Slippershell (*Alasmidonta viridis*) State Threatened. MNFI describes the habitat for this species as creeks and headwaters of rivers in sand or gravel substrates. Occasionally, they occur in larger rivers and lakes and in mud substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2001. OHM has determined no effect to this species.

Yellow banded bumble bee (*Bombus terricola*) State Species of Special Concern. MNFI describes the habitat for this species as rich wooded areas. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1948 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1893 and is considered historical. OHM has determined no effect to this species.

Woodland vole (*Microtus pinetorum*) State Species of Special Concern) MNFI describes the habitat for this species as deciduous woodlands with loose sandy soils, deep humus, and heavy leaf litter. Although it prefers deciduous forests comprised of oak, maple and/or beech, the woodland vole can potentially be found in any forest type. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1988 and is considered historical. OHM has determined no effect to this species.

If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.



Sincerely,

A handwritten signature in black ink, consisting of a large, stylized 'W' and 'R' that are interconnected. The signature is written in a cursive, fluid style.

Wade Rose, OHM Advisors Ecologist



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:
Project Code: 2024-0074729
Project Name: Well 55-04

04/09/2024 18:31:19 UTC

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 >450 feet 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
- Bald & Golden Eagles
- 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: 2024-0074729

Project Name: Well 55-04

Project Type: Water Supply Pipeline - New Constr - Below Ground

Project Description: The project involves the installation of new well for source water infrastructure for city use. The project has an anticipated start date of 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.7188885,-84.5356536,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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 3 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/YWNVQHIIJGMVN3K3IVVSU544M/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/YWNVQHIIJGMVN3K3IVVSU544M/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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)

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

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> 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 <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10

NAME	BREEDING SEASON
<p>Chimney Swift <i>Chaetura pelagica</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9406</p>	Breeds Mar 15 to Aug 25
<p>Eastern Whip-poor-will <i>Antrastomus vociferus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/10678</p>	Breeds May 1 to Aug 20
<p>Golden-winged Warbler <i>Vermivora chrysoptera</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/8745</p>	Breeds May 1 to Jul 20
<p>Lesser Yellowlegs <i>Tringa flavipes</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Long-eared Owl <i>asio otus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Pectoral Sandpiper <i>Calidris melanotos</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9561</p>	Breeds elsewhere
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9398</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/9478</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9431</p>	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 "[Supplemental](#)

[Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

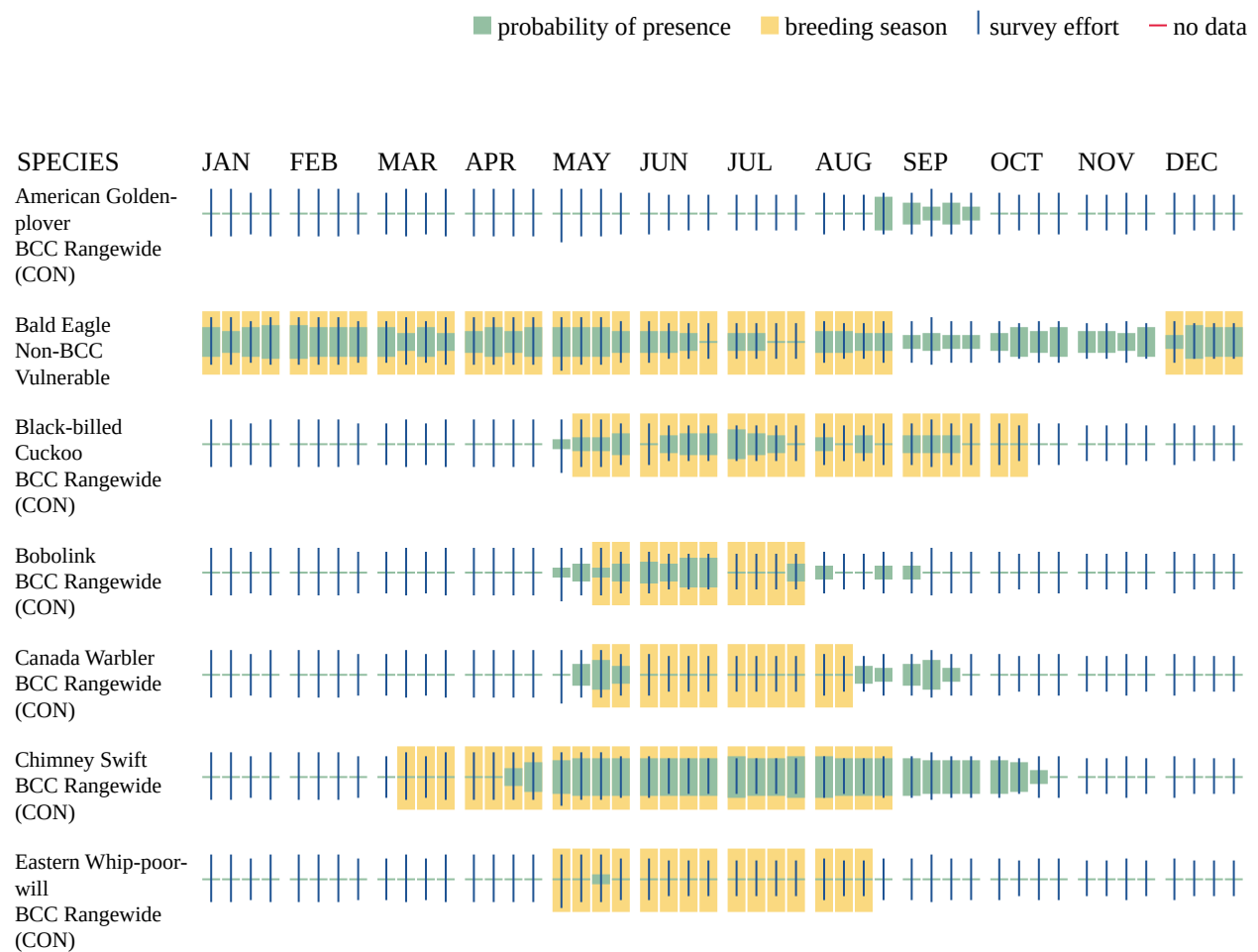
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

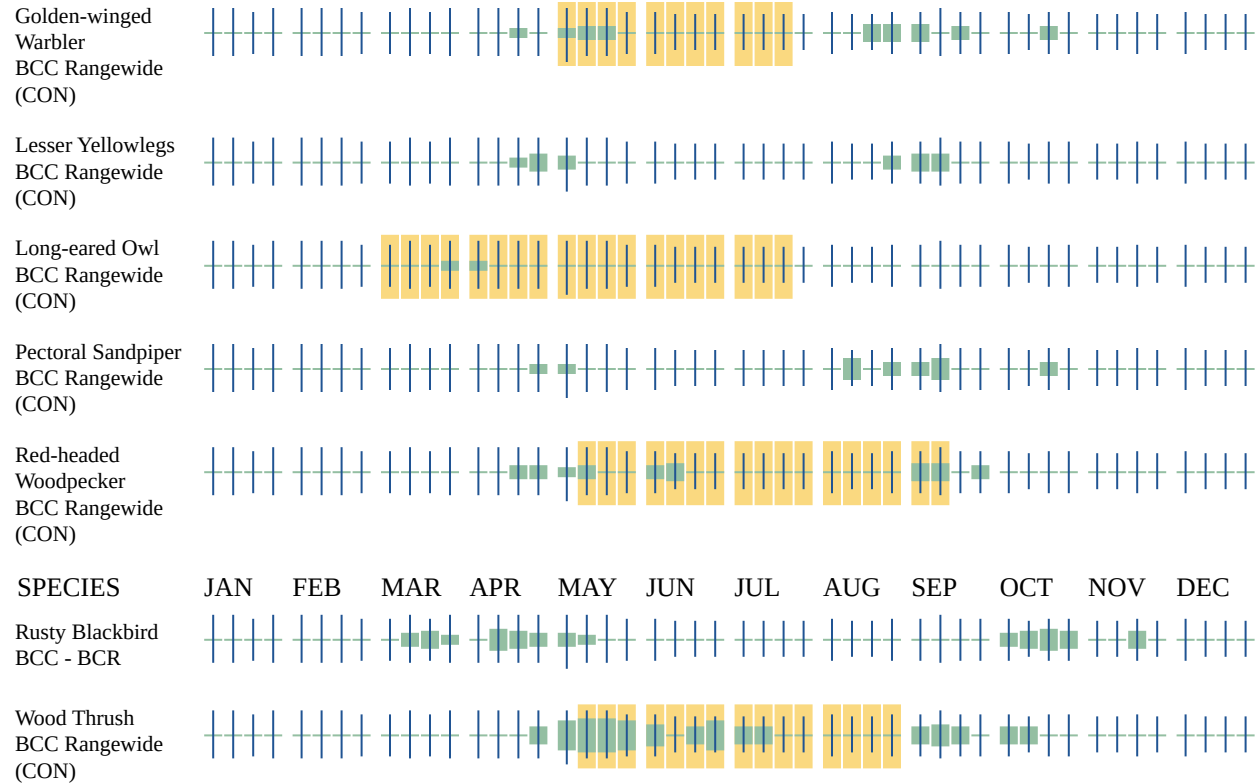
Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 04N, Range 02W, Section 22 and Ingham County

Query Results Generated on Mar 14, 2024

Displaying Record 1 to 20 of 20 Records Found




Database Updated on Mar 01, 2024



Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Bald eagle	Haliaeetus leucocephalus	SC	DL	2019	Animal		IN-01 Potter Park Zoo	USFWS. 2017. Bald Eagle Nest Shapefile.	04N	02W	22, 23	Ingham
	Black and gold bumble bee	Bombus auricomus	SC		1952-07-15			Lansing		04N	02W	8, 9, 15, 16, 17, 20, 21, 22	Ingham
	Blue-eyed Mary	Collinsia verna	T		1995-05-19			Lansing/Trowbridge Woods		04N	02W	8, 9, 10, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26	Ingham
	Cattail sedge	Carex typhina	T		2021-07-30	Plant	M	SE Lansing	Billington, C. 1923. MICH,BLH	04N	02W	14, 15, 16, 21, 22, 23, 24, 26, 27, 28, 34	Ingham
	Creek heelsplitter	Lasmigona compressa	SC		1934			Red Cedar River near Okemos/Lansing; Sloan Creek	2017-07-22. Unionidae download from IDIGBIO for new Special Concern mussels. Spreadsheet.	04N	02W	21, 22, 23	Ingham
	Great Blue Heron	Great Blue Heron			2009-03-17			Potter Park	Cuthrell, D. and M. Sanders.	04N	02W	22	Ingham

Rookery		Rookery								2009. MNFI Special Species Form of 17 March.			
Hairy-fruited sedge	Carex trichocarpa	SC		1947-07-13	Plant	S	Potter Park	Walpole, B.A. 1923. #1413 BLH	04N	02W	22, 23	Ingham	
Hemlock-parsley	Conioselinum chinense	SC		1882-08-00			Grand River Banks	Walters, Beverly. 2014. Excel spreadsheet of museum specimens for new SC/T/E species.	04N	02W	8, 9, 10, 15, 16, 17, 20, 21, 22	Ingham	
Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham	
Least shrew	Cryptotis parva	T		1945-11	Animal	GX		Wallace, G.J. 1948. The Barn Owl in Michigan: It's Distribution. Mich. St. Coll. Agr. Exp. Sta. Tech. Bulletin 208.	04N	02W	1, 2, 3, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham	
Little brown bat	Myotis lucifugus	T	UR	1958			Lansing	UMMZ online catalog for all collections of the	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9,	Ingham	

species *Myotis lucifugus*, downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.

10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36

	Raven's-foot sedge	<i>Carex cruscovi</i>	E	1924-09-20	Plant	G	POTTER PARK	Billington, C. 1924. BLH	04N	02W	22, 23	Ingham
	River fingernail clam	<i>Sphaerium fabale</i>	SC		Animal		Cedar River	Unknown. Unknown date. UMMZ Lot #67032. 1 collected.	04N	02W	21, 22, 23	Ingham
	Round pigtoe	<i>Pleurobema sintoxia</i>	SC	2001-07-17	Animal		RED CEDAR #6	Goforth, R. 2001. Riparian Ecosystem Phase II.	04N	02W	13, 22, 23	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T	1895-05-26	Plant	GX	NORTH OF MSU	Skeels, H.C. 1894. May 11 - MSC 26815 (no collection #).	04N	02W	1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T	1877	Plant	GX	LANSING		04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13,	Ingham

											14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	
	Slippershell	<i>Alasmidonta viridis</i>	T	2001-07-12	Animal		RED CEDAR #7		04N	02W	13, 22, 23, 27	Ingham
	Virginia spiderwort	<i>Tradescantia virginiana</i>	T	1923-06-08	Plant	GX	EAST LANSING	Walpole, B.L. 1923. BLH	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36	Ingham
	Woodland vole	<i>Microtus pinetorum</i>	SC	1938-07-13	Animal	GX		Orwoll, H. 1938. #M-15, 18, 88 MS.	04N	02W	1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 33, 34, 35, 36	Ingham
	Yellow banded	<i>Bombus terricola</i>	SC	1948-07-17	Animal		Lansing	Rowe, Logan, T. Wood, and D. Cuthrell. 2019.	04N	02W	8, 9, 10, 15, 16,	Ingham

bumble
bee

January 17 -
Excel file with
museum
specimen data
for the bumble
bees of Michigan
project.

17, 20,
21, 22

[New Search](#)

[Refine Search](#)

[◀ Previous 25 Records](#)

[Next 25 Records ▶](#)



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:
Project code: 2024-0074729
Project Name: Well 55-04

04/09/2024 18:32:55 UTC

Subject: Verification letter for the project named 'Well 55-04' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **April 09, 2024** your effect determination(s) for the 'Well 55-04' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	No effect
Whooping Crane (<i>Grus americana</i>)	Experimental Population, Non-Essential	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 October varies 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.

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.

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) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide 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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

Well 55-04

2. Description

The following description was provided for the project 'Well 55-04':

The project involves the installation of new well for source water infrastructure for city use. The project has an anticipated start date of 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.71888885,-84.5356536,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. 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
31. 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
32. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
33. Does the action include removal/modification of an existing bridge or culvert?
No
34. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
35. 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
36. Does the action include herbicide application?
No
37. 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

38. 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

39. 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

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

No

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

Automatically answered

No

42. Will all tree cutting/trimming, prescribed fire, and/or pesticide 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: that 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

46. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



March 21, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – Wise WCP, Lansing, Ingham

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **March 14th, 2024**. During this Review, the project location was checked against known localities for rare species, and **3** State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Indiana Bat	Myotis sodalis	E	1974
Little Brown Bat	Myotis lucifugus	T	1958
Showy Orchis	Galearis spectabilis	T	1877

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project will involve the replacement of the chemical feed system and could potentially include the construction of a new outbuilding for chemical storage at the Board of Water & Light building. The project has an anticipated start date of spring of 2025.

For the **3** State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Indiana Bat (*Myotis sodalis*) State Endangered. MNFI describes the roosting habitat for this species as hollows and cavities of mature trees and under loose bark in floodplain forests. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Little Brown Bat (*Myotis lucifugus*) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Showy Orchis (*Galearis spectabilis*) State Threatened. MNFI describes the habitat for this species as rich deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1877 and is considered historical. OHM has determined no



effect to this species.

If additional information is needed, please contact me via email at melissa.meszaros@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink that reads "Melissa Meszaros". The signature is written in a cursive, flowing style.

Melissa Meszaros, OHM Advisors Ecologist



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:
Project Code: 2024-0062961
Project Name: Wise WCP

03/14/2024 16:34:45 UTC

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 >450 feet 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
- Bald & Golden Eagles
- 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: 2024-0062961

Project Name: Wise WCP

Project Type: New Constr - Above Ground

Project Description: The project will involve the replace of the chemical feed system and could potentially include the construction of a new out building for chemical storage. The project has an anticipated start date of spring of 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.677403299999995,-84.59076613716562,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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 1 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/MHXOUANVTVGQ3CFSGUNPFJUU5Q/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/MHXOUANVTVGQ3CFSGUNPFJUU5Q/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

NAME	BREEDING SEASON
Golden Eagle <i>Aquila chrysaetos</i> 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. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere

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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

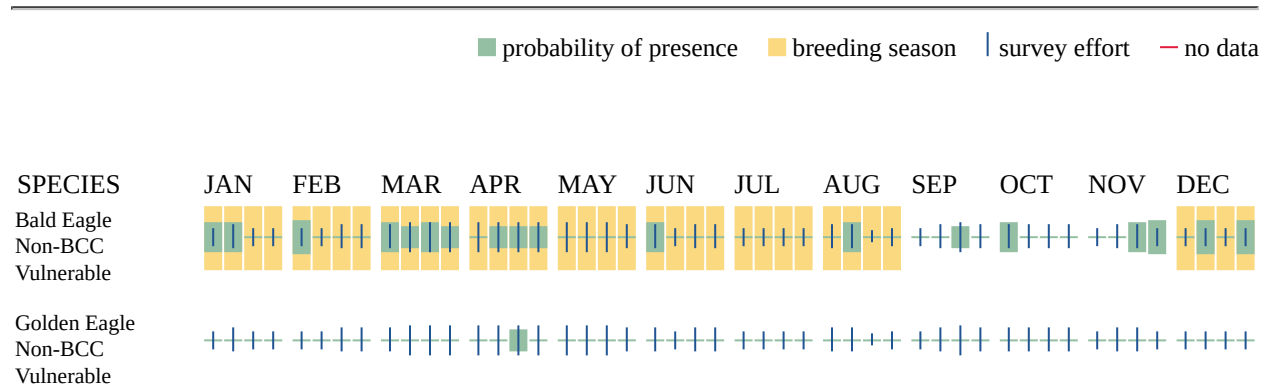
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>

- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
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)

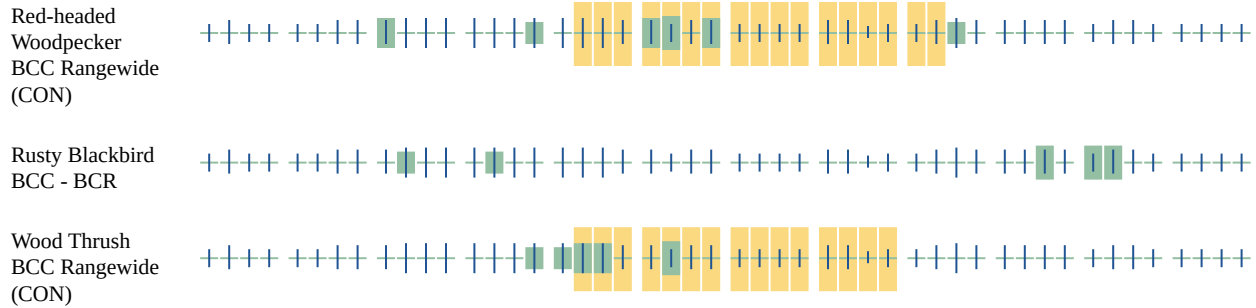
For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> 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 <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31

NAME	BREEDING SEASON
<p>Canada Warbler <i>Cardellina canadensis</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9643</p>	Breeds May 20 to Aug 10
<p>Chimney Swift <i>Chaetura pelagica</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9406</p>	Breeds Mar 15 to Aug 25
<p>Golden Eagle <i>Aquila chrysaetos</i></p> <p>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.</p> <p>https://ecos.fws.gov/ecp/species/1680</p>	Breeds elsewhere
<p>Golden-winged Warbler <i>Vermivora chrysoptera</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/8745</p>	Breeds May 1 to Jul 20
<p>Lesser Yellowlegs <i>Tringa flavipes</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9398</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/9478</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9431</p>	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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 03N, Range 02W, Section 6 and Ingham County

Query Results Generated on Mar 14, 2024

Displaying Record 1 to 3 of 3 Records Found

Database Updated on Mar 01, 2024

[New Search](#)

[Refine Search](#)

[◀ Previous 25 Records](#)

[Next 25 Records ▶](#)

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (<i>Myotis sodalis</i>) in Michigan.	03N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18	Ingham
	Little brown bat	Myotis lucifugus	T	UR	1958			Lansing	UMMZ online catalog for all collections of the species <i>Myotis lucifugus</i> , downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.	03N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 15, 16, 17	Ingham
	Showy orchis	Galearis spectabilis	T		1877	Plant	GX	LANSING		03N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17	Ingham

[New Search](#)

[Refine Search](#)

[◀ Previous 25 Records](#)

[Next 25 Records ▶](#)



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:
Project code: 2024-0062961
Project Name: Wise WCP

03/14/2024 16:36:12 UTC

Subject: Verification letter for the project named 'Wise WCP' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **March 14, 2024** your effect determination(s) for the 'Wise WCP' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed	No effect
Whooping Crane (<i>Grus americana</i>)	Endangered Experimental Population, Non-Essential	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 October varies 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.

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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

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 (September 1 through April 30). Prescribed fire and/or pesticide 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.

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 occur outside the northern long-eared bat summer roosting period (that is, limited to the period of October 1 through April 14). Prescribed fire and/or pesticide/herbicide application will also occur during October 1 through April 14 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

Wise WCP

2. Description

The following description was provided for the project 'Wise WCP':

The project will involve the replace of the chemical feed system and could potentially include the construction of a new out building for chemical storage. The project has an anticipated start date of spring of 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.677403299999995,-84.59076613716562,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. 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
31. 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
32. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
33. Does the action include removal/modification of an existing bridge or culvert?
No
34. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
35. 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
36. Does the action include herbicide application?
No
37. 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

38. 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

39. 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

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

No

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

Automatically answered

No

42. [Hidden Semantic] Does the action area intersect the SE_LP_S Michigan Modeled Bat Habitat?

Automatically answered

Yes

43. Your project intersected modeled bat habitat.

Will all tree cutting/trimming, prescribed fire, and/or pesticide application be restricted to the inactive (hibernation) season for listed bats (that is, conducted during October 1 through April 14)?

Yes

44. Will the action clear >10 acres of modeled 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Yes

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

Automatically answered

Yes

49. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573

March 20, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF Bath Loop

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **March 14, 2024**. During this Review, the project location was checked against known localities for rare species, and **14** State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Black and gold bumble bee	Bombus auricomus	SC	1952
Blue-eyed Mary	Collinsia verna	T	1995
Cattail sedge	Carex typhina	T	2021
Flutedshell	Lasmigona costata	SC	2017
Hemlock-parsley	Conioselinum chinense	SC	1882
Indiana bat	Myotis sodalis	E	1974
Least shrew	Cryptotis parva	T	1945
Little Brown Bat	Myotis lucifugus	T	1958
Peregrine falcon	Falco peregrinus	T	2020
Round pigtoe	Pleurobema sintoxia	SC	2017
Showy orchis	Galearis spectabilis	T	1895
Yellow banded bumble bee	Bombus terricola	Sc	1948
Virginia spiderwort	Tradescantia virginiana	T	1923
Woodland vole	Microtus pinetorum	SC	1938

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project will involve facility improvements including sludge pipe and pump replacement within the existing building and repairs to the north bain and primary basin including concrete repair. The project has an anticipated start date of spring 2025.

For the **14** State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Black and gold bumble bee (Bombus auricomus) State Species of Special Concern. MNFI describes the habitat for this species as prairies and grasslands and is rarely associated with extensive forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1952 and is considered



historical. OHM has determined no effect to this species.

Blue-eyed Mary (*Collinsia verna*) State Threatened. MNFI describes the habitat for this as moist soil rich beech-maple forests with a rich humus layer, and on levees and terraces within floodplain forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1995 and is considered historical. OHM has determined no effect to this species.

Cattail sedge (*Carex typhina*) State Threatened. MNFI describes the habitat for this species as bottomland forests in southern Lower Michigan, usually within first and second bottoms. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 2021. OHM has determined no effect to this species.

Flutedshell (*Lasmigona costata*) State Species of Special Concern MNFI describes the habitat for this species as small and medium rivers, and in Lake St. Clair and Lake Erie. They are often found in sandy mud and cobble substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2017. OHM has determined no effect to this species.

Hemlock parsley (*Conioselinum chinense*) State Species of Special Concern. MNFI describes the habitat for this species as Southern Michigan in moist peat in tamarack and cedar swamps, often with a significant hardwood component, and along stream banks. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1882 and is considered historical. OHM has determined no effect to this species.

Indiana bat (*Myotis sodalist*) State Endangered. A Not Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Least shrew (*Cryptotis parva*) State Threatened. MNFI describes the habitat for this species as dry upland meadows with dense coverage of grasses and forbs. It can also be found in marshy areas, fencerows, and woodland edges. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1945 and is considered historical. OHM has determined no effect to this species.

Little brown bat (*Myotis lucifugus*) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Peregrine falcon (*Falco peregrinus*) State Threatened. MNFI describes the nesting habitat for this species as man-made structures where they feed on the abundance of small city birds like Rock pigeons. Construction activities will have no impact to nesting sites. The last observation of this species in within 1.5 miles of the project area occurred in 2020 and is considered historical. OHM has determined no effect to this species.

Round pigtoe (*Pleurobema sintoxia*) State Species of Special Concern. MNFI describes the habitat for this species as mud, sand, or gravel substrates of medium to large rivers. No work will occur below the ordinary high



water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2017. OHM has determined no effect to this species.

Showy orchis (*Galearis spectabilis*) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1895 and is considered historical. OHM has determined no effect to this species.

Yellow banded bumble bee (*Bombus terricola*) State Species of Special Concern. MNFI describes the habitat for this species as rich wooded areas. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1948 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1893 and is considered historical. OHM has determined no effect to this species.

Woodland vole (*Microtus pinetorum*) State Species of Special Concern) MNFI describes the habitat for this species as deciduous woodlands with loose sandy soils, deep humus, and heavy leaf litter. Although it prefers deciduous forests comprised of oak, maple and/or beech, the woodland vole can potentially be found in any forest type. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1988 and is considered historical. OHM has determined no effect to this species.

If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wade Rose'. The signature is stylized with a large loop at the bottom and a horizontal line extending to the right.

Wade Rose, OHM Advisors Ecologist



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:
Project Code: 2024-0062975
Project Name: Dye Water Conditioning Plant

03/14/2024 16:45:42 UTC

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 >450 feet 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
- Bald & Golden Eagles
- 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

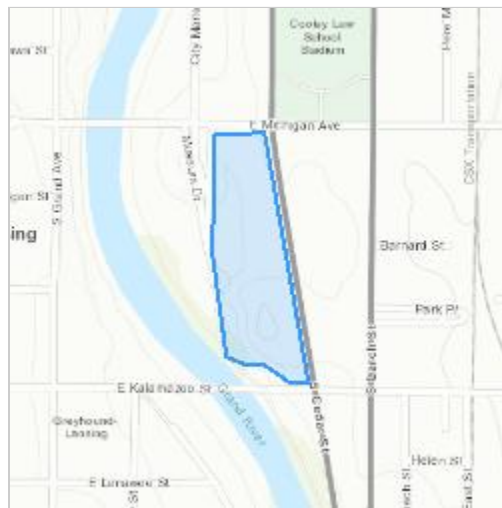
(517) 351-2555

PROJECT SUMMARY

Project Code: 2024-0062975
Project Name: Dye Water Conditioning Plant
Project Type: Wastewater Facility - Maintenance / Modification
Project Description: The project will involve facility improvements including sludge pipe and pump replacment within the existng building and repairs to the north bain and primary basin including concrete repair. The project has an anticipated start date of spring 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.731721449999995,-84.54702422497324,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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 1 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/JJCS4BMYJAYZDMHVWZRUARQEE/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/JJCS4BMYJAYZDMHVWZRUARQEE/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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)

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

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> 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 <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10

NAME	BREEDING SEASON
<p>Chimney Swift <i>Chaetura pelagica</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9406</p>	Breeds Mar 15 to Aug 25
<p>Eastern Whip-poor-will <i>Antrastomus vociferus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/10678</p>	Breeds May 1 to Aug 20
<p>Golden-winged Warbler <i>Vermivora chrysoptera</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/8745</p>	Breeds May 1 to Jul 20
<p>Lesser Yellowlegs <i>Tringa flavipes</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Long-eared Owl <i>asio otus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Pectoral Sandpiper <i>Calidris melanotos</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9561</p>	Breeds elsewhere
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9398</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/9478</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9431</p>	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 "[Supplemental](#)

[Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

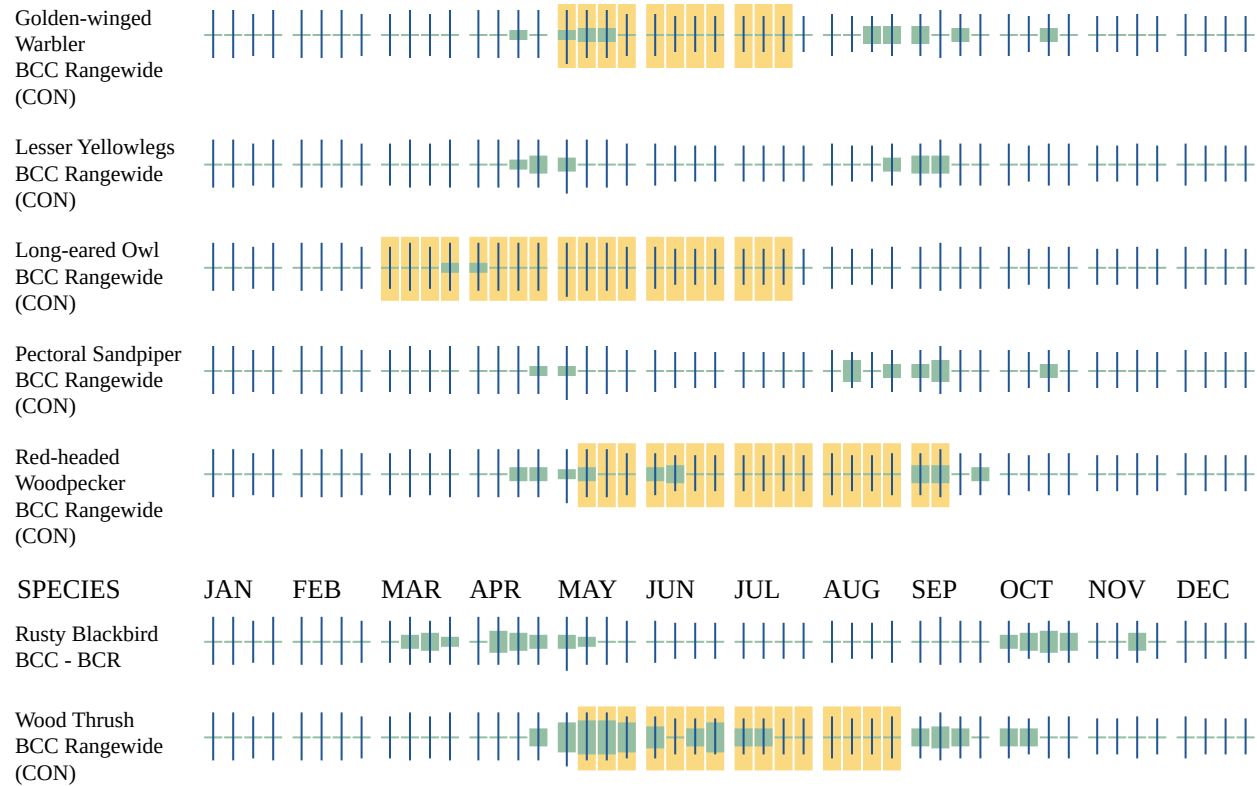
Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search








Search Results for Town 04N, Range 02W, Section 16 and Ingham County
 Displaying Record 1 to 15 of 15 Records Found

Query Results Generated on Mar 14, 2024
 Database Updated on Mar 01, 2024

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Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Black and gold bumble bee	Bombus auricomus	SC		1952-07-15			Lansing		04N	02W	8, 9, 15, 16, 17, 20, 21, 22	Ingham
	Blue-eyed Mary	Collinsia verna	T		1995-05-19			Lansing/Trowbridge Woods		04N	02W	8, 9, 10, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26	Ingham
	Cattail sedge	Carex typhina	T		2021-07-30	Plant	M	SE Lansing	Billington, C. 1923. MICH,BLH	04N	02W	14, 15, 16, 21, 22, 23, 24, 26, 27, 28, 34	Ingham
	Flutedshell	Lasmigona costata	SC					Grand River/Lansing	2017-07-22. Unionidae download from IDIGBIO for new Special Concern mussels. Spreadsheet.	04N	02W	9, 16, 20, 21	Ingham
	Hemlock-parsley	Conioselinum chinense	SC		1882-08-00			Grand River Banks	Walters, Beverly. 2014. Excel spreadsheet of museum specimens for new SC/T/E species.	04N	02W	8, 9, 10, 15, 16, 17, 20, 21, 22	Ingham
	Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33,	Ingham

	Least shrew	<i>Cryptotis parva</i>	T		1945-11	Animal	GX		Wallace, G.J. 1948. The Barn Owl in Michigan: It's Distribution. Mich. St. Coll. Agr. Exp. Sta. Tech. Bulletin 208.	04N	02W	34, 35, 36 1, 2, 3, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Little brown bat	<i>Myotis lucifugus</i>	T	UR	1958			Lansing	UMMZ online catalog for all collections of the species <i>Myotis lucifugus</i> , downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham
	Peregrine falcon	<i>Falco peregrinus</i>	T	PS:LE	2020	Animal		MI National Bank; MSU Campus; State Capital; Lansing Board of Water & Light Power Plant	Midwest Peregrine Society. 1988-2006. Midwest Peregrine Falcon Restoration Project - Midwest Annual Reports (http://midwestperegrine.org/pages/annualreports.htm).	04N	02W	13, 16, 21	Ingham
	Round pigtoe	<i>Pleurobema sintoxia</i>	SC			Animal		Lansing [Grand River?]	Barrow, W. B., no date, UMMZ#81676	04N	02W	16	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T		1895-05-26	Plant	GX	NORTH OF MSU	Skeels, H.C. 1894. May 11 - MSC 26815 (no collection #).	04N	02W	1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T		1877	Plant	GX	LANSING		04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,	Ingham

											12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	
Virginia spiderwort	Tradescantia virginiana	T	1923-06-08	Plant	GX	EAST LANSING	Walpole, B.L. 1923. BLH	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36	Ingham	
 Woodland vole	Microtus pinetorum	SC	1938-07-13	Animal	GX		Orwoll, H. 1938. #M-15, 18, 88 MS.	04N	02W	1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 33, 34, 35, 36	Ingham	
Yellow banded bumble bee	Bombus terricola	SC	1948-07-17	Animal		Lansing	Rowe, Logan, T. Wood, and D. Cuthrell. 2019. January 17 - Excel file with museum specimen data for the bumble bees of Michigan project.	04N	02W	8, 9, 10, 15, 16, 17, 20, 21, 22	Ingham	

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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:

03/14/2024 16:52:28 UTC

Project code: 2024-0062975

Project Name: Dye Water Conditioning Plant

Subject: Verification letter for the project named 'Dye Water Conditioning Plant' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **March 14, 2024** your effect determination(s) for the 'Dye Water Conditioning Plant' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	No effect
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	No effect
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed	No effect
	Endangered	
Whooping Crane (<i>Grus americana</i>)	Experimental	No effect
	Population, Non-Essential	

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.

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.

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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

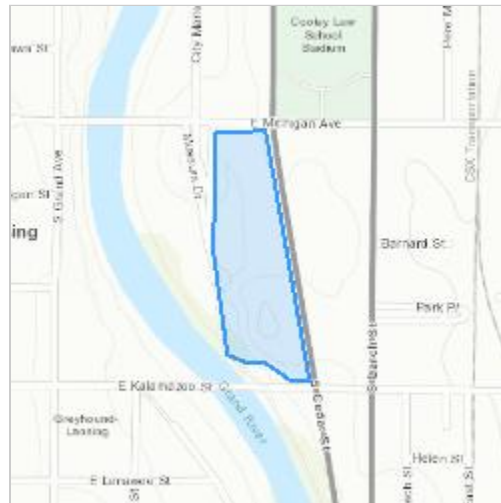
Dye Water Conditioning Plant

2. Description

The following description was provided for the project 'Dye Water Conditioning Plant':

The project will involve facility improvements including sludge pipe and pump replacement within the existing building and repairs to the north basin and primary basin including concrete repair. The project has an anticipated start date of spring 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.731721449999995,-84.54702422497324,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. 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
31. 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
32. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
33. Does the action include removal/modification of an existing bridge or culvert?
No
34. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
35. 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?
No
36. [Hidden Semantic] Does the action area intersect the Indiana bat AOI?
Automatically answered
Yes
37. [Hidden Semantic] Does this project intersect the northern long-eared bat area of influence?
Automatically answered
Yes

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

Automatically answered

Yes

39. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



3/22/2024

Michigan Natural Features Inventory (MNFI) Web Database Review – Sunset Loop Water Distribution, Lansing, Ingham

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **February 26th, 2024**. During this Review, the project location was checked against known localities for rare species, and 4 State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Indiana Bat	Myotis sodalist	E	1974
Little Brown Bat	Myotis lucifugus	T	1958
Showy Orchis	Galearis spectabilis	T	1877
Virginia Spiderwort	Tradescantia virginiana	T	1923

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

This project will involve water system upgrades to an industrial area of Lansing to provide redundant feed into the area. The project will involve both open cut and directional drilling to install the system. The project has an anticipated date of spring of 2025.

For the 4 State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Indiana bat (Myotis sodalist) State Endangered. A Not Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Little brown bat (Myotis lucifugus) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Showy orchis (Galearis spectabilis) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no



suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1877 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1923 and is considered historical. OHM has determined no effect to this species.

If additional information is needed, please contact me via email at melissa.meszaros@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink that reads "Melissa Meszaros".

Melissa Meszaros, OHM Advisors Ecologist



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 04N, Range 02W, Section 6 and Ingham County

Query Results Generated on Feb 26, 2024

Displaying Record 1 to 4 of 4 Records Found

Database Updated on Feb 01, 2024

[New Search](#)

[Refine Search](#)

[◀ Previous 25 Records](#)

[Next 25 Records ▶](#)

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham
	Little brown bat	Myotis lucifugus	T	UR	1958			Lansing	UMMZ online catalog for all collections of the species Myotis lucifugus, downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham

Showy
orchisGalearis
spectabilis

T

1877

Plant

GX

LANSING

04N

02W

1, 2, 3, 4,
5, 6, 7, 8,
9, 10, 11,
12, 13,
14, 15,
16, 17,
18, 19,
20, 21,
22, 23,
24, 25,
26, 27,
28, 29,
30, 31,
32, 33,
34, 35, 36

Ingham

Virginia
spiderwortTradescantia
virginiana

T

1923-06-
08

Plant

GX

EAST
LANSINGWalpole, B.L. 1923.
BLH

04N

02W

1, 2, 3, 4,
5, 6, 7, 8,
9, 10, 11,
12, 13,
14, 15,
16, 17,
18, 19,
20, 21,
22, 23,
24, 25,
26, 27,
28, 29,
30, 32,
33, 34,
35, 36

Ingham

[New Search](#)[Refine Search](#)[◀ Previous 25 Records](#)[Next 25 Records ▶](#)



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:
Project Code: 2024-0054070
Project Name: Sunset Loop Water Distribution.

February 26, 2024

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 >450 feet 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
- Bald & Golden Eagles
- 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: 2024-0054070

Project Name: Sunset Loop Water Distribution.

Project Type: Water Supply Pipeline - New Constr - Below Ground

Project Description: This project will involve water system upgrades to an industrial area of Lansing to provide redundant feed into the area. The project will involve both open cut and directional drilling to install the system.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.7565051,-84.58209300355833,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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 1 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/XJBVLXEVNZERBPPWPV66THDNIA/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/XJBVLXEVNZERBPPWPV66THDNIA/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.

3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

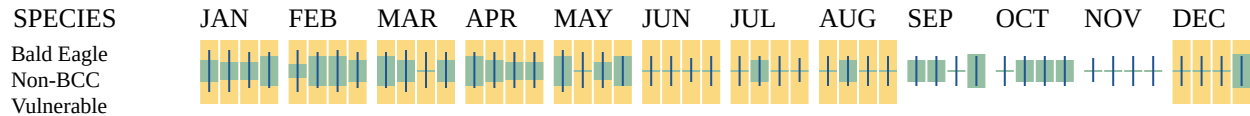
Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort — no data



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31


NAME	BREEDING SEASON
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> 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 <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Lesser Yellowlegs <i>Tringa flavipes</i> 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
Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

BCC Rangewide
(CON)


Lesser Yellowlegs
BCC Rangewide
(CON)



Long-eared Owl
BCC Rangewide
(CON)




Red-headed
Woodpecker
BCC Rangewide
(CON)



Rusty Blackbird
BCC - BCR



Wood Thrush
BCC Rangewide
(CON)



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



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:
Project code: 2024-0054070
Project Name: Sunset Loop Water Distribution.

February 26, 2024

Subject: Verification letter for the project named 'Sunset Loop Water Distribution.' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **February 26, 2024** your effect determination(s) for the 'Sunset Loop Water Distribution.' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed	No effect
	Endangered	
Whooping Crane (<i>Grus americana</i>)	Experimental	No effect
	Population, Non-Essential	

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 October varies 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.

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.

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) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide 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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

Sunset Loop Water Distribution.

2. Description

The following description was provided for the project 'Sunset Loop Water Distribution.':

This project will involve water system upgrades to an industrial area of Lansing to provide redundant feed into the area. The project will involve both open cut and directional drilling to install the system. The project has an anticipated date of spring of 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.7565051,-84.58209300355833,14z>



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.)?

Yes

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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. 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
31. 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
32. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
33. Does the action include removal/modification of an existing bridge or culvert?
No
34. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
35. 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
36. Does the action include herbicide application?
No
37. 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

38. 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

39. 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

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

No

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

Automatically answered

No

42. Will all tree cutting/trimming, prescribed fire, and/or pesticide 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: that 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

46. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



March 20, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF Bath Loop

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **March 14, 2024**. During this Review, the project location was checked against known localities for rare species, and **9** State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Least shrew	<i>Cryptotis parva</i>	T	1945
Little Brown Bat	<i>Myotis lucifugus</i>	T	1958
Prairie white-fringed orchid	<i>Platanthera leucophaea</i>	E	1933
Purple milkweed	<i>Asclepias purpurascens</i>	T	1893
Showy orchis	<i>Galearis spectabilis</i>	T	1895
Torrey's bulrush	<i>Schoenoplectus torreyi</i>	SC	1893
Virginia spiderwort	<i>Tradescantia virginiana</i>	T	1923
White false indigo	<i>Baptisia lactea</i>	T	1928
Woodland vole	<i>Microtus pinetorum</i>	SC	1938

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project involves the installation of a redundant water main line under I-69 to prevent loss of water service on the north side of I-69 in the event of a water main break in the area. The new water main will total 2,200 linear feet and would be installed utilizing an open cut method. The project has an anticipated start date of spring of 2025.

For the **9** State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Least shrew (*Cryptotis parva*) State Threatened. MNFI describes the habitat for this species as dry upland meadows with dense coverage of grasses and forbs. It can also be found in marshy areas, fencerows, and woodland edges. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1945 and is considered historical. OHM has determined no effect to this species.

Little brown bat (*Myotis lucifugus*) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree



hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Prairie white-fringed orchid (*Platanthera leucophaea*) State Endangered. MNFI describes the habitat for this species as moist alkaline and lacustrine soils. It is primarily found in moist prairie remnants, particularly those associated with lakeplains, but it can also occur in open or semi-open bogs and peaty lakeshores. OHM has entered Section 7 consultation with U.S Fish and Wildlife for this species and will update this submission when the Section 7 consultation has been completed.

Purple milkweed (*Asclepias purpurascens*) State Threatened. MNFI describes the habitat for this species as oak and oak-pine woodlands, savanna, dry to wet prairies, thickets, prairie fens and shrub-carr. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1893 and is considered historical. OHM has determined no effect to this species.

Showy orchis (*Galearis spectabilis*) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1895 and is considered historical. OHM has determined no effect to this species.

Torrey's rush (*Schoenoplectus torreyi*) State Species of Special Concern. MNFI describes the habitat for this species as seasonally inundated wetlands, including intermittent wetlands and lake margins. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1893 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1893 and is considered historical. OHM has determined no effect to this species.

White false indigo (*Baptisia lactea*) State Threatened. MNFI describes the habitat for this species as dry to mesic prairies and savannas, dry open roadsides, along railroads, and in fencerows. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1928 and is considered historical. OHM has determined no effect to this species.

Woodland vole (*Microtus pinetorum*) State Species of Special Concern) MNFI describes the habitat for this species as deciduous woodlands with loose sandy soils, deep humus, and heavy leaf litter. Although it prefers deciduous forests comprised of oak, maple and/or beech, the woodland vole can potentially be found in any forest type. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1988 and is considered historical. OHM has determined no effect to this species.



If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wade Rose'. The signature is stylized with a large loop at the top and a horizontal line extending to the right.

Wade Rose, OHM Advisors Ecologist



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 05N, Range 01W, Section 29 and Clinton County

Query Results Generated on Mar 14, 2024

Displaying Record 1 to 9 of 9 Records Found

Database Updated on Mar 01, 2024



[New Search](#)

[Refine Search](#)

[◀ Previous 25 Records](#)

[Next 25 Records ▶](#)

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Least shrew	Cryptotis parva	T		1945-11	Animal	GX		Wallace, G.J. 1948. The Barn Owl in Michigan: It's Distribution. Mich. St. Coll. Agr. Exp. Sta. Tech. Bulletin 208.	05N	01W	29, 30, 31, 32, 33, 34	Clinton
	Little brown bat	Myotis lucifugus	T	UR	1958			Lansing	UMMZ online catalog for all collections of the species Myotis lucifugus, downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.	05N	01W	17, 18, 19, 20, 21, 22, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35	Clinton
	Prairie white-fringed orchid	Platanthera leucophaea	E	LT	1933	Plant	S	PARK LAKE	Specimen (temporary placeholder citation)	05N	01W	29	Clinton
	Purple milkweed	Asclepias purpurascens	T		1893-07-16	Plant		PARK LAKE		05N	01W	28, 29, 30, 31, 32, 33	Clinton

	Showy orchis	<i>Galearis spectabilis</i>	T	1895-05-26	Plant	GX	NORTH OF MSU	Skeels, H.C. 1894. May 11 - MSC 26815 (no collection #).	05N	01W	17, 18, 19, 20, 21, 22, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Clinton
	Torrey's bulrush	<i>Schoenoplectus torreyi</i>	SC	1893-08-08	Plant	GX	LAKE LANSING	Wheeler, C.F. 1892. MICH,EMU,MSC	05N	01W	13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Clinton
	Virginia spiderwort	<i>Tradescantia virginiana</i>	T	1923-06-08	Plant	GX	EAST LANSING	Walpole, B.L. 1923. BLH	05N	01W	19, 20, 28, 29, 30, 31, 32, 33, 34	Clinton
	White or prairie false indigo	<i>Baptisia lactea</i>	T	1928-07-01	Plant	GX	LAKE LANSING	Quick, B.E. 1928. MICH.	05N	01W	13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Clinton
	Woodland vole	<i>Microtus pinetorum</i>	SC	1938-07-13	Animal	GX		Orwoll, H. 1938. #M-15, 18, 88 MS.	05N	01W	19, 20, 27, 28, 29, 30, 31, 32, 33, 34, 35	Clinton

New Search

Refine Search

◀ **Previous 25 Records**

Next 25 Records ▶



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:
Project Code: 2024-0062939
Project Name: Bath Loop

03/14/2024 16:09:18 UTC

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 >450 feet 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
- Bald & Golden Eagles
- 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

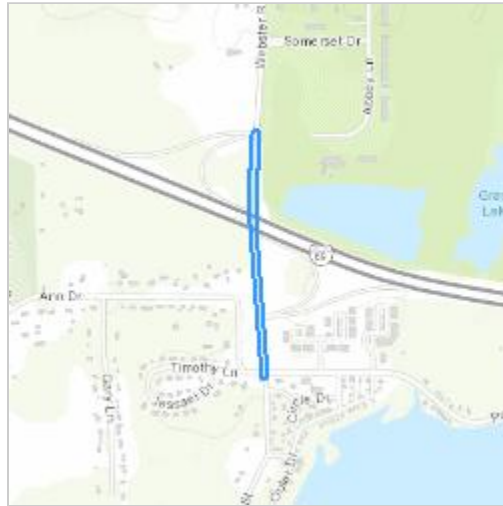
(517) 351-2555

PROJECT SUMMARY

Project Code: 2024-0062939
Project Name: Bath Loop
Project Type: Water Supply Pipeline - New Constr - Below Ground
Project Description: The project involves the installation of a redundant water main line under I-69 to prevent loss of water service on the north side of I-69 in the event of a water main break in the area. The new water main will total 2,200 linear feet and would be installed utilizing an open cut method. The project has an anticipated start date of spring of 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.796699700000005,-84.44848962557691,14z>



Counties: Clinton County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 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 1 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/NG7G2EKBJRBW3LLLJB7BRLXHCI/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ For all projects: Project is within Tier2 Habitat ▪ 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/NG7G2EKBJRBW3LLLJB7BRLXHCI/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/601	Threatened

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Golden Eagle <i>Aquila chrysaetos</i> 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. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere

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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

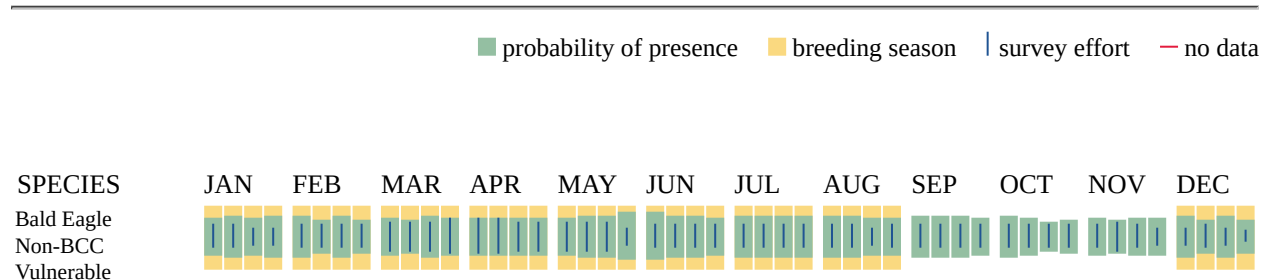
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
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)

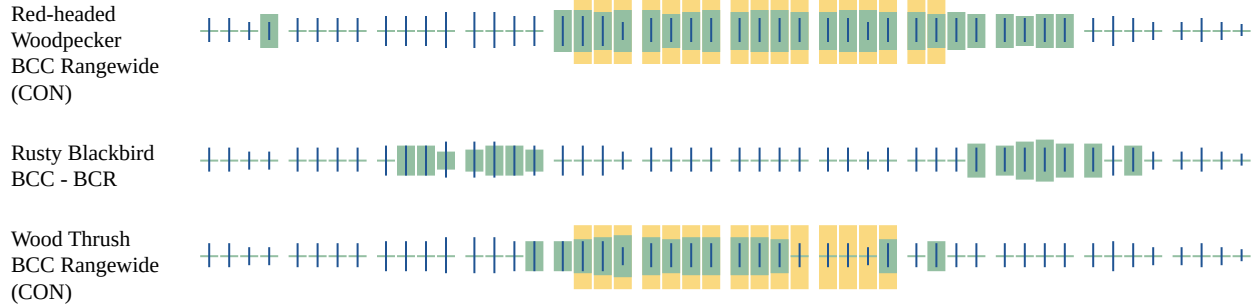
For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

NAME	BREEDING SEASON
<p>Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9399</p>	Breeds May 15 to Oct 10
<p>Canada Warbler <i>Cardellina canadensis</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9643</p>	Breeds May 20 to Aug 10
<p>Chimney Swift <i>Chaetura pelagica</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9406</p>	Breeds Mar 15 to Aug 25
<p>Golden Eagle <i>Aquila chrysaetos</i></p> <p>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.</p> <p>https://ecos.fws.gov/ecp/species/1680</p>	Breeds elsewhere
<p>Lesser Yellowlegs <i>Tringa flavipes</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Pectoral Sandpiper <i>Calidris melanotos</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9561</p>	Breeds elsewhere
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9398</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/9478</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9431</p>	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 ["Supplemental](#)



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



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:
Project code: 2024-0062939
Project Name: Bath Loop

03/14/2024 16:15:16 UTC

Subject: Consistency letter for 'Bath Loop' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **March 14, 2024** your effect determination(s) for the 'Bath Loop' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Eastern Prairie Fringed Orchid (<i>Platanthera leucophaea</i>)	Threatened	May affect
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed	No effect
Whooping Crane (<i>Grus americana</i>)	Endangered	No effect
	Experimental	No effect
	Population, Non-Essential	

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

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 October varies 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.

Listed Plants:

Based on your answers and the assistance of the DKey, you have determined that the proposed Federal Action has the potential to adversely affect a threatened or endangered plant. **As such, you must initiate section 7 conference with the Michigan Ecological Services Field Office in order to meet your section 7 obligations under the Endangered Species Act.**

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.

Do not impact more than 1.0 acres of suitable EMR habitat .

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.

The project will not result in a permanent barrier to snake movement, such as a new road or widening of an existing road, changing the road substrate from dirt to pavement, new trail or canal or other permanent barrier.

Minimize vehicle activity in known/presumed occupied EMR habitat to the extent possible. During EMR active season, speed limits at facilities and access roads (i.e., 2-track and gravel) in occupied habitat should be <15 MPH, to the extent practicable.

At the conclusion of the action, revegetate all disturbed areas with appropriate plant species (i.e., native species or other suitable non-invasive species present on-site prior to disturbance), and monitor all restoration plantings for establishment (and implement supplemental planting as necessary to ensure restorations are of equal or better-quality habitat than previous condition).

Avoid spread of invasive species into EMR habitat by following best practices. This includes inspecting and cleaning equipment and vehicles between work sites as needed to avoid the spread of invasive plant materials. If your project needs an EGLE permit, follow EGLE's standard decontamination best practices.

For earth moving, install and maintain exclusionary fencing to exclude EMR from the area of disturbance during the active season. Exclusionary fencing will serve as a barrier to keep EMR out of these areas of disturbance.

§ The exclusionary fencing must be traditional silt fence that is set up outside of all areas of disturbance and other types of fencing (e.g., snow fence used to delineate the work zone). Do not use fencing materials that can entangle or injure snakes.

§ The exclusionary fencing must be checked regularly (i.e., at least weekly for the duration of the project) to insure the integrity of the barrier.

§ The exclusionary fencing must be installed during the inactive season to ensure snakes are not trapped inside the work zone. If that is not possible, the fencing must be installed a minimum of 1 day before construction activities begin.

§ During the active season, the work area (i.e., interior of exclusionary fencing) should be cleared of EMR by a qualified individual (someone who has received training in identification of EMR, its life history, and protection status; or otherwise approved by the Service) to ensure no EMR are trapped in the work area prior to beginning construction activities.

§ Any snakes found within the exclusionary fencing must be safely moved out of the area of disturbance by a qualified individual. For more information on how to safely move snakes, see <https://www.youtube.com/watch?v=Hjl-kDXT85g>.

§ Once construction activities are complete, the exclusionary fence must be properly removed from the site.

§ Exclusionary fencing must be properly in place for any earth moving work during the EMR active season (fencing is not required for work outside of the EMR active season).

Ensure all imported fill material is free from contaminants or invasive species. Use exclusionary fencing, described above, around the area to be filled and have the site “cleared” by a qualified individual prior to placing fill.

Tree and brush removal shall occur when the ground is completely frozen.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

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 (September 1 through April 30). Prescribed fire and/or pesticide 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.

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 occur outside the northern long-eared bat summer roosting period (that is, limited to the period of October 1 through April 14). Prescribed fire and/or pesticide/herbicide application will also occur during October 1 through April 14 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

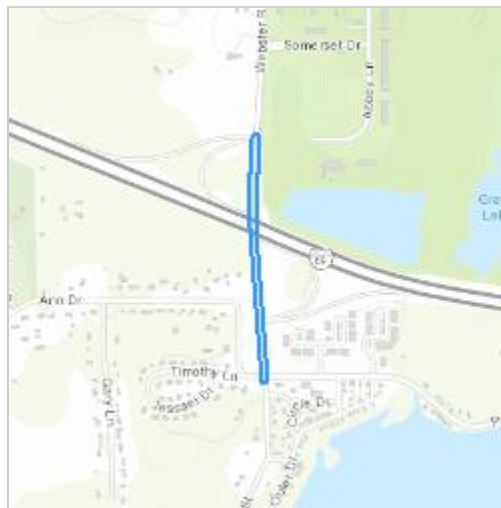
Bath Loop

2. Description

The following description was provided for the project 'Bath Loop':

The project involves the installation of a redundant water main line under I-69 to prevent loss of water service on the north side of I-69 in the event of a water main break in the area. The new water main will total 2,200 linear feet and would be installed utilizing an open cut method. The project has an anticipated start date of spring of 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.796699700000005,-84.44848962557691,14z>



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. 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

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

Automatically answered

Yes

21. Will your action impact less than 1 acre of [suitable Eastern massasauga rattlesnake habitat](#)?

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?

Yes

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. Will your action create a new road or trail or alter the horizontal alignment of an existing road or trail?

No

30. Will your action result in a new or increased permanent barrier to snake movement?

For example, significant widening (>10 ft) of an existing road footprint, converting the surface of an existing road or trail from a non-paved to a paved surface, widening of a paved or gravel trail, or adding new linear features such as fences, canals, or other permanent barriers have the potential to fragment habitat and alter movement and dispersal.

No

31. Does the action area contain suitable [hibernation habitat](#), such as small mammal burrows, crayfish burrows, or tree root networks that could provide hibernation habitat? If known hibernacula are present, select YES. If unsure, select YES.

Yes

32. Will you avoid disturbing areas containing suitable Eastern massasauga rattlesnake [hibernation habitat](#)?

Yes

33. For site access, will you minimize vehicle speeds on roads through suitable eastern massasauga rattlesnake habitat? To do this, can you follow posted speed limits, and minimize speeds at facilities and access roads (e.g., less than 15mph on two-track roads), when possible, during the active season?

If no vehicle activity will occur in eastern massasauga rattlesnake habitat, select YES.

Yes

34. Will vehicles or equipment be used off of existing access roads?

No

35. At the conclusion of the action, will you revegetate all disturbed areas with appropriate plant species (i.e., native species or other suitable non-invasive species present on site prior to disturbance), as appropriate?

Yes

36. Will you monitor all restoration plantings for proper establishment and implement supplemental plantings as necessary to ensure restorations are of equal to or better habitat quality than previous conditions?

Yes

37. Will you avoid the spread of invasive species into suitable Eastern massasauga rattlesnake (EMR) habitat by following best practices such as inspecting and cleaning equipment and vehicles for invasive plant materials and seeds before entering EMR habitat areas?
Yes
38. Does the action involve grading, fill, digging, trenching, or other earth moving activity?
Yes
39. Will you properly install and maintain [exclusionary fencing](#) to exclude Eastern massasauga rattlesnake from the area of disturbance during the active season?
Yes
40. Will you clear the project area, using a qualified person, prior to beginning work?
Yes
41. At conclusion of work, will you promptly remove all fencing material?
Yes
42. If placing fill, can you ensure all fill material is free from contaminants or invasive species? (If no fill will be placed, select YES).
Yes
43. Are you removing or maintaining vegetation (e.g., cutting brush, mowing, applying herbicides, etc)?
Yes
44. Will mowing occur as part of the proposed action?
No
45. If removing brush or trees, can you access the site when ground is completely frozen?
Yes
46. Does your project involve pesticide application?
No
47. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
48. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
49. [Hidden Semantic] Does the action area intersect the area of influence for Eastern prairie fringed orchid?
Automatically answered
Yes

50. Did you conduct a survey to determine if Eastern prairie fringed orchid occurs in the action area?

No

51. Will the action indirectly alter the habitat or resources of eastern prairie fringed orchid? For example, could your action result in a change in canopy cover, microclimate, humidity, increase in invasive species, hydrologic alterations, etc.? If unsure, select yes.

Yes

52. 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

53. 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

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

No

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

No

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

No

57. 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

58. Does the action include herbicide application?

No

59. 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

60. 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

61. 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

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

No

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

Automatically answered

No

64. [Hidden Semantic] Does the action area intersect the SE_LP_N_half Michigan Modeled Bat Habitat?

Automatically answered

Yes

65. Your project intersected modeled bat habitat.

Will all tree cutting/trimming, prescribed fire, and/or pesticide application be restricted to the inactive (hibernation) season for listed bats (that is, conducted during October 1 through April 14)?

Yes

66. Will the action clear >10 acres of modeled 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Yes

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

Automatically answered

Yes

71. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573

March 20, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF CSO 019

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **March 14, 2024**. During this Review, the project location was checked against known localities for rare species, and **14** State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Black and gold bumble bee	Bombus auricomus	SC	1952
Blue-eyed Mary	Collinsia verna	T	1995
Cattail sedge	Carex typhina	T	2021
Flutedshell	Lasmigona costata	SC	2017
Hemlock-parsley	Conioselinum chinense	SC	1882
Indiana bat	Myotis sodalis	E	1974
Least shrew	Cryptotis parva	T	1945
Little Brown Bat	Myotis lucifugus	T	1958
Peregrine falcon	Falco peregrinus	T	2020
Round pigtoe	Pleurobema sintoxia	SC	2017
Showy orchis	Galearis spectabilis	T	1895
Yellow banded bumble bee	Bombus terricola	Sc	1948
Virginia spiderwort	Tradescantia virginiana	T	1923
Woodland vole	Microtus pinetorum	SC	1938

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project proposes to replace aging water main throughout the mapped area. The project will involve open cut and directional drilling where appropriate. The project is anticipated to begin in the Spring of 2025.

For the **14** State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Black and gold bumble bee (Bombus auricomus) State Species of Special Concern. MNFI describes the habitat for this species as prairies and grasslands and is rarely associated with extensive forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1952 and is considered historical. OHM has determined no effect to this species.



Blue-eyed Mary (*Collinsia verna*) State Threatened. MNFI describes the habitat for this as moist soil rich beech-maple forests with a rich humus layer, and on levees and terraces within floodplain forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1995 and is considered historical. OHM has determined no effect to this species.

Cattail sedge (*Carex typhina*) State Threatened. MNFI describes the habitat for this species as bottomland forests in southern Lower Michigan, usually within first and second bottoms. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 2021. OHM has determined no effect to this species.

Flutedshell (*Lasmigona costata*) State Species of Special Concern MNFI describes the habitat for this species as small and medium rivers, and in Lake St. Clair and Lake Erie. They are often found in sandy mud and cobble substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2017. OHM has determined no effect to this species.

Hemlock parsley (*Conioselinum chinense*) State Species of Special Concern. MNFI describes the habitat for this species as Southern Michigan in moist peat in tamarack and cedar swamps, often with a significant hardwood component, and along stream banks. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1882 and is considered historical. OHM has determined no effect to this species.

Indiana bat (*Myotis sodalist*) State Endangered. A Not Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Least shrew (*Cryptotis parva*) State Threatened. MNFI describes the habitat for this species as dry upland meadows with dense coverage of grasses and forbs. It can also be found in marshy areas, fencerows, and woodland edges. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1945 and is considered historical. OHM has determined no effect to this species.

Little brown bat (*Myotis lucifugus*) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Peregrine falcon (*Falco peregrinus*) State Threatened. MNFI describes the nesting habitat for this species as man-made structures where they feed on the abundance of small city birds like Rock pigeons. Construction activities will have no impact to nesting sites. The last observation of this species in within 1.5 miles of the project area occurred in 2020 and is considered historical. OHM has determined no effect to this species.

Round pigtoe (*Pleurobema sintoxia*) State Species of Special Concern. MNFI describes the habitat for this species as mud, sand, or gravel substrates of medium to large rivers. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2017. OHM has determined no effect to this species.



Showy orchis (*Galearis spectabilis*) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1895 and is considered historical. OHM has determined no effect to this species.

Yellow banded bumble bee (*Bombus terricola*) State Species of Special Concern. MNFI describes the habitat for this species as rich wooded areas. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1948 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1893 and is considered historical. OHM has determined no effect to this species.

Woodland vole (*Microtus pinetorum*) State Species of Special Concern) MNFI describes the habitat for this species as deciduous woodlands with loose sandy soils, deep humus, and heavy leaf litter. Although it prefers deciduous forests comprised of oak, maple and/or beech, the woodland vole can potentially be found in any forest type. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1988 and is considered historical. OHM has determined no effect to this species.

If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wade Rose', with a long horizontal line extending to the right.

Wade Rose, OHM Advisors Ecologist



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:
Project Code: 2024-0054158
Project Name: CSO 019 Water Main Replacement

February 26, 2024

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 >450 feet 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
- Bald & Golden Eagles
- 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: 2024-0054158
Project Name: CSO 019 Water Main Replacement
Project Type: Water Supply Pipeline - New Constr - Below Ground
Project Description: The project proposes to replace aging water main throughout the mapped area. The project will involve open cut and directional drilling where appropriate. The project is anticipated to begin in the Spring of 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.74304105,-84.55399961326464,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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 1 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/IO4WZVIABJAANGKWIGD32VKN2M/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/IO4WZVIABJAANGKWIGD32VKN2M/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.

3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

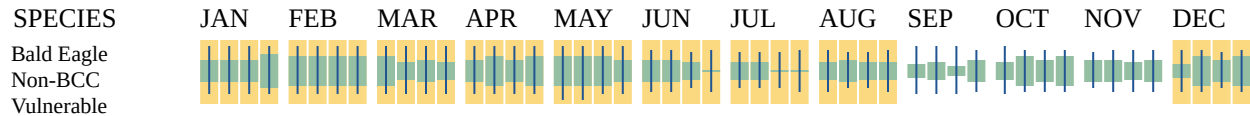
Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort — no data



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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)

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

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere

NAME	BREEDING SEASON
<p>Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626</p>	Breeds Dec 1 to Aug 31
<p>Black Tern <i>Chlidonias niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093</p>	Breeds May 15 to Aug 20
<p>Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399</p>	Breeds May 15 to Oct 10
<p>Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454</p>	Breeds May 20 to Jul 31
<p>Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643</p>	Breeds May 20 to Aug 10
<p>Cerulean Warbler <i>Dendroica cerulea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974</p>	Breeds Apr 22 to Jul 20
<p>Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406</p>	Breeds Mar 15 to Aug 25
<p>Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10678</p>	Breeds May 1 to Aug 20
<p>Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745</p>	Breeds May 1 to Jul 20
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere

NAME	BREEDING SEASON
<p>Long-eared Owl <i>asio otus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Pectoral Sandpiper <i>Calidris melanotos</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9561</p>	Breeds elsewhere
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9398</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/9478</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9431</p>	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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

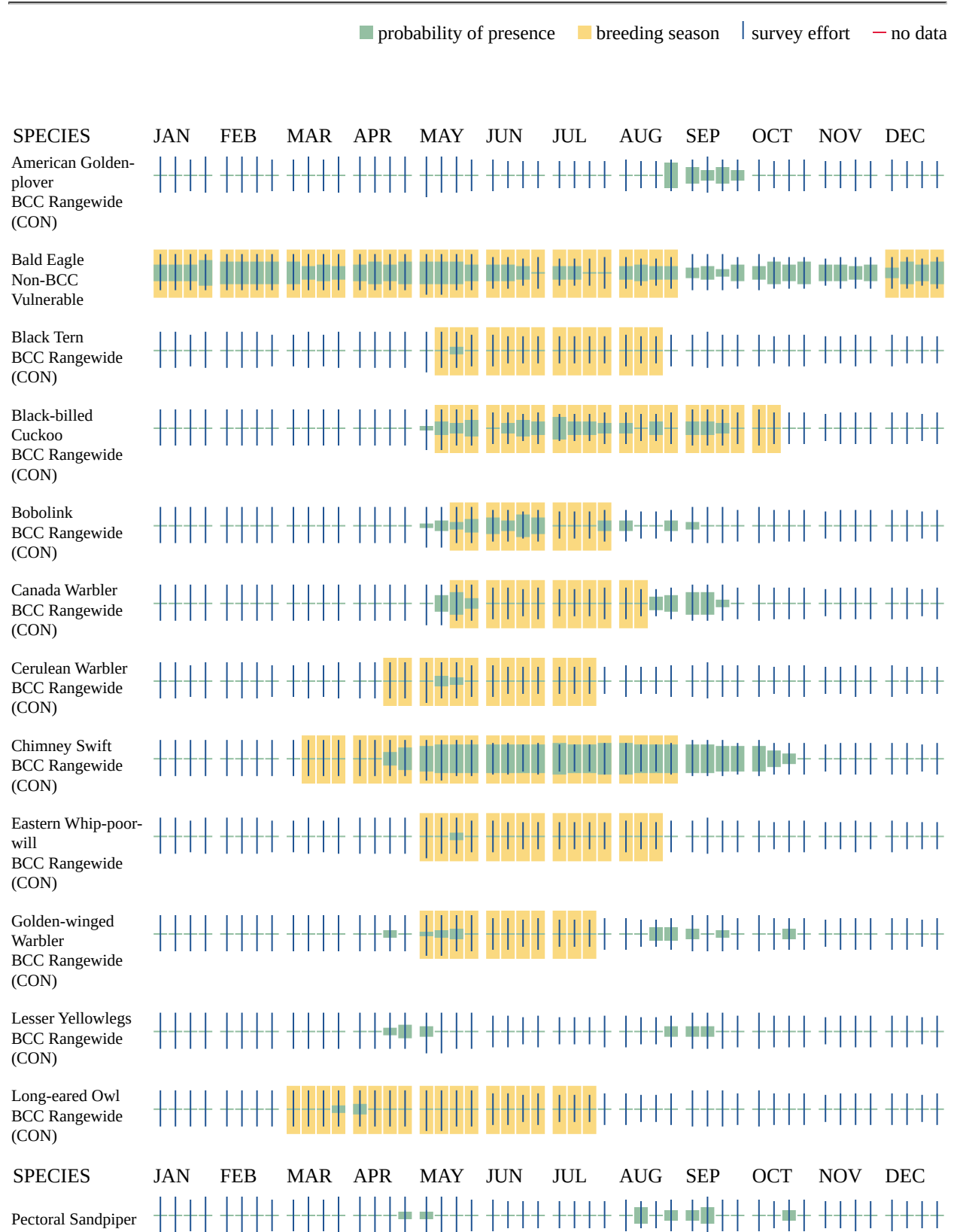
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

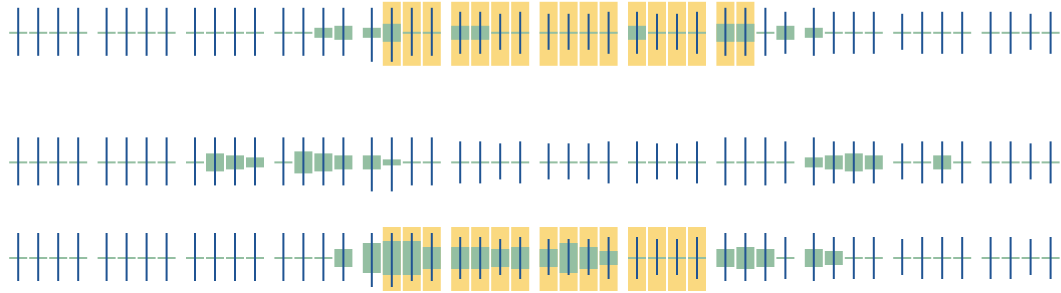


BCC Rangewide
(CON)

Red-headed
Woodpecker
BCC Rangewide
(CON)

Rusty Blackbird
BCC - BCR

Wood Thrush
BCC Rangewide
(CON)



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search








Search Results for Town 04N, Range 02W, Section 16 and Ingham County
 Displaying Record 1 to 15 of 15 Records Found

Query Results Generated on Feb 26, 2024
 Database Updated on Feb 01, 2024

[New Search](#) [Refine Search](#) [◀ Previous 25 Records](#) [Next 25 Records ▶](#)

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Black and gold bumble bee	Bombus auricomus	SC		1952-07-15			Lansing		04N	02W	8, 9, 15, 16, 17, 20, 21, 22	Ingham
	Blue-eyed Mary	Collinsia verna	T		1995-05-19			Lansing/Trowbridge Woods		04N	02W	8, 9, 10, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26	Ingham
	Cattail sedge	Carex typhina	T		2021-07-30	Plant	M	SE Lansing	Billington, C. 1923. MICH,BLH	04N	02W	14, 15, 16, 21, 22, 23, 24, 26, 27, 28, 34	Ingham
	Flutedshell	Lasmigona costata	SC					Grand River/Lansing	2017-07-22. Unionidae download from IDIGBIO for new Special Concern mussels. Spreadsheet.	04N	02W	9, 16, 20, 21	Ingham
	Hemlock-parsley	Conioselinum chinense	SC		1882-08-00			Grand River Banks	Walters, Beverly. 2014. Excel spreadsheet of museum specimens for new SC/T/E species.	04N	02W	8, 9, 10, 15, 16, 17, 20, 21, 22	Ingham
	Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33,	Ingham

	Least shrew	<i>Cryptotis parva</i>	T		1945-11	Animal	GX		Wallace, G.J. 1948. The Barn Owl in Michigan: It's Distribution. Mich. St. Coll. Agr. Exp. Sta. Tech. Bulletin 208.	04N	02W	34, 35, 36 1, 2, 3, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Little brown bat	<i>Myotis lucifugus</i>	T	UR	1958			Lansing	UMMZ online catalog for all collections of the species <i>Myotis lucifugus</i> , downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham
	Peregrine falcon	<i>Falco peregrinus</i>	T	PS:LE	2020	Animal		MI National Bank; MSU Campus; State Capital; Lansing Board of Water & Light Power Plant	Midwest Peregrine Society. 1988-2006. Midwest Peregrine Falcon Restoration Project - Midwest Annual Reports (http://midwestperegrine.org/pages/annualreports.htm).	04N	02W	13, 16, 21	Ingham
	Round pigtoe	<i>Pleurobema sintoxia</i>	SC			Animal		Lansing [Grand River?]	Barrow, W. B., no date, UMMZ#81676	04N	02W	16	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T		1895-05-26	Plant	GX	NORTH OF MSU	Skeels, H.C. 1894. May 11 - MSC 26815 (no collection #).	04N	02W	1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T		1877	Plant	GX	LANSING		04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,	Ingham

											12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	
Virginia spiderwort	Tradescantia virginiana	T	1923-06-08	Plant	GX	EAST LANSING	Walpole, B.L. 1923. BLH	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36	Ingham	
 Woodland vole	Microtus pinetorum	SC	1938-07-13	Animal	GX		Orwoll, H. 1938. #M-15, 18, 88 MS.	04N	02W	1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 33, 34, 35, 36	Ingham	
Yellow banded bumble bee	Bombus terricola	SC	1948-07-17	Animal		Lansing	Rowe, Logan, T. Wood, and D. Cuthrell. 2019. January 17 - Excel file with museum specimen data for the bumble bees of Michigan project.	04N	02W	8, 9, 10, 15, 16, 17, 20, 21, 22	Ingham	

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[Next 25 Records ▶](#)



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:
Project code: 2024-0054158
Project Name: CSO 019 Water Main Replacement

February 26, 2024

Subject: Verification letter for the project named 'CSO 019 Water Main Replacement' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **February 26, 2024** your effect determination(s) for the 'CSO 019 Water Main Replacement' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed	No effect
	Endangered	
Whooping Crane (<i>Grus americana</i>)	Experimental	No effect
	Population, Non-Essential	

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 October varies 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.

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.

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) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide 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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

CSO 019 Water Main Replacement

2. Description

The following description was provided for the project 'CSO 019 Water Main Replacement':

The project proposes to replace aging water main throughout the mapped area. The project will involve open cut and directional drilling where appropriate. The project is anticipated to begin in the Spring of 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.74304105,-84.55399961326464,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. 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
31. 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
32. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
33. Does the action include removal/modification of an existing bridge or culvert?
No
34. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
35. 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
36. Does the action include herbicide application?
No
37. 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

38. 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

39. 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

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

No

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

Automatically answered

No

42. Will all tree cutting/trimming, prescribed fire, and/or pesticide 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: that 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

46. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



March 21, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF Pennsylvania & Mt. Hope Water Main and Road Reconstruction (Fayette to Mt. Hope & Penn to Aurellius)

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **March 14, 2024**. During this Review, the project location was checked against known localities for rare species, and **17** State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Bald eagle	Haliaeetus leucocephalus	SC	2019
Black and gold bumble bee	Bombus auricomus	SC	1952
Blue-eyed Mary	Collinsia verna	T	1995
Cattail sedge	Carex typhina	T	2021
Creek heelsplitter	Lasmigona compressa	SC	1934
Hairy-fruited sedge	Carex trichocarpa	SC	1947
Hemlock-parsley	Conioselinum chinense	SC	1882
Indiana bat	Myotis sodalis	E	1974
Least shrew	Cryptotis parva	T	1945
Little Brown Bat	Myotis lucifugus	T	1958
Raven's-footed sedge	Carex crus-corvi	E	1924
Round pigtoe	Pleurobema sintoxia	SC	2017
Showy orchis	Galearis spectabilis	T	1895
Slippershell	Alasmidonta viridis	T	2001
Yellow banded bumble bee	Bombus terricola	SC	1948
Virginia spiderwort	Tradescantia virginiana	T	1923
Woodland vole	Microtus pinetorum	SC	1938

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project will involve the replacement of 12,000 linear feet existing water main in coordination with road reconstruction conducted by the City of Lansing. The project will involve open method and will take place within the existing ROW of Pennsylvania Ave and Mt. Hope Ave. The project has an anticipated start date of Spring of 2025.

For the **17** State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.



Bald Eagle (*Haliaeetus leucocephalus*) State Species of Special Concern. MNFI describes the nesting habitat for this species as a wide variety of habitats that provide suitable nest sites close to open water. Nests may be placed in snags or large live trees as well as on constructed platforms or utility poles. Field surveys will be conducted to determine if an active nesting site is within ¼ mile of the work zone. If present MDNR BMP's will be implemented regarding timing of construction activities.

Black and gold bumble bee (*Bombus auricomus*) State Species of Special Concern. MNFI describes the habitat for this species as prairies and grasslands and is rarely associated with extensive forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1952 and is considered historical. OHM has determined no effect to this species.

Blue-eyed Mary (*Collinsia verna*) State Threatened. MNFI describes the habitat for this as moist soil rich beech-maple forests with a rich humus layer, and on levees and terraces within floodplain forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1995 and is considered historical. OHM has determined no effect to this species.

Cattail sedge (*Carex typhina*) State Threatened. MNFI describes the habitat for this species as bottomland forests in southern Lower Michigan, usually within first and second bottoms. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 2021. OHM has determined no effect to this species.

Creek heelsplitter (*Lasmigona compressa*) State Species of Special Concern. MNFI describes the habitat for this species as creeks and small rivers in a variety of substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 1934 and is considered historical. OHM has determined no effect to this species.

Hairy-fruited sedge (*Carex trichocarpa*) State Species of Special Concern. MNFI describes the habitat for this species as margins of floodplain forests and in open wetlands along streams and marsh borders. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1947. OHM has determined no effect to this species.

Hemlock parsley (*Conioselinum chinense*) State Species of Special Concern. MNFI describes the habitat for this species as Southern Michigan in moist peat in tamarack and cedar swamps, often with a significant hardwood component, and along stream banks. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1882 and is considered historical. OHM has determined no effect to this species.

Indiana bat (*Myotis sodalist*) State Endangered. A Not Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Least shrew (*Cryptotis parva*) State Threatened. MNFI describes the habitat for this species as dry upland meadows with dense coverage of grasses and forbs. It can also be found in marshy areas, fencerows, and woodland edges. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1945 and is considered historical. OHM has determined no effect to this species.



Little brown bat (*Myotis lucifugus*) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Raven's-footed sedge (*Carex crus-corvi*) State Endangered. MNFI describes the habitat for this species as southernmost Michigan in wet depressions in forested floodplains. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1924 and is considered historical. OHM has determined no effect to this species.

Round pigtoe (*Pleurobema sintoxia*) State Species of Special Concern. MNFI describes the habitat for this species as mud, sand, or gravel substrates of medium to large rivers. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2017. OHM has determined no effect to this species.

Showy orchis (*Galearis spectabilis*) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1895 and is considered historical. OHM has determined no effect to this species.

Slippershell (*Alasmidonta viridis*) State Threatened. MNFI describes the habitat for this species as creeks and headwaters of rivers in sand or gravel substrates. Occasionally, they occur in larger rivers and lakes and in mud substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2001. OHM has determined no effect to this species.

Yellow banded bumble bee (*Bombus terricola*) State Species of Special Concern. MNFI describes the habitat for this species as rich wooded areas. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1948 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1893 and is considered historical. OHM has determined no effect to this species.

Woodland vole (*Microtus pinetorum*) State Species of Special Concern) MNFI describes the habitat for this species as deciduous woodlands with loose sandy soils, deep humus, and heavy leaf litter. Although it prefers deciduous forests comprised of oak, maple and/or beech, the woodland vole can potentially be found in any forest type. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1988 and is considered historical. OHM has determined no effect to this species.



If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wade Rose'. The signature is stylized with a large loop at the top and a horizontal line extending to the right.

Wade Rose, OHM Advisors Ecologist



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:

03/14/2024 15:27:07 UTC

Project Code: 2024-0062883

Project Name: Pennsylvania & Mt. Hope Water Main and Road Reconstruction (Fayette to Mt. Hope & Penn to Aurellius)

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 >450 feet 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
- Bald & Golden Eagles
- 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

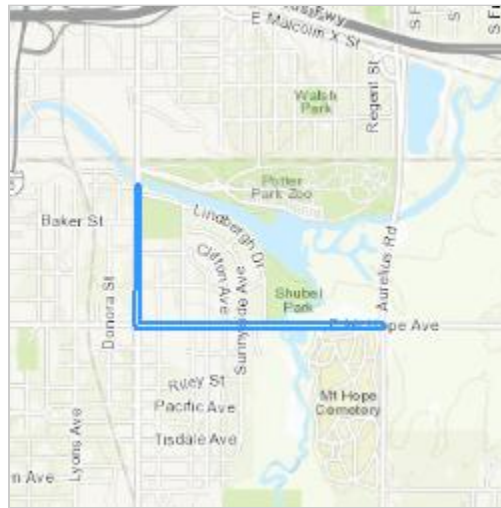
(517) 351-2555

PROJECT SUMMARY

Project Code: 2024-0062883
Project Name: Pennsylvania & Mt. Hope Water Main and Road Reconstruction (Fayette to Mt. Hope & Penn to Aurellius)
Project Type: Water Supply Pipeline - Maintenance/Modification - Below Ground
Project Description: The project will involve the replacement of 12,000 linear feet existing water main in coordination with road reconstruction conducted by the City of Lansing. The project will involve open method and will take place within the existing ROW of Pennsylvania Ave and Mt. Hope Ave. The project has an anticipated start date of Spring of 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.7149292,-84.53809987677795,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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 1 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/4S36LCZZDBBQZLAXZDRRBN45P4/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/4S36LCZZDBBQZLAXZDRRBN45P4/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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)

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

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> 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 <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10

NAME	BREEDING SEASON
<p>Chimney Swift <i>Chaetura pelagica</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9406</p>	Breeds Mar 15 to Aug 25
<p>Eastern Whip-poor-will <i>Antrastomus vociferus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/10678</p>	Breeds May 1 to Aug 20
<p>Golden-winged Warbler <i>Vermivora chrysoptera</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/8745</p>	Breeds May 1 to Jul 20
<p>Lesser Yellowlegs <i>Tringa flavipes</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Long-eared Owl <i>asio otus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Pectoral Sandpiper <i>Calidris melanotos</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9561</p>	Breeds elsewhere
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9398</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/9478</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9431</p>	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 "[Supplemental](#)

[Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

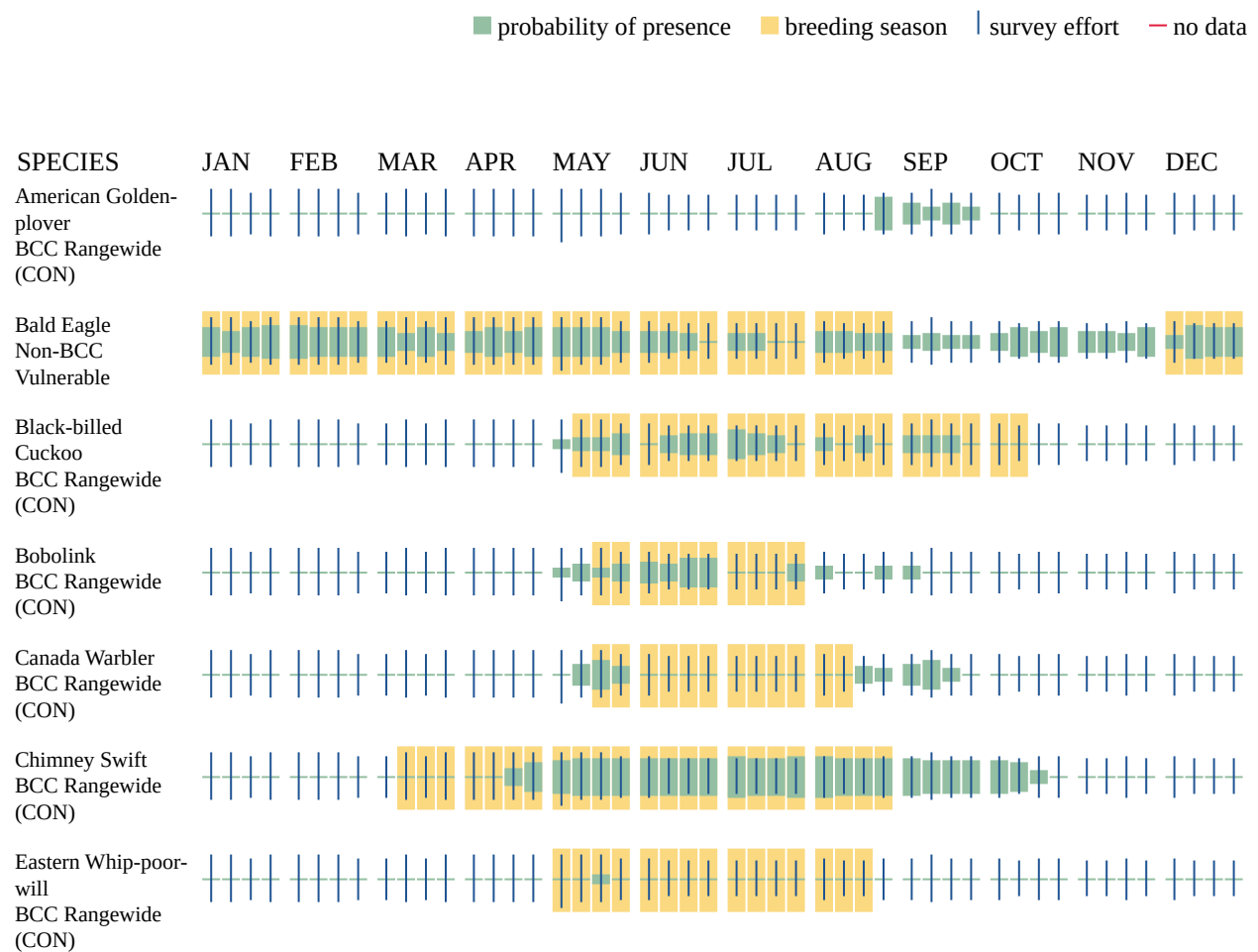
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1C

RIVERINE

- R2UBH
- R5UBH

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 04N, Range 02W, Section 22 and Ingham County




Query Results Generated on Mar 14, 2024



Displaying Record 1 to 20 of 20 Records Found

Database Updated on Mar 01, 2024

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Bald eagle	Haliaeetus leucocephalus	SC	DL	2019	Animal		IN-01 Potter Park Zoo	USFWS. 2017. Bald Eagle Nest Shapefile.	04N	02W	22, 23	Ingham
	Black and gold bumble bee	Bombus auricomus	SC		1952-07-15			Lansing		04N	02W	8, 9, 15, 16, 17, 20, 21, 22	Ingham
	Blue-eyed Mary	Collinsia verna	T		1995-05-19			Lansing/Trowbridge Woods		04N	02W	8, 9, 10, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26	Ingham
	Cattail sedge	Carex typhina	T		2021-07-30	Plant	M	SE Lansing	Billington, C. 1923. MICH,BLH	04N	02W	14, 15, 16, 21, 22, 23, 24, 26, 27, 28, 34	Ingham
	Creek heelsplitter	Lasmigona compressa	SC		1934			Red Cedar River near Okemos/Lansing; Sloan Creek	2017-07-22. Unionidae download from IDIGBIO for new Special Concern mussels. Spreadsheet.	04N	02W	21, 22, 23	Ingham
	Great Blue Heron	Great Blue Heron			2009-03-17			Potter Park	Cuthrell, D. and M. Sanders.	04N	02W	22	Ingham

Rookery		Rookery								2009. MNFI Special Species Form of 17 March.			
Hairy-fruited sedge	Carex trichocarpa	SC		1947-07-13	Plant	S	Potter Park	Walpole, B.A. 1923. #1413 BLH	04N	02W	22, 23	Ingham	
Hemlock-parsley	Conioselinum chinense	SC		1882-08-00			Grand River Banks	Walters, Beverly. 2014. Excel spreadsheet of museum specimens for new SC/T/E species.	04N	02W	8, 9, 10, 15, 16, 17, 20, 21, 22	Ingham	
Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham	
Least shrew	Cryptotis parva	T		1945-11	Animal	GX		Wallace, G.J. 1948. The Barn Owl in Michigan: It's Distribution. Mich. St. Coll. Agr. Exp. Sta. Tech. Bulletin 208.	04N	02W	1, 2, 3, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham	
Little brown bat	Myotis lucifugus	T	UR	1958			Lansing	UMMZ online catalog for all collections of the	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9,	Ingham	

								species <i>Myotis lucifugus</i> , downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.			10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	
	Raven's-foot sedge	<i>Carex cruscovri</i>	E	1924-09-20	Plant	G	POTTER PARK	Billington, C. 1924. BLH	04N	02W	22, 23	Ingham
	River fingernail clam	<i>Sphaerium fabale</i>	SC		Animal		Cedar River	Unknown. Unknown date. UMMZ Lot #67032. 1 collected.	04N	02W	21, 22, 23	Ingham
	Round pigtoe	<i>Pleurobema sintoxia</i>	SC	2001-07-17	Animal		RED CEDAR #6	Goforth, R. 2001. Riparian Ecosystem Phase II.	04N	02W	13, 22, 23	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T	1895-05-26	Plant	GX	NORTH OF MSU	Skeels, H.C. 1894. May 11 - MSC 26815 (no collection #).	04N	02W	1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T	1877	Plant	GX	LANSING		04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13,	Ingham

											14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	
	Slippershell	<i>Alasmidonta viridis</i>	T	2001-07-12	Animal		RED CEDAR #7		04N	02W	13, 22, 23, 27	Ingham
	Virginia spiderwort	<i>Tradescantia virginiana</i>	T	1923-06-08	Plant	GX	EAST LANSING	Walpole, B.L. 1923. BLH	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36	Ingham
	Woodland vole	<i>Microtus pinetorum</i>	SC	1938-07-13	Animal	GX		Orwoll, H. 1938. #M-15, 18, 88 MS.	04N	02W	1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 33, 34, 35, 36	Ingham
	Yellow banded	<i>Bombus terricola</i>	SC	1948-07-17	Animal		Lansing	Rowe, Logan, T. Wood, and D. Cuthrell. 2019.	04N	02W	8, 9, 10, 15, 16,	Ingham

bumble
bee

January 17 -
Excel file with
museum
specimen data
for the bumble
bees of Michigan
project.

17, 20,
21, 22

New Search

Refine Search

◀ Previous 25 Records

Next 25 Records ▶



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:

03/14/2024 15:56:11 UTC

Project code: 2024-0062883

Project Name: Pennsylvania & Mt. Hope Water Main and Road Reconstruction (Fayette to Mt. Hope & Penn to Aurellius)

Subject: Consistency letter for 'Pennsylvania & Mt. Hope Water Main and Road Reconstruction (Fayette to Mt. Hope & Penn to Aurellius)' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **March 14, 2024** your effect determination(s) for the 'Pennsylvania & Mt. Hope Water Main and Road Reconstruction (Fayette to Mt. Hope & Penn to Aurellius)' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	May affect
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed	No effect
Whooping Crane (<i>Grus americana</i>)	Endangered Experimental Population, Non-Essential	No effect

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

Indiana Bat:

Indiana bat may be present in the Action area. Projects have potential to affect Indiana bats if the Action area contains any known or potential hibernacula (including natural caves, abandoned mines, or underground quarries) or if the Action will remove/modify a human structure (barn, house or other building) known to contain roosting Indiana bats. Additionally, projects may affect the species if they clear ≥ 20 acres of forest or fragment a connective corridor between 2 or more forest patches of at least 5 acres, clear $> 10\%$ of the available forested habitat within a half-mile buffer of the Action area, cut or trim any potential Indiana bat roost trees (trees ≥ 5 inches in diameter [at breast height] with cracks, crevices and/or exfoliating bark) during the Indiana bat active season (April 1 through September 30), or apply pesticides during the active season. Projects that include removal/modification of an existing bridge or culvert suitable for day-roosting Indiana bats may affect the species if construction activities are performed during the active season and/or will result in the permanent loss of known or potential roosting spaces (i.e., cracks/crevices/joints). Lastly, projects that include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s) may affect Indiana bats if they do not apply avoidance and minimization measures. **Please coordinate with the Michigan Ecological Services Field Office to further evaluate effects of the Action on Indiana bats.**

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 October varies 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>

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.

Action Description

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

1. Name

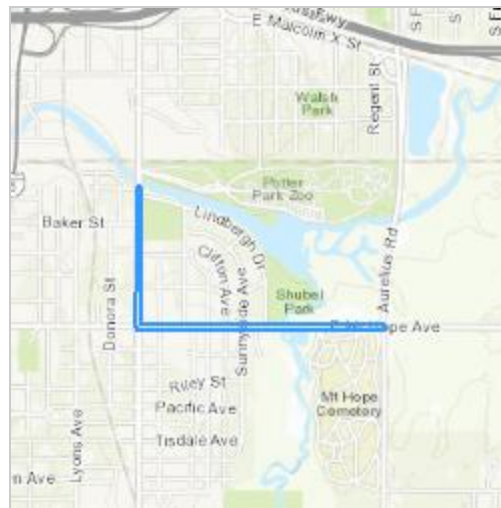
Pennsylvania & Mt. Hope Water Main and Road Reconstruction (Fayette to Mt. Hope & Penn to Aurellius)

2. Description

The following description was provided for the project 'Pennsylvania & Mt. Hope Water Main and Road Reconstruction (Fayette to Mt. Hope & Penn to Aurellius)':

The project will involve the replacement of 12,000 linear feet existing water main in coordination with road reconstruction conducted by the City of Lansing. The project will involve open method and will take place within the existing ROW of Pennsylvania Ave and Mt. Hope Ave. The project has an anticipated start date of Spring of 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.7149292,-84.53809987677795,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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

28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?

Automatically answered

Yes

29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?

Yes

30. 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

31. 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

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

No

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

Yes

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

Automatically answered

Yes

35. Is the bridge/culvert within 1000 feet of forested habitat?

Yes

36. Does the bridge/culvert work include modification/removal of (1) an existing bridge and/or (2) a culvert at least 4 feet (1.2 meters) high and 50 feet (15 meters) long?

Yes

37. Has the bridge/culvert been [inspected](#) for signs of roosting bats (guano, urine staining, bat vocalizations, and/or bats) during the summer roosting season (May 15 through August 15)?

Note: Note:A blank bridge/structure assessment form can be found [here](#).

No

38. Does the bridge/culvert contain suitable roosting spaces (i.e., expansion joints, cracks/crevices) for day-roosting bats?

Yes

39. Will construction activities be performed during the inactive season for Indiana and northern long-eared bats (October 1 through April 14)?

No

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

43. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



April 9, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF State Secondary Complex Interconnect

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **April 9, 2024**. During this Review, the project location was checked against known localities for rare species, and 6 State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Ellipse	Venustaconcha ellipsiformi	SC	1929
Flutedshell	Lasmigona costata	SC	1929
Grasshopper sparrow	Ammodramus savannarum	SC	2006
Indiana bat	Myotis sodalis	E	1974
Rainbow	Cambarunio iris	SC	1934
Slippershell	Alasmidonta viridis	T	1929

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

Windsor Township water main south on Creyts road is single fed. This would provide reliability and redundancy to water system in Windsor Township. It would also provide reliability and redundancy for the State of Michigan as they could receive water from BWL under emergency conditions. The project will replace approximately 7,500 linear feet of water main using open cut. The project has anticipated start date of spring of 2025.

For the 6 State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Ellipse (*Venustaconcha ellipsiformis*) State Species of Special Concern. MNFI describes the habitat for this species as swift currents of riffles or runs of clear, small to medium sized streams in gravel or sand and gravel substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 1929 and is consider historical. OHM has determined no effect to this species.

Flutedshell (*Lasmigona costata*) State Species of Special Concern. MNFI describes the habitat for this species as small and medium rivers, and in Lake St. Clair and Lake Erie. They are often found in sandy mud and cobble substrates. No work will occur below the ordinary high water or mark or in water work during project activities.



The last observation of this species in within 1.5 miles of the project area occurred in 1929 and is considered historical. OHM has determined no effect to this species.

Grasshopper sparrow (*Ammodramus savannarum*) State Species of Special Concern. MNFI describes the habitat for this species as grasslands, cultivated fields, hayfields, and old fields and seem to prefer drier sites as long as there is tall dense grassy vegetation. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 2006 and is considered historical. OHM has determined no effect to this species.

Indiana bat (*Myotis sodalist*) State Endangered. A Not Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Rainbow (*Cambarunio iris*) State Species of Special Concern. MNFI describes the habitat for this species as coarse sand or gravel in small to medium streams. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 1943 and is considered historical. OHM has determined no effect to this species.

Slippershell (*Alasmidonta viridis*) State Threatened. MNFI describes the habitat for this species as creeks and headwaters of rivers in sand or gravel substrates. Occasionally, they occur in larger rivers and lakes and in mud substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 1929 and is considered historical. OHM has determined no effect to this species.

If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wade Rose', with a horizontal line extending to the right from the end of the signature.

Wade Rose, OHM Advisors Ecologist



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:
Project Code: 2024-0074350
Project Name: State Secondary Complex Interconnect

04/09/2024 12:44:22 UTC

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 >450 feet 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
- Bald & Golden Eagles
- 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

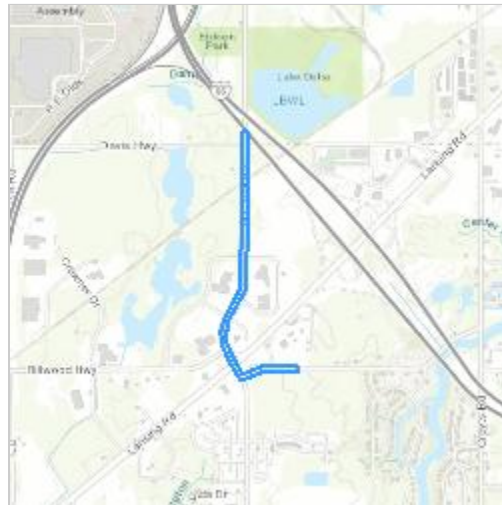
(517) 351-2555

PROJECT SUMMARY

Project Code: 2024-0074350
Project Name: State Secondary Complex Interconnect
Project Type: Water Supply Pipeline - New Constr - Below Ground
Project Description: Windsor Township water main south on Creyts road is single fed. This would provide reliability and redundancy to water system in Windsor Township. It would also provide reliability and redundancy for the State of Michigan as they could receive water from BWL under emergency conditions. Estimated length from BWL owned pipe to Delta Township owned pipe = 6,000 feet. Estimated length from BWL owned pipe to State Secondary Complex owned pipe = 1,500 feet. The project would use open cut method and work within the existing ROW. The project is scheduled to begin in 2025

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.67617545,-84.6621947071045,14z>



Counties: Eaton County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 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 3 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/OWROGKI4SVBEJJBM2DBCDF2YFE/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/OWROGKI4SVBEJJBM2DBCDF2YFE/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/601	Threatened

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Golden Eagle <i>Aquila chrysaetos</i> 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. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere

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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

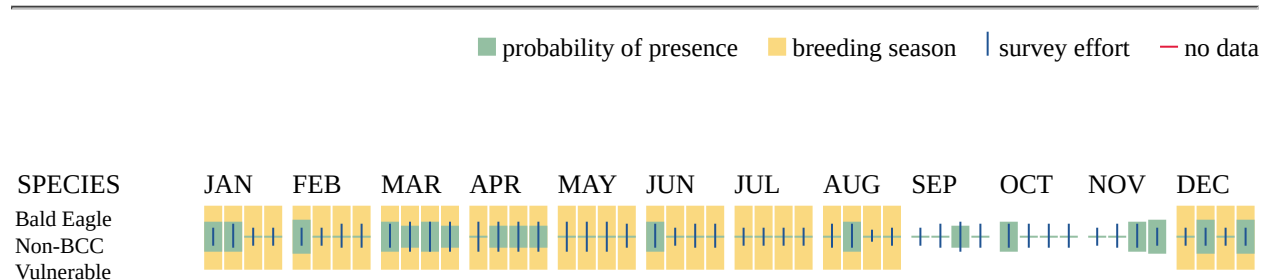
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

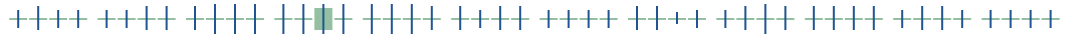
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



Golden Eagle
 Non-BCC
 Vulnerable



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
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)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

NAME	BREEDING SEASON
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> 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 <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Golden Eagle <i>Aquila chrysaetos</i> 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. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Lesser Yellowlegs <i>Tringa flavipes</i> 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
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	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 ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

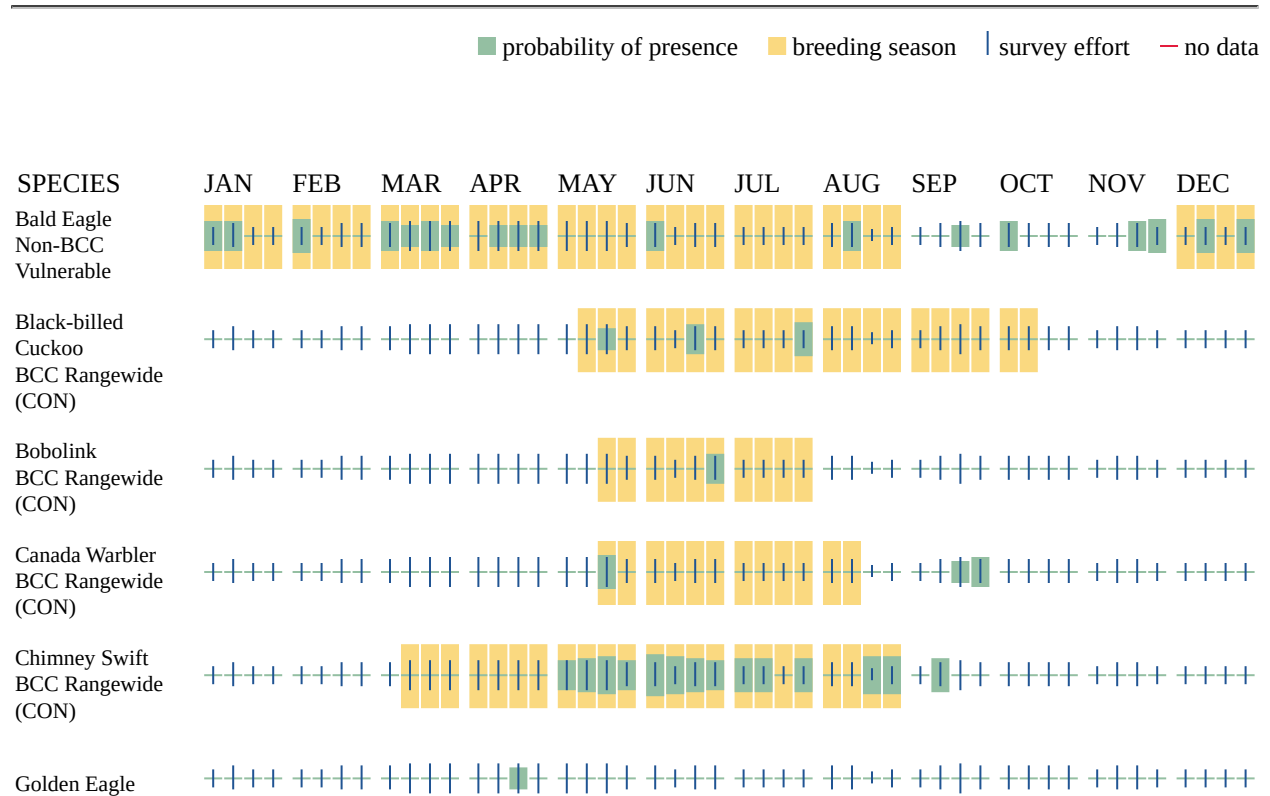
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

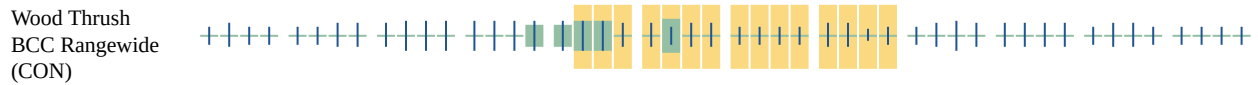
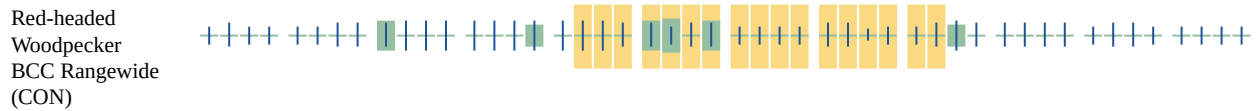
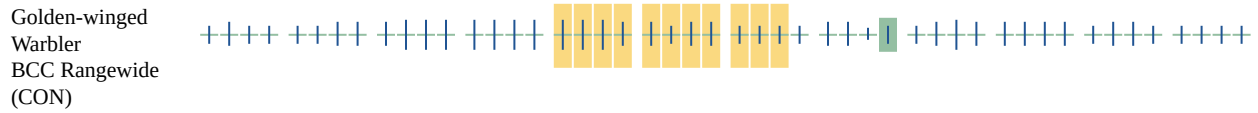
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



Non-BCC
Vulnerable



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 03N, Range 03W, Section 3 and Eaton County

Query Results Generated on Apr 09, 2024

Displaying Record 1 to 6 of 6 Records Found

Database Updated on Apr 01, 2024

[New Search](#)
 [Refine Search](#)
 [◀ Previous 25 Records](#)
 [Next 25 Records ▶](#)

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County	MDOT Right of Way
	Ellipse	Venustaconcha ellipsiformis	SC		1929	Animal		Grand River		03N	03W	2, 3	Eaton	within ROW
	Flutedshell	Lasmigona costata	SC		1929			Grand River/Diamondale		03N	03W	2, 3	Eaton	
	Grasshopper sparrow	Ammodramus savannarum	SC	PS	2006-06-06	Animal		Lansing Road	Sanders, Michael. 2006. MNFI Special Animal Survey Form of 6 June.	03N	03W	3	Eaton	within ROW
	Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	03N	03W	1, 2, 3, 11, 12, 13	Eaton	within ROW
	Rainbow	Cambarunio iris	SC		1934			Grand River	Goodrich, Calvin, 1929, UMMZ#48518	03N	03W	2, 3, 15, 25	Eaton	
	Slippershell	Alasmidonta viridis	T		1929	Animal		Grand River	Goodrich, Calvin; 1929; UMMZ #48511	03N	03W	2, 3, 23	Eaton	

[New Search](#)
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 [Next 25 Records ▶](#)



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:

04/09/2024 12:46:20 UTC

Project code: 2024-0074350

Project Name: State Secondary Complex Interconnect

Subject: Verification letter for the project named 'State Secondary Complex Interconnect' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **April 09, 2024** your effect determination(s) for the 'State Secondary Complex Interconnect' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Eastern Prairie Fringed Orchid (<i>Platanthera leucophaea</i>)	Threatened	No effect
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed	No effect
	Endangered	
Whooping Crane (<i>Grus americana</i>)	Experimental	No effect
	Population, Non-Essential	

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 October varies 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.

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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

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 (September 1 through April 30). Prescribed fire and/or pesticide 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.

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 occur outside the northern long-eared bat summer roosting period (that is, limited to the period of October 1 through April 14). Prescribed fire and/or pesticide/herbicide application will also occur during October 1 through April 14 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

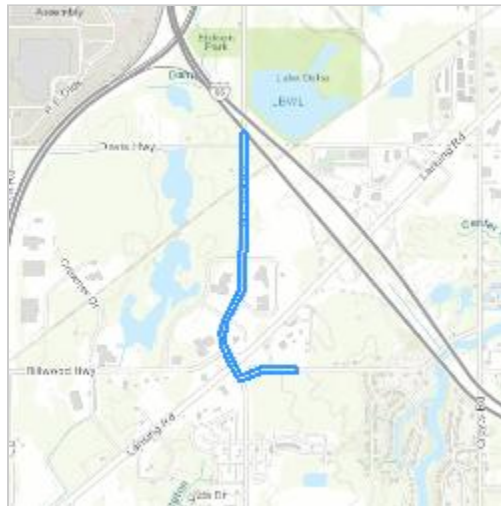
State Secondary Complex Interconnect

2. Description

The following description was provided for the project 'State Secondary Complex Interconnect':

Windsor Township water main south on Creyts road is single fed. This would provide reliability and redundancy to water system in Windsor Township. It would also provide reliability and redundancy for the State of Michigan as they could receive water from BWL under emergency conditions. Estimated length from BWL owned pipe to Delta Township owned pipe = 6,000 feet. Estimated length from BWL owned pipe to State Secondary Complex owned pipe = 1,500 feet. The project would use open cut method and work within the existing ROW. The project is scheduled to begin in 2025

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.67617545,-84.6621947071045,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. [Hidden Semantic] Does the action area intersect the area of influence for Eastern prairie fringed orchid?
Automatically answered
Yes
31. 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
32. 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
33. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
34. Does the action include removal/modification of an existing bridge or culvert?
No
35. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
36. 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
37. Does the action include herbicide application?
No

38. 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

39. 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

40. 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

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

No

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

Automatically answered

No

43. Your project intersected modeled bat habitat.

Will all tree cutting/trimming, prescribed fire, and/or pesticide application be restricted to the inactive (hibernation) season for listed bats (that is, conducted during October 1 through April 14)?

Yes

44. Will the action clear >10 acres of modeled 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Yes

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

Automatically answered

Yes

49. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



April 9, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF Windsor Estates Interconnect.

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on April 9, 2024. During this Review, the project location was checked against known localities for rare species, and 6 State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Ellipse	Venustaconcha ellipsiformi	SC	1929
Flutedshell	Lasmigona costata	SC	1929
Grasshopper sparrow	Ammodramus savannarum	SC	2006
Indiana bat	Myotis sodalis	E	1974
Rainbow	Cambarunio iris	SC	1934
Slippershell	Alasmidonta viridis	T	1929

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project proposes the replacement 3,000 linear feet of water main within the existing ROW using open cut. The project has an anticipated start date of Spring 2025.

For the 6 State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Ellipse (*Venustaconcha ellipsiformis*) State Species of Special Concern. MNFI describes the habitat for this species as swift currents of riffles or runs of clear, small to medium sized streams in gravel or sand and gravel substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 1929 and is consider historical. OHM has determined no effect to this species.

Flutedshell (*Lasmigona costata*) State Species of Special Concern. MNFI describes the habitat for this species as small and medium rivers, and in Lake St. Clair and Lake Erie. They are often found in sandy mud and cobble substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 1929 and is considered historical. OHM has determined no effect to this species.



Grasshopper sparrow (*Ammodramus savannarum*) State Species of Special Concern. MNFI describes the habitat for this species as grasslands, cultivated fields, hayfields, and old fields and seem to prefer drier sites as long as there is tall dense grassy vegetation. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 2006 and is considered historical. OHM has determined no effect to this species.

Indiana bat (*Myotis sodalists*) State Endangered. A Not Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Rainbow (*Cambarunio iris*) State Species of Special Concern. MNFI describes the habitat for this species as coarse sand or gravel in small to medium streams. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 1943 and is considered historical. OHM has determined no effect to this species.

Slippershell (*Alasmidonta viridis*) State Threatened. MNFI describes the habitat for this species as creeks and headwaters of rivers in sand or gravel substrates. Occasionally, they occur in larger rivers and lakes and in mud substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 1929 and is considered historical. OHM has determined no effect to this species.

If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wade Rose', with a long horizontal line extending to the right.

Wade Rose, OHM Advisors Ecologist



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:
Project Code: 2024-0074400
Project Name: Windsor Estates Interconnect

04/09/2024 13:33:13 UTC

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 >450 feet 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
- Bald & Golden Eagles
- 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: 2024-0074400
Project Name: Windsor Estates Interconnect
Project Type: Water Supply Pipeline - New Constr - Below Ground
Project Description: The project proposes the replacement 3,00 linear feet of water main within the existing ROW using open cut. The project has an anticipated start date of Spring 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.666162299999996,-84.65966872016678,14z>



Counties: Eaton County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 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 3 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/FQN2KCD6XRB6VOB6TAE7667Q5I/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/FQN2KCD6XRB6VOB6TAE7667Q5I/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/601	Threatened

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Golden Eagle <i>Aquila chrysaetos</i> 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. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere

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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

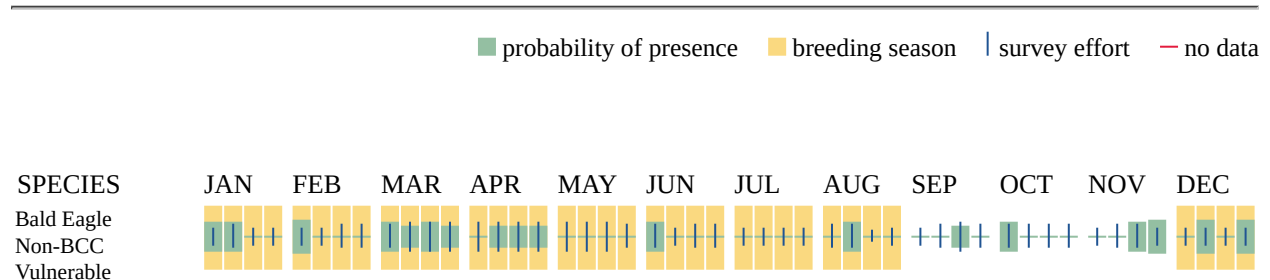
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

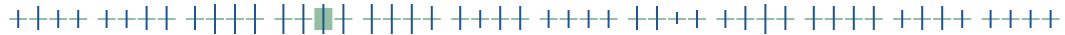
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



Golden Eagle
 Non-BCC
 Vulnerable



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
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)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

NAME	BREEDING SEASON
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> 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 <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Golden Eagle <i>Aquila chrysaetos</i> 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. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Lesser Yellowlegs <i>Tringa flavipes</i> 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
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	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 ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

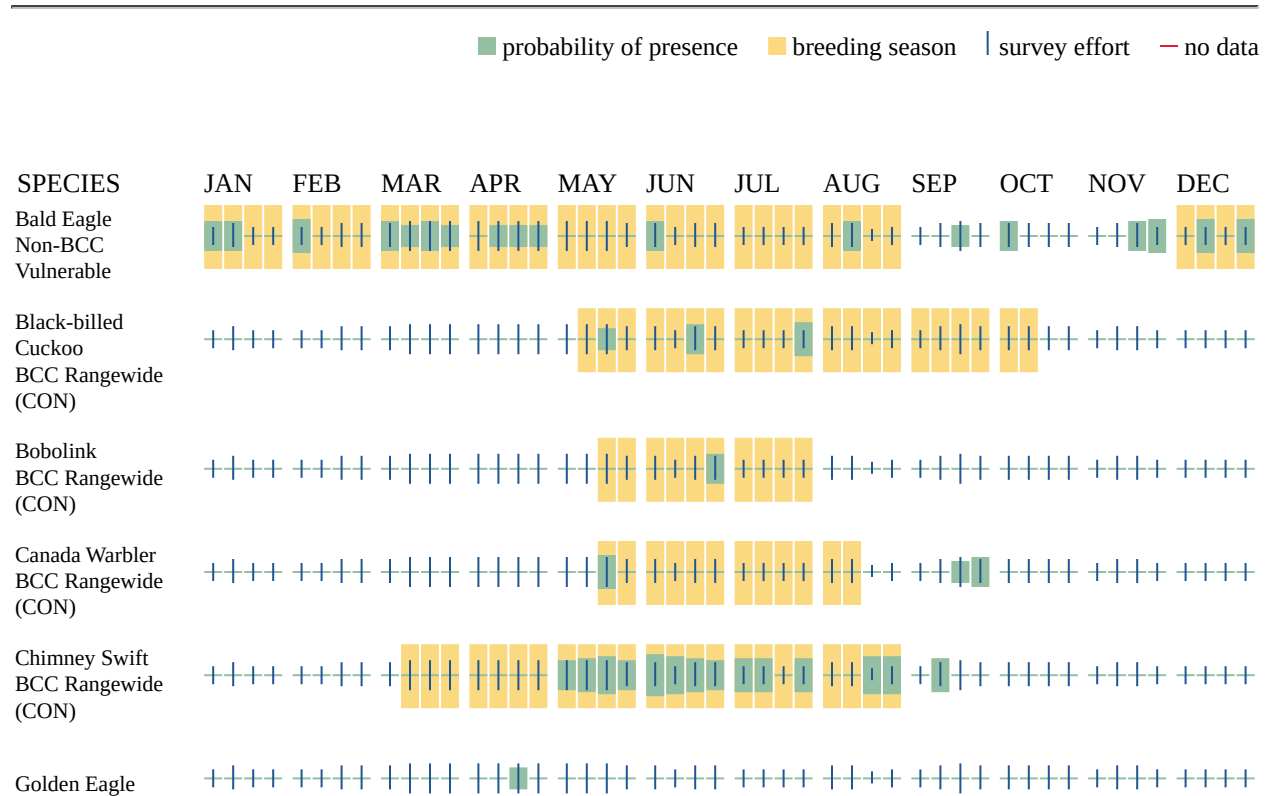
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

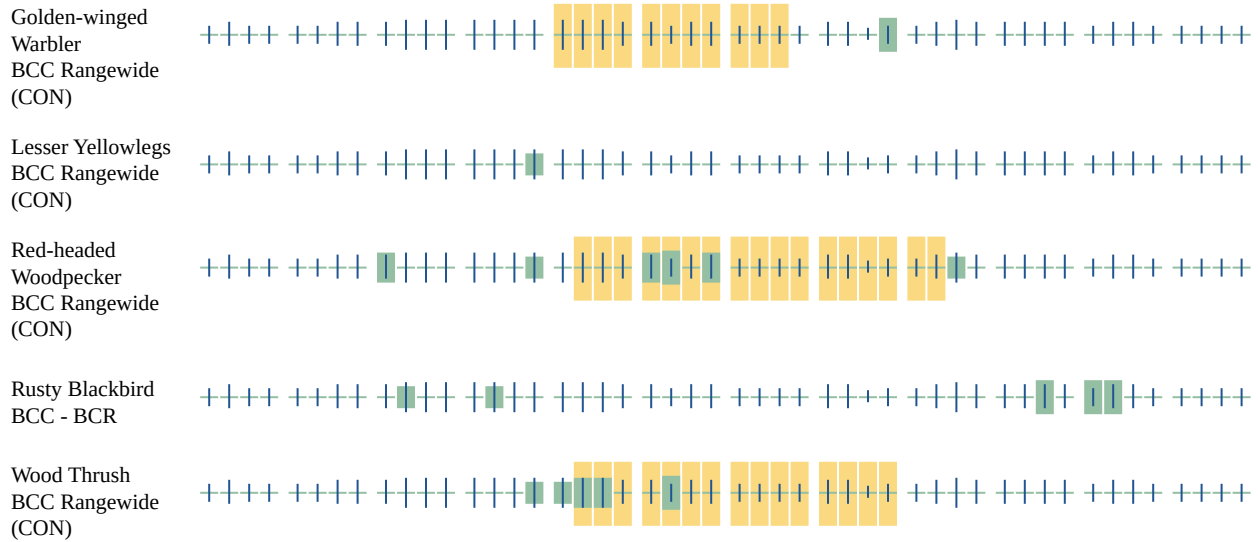
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



Non-BCC
Vulnerable



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

FRESHWATER POND

- PUBG

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1/EM1C

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 03N, Range 03W, Section 3 and Eaton County

Query Results Generated on Apr 09, 2024

Displaying Record 1 to 6 of 6 Records Found

Database Updated on Apr 01, 2024

[New Search](#)
 [Refine Search](#)
 [◀ Previous 25 Records](#)
 [Next 25 Records ▶](#)

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County	MDOT Right of Way
	Ellipse	Venustaconcha ellipsiformis	SC		1929	Animal		Grand River		03N	03W	2, 3	Eaton	within ROW
	Flutedshell	Lasmigona costata	SC		1929			Grand River/Diamondale		03N	03W	2, 3	Eaton	
	Grasshopper sparrow	Ammodramus savannarum	SC	PS	2006-06-06	Animal		Lansing Road	Sanders, Michael. 2006. MNFI Special Animal Survey Form of 6 June.	03N	03W	3	Eaton	within ROW
	Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	03N	03W	1, 2, 3, 11, 12, 13	Eaton	within ROW
	Rainbow	Cambarunio iris	SC		1934			Grand River	Goodrich, Calvin, 1929, UMMZ#48518	03N	03W	2, 3, 15, 25	Eaton	
	Slippershell	Alasmidonta viridis	T		1929	Animal		Grand River	Goodrich, Calvin; 1929; UMMZ #48511	03N	03W	2, 3, 23	Eaton	

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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:

04/09/2024 13:35:16 UTC

Project code: 2024-0074400

Project Name: Windsor Estates Interconnect

Subject: Verification letter for the project named 'Windsor Estates Interconnect' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **April 09, 2024** your effect determination(s) for the 'Windsor Estates Interconnect' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Eastern Prairie Fringed Orchid (<i>Platanthera leucophaea</i>)	Threatened	No effect
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	No effect
Whooping Crane (<i>Grus americana</i>)	Experimental Population, Non- Essential	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 October varies 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.

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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

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 (September 1 through April 30). Prescribed fire and/or pesticide 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.

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 occur outside the northern long-eared bat summer roosting period (that is, limited to the period of October 1 through April 14). Prescribed fire and/or pesticide/herbicide application will also occur during October 1 through April 14 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

Windsor Estates Interconnect

2. Description

The following description was provided for the project 'Windsor Estates Interconnect':

The project proposes the replacement 3,00 linear feet of water main within the existing ROW using open cut. The project has an anticipated start date of Spring 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.666162299999996,-84.65966872016678,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. [Hidden Semantic] Does the action area intersect the area of influence for Eastern prairie fringed orchid?
Automatically answered
Yes
31. 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
32. 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
33. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
34. Does the action include removal/modification of an existing bridge or culvert?
No
35. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
36. 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
37. Does the action include herbicide application?
No

38. 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

39. 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

40. 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

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

No

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

Automatically answered

No

43. Your project intersected modeled bat habitat.

Will all tree cutting/trimming, prescribed fire, and/or pesticide application be restricted to the inactive (hibernation) season for listed bats (that is, conducted during October 1 through April 14)?

Yes

44. Will the action clear >10 acres of modeled 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Yes

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

Automatically answered

Yes

49. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



April 9th, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF CSO 026 Water Main

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **February 26, 2024**. During this Review, the project location was checked against known localities for rare species, and **18** State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Bald eagle	<i>Haliaeetus leucocephalus</i>	SC	2019
Black and gold bumble bee	<i>Bombus auricomus</i>	SC	1952
Blue-eyed Mary	<i>Collinsia verna</i>	T	1995
Cattail sedge	<i>Carex typhina</i>	T	2021
Creek heelsplitter	<i>Lasmigona compressa</i>	SC	1934
Hairy-fruited sedge	<i>Carex trichocarpa</i>	Sc	1947
Hemlock-parsley	<i>Conioselinum chinense</i>	SC	1882
Indiana bat	<i>Myotis sodalis</i>	E	1974
Least shrew	<i>Cryptotis parva</i>	T	1945
Little Brown Bat	<i>Myotis lucifugus</i>	T	1958
Raven's-footed sedge	<i>Carex crus-corvi</i>	E	1924
River fingernail clam	<i>Sphaerium fabale</i>	SC	2001
Round pigtoe	<i>Pleurobema sintoxia</i>	SC	2017
Showy orchis	<i>Galearis spectabilis</i>	T	1895
Slippershell	<i>Alasmidonta viridis</i>	T	2001
Virginia spiderwort	<i>Tradescantia virginiana</i>	T	1923
Woodland vole	<i>Microtus pinetorum</i>	SC	1938
Yellow banded bumble bee	<i>Bombus terricola</i>	SC	1948

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project proposes to replace aging water main throughout the mapped area. The project will involve open cut and directional drilling where appropriate. The project is anticipated to begin in the Spring of 2025.

For the **18** State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.



Bald Eagle (*Haliaeetus leucocephalus*) State Species of Special Concern. MNFI describes the nesting habitat for this species as a wide variety of habitats that provide suitable nest sites close to open water. Nests may be placed in snags or large live trees as well as on constructed platforms or utility poles. Field surveys will be conducted to determine if an active nesting site is within ¼ mile of the work zone. If present MDNR BMP's will be implemented regarding timing of construction activities.

Black and gold bumble bee (*Bombus auricomus*) State Species of Special Concern. MNFI describes the habitat for this species as prairies and grasslands and is rarely associated with extensive forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1952 and is considered historical. OHM has determined no effect to this species.

Blue-eyed Mary (*Collinsia verna*) State Threatened. MNFI describes the habitat for this as moist soil rich beech-maple forests with a rich humus layer, and on levees and terraces within floodplain forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1995 and is considered historical. OHM has determined no effect to this species.

Cattail sedge (*Carex typhina*) State Threatened. MNFI describes the habitat for this species as bottomland forests in southern Lower Michigan, usually within first and second bottoms. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 2021. OHM has determined no effect to this species.

Creek heelsplitter (*Lasmigona compressa*) State Species of Special Concern. MNFI describes the habitat for this species as creeks and small rivers in a variety of substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 1934 and is considered historical. OHM has determined no effect to this species.

Hairy-fruited sedge (*Carex trichocarpa*) State Species of Special Concern. MNFI describes the habitat for this species as margins of floodplain forests and in open wetlands along streams and marsh borders. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1947. OHM has determined no effect to this species.

Hemlock parsley (*Conioselinum chinense*) State Species of Special Concern. MNFI describes the habitat for this species as Southern Michigan in moist peat in tamarack and cedar swamps, often with a significant hardwood component, and along stream banks. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1882 and is considered historical. OHM has determined no effect to this species.

Indiana bat (*Myotis sodalists*) State Endangered. A Not Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Least shrew (*Cryptotis parva*) State Threatened. MNFI describes the habitat for this species as dry upland meadows with dense coverage of grasses and forbs. It can also be found in marshy areas, fencerows, and woodland edges. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1945 and is considered historical. OHM has determined no effect to this species.



Little brown bat (*Myotis lucifugus*) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Raven's-footed sedge (*Carex crus-corvi*) State Endangered. MNFI describes the habitat for this species as southernmost Michigan in wet depressions in forested floodplains. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1924 and is considered historical. OHM has determined no effect to this species.

River fingernail clam (*Sphaerium fabale*) State Species of Special Concern. MNFI describes the habitat for this species as coarse sand or gravel in both creeks and rivers. It has also been found in the Great Lakes. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2001. OHM has determined no effect to this species.

Round pigtoe (*Pleurobema sintoxia*) State Species of Special Concern. MNFI describes the habitat for this species as mud, sand, or gravel substrates of medium to large rivers. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2017. OHM has determined no effect to this species.

Showy orchis (*Galearis spectabilis*) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1895 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1893 and is considered historical. OHM has determined no effect to this species.

Woodland vole (*Microtus pinetorum*) State Species of Special Concern) MNFI describes the habitat for this species as deciduous woodlands with loose sandy soils, deep humus, and heavy leaf litter. Although it prefers deciduous forests comprised of oak, maple and/or beech, the woodland vole can potentially be found in any forest type. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1988 and is considered historical. OHM has determined no effect to this species.

Yellow banded bumble bee (*Bombus terricola*) State Species of Special Concern. MNFI describes the habitat for this species as rich wooded areas. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1948 and is considered historical. OHM has determined no effect to this species.



If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink, consisting of a large, stylized 'W' and 'R' that are interconnected. The signature is written on a white background.

Wade Rose, OHM Advisors Ecologist



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:
Project Code: 2024-0054286
Project Name: CSO 026 Water Main Replacement

February 26, 2024

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 >450 feet 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
- Bald & Golden Eagles
- 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: 2024-0054286

Project Name: CSO 026 Water Main Replacement

Project Type: Water Supply Pipeline - New Constr - Below Ground

Project Description: The project will involve the replacement of existing water main within the mapped area using open cut. The project has an anticipated start date of Spring 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.72384405,-84.53315242598308,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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 1 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/YMIH6AWUVNBDFCKN3NVIU5GFM/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/YMIH6AWUVNBDFFCKN3NVIU5GFM/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.

3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

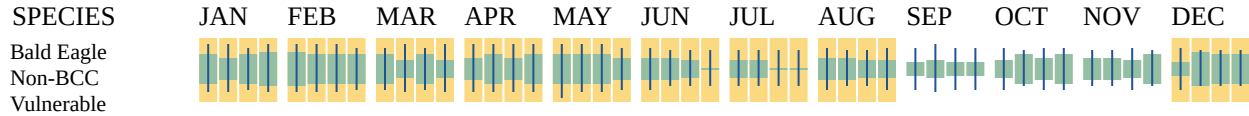
Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort — no data



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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)

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

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere

NAME	BREEDING SEASON
<p>Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626</p>	Breeds Dec 1 to Aug 31
<p>Black Tern <i>Chlidonias niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093</p>	Breeds May 15 to Aug 20
<p>Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399</p>	Breeds May 15 to Oct 10
<p>Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454</p>	Breeds May 20 to Jul 31
<p>Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643</p>	Breeds May 20 to Aug 10
<p>Cerulean Warbler <i>Dendroica cerulea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974</p>	Breeds Apr 22 to Jul 20
<p>Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406</p>	Breeds Mar 15 to Aug 25
<p>Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10678</p>	Breeds May 1 to Aug 20
<p>Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745</p>	Breeds May 1 to Jul 20
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere

NAME	BREEDING SEASON
<p>Long-eared Owl <i>asio otus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Pectoral Sandpiper <i>Calidris melanotos</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9561</p>	Breeds elsewhere
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9398</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/9478</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9431</p>	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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

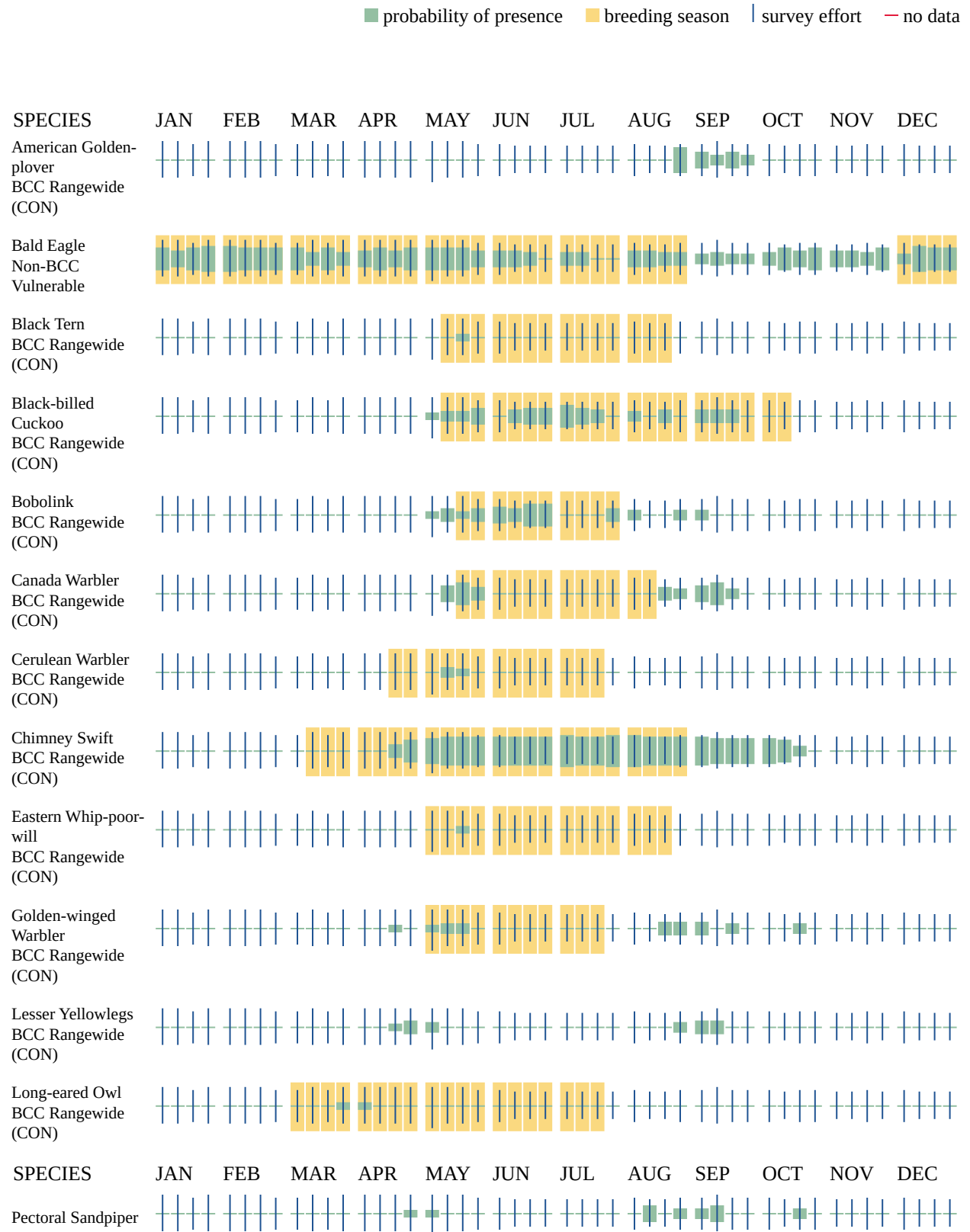
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

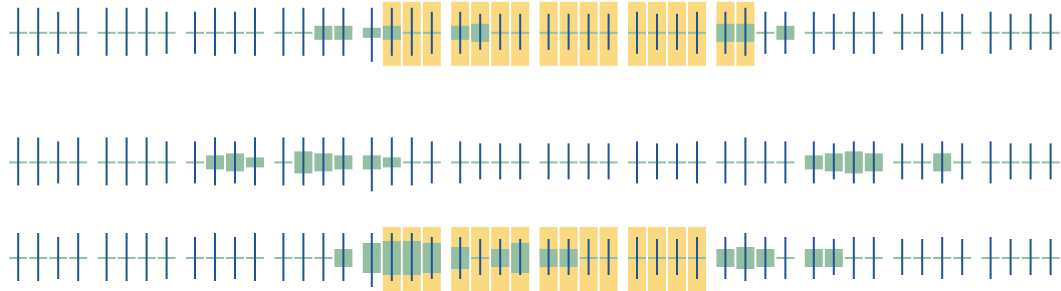


BCC Rangewide
(CON)

Red-headed
Woodpecker
BCC Rangewide
(CON)

Rusty Blackbird
BCC - BCR

Wood Thrush
BCC Rangewide
(CON)



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 04N, Range 02W, Section 22 and Ingham County




Query Results Generated on Feb 26, 2024



Displaying Record 1 to 20 of 20 Records Found

Database Updated on Feb 01, 2024

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Bald eagle	Haliaeetus leucocephalus	SC	DL	2019	Animal		IN-01 Potter Park Zoo	USFWS. 2017. Bald Eagle Nest Shapefile.	04N	02W	22, 23	Ingham
	Black and gold bumble bee	Bombus auricomus	SC		1952-07-15			Lansing		04N	02W	8, 9, 15, 16, 17, 20, 21, 22	Ingham
	Blue-eyed Mary	Collinsia verna	T		1995-05-19			Lansing/Trowbridge Woods		04N	02W	8, 9, 10, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26	Ingham
	Cattail sedge	Carex typhina	T		2021-07-30	Plant	M	SE Lansing	Billington, C. 1923. MICH,BLH	04N	02W	14, 15, 16, 21, 22, 23, 24, 26, 27, 28, 34	Ingham
	Creek heelsplitter	Lasmigona compressa	SC		1934			Red Cedar River near Okemos/Lansing; Sloan Creek	2017-07-22. Unionidae download from IDIGBIO for new Special Concern mussels. Spreadsheet.	04N	02W	21, 22, 23	Ingham
	Great Blue Heron	Great Blue Heron			2009-03-17			Potter Park	Cuthrell, D. and M. Sanders.	04N	02W	22	Ingham

Rookery		Rookery								2009. MNFI Special Species Form of 17 March.			
Hairy-fruited sedge	Carex trichocarpa	SC		1947-07-13	Plant	S	Potter Park	Walpole, B.A. 1923. #1413 BLH	04N	02W	22, 23	Ingham	
Hemlock-parsley	Conioselinum chinense	SC		1882-08-00			Grand River Banks	Walters, Beverly. 2014. Excel spreadsheet of museum specimens for new SC/T/E species.	04N	02W	8, 9, 10, 15, 16, 17, 20, 21, 22	Ingham	
Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham	
Least shrew	Cryptotis parva	T		1945-11	Animal	GX		Wallace, G.J. 1948. The Barn Owl in Michigan: It's Distribution. Mich. St. Coll. Agr. Exp. Sta. Tech. Bulletin 208.	04N	02W	1, 2, 3, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham	
Little brown bat	Myotis lucifugus	T	UR	1958			Lansing	UMMZ online catalog for all collections of the	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9,	Ingham	

								species <i>Myotis lucifugus</i> , downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.			10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	
	Raven's-foot sedge	<i>Carex cruscovri</i>	E	1924-09-20	Plant	G	POTTER PARK	Billington, C. 1924. BLH	04N	02W	22, 23	Ingham
	River fingernail clam	<i>Sphaerium fabale</i>	SC		Animal		Cedar River	Unknown. Unknown date. UMMZ Lot #67032. 1 collected.	04N	02W	21, 22, 23	Ingham
	Round pigtoe	<i>Pleurobema sintoxia</i>	SC	2001-07-17	Animal		RED CEDAR #6	Goforth, R. 2001. Riparian Ecosystem Phase II.	04N	02W	13, 22, 23	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T	1895-05-26	Plant	GX	NORTH OF MSU	Skeels, H.C. 1894. May 11 - MSC 26815 (no collection #).	04N	02W	1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T	1877	Plant	GX	LANSING		04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13,	Ingham

											14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	
	Slippershell	<i>Alasmidonta viridis</i>	T	2001-07-12	Animal		RED CEDAR #7		04N	02W	13, 22, 23, 27	Ingham
	Virginia spiderwort	<i>Tradescantia virginiana</i>	T	1923-06-08	Plant	GX	EAST LANSING	Walpole, B.L. 1923. BLH	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36	Ingham
	Woodland vole	<i>Microtus pinetorum</i>	SC	1938-07-13	Animal	GX		Orwoll, H. 1938. #M-15, 18, 88 MS.	04N	02W	1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 33, 34, 35, 36	Ingham
	Yellow banded	<i>Bombus terricola</i>	SC	1948-07-17	Animal		Lansing	Rowe, Logan, T. Wood, and D. Cuthrell. 2019.	04N	02W	8, 9, 10, 15, 16,	Ingham

bumble
bee

January 17 -
Excel file with
museum
specimen data
for the bumble
bees of Michigan
project.

17, 20,
21, 22

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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:
Project code: 2024-0054286
Project Name: CSO 026 Water Main Replacement

February 26, 2024

Subject: Verification letter for the project named 'CSO 026 Water Main Replacement' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **February 26, 2024** your effect determination(s) for the 'CSO 026 Water Main Replacement' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed	No effect
	Endangered	
Whooping Crane (<i>Grus americana</i>)	Experimental	No effect
	Population, Non-Essential	

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 October varies 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.

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.

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) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide 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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

CSO 026 Water Main Replacement

2. Description

The following description was provided for the project 'CSO 026 Water Main Replacement':

The project will involve the replacement of existing water main within the mapped area using open cut. The project has an anticipated start date of Spring 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.72384405,-84.53315242598308,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. 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
31. 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
32. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
33. Does the action include removal/modification of an existing bridge or culvert?
No
34. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
35. 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
36. Does the action include herbicide application?
No
37. 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

38. 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

39. 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

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

No

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

Automatically answered

No

42. Will all tree cutting/trimming, prescribed fire, and/or pesticide 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: that 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

46. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



April 9, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF Grand Point Subdivision Connection.

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **April 9, 2024**. During this Review, the project location was checked against known localities for rare species, and **6** State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Ellipse	Venustaconcha ellipsiformi	SC	1929
Flutedshell	Lasmigona costata	SC	1929
Indiana bat	Myotis sodalis	E	1974
Little brown bat	Myotis lucifugus	T	1958
Rainbow	Cambarunio iris	SC	1934
Slippershell	Alasmidonta viridis	T	1929

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project proposes the replacement 5,000 linear feet of water main within the existing ROW using open cut. The project has an anticipated start date of Spring 2025.

For the **6** State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Ellipse (*Venustaconcha ellipsiformis*) State Species of Special Concern. MNFI describes the habitat for this species as swift currents of riffles or runs of clear, small to medium sized streams in gravel or sand and gravel substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 1929 and is consider historical. OHM has determined no effect to this species.

Flutedshell (*Lasmigona costata*) State Species of Special Concern. MNFI describes the habitat for this species as small and medium rivers, and in Lake St. Clair and Lake Erie. They are often found in sandy mud and cobble substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 1929 and is considered historical. OHM has determined no effect to this species.



Indiana bat (*Myotis sodalists*) State Endangered. A Not Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Little brown bat (*Myotis lucifugus*) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Rainbow (*Cambarunio iris*) State Species of Special Concern. MNFI describes the habitat for this species as coarse sand or gravel in small to medium streams. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 1943 and is considered historical. OHM has determined no effect to this species.

Slippershell (*Alasmidonta viridis*) State Threatened. MNFI describes the habitat for this species as creeks and headwaters of rivers in sand or gravel substrates. Occasionally, they occur in larger rivers and lakes and in mud substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 1929 and is considered historical. OHM has determined no effect to this species.

If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wade Rose', with a long horizontal line extending to the right.

Wade Rose, OHM Advisors Ecologist



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:
Project Code: 2024-0074440
Project Name: Grand Point Subdivision Connection

04/09/2024 14:10:10 UTC

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 >450 feet 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
- Bald & Golden Eagles
- 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: 2024-0074440
Project Name: Grand Point Subdivision Connection
Project Type: Water Supply Pipeline - New Constr - Below Ground
Project Description: The project proposes the replacement 5,000 linear feet of water main within the existing ROW using open cut. The project has an anticipated start date of Spring 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.67388525,-84.63850269298305,14z>



Counties: Eaton County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 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 3 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/V2V5EXVRP5CO7HY2LMUARZYF7M/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/V2V5EXVRP5CO7HY2LMUARZYF7M/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/601	Threatened

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Golden Eagle <i>Aquila chrysaetos</i> 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. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere

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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

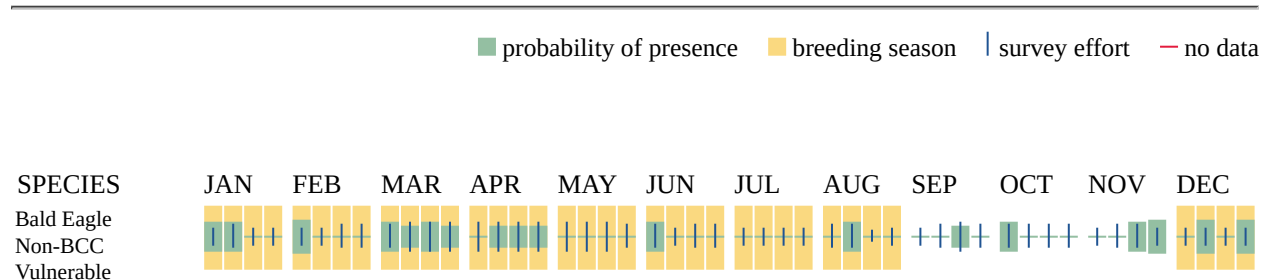
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

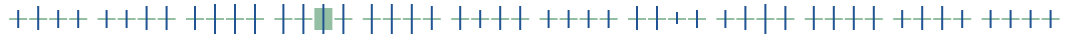
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



Golden Eagle
 Non-BCC
 Vulnerable



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
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)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

NAME	BREEDING SEASON
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> 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 <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Golden Eagle <i>Aquila chrysaetos</i> 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. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Lesser Yellowlegs <i>Tringa flavipes</i> 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
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	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 ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

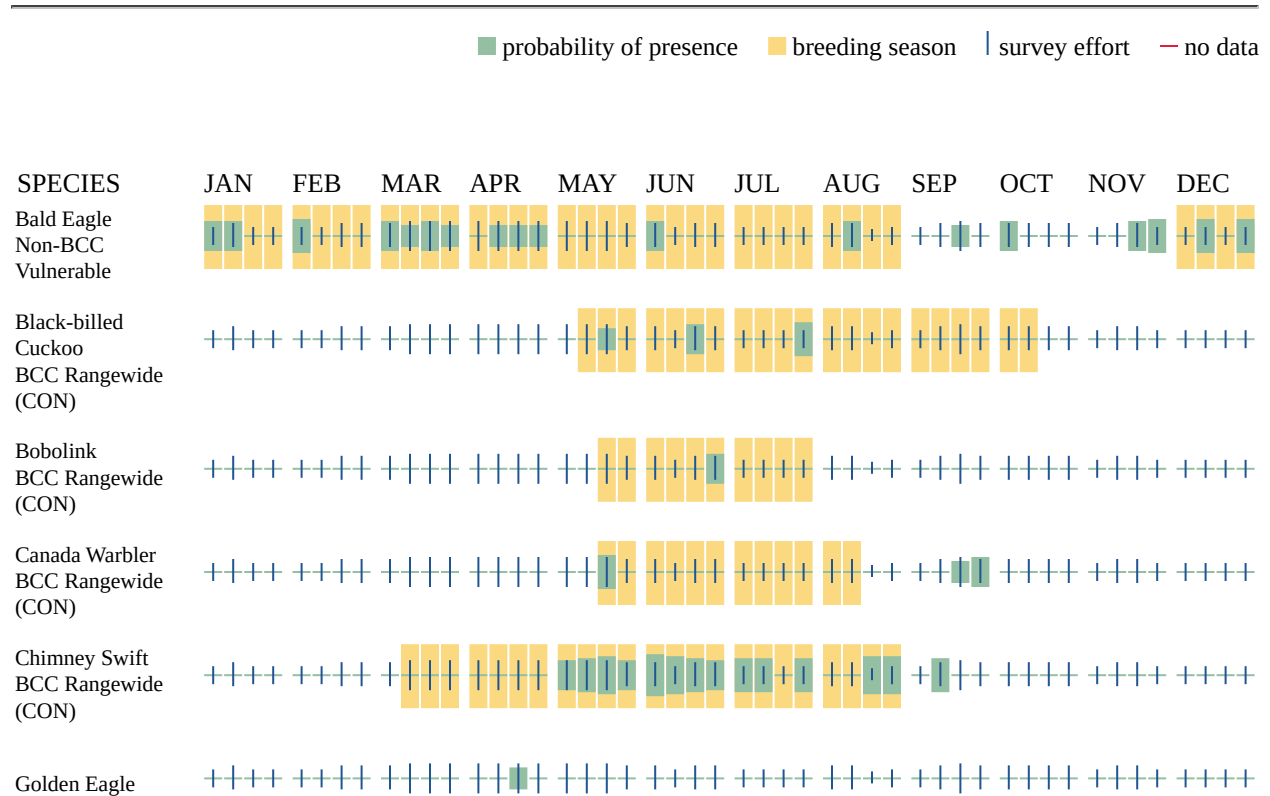
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

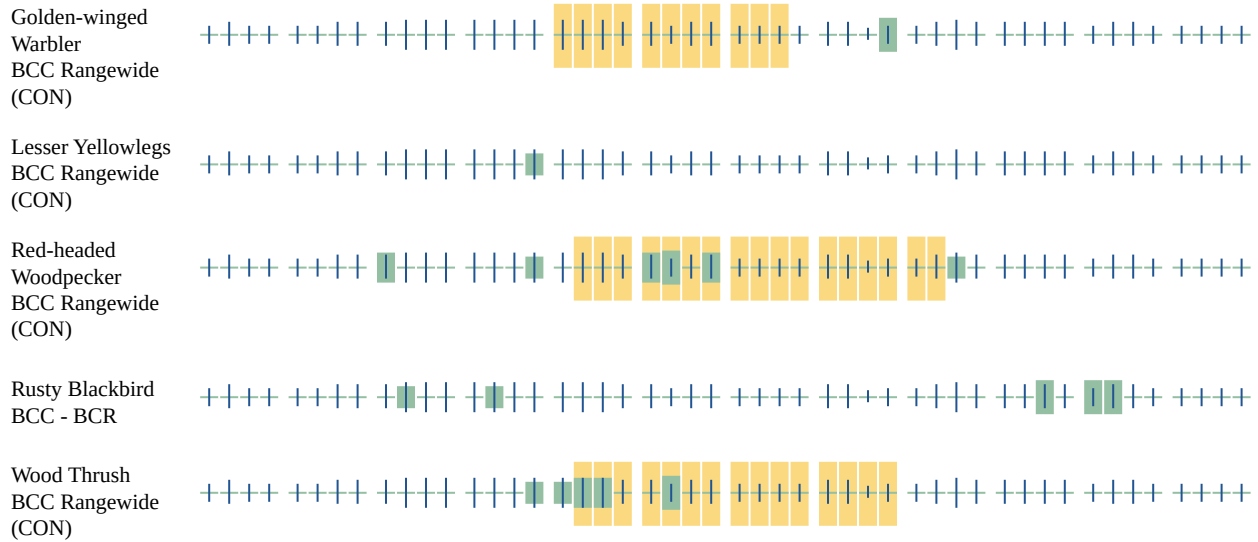
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



Non-BCC
Vulnerable



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 03N, Range 03W, Section 2 and Eaton County

Query Results Generated on Apr 09, 2024

Displaying Record 1 to 6 of 6 Records Found



Database Updated on Apr 01, 2024

[New Search](#)

[Refine Search](#)

[◀ Previous 25 Records](#)

[Next 25 Records ▶](#)

	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County	MDOT Right of Way
	Ellipse	Venustaconcha ellipsiformis	SC		1929	Animal		Grand River		03N	03W	2, 3	Eaton	within ROW
	Flutedshell	Lasmigona costata	SC		1929			Grand River/Dimondale		03N	03W	2, 3	Eaton	
	Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	03N	03W	1, 2, 3, 11, 12, 13	Eaton	within ROW
	Little brown bat	Myotis lucifugus	T	UR	1958			Lansing	UMMZ online catalog for all collections of the species Myotis lucifugus, downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.	03N	03W	1, 2, 12	Eaton	within ROW
	Rainbow iris	Cambarunio iris	SC		1934			Grand River	Goodrich, Calvin, 1929, UMMZ#48518	03N	03W	2, 3, 15, 25	Eaton	



Slippershell

Alasmidonta
viridis

T

1929

Animal

Grand River

Goodrich, Calvin;
1929; UMMZ
#48511

03N

03W

2, 3, 23

Eaton

[New Search](#)

[Refine Search](#)

[◀ Previous 25 Records](#)

[Next 25 Records ▶](#)



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:

04/09/2024 14:12:01 UTC

Project code: 2024-0074440

Project Name: Grand Point Subdivision Connection

Subject: Verification letter for the project named 'Grand Point Subdivision Connection' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **April 09, 2024** your effect determination(s) for the 'Grand Point Subdivision Connection' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Eastern Prairie Fringed Orchid (<i>Platanthera leucophaea</i>)	Threatened	No effect
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	No effect
Whooping Crane (<i>Grus americana</i>)	Experimental Population, Non- Essential	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 October varies 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.

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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

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 (September 1 through April 30). Prescribed fire and/or pesticide 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.

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 occur outside the northern long-eared bat summer roosting period (that is, limited to the period of October 1 through April 14). Prescribed fire and/or pesticide/herbicide application will also occur during October 1 through April 14 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

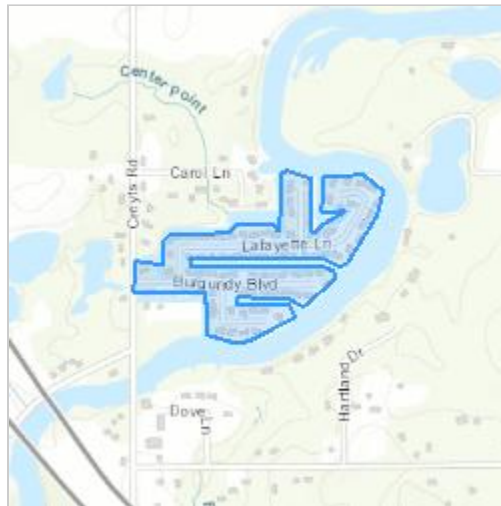
Grand Point Subdivision Connection

2. Description

The following description was provided for the project 'Grand Point Subdivision Connection':

The project proposes the replacement 5,000 linear feet of water main within the existing ROW using open cut. The project has an anticipated start date of Spring 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.67388525,-84.63850269298305,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. [Hidden Semantic] Does the action area intersect the area of influence for Eastern prairie fringed orchid?
Automatically answered
Yes
31. 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
32. 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
33. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
34. Does the action include removal/modification of an existing bridge or culvert?
No
35. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
36. 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
37. Does the action include herbicide application?
No

38. 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

39. 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

40. 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

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

No

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

Automatically answered

No

43. Your project intersected modeled bat habitat.

Will all tree cutting/trimming, prescribed fire, and/or pesticide application be restricted to the inactive (hibernation) season for listed bats (that is, conducted during October 1 through April 14)?

Yes

44. Will the action clear >10 acres of modeled 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Yes

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

Automatically answered

Yes

49. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



April 5, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF CSO 022 Water Main Replacement

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **March 14, 2024**. During this Review, the project location was checked against known localities for rare species, and **14** State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Black and gold bumble bee	Bombus auricomus	SC	1952
Blue-eyed Mary	Collinsia verna	T	1995
Cattail sedge	Carex typhina	T	2021
Flutedshell	Lasmigona costata	SC	2017
Hemlock-parsley	Conioselinum chinense	SC	1882
Indiana bat	Myotis sodalis	E	1974
Least shrew	Cryptotis parva	T	1945
Little Brown Bat	Myotis lucifugus	T	1958
Peregrine falcon	Falco peregrinus	T	2020
Round pigtoe	Pleurobema sintoxia	SC	2017
Showy orchis	Galearis spectabilis	T	1895
Yellow banded bumble bee	Bombus terricola	Sc	1948
Virginia spiderwort	Tradescantia virginiana	T	1923
Woodland vole	Microtus pinetorum	SC	1938

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project proposes to replace ~22,000 linear feet of water main within the mapped area. The project will involve open cut and directional drilling where appropriate. The project has an anticipated start date of Spring of 2025.

For the **14** State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Black and gold bumble bee (Bombus auricomus) State Species of Special Concern. MNFI describes the habitat for this species as prairies and grasslands and is rarely associated with extensive forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area.



The last observation of this species in within 1.5 miles of the project area occurred in 1952 and is considered historical. OHM has determined no effect to this species.

Blue-eyed Mary (*Collinsia verna*) State Threatened. MNFI describes the habitat for this as moist soil rich beech-maple forests with a rich humus layer, and on levees and terraces within floodplain forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1995 and is considered historical. OHM has determined no effect to this species.

Cattail sedge (*Carex typhina*) State Threatened. MNFI describes the habitat for this species as bottomland forests in southern Lower Michigan, usually within first and second bottoms. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 2021. OHM has determined no effect to this species.

Flutedshell (*Lasmigona costata*) State Species of Special Concern MNFI describes the habitat for this species as small and medium rivers, and in Lake St. Clair and Lake Erie. They are often found in sandy mud and cobble substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2017. OHM has determined no effect to this species.

Hemlock parsley (*Conioselinum chinense*) State Species of Special Concern. MNFI describes the habitat for this species as Southern Michigan in moist peat in tamarack and cedar swamps, often with a significant hardwood component, and along stream banks. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1882 and is considered historical. OHM has determined no effect to this species.

Indiana bat (*Myotis sodalist*) State Endangered. A Not Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Least shrew (*Cryptotis parva*) State Threatened. MNFI describes the habitat for this species as dry upland meadows with dense coverage of grasses and forbs. It can also be found in marshy areas, fencerows, and woodland edges. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1945 and is considered historical. OHM has determined no effect to this species.

Little brown bat (*Myotis lucifugus*) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Peregrine falcon (*Falco peregrinus*) State Threatened. MNFI describes the nesting habitat for this species as man-made structures where they feed on the abundance of small city birds like Rock pigeons. Construction activities will have no impact to nesting sites. The last observation of this species in within 1.5 miles of the project area occurred in 2020 and is considered historical. OHM has determined no effect to this species.

Round pigtoe (*Pleurobema sintoxia*) State Species of Special Concern. MNFI describes the habitat for this species as mud, sand, or gravel substrates of medium to large rivers. No work will occur below the ordinary high



water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2017. OHM has determined no effect to this species.

Showy orchis (*Galearis spectabilis*) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1895 and is considered historical. OHM has determined no effect to this species.

Yellow banded bumble bee (*Bombus terricola*) State Species of Special Concern. MNFI describes the habitat for this species as rich wooded areas. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1948 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1893 and is considered historical. OHM has determined no effect to this species.

Woodland vole (*Microtus pinetorum*) State Species of Special Concern) MNFI describes the habitat for this species as deciduous woodlands with loose sandy soils, deep humus, and heavy leaf litter. Although it prefers deciduous forests comprised of oak, maple and/or beech, the woodland vole can potentially be found in any forest type. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1988 and is considered historical. OHM has determined no effect to this species.

If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wade Rose', with a long horizontal stroke extending to the right.

Wade Rose, OHM Advisors Ecologist



Michigan Natural Features Inventory

Web Database Search








Search Results for Town 04N, Range 02W, Section 16 and Ingham County
 Displaying Record 1 to 15 of 15 Records Found

Query Results Generated on Feb 26, 2024
 Database Updated on Feb 01, 2024

[New Search](#) [Refine Search](#) [◀ Previous 25 Records](#) [Next 25 Records ▶](#)

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Black and gold bumble bee	Bombus auricomus	SC		1952-07-15			Lansing		04N	02W	8, 9, 15, 16, 17, 20, 21, 22	Ingham
	Blue-eyed Mary	Collinsia verna	T		1995-05-19			Lansing/Trowbridge Woods		04N	02W	8, 9, 10, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26	Ingham
	Cattail sedge	Carex typhina	T		2021-07-30	Plant	M	SE Lansing	Billington, C. 1923. MICH,BLH	04N	02W	14, 15, 16, 21, 22, 23, 24, 26, 27, 28, 34	Ingham
	Flutedshell	Lasmigona costata	SC					Grand River/Lansing	2017-07-22. Unionidae download from IDIGBIO for new Special Concern mussels. Spreadsheet.	04N	02W	9, 16, 20, 21	Ingham
	Hemlock-parsley	Conioselinum chinense	SC		1882-08-00			Grand River Banks	Walters, Beverly. 2014. Excel spreadsheet of museum specimens for new SC/T/E species.	04N	02W	8, 9, 10, 15, 16, 17, 20, 21, 22	Ingham
	Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33,	Ingham

	Least shrew	<i>Cryptotis parva</i>	T		1945-11	Animal	GX		Wallace, G.J. 1948. The Barn Owl in Michigan: It's Distribution. Mich. St. Coll. Agr. Exp. Sta. Tech. Bulletin 208.	04N	02W	34, 35, 36 1, 2, 3, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Little brown bat	<i>Myotis lucifugus</i>	T	UR	1958			Lansing	UMMZ online catalog for all collections of the species <i>Myotis lucifugus</i> , downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham
	Peregrine falcon	<i>Falco peregrinus</i>	T	PS:LE	2020	Animal		MI National Bank; MSU Campus; State Capital; Lansing Board of Water & Light Power Plant	Midwest Peregrine Society. 1988-2006. Midwest Peregrine Falcon Restoration Project - Midwest Annual Reports (http://midwestperegrine.org/pages/annualreports.htm).	04N	02W	13, 16, 21	Ingham
	Round pigtoe	<i>Pleurobema sintoxia</i>	SC			Animal		Lansing [Grand River?]	Barrow, W. B., no date, UMMZ#81676	04N	02W	16	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T		1895-05-26	Plant	GX	NORTH OF MSU	Skeels, H.C. 1894. May 11 - MSC 26815 (no collection #).	04N	02W	1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T		1877	Plant	GX	LANSING		04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,	Ingham

											12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	
Virginia spiderwort	Tradescantia virginiana	T	1923-06-08	Plant	GX	EAST LANSING	Walpole, B.L. 1923. BLH	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36	Ingham	
 Woodland vole	Microtus pinetorum	SC	1938-07-13	Animal	GX		Orwoll, H. 1938. #M-15, 18, 88 MS.	04N	02W	1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 33, 34, 35, 36	Ingham	
Yellow banded bumble bee	Bombus terricola	SC	1948-07-17	Animal		Lansing	Rowe, Logan, T. Wood, and D. Cuthrell. 2019. January 17 - Excel file with museum specimen data for the bumble bees of Michigan project.	04N	02W	8, 9, 10, 15, 16, 17, 20, 21, 22	Ingham	

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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:
Project Code: 2024-0054179
Project Name: CSO 022 Water Main Replacement

February 26, 2024

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 >450 feet 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
- Bald & Golden Eagles
- 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: 2024-0054179
Project Name: CSO 022 Water Main Replacement
Project Type: Water Supply Pipeline - New Constr - Below Ground
Project Description: The project proposes to replace ~22,000 linear feet of water main within the mapped area. The project will involve open cut and directional drilling where appropriate. The project has an anticipated start date of Spring of 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.73304125,-84.56483932337305,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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 1 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/YI4Z7OV77JCW3JBQZGAIGV2JJA/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/YI4Z7OV77JCW3JBQZGAIGV2JJA/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.

3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

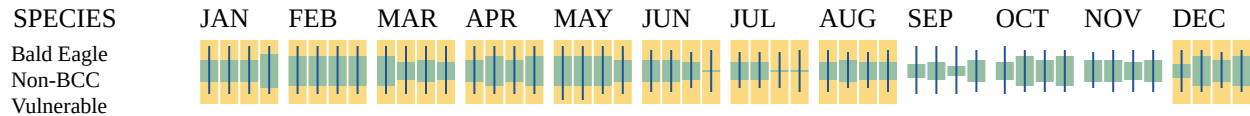
Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort — no data



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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)

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

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere

NAME	BREEDING SEASON
<p>Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626</p>	Breeds Dec 1 to Aug 31
<p>Black Tern <i>Chlidonias niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093</p>	Breeds May 15 to Aug 20
<p>Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399</p>	Breeds May 15 to Oct 10
<p>Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454</p>	Breeds May 20 to Jul 31
<p>Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643</p>	Breeds May 20 to Aug 10
<p>Cerulean Warbler <i>Dendroica cerulea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974</p>	Breeds Apr 22 to Jul 20
<p>Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406</p>	Breeds Mar 15 to Aug 25
<p>Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10678</p>	Breeds May 1 to Aug 20
<p>Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745</p>	Breeds May 1 to Jul 20
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere

NAME	BREEDING SEASON
<p>Long-eared Owl <i>asio otus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Pectoral Sandpiper <i>Calidris melanotos</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9561</p>	Breeds elsewhere
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9398</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/9478</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9431</p>	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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

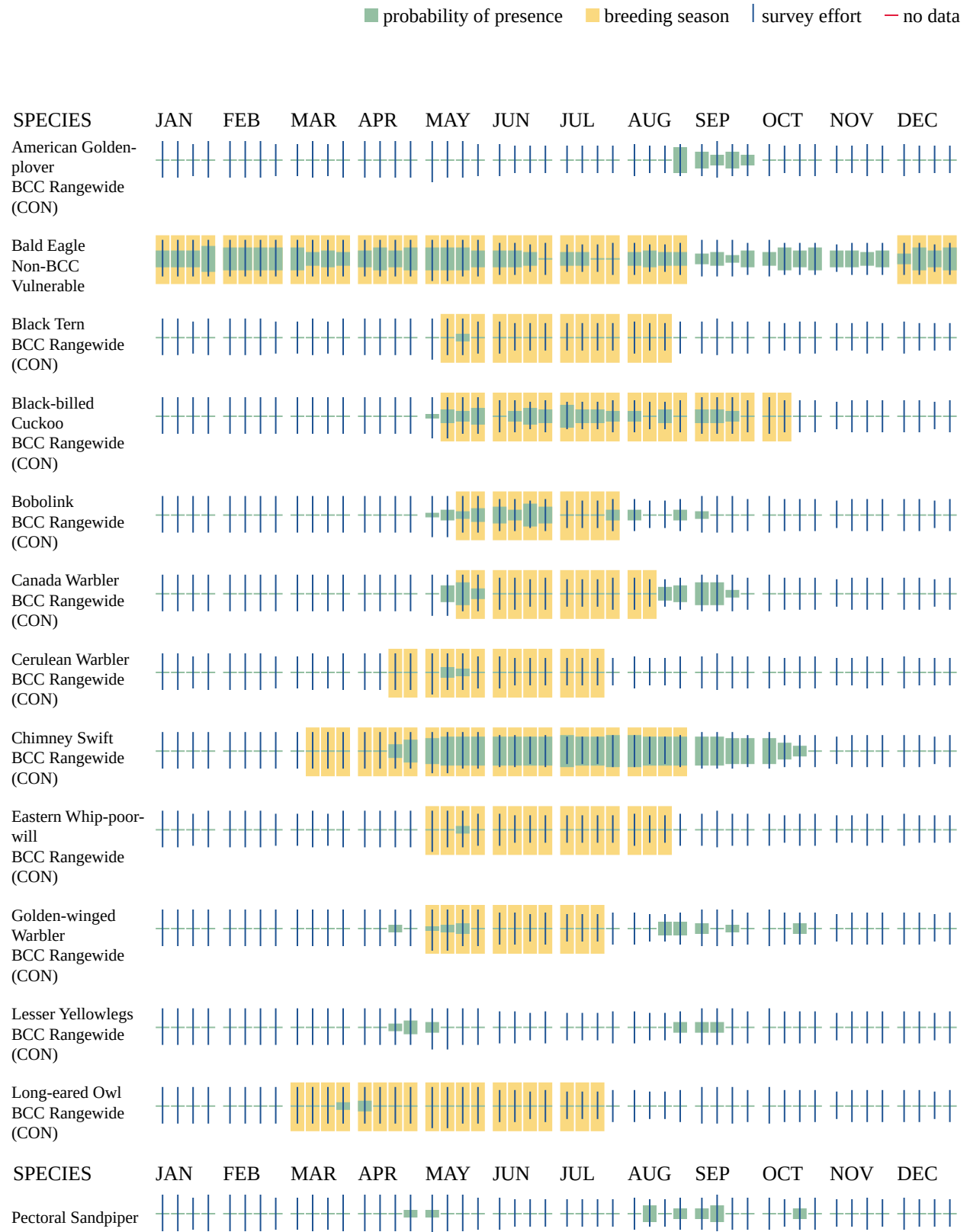
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

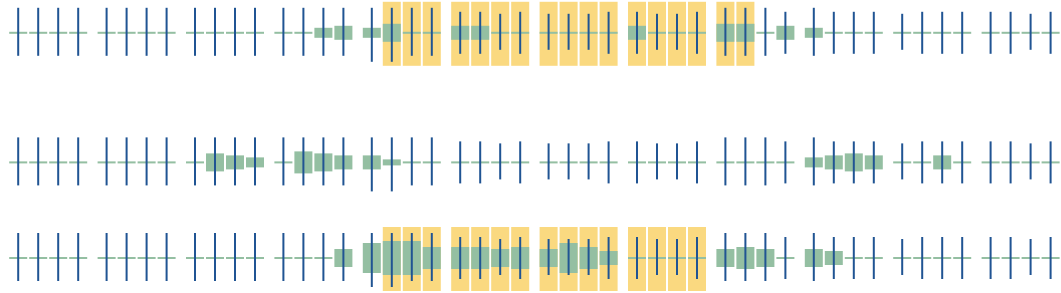


BCC Rangewide
(CON)

Red-headed
Woodpecker
BCC Rangewide
(CON)

Rusty Blackbird
BCC - BCR

Wood Thrush
BCC Rangewide
(CON)



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



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:
Project code: 2024-0054179
Project Name: CSO 022 Water Main Replacement

February 26, 2024

Subject: Verification letter for the project named 'CSO 022 Water Main Replacement' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **February 26, 2024** your effect determination(s) for the 'CSO 022 Water Main Replacement' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed	No effect
Whooping Crane (<i>Grus americana</i>)	Endangered Experimental Population, Non-Essential	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 October varies 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.

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.

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) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide 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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

CSO 022 Water Main Replacement

2. Description

The following description was provided for the project 'CSO 022 Water Main Replacement':

The project proposes to replace ~22,000 linear feet of water main within the mapped area. The project will involve open cut and directional drilling where appropriate. The project has an anticipated start date of Spring of 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.73304125,-84.56483932337305,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. 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
31. 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
32. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
33. Does the action include removal/modification of an existing bridge or culvert?
No
34. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
35. 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
36. Does the action include herbicide application?
No
37. 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

38. 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

39. 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

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

No

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

Automatically answered

No

42. Will all tree cutting/trimming, prescribed fire, and/or pesticide 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: that 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

46. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



April 9, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF Landel Grossbeck Area

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **April 9, 2024**. During this Review, the project location was checked against known localities for rare species, and **6** State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Indiana bat	Myotis sodalis	E	1974
Least shrew	Cryptotis parva	T	1945
Little Brown Bat	Myotis lucifugus	T	1958
Showy orchis	Galearis spectabilis	T	1895
Virginia spiderwort	Tradescantia virginiana	T	1923
Woodland vole	Microtus pinetorum	SC	1938

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project proposes the replacement of approximately 18,000 linear feet existing water main within the ROW area using open cut. The project has an anticipated start date of Spring 2025.

For the **6** State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Indiana bat (*Myotis sodalis*) State Endangered. A Not Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Least shrew (*Cryptotis parva*) State Threatened. MNFI describes the habitat for this species as dry upland meadows with dense coverage of grasses and forbs. It can also be found in marshy areas, fencerows, and woodland edges. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1945 and is considered historical. OHM has determined no effect to this species.

Little brown bat (*Myotis lucifugus*) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree



hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Showy orchis (*Galearis spectabilis*) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1895 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1893 and is considered historical. OHM has determined no effect to this species.

Woodland vole (*Microtus pinetorum*) State Species of Special Concern) MNFI describes the habitat for this species as deciduous woodlands with loose sandy soils, deep humus, and heavy leaf litter. Although it prefers deciduous forests comprised of oak, maple and/or beech, the woodland vole can potentially be found in any forest type. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1988 and is considered historical. OHM has determined no effect to this species.

If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wade Rose', with a horizontal line extending to the right from the end of the signature.

Wade Rose, OHM Advisors Ecologist



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:

04/09/2024 14:32:26 UTC

Project Code: 2024-0074461

Project Name: LANDEL SYSTEM REPLACEMENT (GROSSBECK AREA)

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 >450 feet 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
- Bald & Golden Eagles
- 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: 2024-0074461
Project Name: LANDEL SYSTEM REPLACEMENT (GROSSBECK AREA)
Project Type: Water Supply Pipeline - New Constr - Below Ground
Project Description: The project will involve the replacement of approximately 18,000 feet of existing water main in the mapped area. The project will involve open cut and is scheduled to begin in the spring of 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.74749065,-84.51574687682228,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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 3 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/BRABV53OCRGX5MUIVOW7QOSVYI/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/BRABV53OCRGX5MUIVOW7QOSVYI/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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)

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

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> 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 <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10

NAME	BREEDING SEASON
<p>Chimney Swift <i>Chaetura pelagica</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9406</p>	Breeds Mar 15 to Aug 25
<p>Eastern Whip-poor-will <i>Antrastomus vociferus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/10678</p>	Breeds May 1 to Aug 20
<p>Golden-winged Warbler <i>Vermivora chrysoptera</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/8745</p>	Breeds May 1 to Jul 20
<p>Lesser Yellowlegs <i>Tringa flavipes</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Long-eared Owl <i>asio otus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Pectoral Sandpiper <i>Calidris melanotos</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9561</p>	Breeds elsewhere
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9398</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/9478</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9431</p>	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 ["Supplemental](#)

[Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

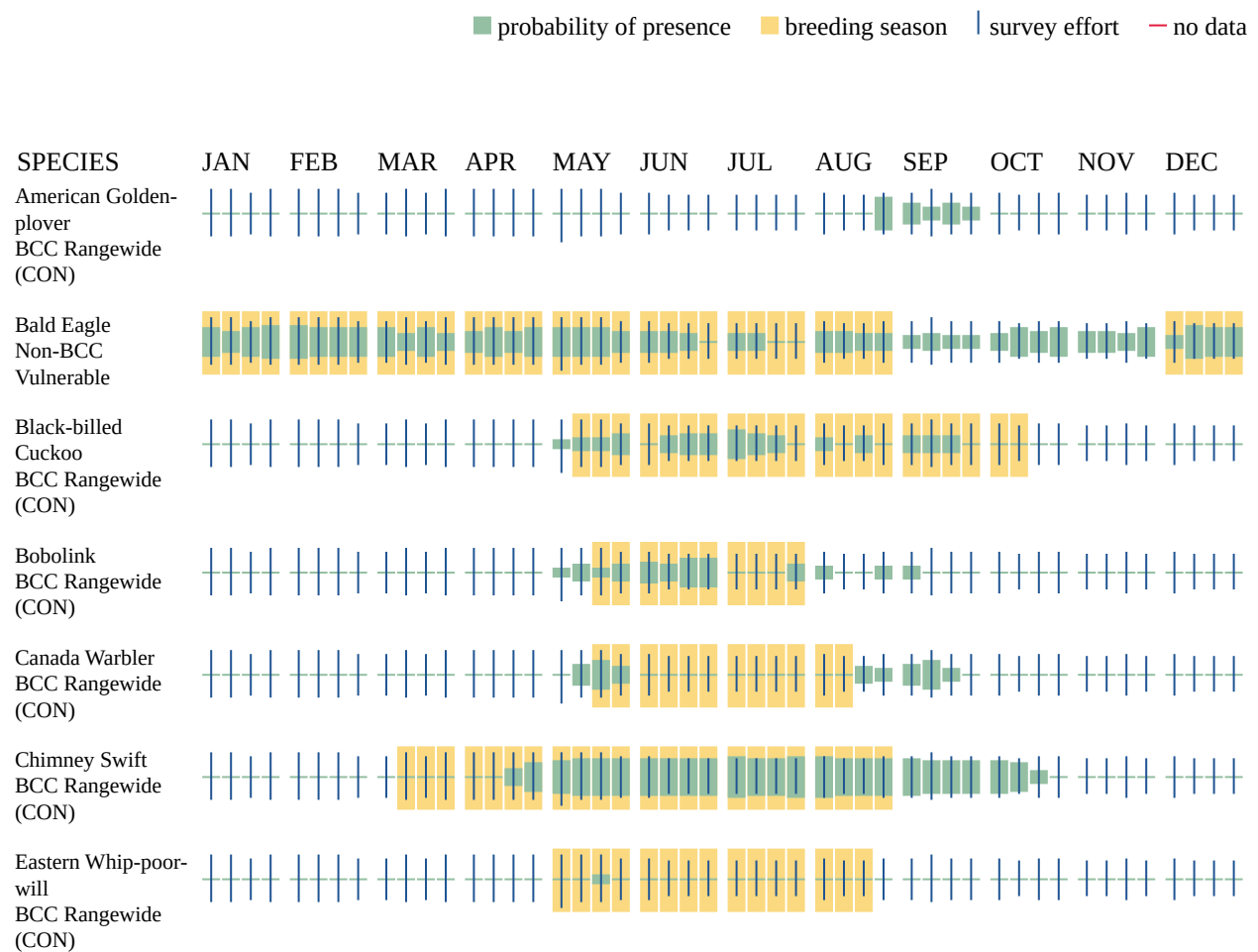
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

FRESHWATER EMERGENT WETLAND

- PEM1F

FRESHWATER POND

- PUBF
- PUBGx

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 04N, Range 02W, Section 11 and Ingham County



Query Results Generated on Apr 09, 2024

Displaying Record 1 to 7 of 7 Records Found

Database Updated on Apr 01, 2024

[New Search](#)
[Refine Search](#)
[◀ Previous 25 Records](#)
[Next 25 Records ▶](#)

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham
	Least shrew	Cryptotis parva	T		1945-11	Animal	GX		Wallace, G.J. 1948. The Barn Owl in Michigan: It's Distribution. Mich. St. Coll. Agr. Exp. Sta. Tech. Bulletin 208.	04N	02W	1, 2, 3, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Little brown bat	Myotis lucifugus	T	UR	1958			Lansing	UMMZ online catalog for all collections of the species Myotis lucifugus, downloaded from VertNet	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17,	Ingham

								(www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.			18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	
	Showy orchis	Galearis spectabilis	T	1895-05- 26	Plant	GX	NORTH OF MSU	Skeels, H.C. 1894. May 11 - MSC 26815 (no collection #).	04N	02W	1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Showy orchis	Galearis spectabilis	T	1877	Plant	GX	LANSING		04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham
	Virginia spiderwort	Tradescantia virginiana	T	1923-06- 08	Plant	GX	EAST LANSING	Walpole, B.L. 1923. BLH	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27,	Ingham



Woodland vole

Microtus pinetorum

SC

1938-07-13

Animal

GX

Orwoll, H. 1938. #M-15, 18, 88 MS.

04N

02W

28, 29,
30, 32,
33, 34,
35, 36

1, 2, 3, 4, Ingham
8, 9, 10,
11, 12,
13, 14,
15, 16,
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23, 24,
25, 26,
27, 28,
29, 33,
34, 35, 36

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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:

04/09/2024 14:34:05 UTC

Project code: 2024-0074461

Project Name: LANDEL SYSTEM REPLACEMENT (GROSSBECK AREA)

Subject: Verification letter for the project named 'LANDEL SYSTEM REPLACEMENT (GROSSBECK AREA)' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **April 09, 2024** your effect determination(s) for the 'LANDEL SYSTEM REPLACEMENT (GROSSBECK AREA)' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed	No effect
	Endangered	
Whooping Crane (<i>Grus americana</i>)	Experimental	No effect
	Population, Non-Essential	

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 October varies 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.

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.

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) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide 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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

LANDEL SYSTEM REPLACEMENT (GROSSBECK AREA)

2. Description

The following description was provided for the project 'LANDEL SYSTEM REPLACEMENT (GROSSBECK AREA)':

The project will involve the replacement of approximately 18,000 feet of existing water main in the mapped area. The project will involve open cut and is scheduled to begin in the spring of 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.74749065,-84.51574687682228,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. 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
31. 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
32. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
33. Does the action include removal/modification of an existing bridge or culvert?
No
34. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
35. 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
36. Does the action include herbicide application?
No
37. 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

38. 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

39. 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

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

No

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

Automatically answered

No

42. Will all tree cutting/trimming, prescribed fire, and/or pesticide 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: that 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

46. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573

April 9, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF CSO Kalamazoo Water Main Replacement

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **February 26, 2024**. During this Review, the project location was checked against known localities for rare species, and **14** State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Black and gold bumble bee	<i>Bombus auricomus</i>	SC	1952
Blue-eyed Mary	<i>Collinsia verna</i>	T	1995
Cattail sedge	<i>Carex typhina</i>	T	2021
Flutedshell	<i>Lasmigona costata</i>	SC	2017
Hemlock-parsley	<i>Conioselinum chinense</i>	SC	1882
Indiana bat	<i>Myotis sodalis</i>	E	1974
Least shrew	<i>Cryptotis parva</i>	T	1945
Little Brown Bat	<i>Myotis lucifugus</i>	T	1958
Peregrine falcon	<i>Falco peregrinus</i>	T	2020
Round pigtoe	<i>Pleurobema sintoxia</i>	SC	2017
Showy orchis	<i>Galearis spectabilis</i>	T	1895
Yellow banded bumble bee	<i>Bombus terricola</i>	Sc	1948
Virginia spiderwort	<i>Tradescantia virginiana</i>	T	1923
Woodland vole	<i>Microtus pinetorum</i>	SC	1938

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project involves the replacement of existing water main on Washtenaw St. from Pine St. to Walnut St. The project will involve open cut and is expected to begin in the Spring of 2025.

For the **14** State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Black and gold bumble bee (*Bombus auricomus*) State Species of Special Concern. MNFI describes the habitat for this species as prairies and grasslands and is rarely associated with extensive forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1952 and is considered



historical. OHM has determined no effect to this species.

Blue-eyed Mary (*Collinsia verna*) State Threatened. MNFI describes the habitat for this as moist soil rich beech-maple forests with a rich humus layer, and on levees and terraces within floodplain forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1995 and is considered historical. OHM has determined no effect to this species.

Cattail sedge (*Carex typhina*) State Threatened. MNFI describes the habitat for this species as bottomland forests in southern Lower Michigan, usually within first and second bottoms. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 2021. OHM has determined no effect to this species.

Flutedshell (*Lasmigona costata*) State Species of Special Concern MNFI describes the habitat for this species as small and medium rivers, and in Lake St. Clair and Lake Erie. They are often found in sandy mud and cobble substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2017. OHM has determined no effect to this species.

Hemlock parsley (*Conioselinum chinense*) State Species of Special Concern. MNFI describes the habitat for this species as Southern Michigan in moist peat in tamarack and cedar swamps, often with a significant hardwood component, and along stream banks. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1882 and is considered historical. OHM has determined no effect to this species.

Indiana bat (*Myotis sodalist*) State Endangered. A Not Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Least shrew (*Cryptotis parva*) State Threatened. MNFI describes the habitat for this species as dry upland meadows with dense coverage of grasses and forbs. It can also be found in marshy areas, fencerows, and woodland edges. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1945 and is considered historical. OHM has determined no effect to this species.

Little brown bat (*Myotis lucifugus*) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Peregrine falcon (*Falco peregrinus*) State Threatened. MNFI describes the nesting habitat for this species as man-made structures where they feed on the abundance of small city birds like Rock pigeons. Construction activities will have no impact to nesting sites. The last observation of this species in within 1.5 miles of the project area occurred in 2020 and is considered historical. OHM has determined no effect to this species.

Round pigtoe (*Pleurobema sintoxia*) State Species of Special Concern. MNFI describes the habitat for this species as mud, sand, or gravel substrates of medium to large rivers. No work will occur below the ordinary high



water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2017. OHM has determined no effect to this species.

Showy orchis (*Galearis spectabilis*) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1895 and is considered historical. OHM has determined no effect to this species.

Yellow banded bumble bee (*Bombus terricola*) State Species of Special Concern. MNFI describes the habitat for this species as rich wooded areas. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1948 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1893 and is considered historical. OHM has determined no effect to this species.

Woodland vole (*Microtus pinetorum*) State Species of Special Concern) MNFI describes the habitat for this species as deciduous woodlands with loose sandy soils, deep humus, and heavy leaf litter. Although it prefers deciduous forests comprised of oak, maple and/or beech, the woodland vole can potentially be found in any forest type. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1988 and is considered historical. OHM has determined no effect to this species.

If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wade Rose', with a long horizontal stroke extending to the right.

Wade Rose, OHM Advisors Ecologist



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:
Project Code: 2024-0054232
Project Name: CSO Kalamazoo Water Main Replacement

February 26, 2024

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 >450 feet 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
- Bald & Golden Eagles
- 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

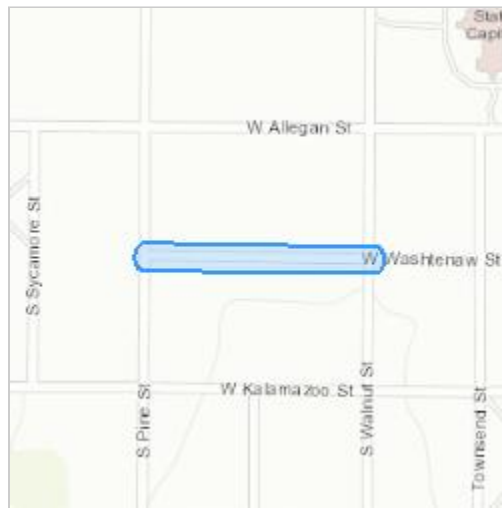
(517) 351-2555

PROJECT SUMMARY

Project Code: 2024-0054232
Project Name: CSO Kalamazoo Water Main Replacement
Project Type: Water Supply Pipeline - New Constr - Below Ground
Project Description: The project involves the replacement of existing water main on Washtenaw St. from Pine St. to Walnut St. The project will involve open cut and is expected to begin in the Spring of 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.73129985,-84.558506,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 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 1 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/TYM2AFCFTNDZJNAI4WSE4GJ7CY/documents/generated/6982.pdf	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/TYM2AFCFTNDZJNAI4WSE4GJ7CY/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.

3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

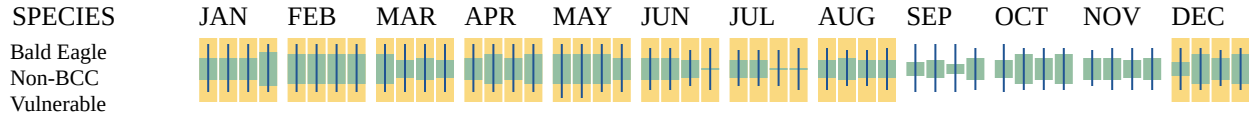
Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort — no data



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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)

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

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere

NAME	BREEDING SEASON
<p>Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626</p>	Breeds Dec 1 to Aug 31
<p>Black Tern <i>Chlidonias niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093</p>	Breeds May 15 to Aug 20
<p>Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399</p>	Breeds May 15 to Oct 10
<p>Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454</p>	Breeds May 20 to Jul 31
<p>Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643</p>	Breeds May 20 to Aug 10
<p>Cerulean Warbler <i>Dendroica cerulea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974</p>	Breeds Apr 22 to Jul 20
<p>Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406</p>	Breeds Mar 15 to Aug 25
<p>Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10678</p>	Breeds May 1 to Aug 20
<p>Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745</p>	Breeds May 1 to Jul 20
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere

NAME	BREEDING SEASON
<p>Long-eared Owl <i>asio otus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Pectoral Sandpiper <i>Calidris melanotos</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9561</p>	Breeds elsewhere
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9398</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/9478</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9431</p>	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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

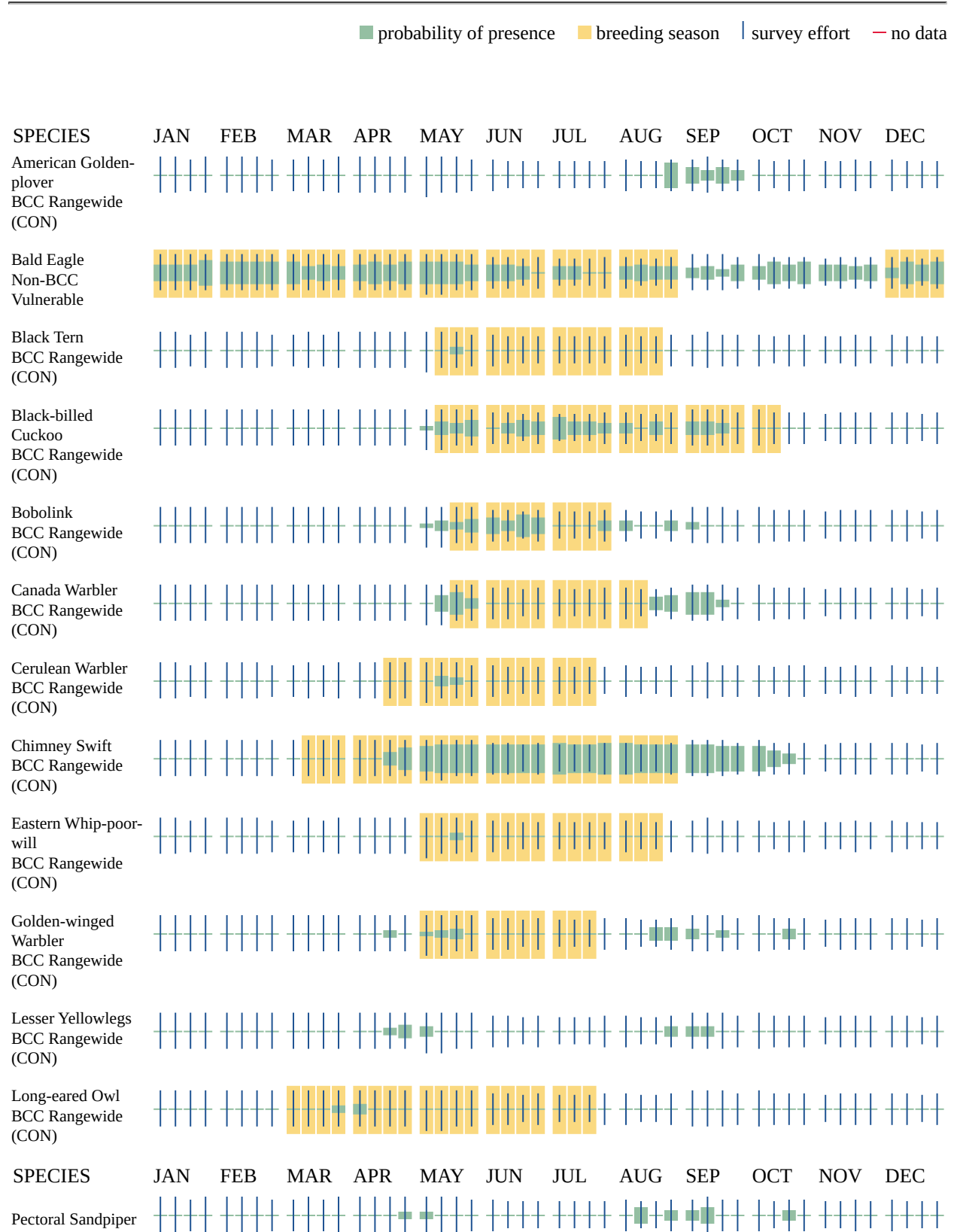
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

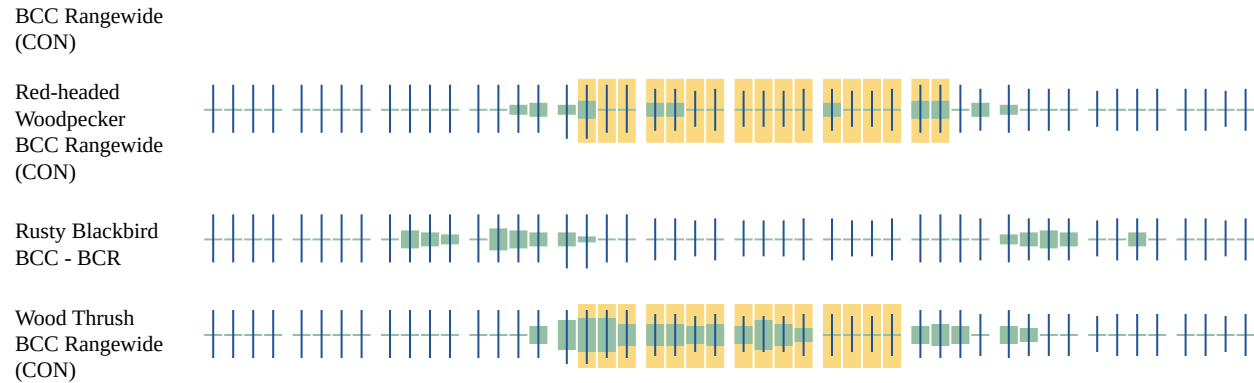
Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search








Search Results for Town 04N, Range 02W, Section 16 and Ingham County
 Displaying Record 1 to 15 of 15 Records Found

Query Results Generated on Feb 26, 2024
 Database Updated on Feb 01, 2024

[New Search](#) [Refine Search](#) [◀ Previous 25 Records](#) [Next 25 Records ▶](#)

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Black and gold bumble bee	Bombus auricomus	SC		1952-07-15			Lansing		04N	02W	8, 9, 15, 16, 17, 20, 21, 22	Ingham
	Blue-eyed Mary	Collinsia verna	T		1995-05-19			Lansing/Trowbridge Woods		04N	02W	8, 9, 10, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26	Ingham
	Cattail sedge	Carex typhina	T		2021-07-30	Plant	M	SE Lansing	Billington, C. 1923. MICH,BLH	04N	02W	14, 15, 16, 21, 22, 23, 24, 26, 27, 28, 34	Ingham
	Flutedshell	Lasmigona costata	SC					Grand River/Lansing	2017-07-22. Unionidae download from IDIGBIO for new Special Concern mussels. Spreadsheet.	04N	02W	9, 16, 20, 21	Ingham
	Hemlock-parsley	Conioselinum chinense	SC		1882-08-00			Grand River Banks	Walters, Beverly. 2014. Excel spreadsheet of museum specimens for new SC/T/E species.	04N	02W	8, 9, 10, 15, 16, 17, 20, 21, 22	Ingham
	Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33,	Ingham

	Least shrew	<i>Cryptotis parva</i>	T		1945-11	Animal	GX		Wallace, G.J. 1948. The Barn Owl in Michigan: It's Distribution. Mich. St. Coll. Agr. Exp. Sta. Tech. Bulletin 208.	04N	02W	34, 35, 36 1, 2, 3, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Little brown bat	<i>Myotis lucifugus</i>	T	UR	1958			Lansing	UMMZ online catalog for all collections of the species <i>Myotis lucifugus</i> , downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham
	Peregrine falcon	<i>Falco peregrinus</i>	T	PS:LE	2020	Animal		MI National Bank; MSU Campus; State Capital; Lansing Board of Water & Light Power Plant	Midwest Peregrine Society. 1988-2006. Midwest Peregrine Falcon Restoration Project - Midwest Annual Reports (http://midwestperegrine.org/pages/annualreports.htm).	04N	02W	13, 16, 21	Ingham
	Round pigtoe	<i>Pleurobema sintoxia</i>	SC			Animal		Lansing [Grand River?]	Barrow, W. B., no date, UMMZ#81676	04N	02W	16	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T		1895-05-26	Plant	GX	NORTH OF MSU	Skeels, H.C. 1894. May 11 - MSC 26815 (no collection #).	04N	02W	1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T		1877	Plant	GX	LANSING		04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,	Ingham

											12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	
Virginia spiderwort	Tradescantia virginiana	T	1923-06-08	Plant	GX	EAST LANSING	Walpole, B.L. 1923. BLH	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36	Ingham	
 Woodland vole	Microtus pinetorum	SC	1938-07-13	Animal	GX		Orwoll, H. 1938. #M-15, 18, 88 MS.	04N	02W	1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 33, 34, 35, 36	Ingham	
Yellow banded bumble bee	Bombus terricola	SC	1948-07-17	Animal		Lansing	Rowe, Logan, T. Wood, and D. Cuthrell. 2019. January 17 - Excel file with museum specimen data for the bumble bees of Michigan project.	04N	02W	8, 9, 10, 15, 16, 17, 20, 21, 22	Ingham	

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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:
Project code: 2024-0054232
Project Name: CSO Kalamazoo Water Main Replacement

February 26, 2024

Subject: Verification letter for the project named 'CSO Kalamazoo Water Main Replacement' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **February 26, 2024** your effect determination(s) for the 'CSO Kalamazoo Water Main Replacement' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed	No effect
	Endangered	
Whooping Crane (<i>Grus americana</i>)	Experimental	No effect
	Population, Non-Essential	

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 October varies 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.

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.

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) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide 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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

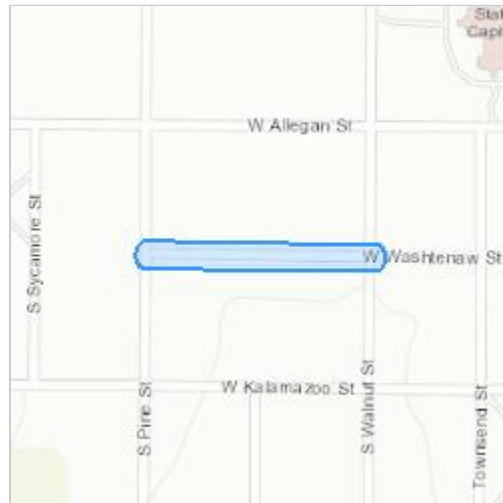
CSO Kalamazoo Water Main Replacement

2. Description

The following description was provided for the project 'CSO Kalamazoo Water Main Replacement':

The project involves the replacement of existing water main on Washtenaw St. from Pine St. to Walnut St. The project will involve open cut and is expected to begin in the Spring of 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.73129985,-84.558506,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. 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
31. 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
32. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
33. Does the action include removal/modification of an existing bridge or culvert?
No
34. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
35. 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
36. Does the action include herbicide application?
No
37. 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

38. 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

39. 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

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

No

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

Automatically answered

No

42. Will all tree cutting/trimming, prescribed fire, and/or pesticide 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: that 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

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

Automatically answered

Yes

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

Automatically answered

Yes

45. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



April 5, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF CSO Cherry St.

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **February 26, 2024**. During this Review, the project location was checked against known localities for rare species, and **14** State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Black and gold bumble bee	Bombus auricomus	SC	1952
Blue-eyed Mary	Collinsia verna	T	1995
Cattail sedge	Carex typhina	T	2021
Flutedshell	Lasmigona costata	SC	2017
Hemlock-parsley	Conioselinum chinense	SC	1882
Indiana bat	Myotis sodalis	E	1974
Least shrew	Cryptotis parva	T	1945
Little Brown Bat	Myotis lucifugus	T	1958
Peregrine falcon	Falco peregrinus	T	2020
Round pigtoe	Pleurobema sintoxia	SC	2017
Showy orchis	Galearis spectabilis	T	1895
Yellow banded bumble bee	Bombus terricola	Sc	1948
Virginia spiderwort	Tradescantia virginiana	T	1923
Woodland vole	Microtus pinetorum	SC	1938

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project proposes the replacement of existing water main within the mapped area using open cut. The project has an anticipated start date of Spring 2025.

For the **14** State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Black and gold bumble bee (Bombus auricomus) State Species of Special Concern. MNFI describes the habitat for this species as prairies and grasslands and is rarely associated with extensive forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1952 and is considered historical. OHM has determined no effect to this species.



Blue-eyed Mary (*Collinsia verna*) State Threatened. MNFI describes the habitat for this as moist soil rich beech-maple forests with a rich humus layer, and on levees and terraces within floodplain forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1995 and is considered historical. OHM has determined no effect to this species.

Cattail sedge (*Carex typhina*) State Threatened. MNFI describes the habitat for this species as bottomland forests in southern Lower Michigan, usually within first and second bottoms. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 2021. OHM has determined no effect to this species.

Flutedshell (*Lasmigona costata*) State Species of Special Concern MNFI describes the habitat for this species as small and medium rivers, and in Lake St. Clair and Lake Erie. They are often found in sandy mud and cobble substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2017. OHM has determined no effect to this species.

Hemlock parsley (*Conioselinum chinense*) State Species of Special Concern. MNFI describes the habitat for this species as Southern Michigan in moist peat in tamarack and cedar swamps, often with a significant hardwood component, and along stream banks. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1882 and is considered historical. OHM has determined no effect to this species.

Indiana bat (*Myotis sodalist*) State Endangered. A Not Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Least shrew (*Cryptotis parva*) State Threatened. MNFI describes the habitat for this species as dry upland meadows with dense coverage of grasses and forbs. It can also be found in marshy areas, fencerows, and woodland edges. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1945 and is considered historical. OHM has determined no effect to this species.

Little brown bat (*Myotis lucifugus*) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Peregrine falcon (*Falco peregrinus*) State Threatened. MNFI describes the nesting habitat for this species as man-made structures where they feed on the abundance of small city birds like Rock pigeons. Construction activities will have no impact to nesting sites. The last observation of this species in within 1.5 miles of the project area occurred in 2020 and is considered historical. OHM has determined no effect to this species.

Round pigtoe (*Pleurobema sintoxia*) State Species of Special Concern. MNFI describes the habitat for this species as mud, sand, or gravel substrates of medium to large rivers. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2017. OHM has determined no effect to this species.



Showy orchis (*Galearis spectabilis*) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1895 and is considered historical. OHM has determined no effect to this species.

Yellow banded bumble bee (*Bombus terricola*) State Species of Special Concern. MNFI describes the habitat for this species as rich wooded areas. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1948 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1893 and is considered historical. OHM has determined no effect to this species.

Woodland vole (*Microtus pinetorum*) State Species of Special Concern) MNFI describes the habitat for this species as deciduous woodlands with loose sandy soils, deep humus, and heavy leaf litter. Although it prefers deciduous forests comprised of oak, maple and/or beech, the woodland vole can potentially be found in any forest type. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1988 and is considered historical. OHM has determined no effect to this species.

If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wade Rose', with a long horizontal line extending to the right.

Wade Rose, OHM Advisors Ecologist



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:
Project Code: 2024-0054273
Project Name: CSO Cherry St.

February 26, 2024

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 >450 feet 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
- Bald & Golden Eagles
- 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: 2024-0054273
Project Name: CSO Cherry St.
Project Type: Water Supply Pipeline - New Constr - Below Ground
Project Description: The project involves the replacement of existing water main within the mapped area using open cut. The project has an anticipated start date of Spring 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.7281435,-84.54895121047517,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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 1 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/SSAEQZQWNFCXFNIKBDJISF5VI/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ 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/SSAEQZQWNFCXFNIKBDJISF5VI/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.

3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

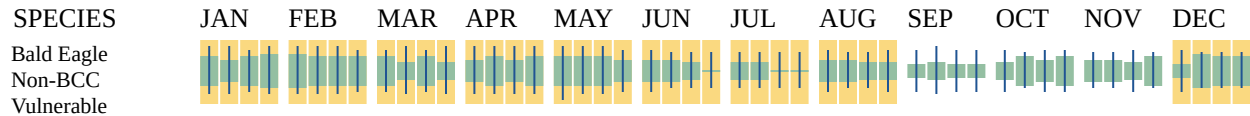
Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort — no data



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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)

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

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere

NAME	BREEDING SEASON
<p>Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626</p>	Breeds Dec 1 to Aug 31
<p>Black Tern <i>Chlidonias niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093</p>	Breeds May 15 to Aug 20
<p>Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399</p>	Breeds May 15 to Oct 10
<p>Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454</p>	Breeds May 20 to Jul 31
<p>Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643</p>	Breeds May 20 to Aug 10
<p>Cerulean Warbler <i>Dendroica cerulea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974</p>	Breeds Apr 22 to Jul 20
<p>Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406</p>	Breeds Mar 15 to Aug 25
<p>Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10678</p>	Breeds May 1 to Aug 20
<p>Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745</p>	Breeds May 1 to Jul 20
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere

NAME	BREEDING SEASON
<p>Long-eared Owl <i>asio otus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Pectoral Sandpiper <i>Calidris melanotos</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9561</p>	Breeds elsewhere
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9398</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/9478</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9431</p>	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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

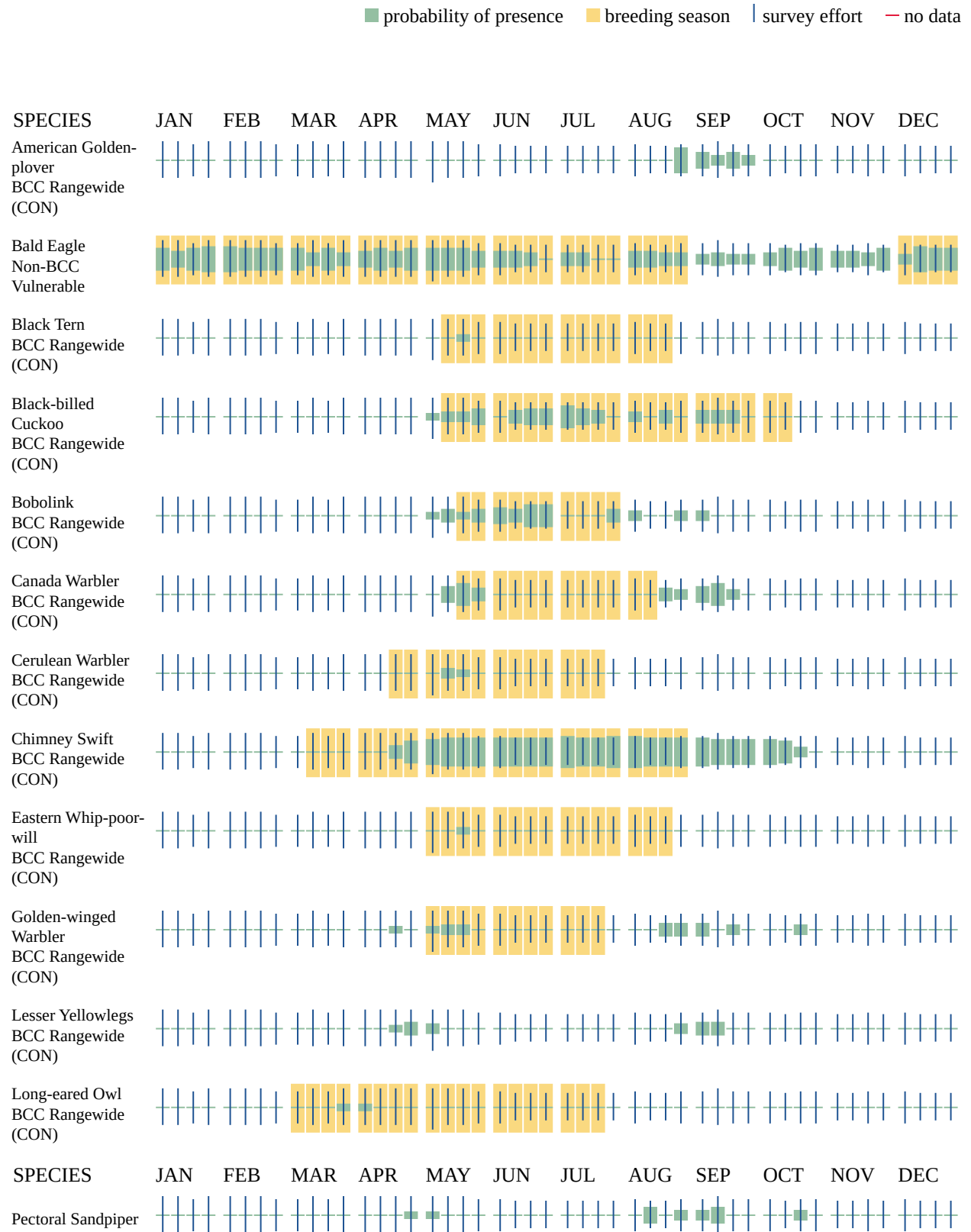
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

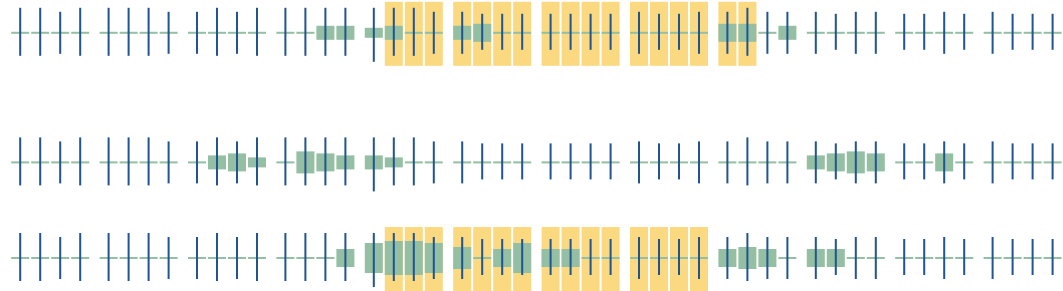


BCC Rangewide
(CON)

Red-headed
Woodpecker
BCC Rangewide
(CON)

Rusty Blackbird
BCC - BCR

Wood Thrush
BCC Rangewide
(CON)



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search








Search Results for Town 04N, Range 02W, Section 16 and Ingham County
 Displaying Record 1 to 15 of 15 Records Found

Query Results Generated on Feb 26, 2024
 Database Updated on Feb 01, 2024

[New Search](#) [Refine Search](#) [◀ Previous 25 Records](#) [Next 25 Records ▶](#)

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Black and gold bumble bee	Bombus auricomus	SC		1952-07-15			Lansing		04N	02W	8, 9, 15, 16, 17, 20, 21, 22	Ingham
	Blue-eyed Mary	Collinsia verna	T		1995-05-19			Lansing/Trowbridge Woods		04N	02W	8, 9, 10, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26	Ingham
	Cattail sedge	Carex typhina	T		2021-07-30	Plant	M	SE Lansing	Billington, C. 1923. MICH,BLH	04N	02W	14, 15, 16, 21, 22, 23, 24, 26, 27, 28, 34	Ingham
	Flutedshell	Lasmigona costata	SC					Grand River/Lansing	2017-07-22. Unionidae download from IDIGBIO for new Special Concern mussels. Spreadsheet.	04N	02W	9, 16, 20, 21	Ingham
	Hemlock-parsley	Conioselinum chinense	SC		1882-08-00			Grand River Banks	Walters, Beverly. 2014. Excel spreadsheet of museum specimens for new SC/T/E species.	04N	02W	8, 9, 10, 15, 16, 17, 20, 21, 22	Ingham
	Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33,	Ingham

	Least shrew	<i>Cryptotis parva</i>	T		1945-11	Animal	GX		Wallace, G.J. 1948. The Barn Owl in Michigan: It's Distribution. Mich. St. Coll. Agr. Exp. Sta. Tech. Bulletin 208.	04N	02W	34, 35, 36 1, 2, 3, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Little brown bat	<i>Myotis lucifugus</i>	T	UR	1958			Lansing	UMMZ online catalog for all collections of the species <i>Myotis lucifugus</i> , downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham
	Peregrine falcon	<i>Falco peregrinus</i>	T	PS:LE	2020	Animal		MI National Bank; MSU Campus; State Capital; Lansing Board of Water & Light Power Plant	Midwest Peregrine Society. 1988-2006. Midwest Peregrine Falcon Restoration Project - Midwest Annual Reports (http://midwestperegrine.org/pages/annualreports.htm).	04N	02W	13, 16, 21	Ingham
	Round pigtoe	<i>Pleurobema sintoxia</i>	SC			Animal		Lansing [Grand River?]	Barrow, W. B., no date, UMMZ#81676	04N	02W	16	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T		1895-05-26	Plant	GX	NORTH OF MSU	Skeels, H.C. 1894. May 11 - MSC 26815 (no collection #).	04N	02W	1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T		1877	Plant	GX	LANSING		04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,	Ingham

											12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	
Virginia spiderwort	Tradescantia virginiana	T	1923-06-08	Plant	GX	EAST LANSING	Walpole, B.L. 1923. BLH	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36	Ingham	
 Woodland vole	Microtus pinetorum	SC	1938-07-13	Animal	GX		Orwoll, H. 1938. #M-15, 18, 88 MS.	04N	02W	1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 33, 34, 35, 36	Ingham	
Yellow banded bumble bee	Bombus terricola	SC	1948-07-17	Animal		Lansing	Rowe, Logan, T. Wood, and D. Cuthrell. 2019. January 17 - Excel file with museum specimen data for the bumble bees of Michigan project.	04N	02W	8, 9, 10, 15, 16, 17, 20, 21, 22	Ingham	

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[Next 25 Records ▶](#)



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:
Project code: 2024-0054273
Project Name: CSO Cherry St.

February 26, 2024

Subject: Verification letter for the project named 'CSO Cherry St.' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **February 26, 2024** your effect determination(s) for the 'CSO Cherry St.' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	No effect
Whooping Crane (<i>Grus americana</i>)	Experimental Population, Non- Essential	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 October varies 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.

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.

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) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide 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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

CSO Cherry St.

2. Description

The following description was provided for the project 'CSO Cherry St.':

The project involves the replacement of existing water main within the mapped area using open cut. The project has an anticipated start date of Spring 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.7281435,-84.54895121047517,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. 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
31. 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
32. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
33. Does the action include removal/modification of an existing bridge or culvert?
No
34. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
35. 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
36. Does the action include herbicide application?
No
37. 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

38. 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

39. 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

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

No

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

Automatically answered

No

42. Will all tree cutting/trimming, prescribed fire, and/or pesticide 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: that 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

46. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



April 9, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF Water Tower 1

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **April 9, 2024**. During this Review, the project location was checked against known localities for rare species, and 7 State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Indiana bat	Myotis sodalis	E	1974
Least shrew	Cryptotis parva	T	1945
Little Brown Bat	Myotis lucifugus	T	1958
Pickerel frog	Lithobates palustris	SC	2015
Showy orchis	Galearis spectabilis	T	1895
Virginia spiderwort	Tradescantia virginiana	T	1923
Woodland vole	Microtus pinetorum	SC	1938

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project proposes to build an elevated water tower. The project has an anticipated start date of Spring 2025.

For the 7 State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Indiana bat (*Myotis sodalis*) State Endangered. A Note Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Least shrew (*Cryptotis parva*) State Threatened. MNFI describes the habitat for this species as dry upland meadows with dense coverage of grasses and forbs. It can also be found in marshy areas, fencerows, and woodland edges. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1945 and is considered historical. OHM has determined no effect to this species.

Little brown bat (*Myotis lucifugus*) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree



hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Pickerel frog (*Lithobates palustris*) State Species of Special Concern. MNFI describes the habitat for this species as freshwater aquatic and wetland habitats, including fens, bogs, marshes, shrubby/open wet meadows, forested wetlands, ponds, slow-moving streams, springs, and backwater sloughs or swamps. In other parts of its range, this species also has been found in karst topography and caves. The species has been reported to prefer habitats with cool, clear water and avoid areas with polluted or stagnant water. A desktop review of the surrounding landcover has determined that suitable habitat may exist within the project area. Field surveys should be completed during the active season for this species from first week of April to fourth week of October prior to construction activities commencing.

Showy orchis (*Galearis spectabilis*) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1877 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1923 and is considered historical. OHM has determined no effect to this species.

Woodland vole (*Microtus pinetorum*) State Species of Special Concern) MNFI describes the habitat for this species as deciduous woodlands with loose sandy soils, deep humus, and heavy leaf litter. Although it prefers deciduous forests comprised of oak, maple and/or beech, the woodland vole can potentially be found in any forest type. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1938 and is considered historical. OHM has determined no effect to this species.

If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wade Rose', with a long horizontal line extending to the right.

Wade Rose, OHM Advisors Ecologist



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:
Project Code: 2024-0074569
Project Name: Water Tower Site 1

04/09/2024 15:59:42 UTC

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 >450 feet 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
- Bald & Golden Eagles
- 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: 2024-0074569

Project Name: Water Tower Site 1

Project Type: Water Supply Facility - New Constr

Project Description: The project proposes to build an elevated water tower on City owned property. The project is in the planning phase and the area will be selected from within the mapped area provided. The project has an anticipated start date of spring of 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.666815299999996,-84.52549273953898,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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 3 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 Fisheries¹, 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.

-
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
<p>Indiana Bat <i>Myotis sodalis</i></p> <p>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/QFHVPQGYUJBLXB2II35DTQCH3I/documents/generated/6982.pdf</p>	Endangered
<p>Northern Long-eared Bat <i>Myotis septentrionalis</i></p> <p>No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/9045</p>	Endangered
<p>Tricolored Bat <i>Perimyotis subflavus</i></p> <p>No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/10515</p>	Proposed Endangered

BIRDS

NAME	STATUS
<p>Whooping Crane <i>Grus americana</i></p> <p>Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758</p>	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
<p>Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i></p> <p>No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/QFHVPQGYUJBLXB2II35DTQCH3I/documents/generated/5280.pdf</p>	Threatened

INSECTS

NAME	STATUS
<p>Monarch Butterfly <i>Danaus plexippus</i></p> <p>No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743</p>	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

NAME	BREEDING SEASON
<p>Golden Eagle <i>Aquila chrysaetos</i> 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. https://ecos.fws.gov/ecp/species/1680</p>	<p>Breeds elsewhere</p>

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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

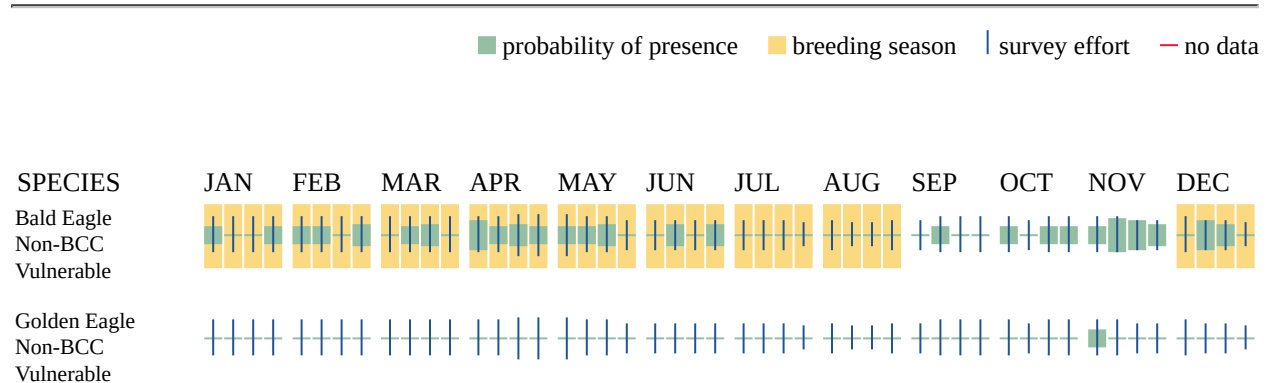
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>

- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
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)

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

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> 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

NAME	BREEDING SEASON
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Golden Eagle <i>Aquila chrysaetos</i> 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. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Lesser Yellowlegs <i>Tringa flavipes</i> 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
Pectoral Sandpiper <i>Calidris melanotos</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	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 ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

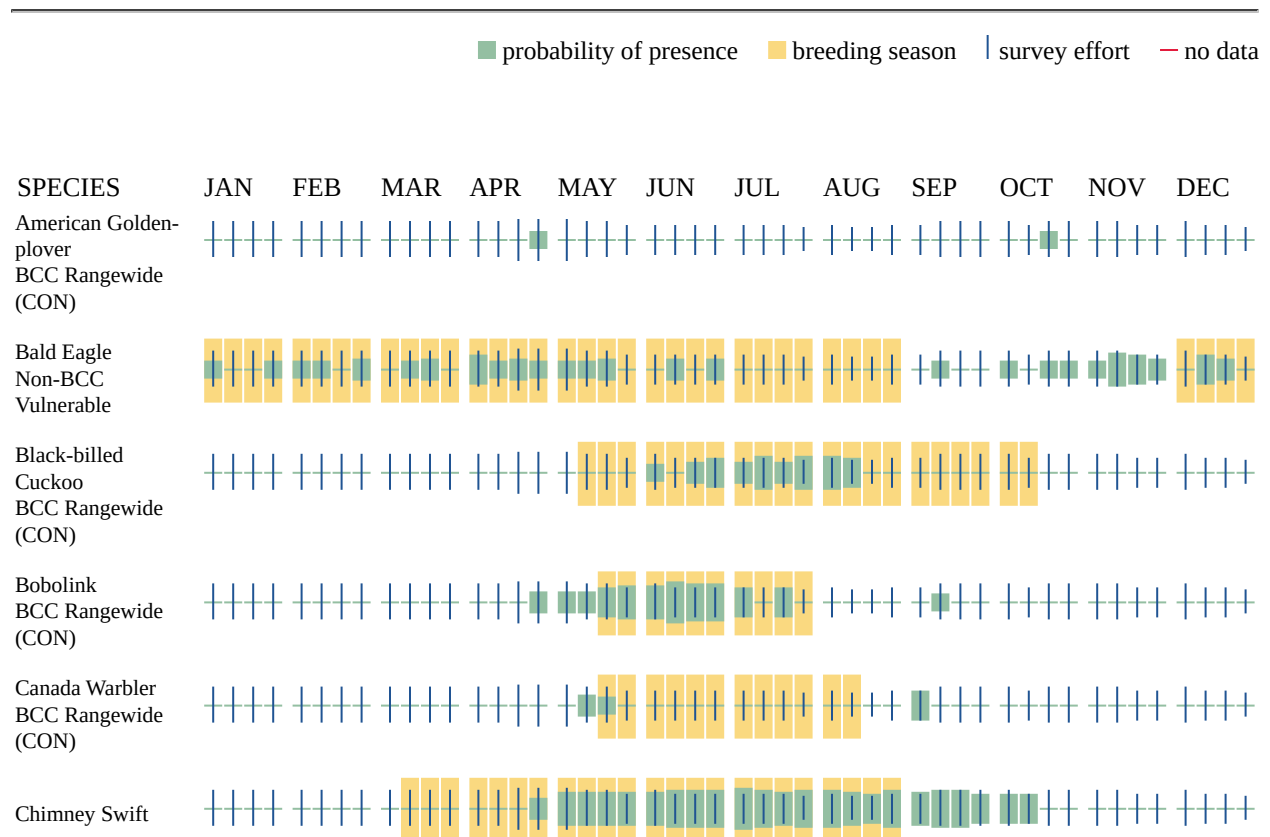
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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

- R5UBFx

FRESHWATER EMERGENT WETLAND

- PEM1A

FRESHWATER FORESTED/SHRUB WETLAND

- PSS1A

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 03N, Range 02W, Section 10 and Ingham County

Query Results Generated on Apr 09, 2024

Displaying Record 1 to 7 of 7 Records Found

Database Updated on Apr 01, 2024

[New Search](#)



[Refine Search](#)

[◀ Previous 25 Records](#)

[Next 25 Records ▶](#)

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	03N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18	Ingham
	Least shrew	Cryptotis parva	T		1945-11	Animal	GX		Wallace, G.J. 1948. The Barn Owl in Michigan: It's Distribution. Mich. St. Coll. Agr. Exp. Sta. Tech. Bulletin 208.	03N	02W	1, 2, 3, 4, 10, 11, 12, 13, 14	Ingham
	Little brown bat	Myotis lucifugus	T	UR	1958			Lansing	UMMZ online catalog for all collections of the species Myotis lucifugus, downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.	03N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 15, 16, 17	Ingham
	Pickerel frog	Lithobates palustris	SC		2015-05-25	Animal		Mud Lake Drain	MI Herp Atlas 2019. Excel spreadsheet and File geodatabase of all	03N	02W	10, 11, 14, 15	Ingham

Michigan Herp Atlas records.

	Showy orchis	Galearis spectabilis	T	1877	Plant	GX	LANSING		03N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17	Ingham
	Virginia spiderwort	Tradescantia virginiana	T	1923-06-08	Plant	GX	EAST LANSING	Walpole, B.L. 1923. BLH	03N	02W	1, 2, 3, 4, 10, 11, 12	Ingham
	Woodland vole	Microtus pinetorum	SC	1938-07-13	Animal	GX		Orwoll, H. 1938. #M-15, 18, 88 MS.	03N	02W	1, 2, 3, 4, 10, 11, 12	Ingham

[New Search](#)
[Refine Search](#)
[◀ Previous 25 Records](#)
[Next 25 Records ▶](#)



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:
Project code: 2024-0074569
Project Name: Water Tower Site 1

04/09/2024 16:11:08 UTC

Subject: Verification letter for the project named 'Water Tower Site 1' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **April 09, 2024** your effect determination(s) for the 'Water Tower Site 1' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	No effect
Whooping Crane (<i>Grus americana</i>)	Experimental Population, Non- Essential	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 October varies 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.

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.

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) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide 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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

Water Tower Site 1

2. Description

The following description was provided for the project 'Water Tower Site 1':

The project proposes to build an elevated water tower on City owned property. The project is in the planning phase and the area will be selected from within the mapped area provided. The project has an anticipated start date of spring of 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.666815299999996,-84.52549273953898,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. 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
31. 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
32. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
33. Does the action include removal/modification of an existing bridge or culvert?
No
34. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
35. 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
36. Does the action include herbicide application?
No
37. 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

38. 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

39. 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

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

No

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

Automatically answered

No

42. Will all tree cutting/trimming, prescribed fire, and/or pesticide 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: that 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

46. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



April 9, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF Water Tower 2

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **April 9, 2024**. During this Review, the project location was checked against known localities for rare species, and 7 State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Indiana bat	Myotis sodalis	E	1974
Least shrew	Cryptotis parva	T	1945
Little Brown Bat	Myotis lucifugus	T	1958
Pickerel frog	Lithobates palustris	SC	2015
Showy orchis	Galearis spectabilis	T	1895
Virginia spiderwort	Tradescantia virginiana	T	1923
Woodland vole	Microtus pinetorum	SC	1938

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project proposes to build an elevated water tower. The project has an anticipated start date of Spring 2025.

For the 7 State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Indiana bat (*Myotis sodalis*) State Endangered. A Note Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Least shrew (*Cryptotis parva*) State Threatened. MNFI describes the habitat for this species as dry upland meadows with dense coverage of grasses and forbs. It can also be found in marshy areas, fencerows, and woodland edges. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1945 and is considered historical. OHM has determined no effect to this species.

Little brown bat (*Myotis lucifugus*) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree



hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Pickerel frog (*Lithobates palustris*) State Species of Special Concern. MNFI describes the habitat for this species as freshwater aquatic and wetland habitats, including fens, bogs, marshes, shrubby/open wet meadows, forested wetlands, ponds, slow-moving streams, springs, and backwater sloughs or swamps. In other parts of its range, this species also has been found in karst topography and caves. The species has been reported to prefer habitats with cool, clear water and avoid areas with polluted or stagnant water. A desktop review of the surrounding landcover has determined that suitable habitat may exist within the project area. Field surveys should be completed during the active season for this species from first week of April to fourth week of October prior to construction activities commencing.

Showy orchis (*Galearis spectabilis*) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1877 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1923 and is considered historical. OHM has determined no effect to this species.

Woodland vole (*Microtus pinetorum*) State Species of Special Concern) MNFI describes the habitat for this species as deciduous woodlands with loose sandy soils, deep humus, and heavy leaf litter. Although it prefers deciduous forests comprised of oak, maple and/or beech, the woodland vole can potentially be found in any forest type. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1938 and is considered historical. OHM has determined no effect to this species.

If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

Wade Rose, OHM Advisors Ecologist



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:
Project Code: 2024-0074621
Project Name: Water Tower Site 2

04/09/2024 16:49:38 UTC

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 >450 feet 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
- Bald & Golden Eagles
- 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: 2024-0074621

Project Name: Water Tower Site 2

Project Type: Water Supply Facility - New Constr

Project Description: The project is in the planning phase to build an elevated water tower on the mapped site. The project has an anticipated start date of spring of 2015.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.66053705,-84.54076830192193,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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 3 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/QDVHOUA7RFHK7KMZGVXYAATPXA/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/QDVHOUA7RFHK7KMZGVXYAATPXA/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
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)

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

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> 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

NAME	BREEDING SEASON
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Golden Eagle <i>Aquila chrysaetos</i> 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. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Lesser Yellowlegs <i>Tringa flavipes</i> 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
Pectoral Sandpiper <i>Calidris melanotos</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	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 ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

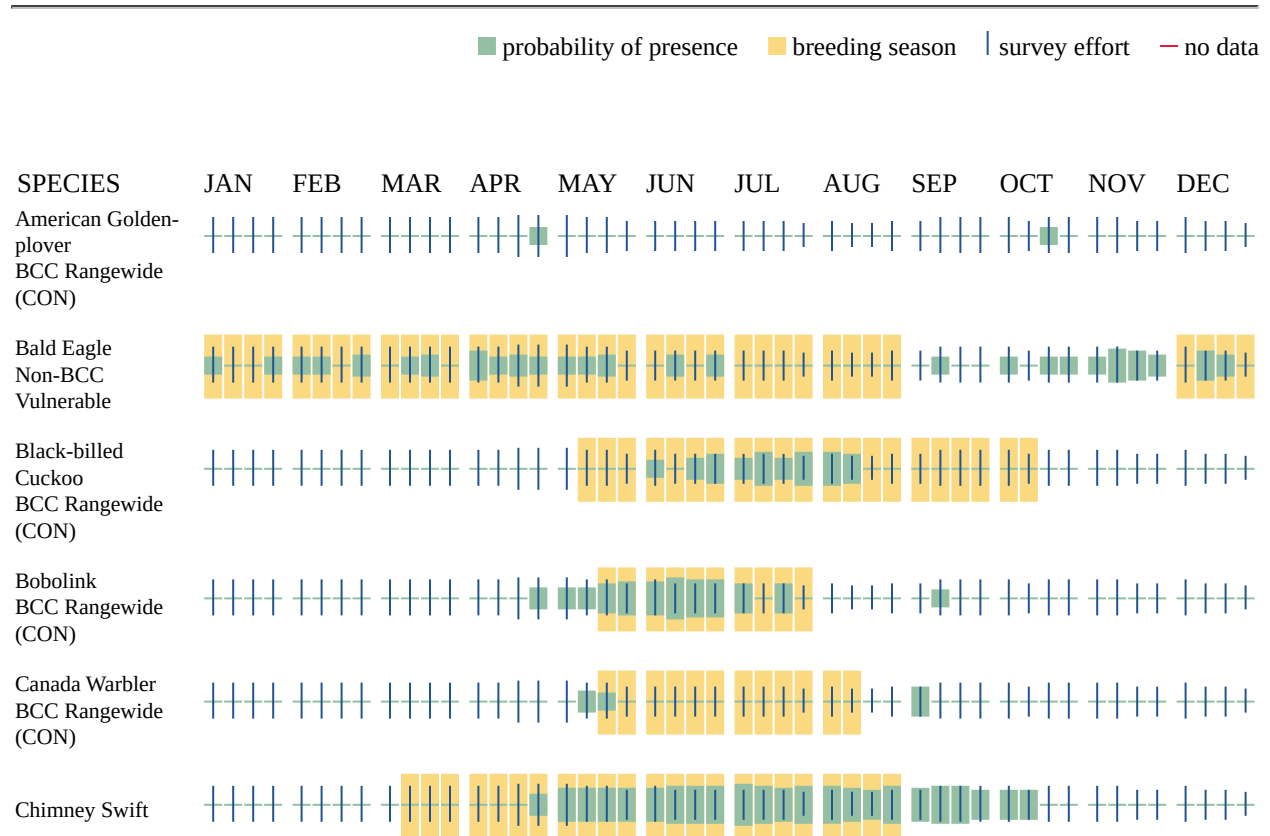
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 03N, Range 02W, Section 10 and Ingham County

Query Results Generated on Apr 09, 2024

Displaying Record 1 to 7 of 7 Records Found

Database Updated on Apr 01, 2024

[New Search](#)



[Refine Search](#)

[◀ Previous 25 Records](#)

[Next 25 Records ▶](#)

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	03N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18	Ingham
	Least shrew	Cryptotis parva	T		1945-11	Animal	GX		Wallace, G.J. 1948. The Barn Owl in Michigan: It's Distribution. Mich. St. Coll. Agr. Exp. Sta. Tech. Bulletin 208.	03N	02W	1, 2, 3, 4, 10, 11, 12, 13, 14	Ingham
	Little brown bat	Myotis lucifugus	T	UR	1958			Lansing	UMMZ online catalog for all collections of the species Myotis lucifugus, downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.	03N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 15, 16, 17	Ingham
	Pickerel frog	Lithobates palustris	SC		2015-05-25	Animal		Mud Lake Drain	MI Herp Atlas 2019. Excel spreadsheet and File geodatabase of all	03N	02W	10, 11, 14, 15	Ingham

Michigan Herp Atlas
records.

	Showy orchis	Galearis spectabilis	T	1877	Plant	GX	LANSING		03N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17	Ingham
	Virginia spiderwort	Tradescantia virginiana	T	1923-06-08	Plant	GX	EAST LANSING	Walpole, B.L. 1923. BLH	03N	02W	1, 2, 3, 4, 10, 11, 12	Ingham
	Woodland vole	Microtus pinetorum	SC	1938-07-13	Animal	GX		Orwoll, H. 1938. #M-15, 18, 88 MS.	03N	02W	1, 2, 3, 4, 10, 11, 12	Ingham

[New Search](#)[Refine Search](#)[◀ Previous 25 Records](#)[Next 25 Records ▶](#)



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:
Project code: 2024-0074621
Project Name: Water Tower Site 2

04/09/2024 16:51:28 UTC

Subject: Verification letter for the project named 'Water Tower Site 2' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **April 09, 2024** your effect determination(s) for the 'Water Tower Site 2' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	No effect
Whooping Crane (<i>Grus americana</i>)	Experimental Population, Non- Essential	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 October varies 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.

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.

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) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide 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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

Water Tower Site 2

2. Description

The following description was provided for the project 'Water Tower Site 2':

The project is in the planning phase to build an elevated water tower on the mapped site. The project has an anticipated start date of spring of 2015.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.66053705,-84.54076830192193,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. 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
31. 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
32. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
33. Does the action include removal/modification of an existing bridge or culvert?
No
34. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
35. 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
36. Does the action include herbicide application?
No
37. 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

38. 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

39. 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

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

No

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

Automatically answered

No

42. Will all tree cutting/trimming, prescribed fire, and/or pesticide 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: that 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

46. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



April 9, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF Master Meter Aurelius Booster Station.

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **April 9, 2024**. During this Review, the project location was checked against known localities for rare species, and 7 State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Indiana bat	Myotis sodalis	E	1974
Least shrew	Cryptotis parva	T	1945
Little Brown Bat	Myotis lucifugus	T	1958
Pickerel frog	Lithobates palustris	SC	2015
Showy orchis	Galearis spectabilis	T	1895
Virginia spiderwort	Tradescantia virginiana	T	1923
Woodland vole	Microtus pinetorum	SC	1938

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project proposes to install a master meter on the existing water main via open cut. The project has an anticipated start date of Spring 2025.

For the 7 State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Indiana bat (*Myotis sodalis*) State Endangered. A Note Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Least shrew (*Cryptotis parva*) State Threatened. MNFI describes the habitat for this species as dry upland meadows with dense coverage of grasses and forbs. It can also be found in marshy areas, fencerows, and woodland edges. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1945 and is considered historical. OHM has determined no effect to this species.



Little brown bat (*Myotis lucifugus*) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Pickerel frog (*Lithobates palustris*) State Species of Special Concern. MNFI describes the habitat for this species as freshwater aquatic and wetland habitats, including fens, bogs, marshes, shrubby/open wet meadows, forested wetlands, ponds, slow-moving streams, springs, and backwater sloughs or swamps. In other parts of its range, this species also has been found in karst topography and caves. The species has been reported to prefer habitats with cool, clear water and avoid areas with polluted or stagnant water. A desktop review of the surrounding landcover has determined that suitable habitat may exist within the project area. Field surveys should be completed during the active season for this species from first week of April to fourth week of October prior to construction activities commencing.

Showy orchis (*Galearis spectabilis*) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1877 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1923 and is considered historical. OHM has determined no effect to this species.

Woodland vole (*Microtus pinetorum*) State Species of Special Concern) MNFI describes the habitat for this species as deciduous woodlands with loose sandy soils, deep humus, and heavy leaf litter. Although it prefers deciduous forests comprised of oak, maple and/or beech, the woodland vole can potentially be found in any forest type. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1938 and is considered historical. OHM has determined no effect to this species.

If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

Wade Rose, OHM Advisors Ecologist



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:

04/09/2024 17:56:26 UTC

Project Code: 2024-0074699

Project Name: Master Meter Aurelius Booster Station

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 >450 feet 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
- Bald & Golden Eagles
- 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: 2024-0074699

Project Name: Master Meter Aurelius Booster Station

Project Type: Water Supply Pipeline - Maintenance/Modification - Below Ground

Project Description: The project proposes installing a master meter on the existing water main via open cut. The project has an anticipated start date of spring 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.6698518,-84.52442144084137,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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 3 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/LTWGY6QJ7NE53A4ZRBXA2KOBJI/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/LTWGY6QJ7NE53A4ZRBXA2KOBJI/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
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)

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

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> 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

NAME	BREEDING SEASON
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Golden Eagle <i>Aquila chrysaetos</i> 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. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Lesser Yellowlegs <i>Tringa flavipes</i> 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
Pectoral Sandpiper <i>Calidris melanotos</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	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 ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

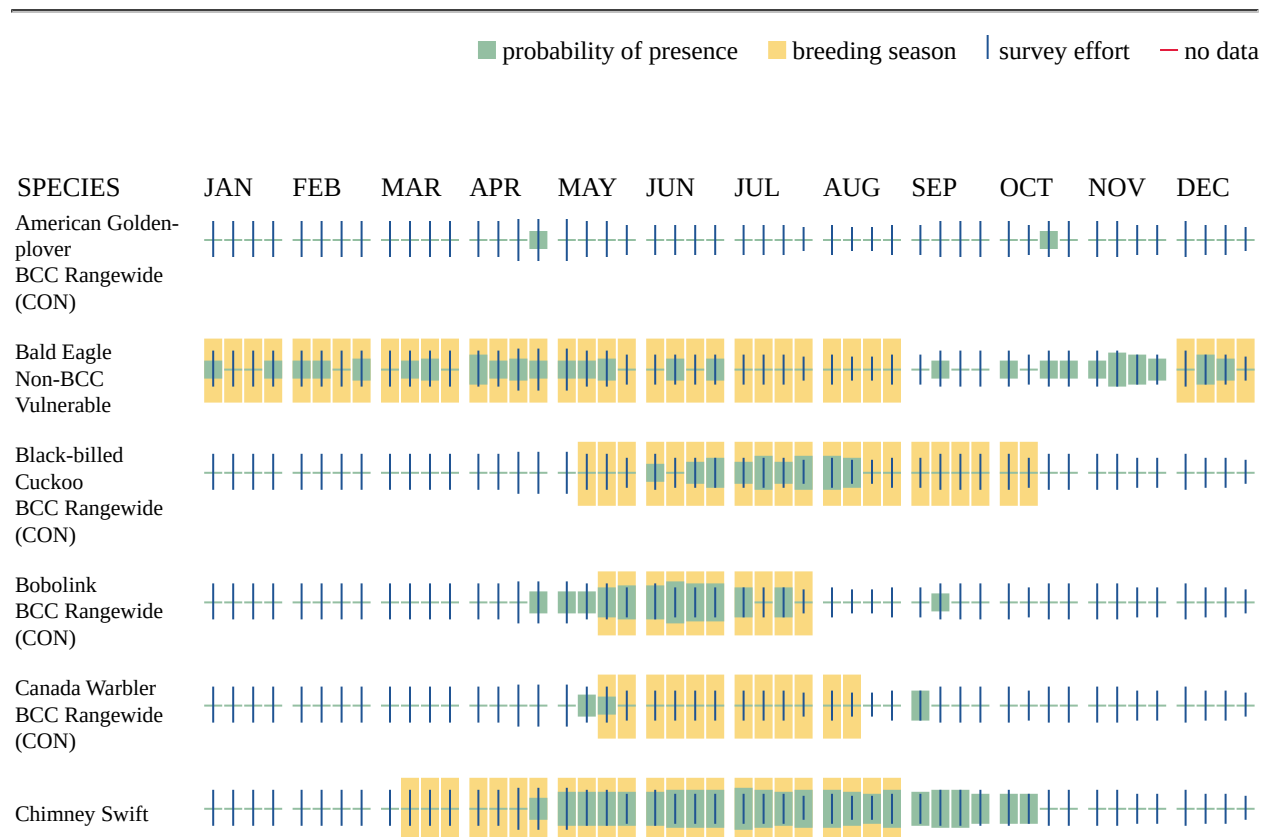
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 03N, Range 02W, Section 10 and Ingham County

Query Results Generated on Apr 09, 2024

Displaying Record 1 to 7 of 7 Records Found

Database Updated on Apr 01, 2024

[New Search](#)



[Refine Search](#)

[◀ Previous 25 Records](#)

[Next 25 Records ▶](#)

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	03N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18	Ingham
	Least shrew	Cryptotis parva	T		1945-11	Animal	GX		Wallace, G.J. 1948. The Barn Owl in Michigan: It's Distribution. Mich. St. Coll. Agr. Exp. Sta. Tech. Bulletin 208.	03N	02W	1, 2, 3, 4, 10, 11, 12, 13, 14	Ingham
	Little brown bat	Myotis lucifugus	T	UR	1958			Lansing	UMMZ online catalog for all collections of the species Myotis lucifugus, downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.	03N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 15, 16, 17	Ingham
	Pickerel frog	Lithobates palustris	SC		2015-05-25	Animal		Mud Lake Drain	MI Herp Atlas 2019. Excel spreadsheet and File geodatabase of all	03N	02W	10, 11, 14, 15	Ingham

Michigan Herp Atlas records.

	Showy orchis	Galearis spectabilis	T	1877	Plant	GX	LANSING		03N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17	Ingham
	Virginia spiderwort	Tradescantia virginiana	T	1923-06-08	Plant	GX	EAST LANSING	Walpole, B.L. 1923. BLH	03N	02W	1, 2, 3, 4, 10, 11, 12	Ingham
	Woodland vole	Microtus pinetorum	SC	1938-07-13	Animal	GX		Orwoll, H. 1938. #M-15, 18, 88 MS.	03N	02W	1, 2, 3, 4, 10, 11, 12	Ingham

[New Search](#)

[Refine Search](#)

[◀ Previous 25 Records](#)

[Next 25 Records ▶](#)



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:

04/09/2024 17:59:37 UTC

Project code: 2024-0074699

Project Name: Master Meter Aurelius Booster Station

Subject: Verification letter for the project named 'Master Meter Aurelius Booster Station' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **April 09, 2024** your effect determination(s) for the 'Master Meter Aurelius Booster Station' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed	No effect
Whooping Crane (<i>Grus americana</i>)	Endangered Experimental Population, Non-Essential	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 October varies 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.

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.

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) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide 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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

Master Meter Aurelius Booster Station

2. Description

The following description was provided for the project 'Master Meter Aurelius Booster Station':

The project proposes installing a master meter on the existing water main via open cut. The project has an anticipated start date of spring 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.6698518,-84.52442144084137,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. 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
31. 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
32. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
33. Does the action include removal/modification of an existing bridge or culvert?
No
34. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
35. 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
36. Does the action include herbicide application?
No
37. 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

38. 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

39. 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

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

No

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

Automatically answered

No

42. Will all tree cutting/trimming, prescribed fire, and/or pesticide 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: that 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

46. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573

April 9, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF Master Meter Dewitt & Bath.

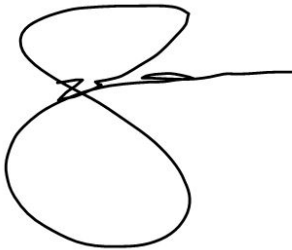
OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on April 9, 2024. During this Review, the project location was checked against known localities for rare species, and 0 State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur.

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project will involve the installation of a master meter on the existing water main via open cut. The project has an anticipated start date of spring 2025.

If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,



Wade Rose, OHM Advisors Ecologist



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:

04/09/2024 18:15:04 UTC

Project code: 2024-0074712

Project Name: Master Meter Dewitt & Bath

Subject: Verification letter for the project named 'Master Meter Dewitt & Bath' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **April 09, 2024** your effect determination(s) for the 'Master Meter Dewitt & Bath' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Eastern Prairie Fringed Orchid (<i>Platanthera leucophaea</i>)	Threatened	No effect
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	No effect
Whooping Crane (<i>Grus americana</i>)	Experimental Population, Non- Essential	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 October varies 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.

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.

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) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide 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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

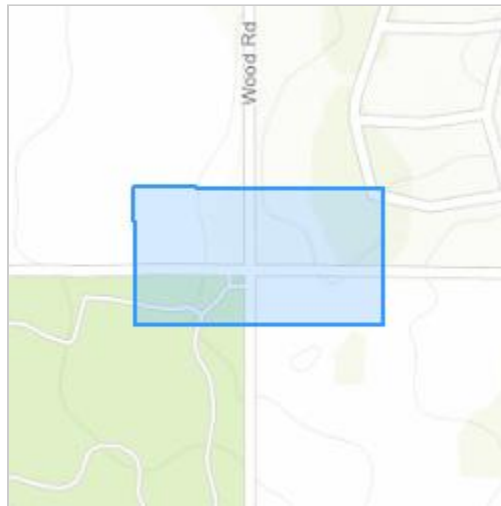
Master Meter Dewitt & Bath

2. Description

The following description was provided for the project 'Master Meter Dewitt & Bath':

The project will involve the installation of two master meters on the existing water main via open cut on the east and west side of Wood Rd. The project has an anticipated started date of spring of 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.78423885,-84.52295979208367,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. [Hidden Semantic] Does the action area intersect the area of influence for Eastern prairie fringed orchid?
Automatically answered
Yes
31. 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
32. 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
33. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
34. Does the action include removal/modification of an existing bridge or culvert?
No
35. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
36. 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
37. Does the action include herbicide application?
No

38. 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

39. 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

40. 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

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

No

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

Automatically answered

No

43. Will all tree cutting/trimming, prescribed fire, and/or pesticide 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: that 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

47. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



[MNFI Home](#) [Contact Us](#) [Plant List](#) [Animal List](#) [Abstracts](#) [Help](#)

Michigan Natural Features Inventory

Web Database Search

Search Results for Town 05N, Range 02W, Section 26 and Ingham County

No Records Found



Query Results Generated on Apr 09, 2024

Database Updated on Apr 01, 2024

[New Search](#)

[Refine Search](#)

[◀ Previous 25 Records](#)

[Next 25 Records ▶](#)

No records were found in the database matching your criteria



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:

04/09/2024 18:13:32 UTC

Project Code: 2024-0074712

Project Name: Master Meter Dewitt & Bath

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 >450 feet 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
- Bald & Golden Eagles
- 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: 2024-0074712
Project Name: Master Meter Dewitt & Bath
Project Type: Water Supply Pipeline - Maintenance/Modification - Below Ground
Project Description: The project will involve the installation of two master meters on the existing water main via open cut on the east and west side of Wood Rd.
The project has an anticipated started date of spring of 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.78423885,-84.52295979208367,14z>



Counties: Clinton County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 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 3 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/7L7FBGT32NDRBKRMJNY4RBJQBM/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/7L7FBGT32NDRBKRMJNY4RBJQBM/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/601	Threatened

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

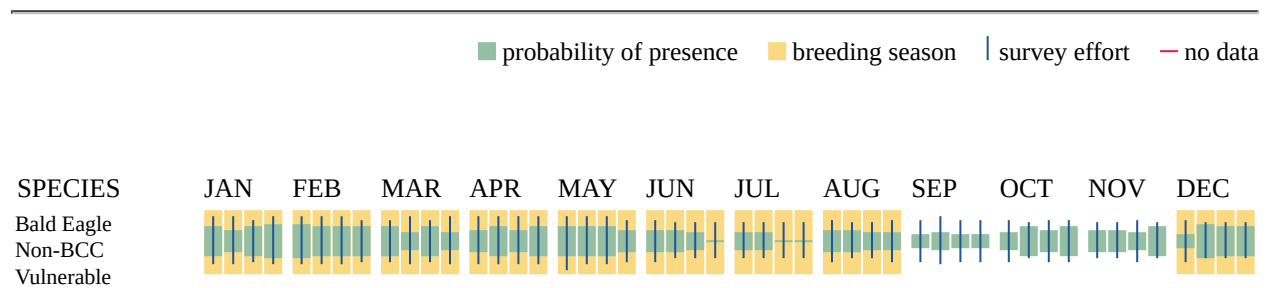
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>

- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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)

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

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> 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

NAME	BREEDING SEASON
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrastomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10678	Breeds May 1 to Aug 20
Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Lesser Yellowlegs <i>Tringa flavipes</i> 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
Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15
Pectoral Sandpiper <i>Calidris melanotos</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere

NAME	BREEDING SEASON
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

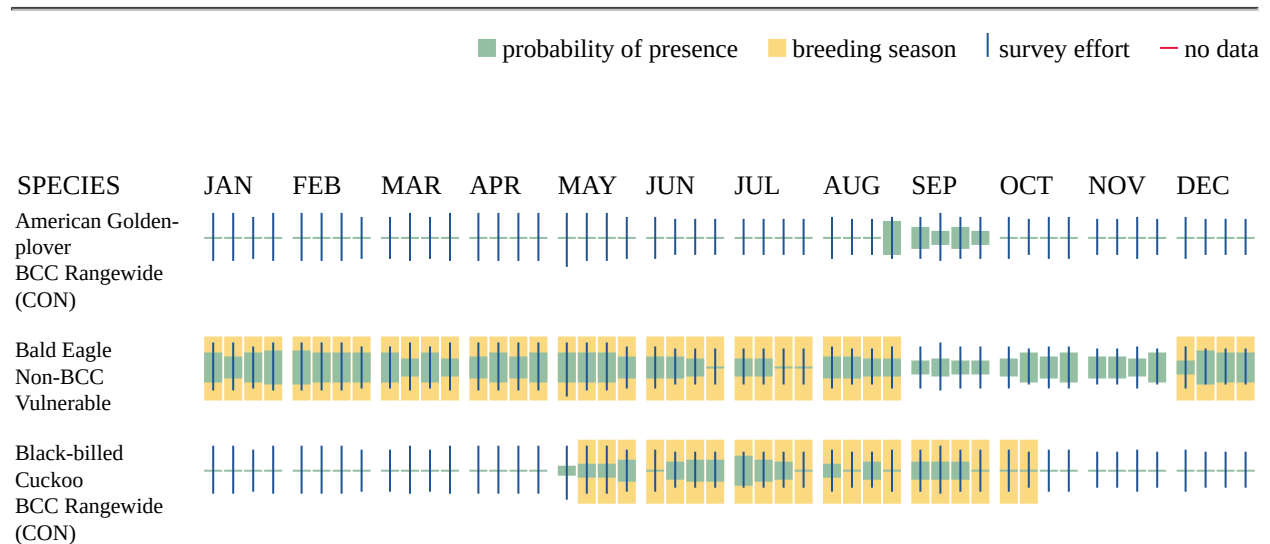
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



April 9, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF Master Meter Eifert Booster Station.

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **April 9, 2024**. During this Review, the project location was checked against known localities for rare species, and 7 State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Indiana bat	Myotis sodalis	E	1974
Least shrew	Cryptotis parva	T	1945
Little Brown Bat	Myotis lucifugus	T	1958
Pickerel frog	Lithobates palustris	SC	2015
Showy orchis	Galearis spectabilis	T	1895
Virginia spiderwort	Tradescantia virginiana	T	1923
Woodland vole	Microtus pinetorum	SC	1938

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project proposes to install a master meter on the existing water main. The project has an anticipated start date of Spring 2025.

For the 7 State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Indiana bat (Myotis sodalist) State Endangered. A Note Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Least shrew (Cryptotis parva) State Threatened. MNFI describes the habitat for this species as dry upland meadows with dense coverage of grasses and forbs. It can also be found in marshy areas, fencerows, and woodland edges. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1945 and is considered historical. OHM has determined no effect to this species.



Little brown bat (*Myotis lucifugus*) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Pickereel frog (*Lithobates palustris*) State Species of Special Concern. MNFI describes the habitat for this species as freshwater aquatic and wetland habitats, including fens, bogs, marshes, shrubby/open wet meadows, forested wetlands, ponds, slow-moving streams, springs, and backwater sloughs or swamps. In other parts of its range, this species also has been found in karst topography and caves. The species has been reported to prefer habitats with cool, clear water and avoid areas with polluted or stagnant water. A desktop review of the surrounding landcover has determined that suitable habitat may exist within the project area. Field surveys should be completed during the active season for this species from first week of April to fourth week of October prior to construction activities commencing.

Showy orchis (*Galearis spectabilis*) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1877 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1923 and is considered historical. OHM has determined no effect to this species.

Woodland vole (*Microtus pinetorum*) State Species of Special Concern) MNFI describes the habitat for this species as deciduous woodlands with loose sandy soils, deep humus, and heavy leaf litter. Although it prefers deciduous forests comprised of oak, maple and/or beech, the woodland vole can potentially be found in any forest type. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1938 and is considered historical. OHM has determined no effect to this species.

If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wade Rose', with a horizontal line extending to the right from the end of the signature.

Wade Rose, OHM Advisors Ecologist



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:
Project Code: 2024-0074693
Project Name: Master Meter Eifert Booster Station

04/09/2024 17:48:12 UTC

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 >450 feet 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
- Bald & Golden Eagles
- 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: 2024-0074693
Project Name: Master Meter Eifert Booster Station
Project Type: Water Supply Pipeline - New Constr - Below Ground
Project Description: The project proposes to install a master meter on the existing water main via open cut. The project has an anticipated start date of Spring 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.658265549999996,-84.5430589212834,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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 3 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 Fisheries¹, 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.

-
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
<p>Indiana Bat <i>Myotis sodalis</i></p> <p>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/2DKEHQRFYFE2DPQEHUJJARR6KA/documents/generated/6982.pdf</p>	Endangered
<p>Northern Long-eared Bat <i>Myotis septentrionalis</i></p> <p>No critical habitat has been designated for this species. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. <p>Species profile: https://ecos.fws.gov/ecp/species/9045</p>	Endangered
<p>Tricolored Bat <i>Perimyotis subflavus</i></p> <p>No critical habitat has been designated for this species. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. <p>Species profile: https://ecos.fws.gov/ecp/species/10515</p>	Proposed Endangered

BIRDS

NAME	STATUS
<p>Whooping Crane <i>Grus americana</i></p> <p>Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758</p>	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
<p>Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i></p> <p>No critical habitat has been designated for this species. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> For all Projects: Project is within EMR Range <p>Species profile: https://ecos.fws.gov/ecp/species/2202 General project design guidelines: https://ipac.ecosphere.fws.gov/project/2DKEHQRFYFE2DPQEHUJJARR6KA/documents/generated/5280.pdf</p>	Threatened

INSECTS

NAME	STATUS
<p>Monarch Butterfly <i>Danaus plexippus</i></p> <p>No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743</p>	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
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)

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

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> 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

NAME	BREEDING SEASON
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Golden Eagle <i>Aquila chrysaetos</i> 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. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Lesser Yellowlegs <i>Tringa flavipes</i> 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
Pectoral Sandpiper <i>Calidris melanotos</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	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 ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

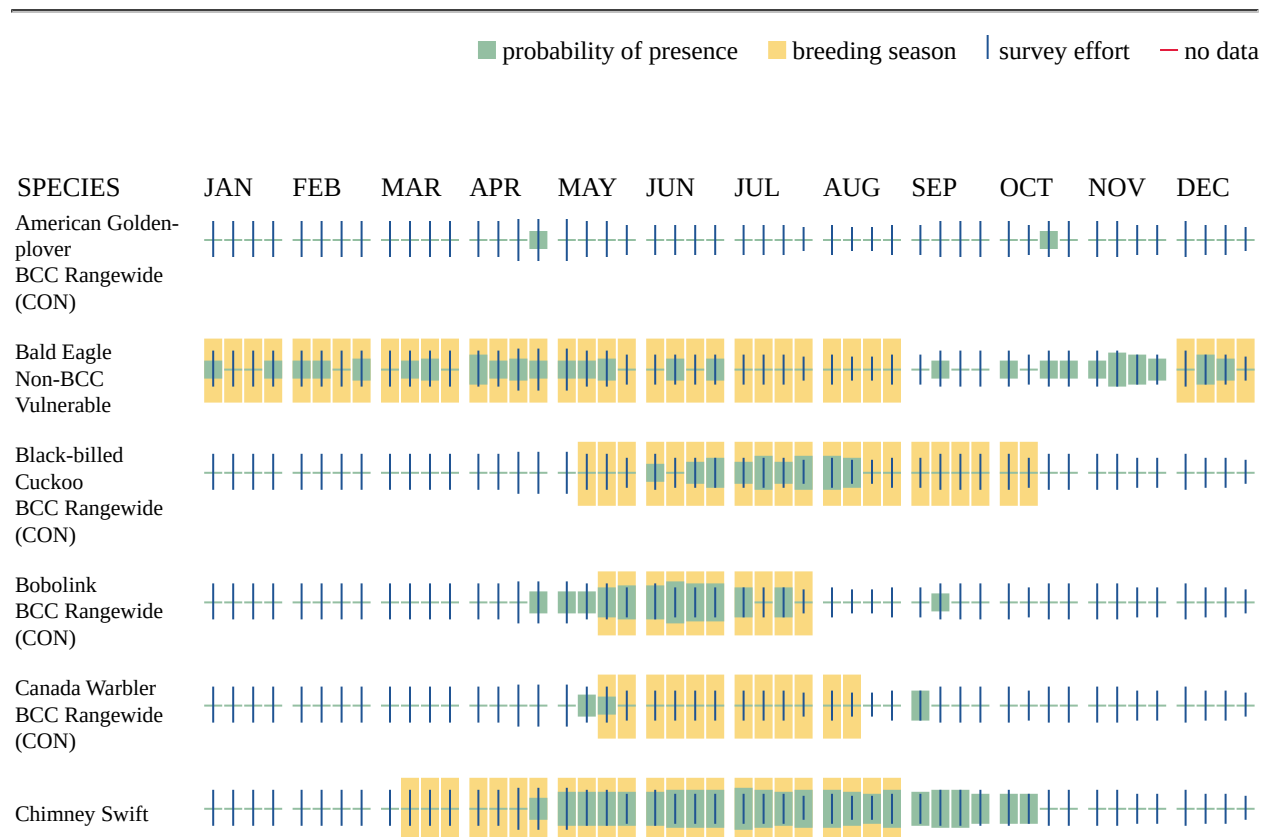
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 03N, Range 02W, Section 10 and Ingham County

Query Results Generated on Apr 09, 2024

Displaying Record 1 to 7 of 7 Records Found

Database Updated on Apr 01, 2024

[New Search](#)



[Refine Search](#)

[◀ Previous 25 Records](#)

[Next 25 Records ▶](#)

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	03N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18	Ingham
	Least shrew	Cryptotis parva	T		1945-11	Animal	GX		Wallace, G.J. 1948. The Barn Owl in Michigan: It's Distribution. Mich. St. Coll. Agr. Exp. Sta. Tech. Bulletin 208.	03N	02W	1, 2, 3, 4, 10, 11, 12, 13, 14	Ingham
	Little brown bat	Myotis lucifugus	T	UR	1958			Lansing	UMMZ online catalog for all collections of the species Myotis lucifugus, downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.	03N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 15, 16, 17	Ingham
	Pickerel frog	Lithobates palustris	SC		2015-05-25	Animal		Mud Lake Drain	MI Herp Atlas 2019. Excel spreadsheet and File geodatabase of all	03N	02W	10, 11, 14, 15	Ingham

Michigan Herp Atlas records.

	Showy orchis	Galearis spectabilis	T	1877	Plant	GX	LANSING		03N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17	Ingham
	Virginia spiderwort	Tradescantia virginiana	T	1923-06-08	Plant	GX	EAST LANSING	Walpole, B.L. 1923. BLH	03N	02W	1, 2, 3, 4, 10, 11, 12	Ingham
	Woodland vole	Microtus pinetorum	SC	1938-07-13	Animal	GX		Orwoll, H. 1938. #M-15, 18, 88 MS.	03N	02W	1, 2, 3, 4, 10, 11, 12	Ingham

[New Search](#)
[Refine Search](#)
[◀ Previous 25 Records](#)
[Next 25 Records ▶](#)



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:

04/09/2024 17:49:41 UTC

Project code: 2024-0074693

Project Name: Master Meter Eifert Booster Station

Subject: Verification letter for the project named 'Master Meter Eifert Booster Station' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **April 09, 2024** your effect determination(s) for the 'Master Meter Eifert Booster Station' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed	No effect
	Endangered	
Whooping Crane (<i>Grus americana</i>)	Experimental	No effect
	Population, Non-Essential	

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 October varies 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.

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.

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) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide 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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

Master Meter Eifert Booster Station

2. Description

The following description was provided for the project 'Master Meter Eifert Booster Station':

The project proposes to install a master meter on the existing water main via open cut. The project has an anticipated start date of Spring 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.658265549999996,-84.5430589212834,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. 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
31. 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
32. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
33. Does the action include removal/modification of an existing bridge or culvert?
No
34. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
35. 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
36. Does the action include herbicide application?
No
37. 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

38. 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

39. 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

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

No

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

Automatically answered

No

42. Will all tree cutting/trimming, prescribed fire, and/or pesticide 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: that 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

46. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



April 9, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF Master Meter Shubel.

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **March 14, 2024**. During this Review, the project location was checked against known localities for rare species, and **17** State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Bald eagle	Haliaeetus leucocephalus	SC	2019
Black and gold bumble bee	Bombus auricomus	SC	1952
Blue-eyed Mary	Collinsia verna	T	1995
Cattail sedge	Carex typhina	T	2021
Creek heelsplitter	Lasmigona compressa	SC	1934
Hairy-fruited sedge	Carex trichocarpa	SC	1947
Hemlock-parsley	Conioselinum chinense	SC	1882
Indiana bat	Myotis sodalis	E	1974
Least shrew	Cryptotis parva	T	1945
Little Brown Bat	Myotis lucifugus	T	1958
Raven's-footed sedge	Carex crus-corvi	E	1924
Round pigtoe	Pleurobema sintoxia	SC	2017
Showy orchis	Galearis spectabilis	T	1895
Slippershell	Alasmidonta viridis	T	2001
Yellow banded bumble bee	Bombus terricola	SC	1948
Virginia spiderwort	Tradescantia virginiana	T	1923
Woodland vole	Microtus pinetorum	SC	1938

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project will involve the installation of a master meter on the existing water main via open cut. The project has an anticipated start date of spring 2025.

For the **17** State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Bald Eagle (Haliaeetus leucocephalus) State Species of Special Concern. MNFI describes the nesting habitat for this species as a wide variety of habitats that provide suitable nest sites close to open water. Nests may be placed in snags or large live trees as well as on constructed platforms or utility poles. Field surveys will be



conducted to determine if an active nesting site is within ¼ mile of the work zone. If present MDNR BMP's will be implemented regarding timing of construction activities.

Black and gold bumble bee (*Bombus auricomus*) State Species of Special Concern. MNFI describes the habitat for this species as prairies and grasslands and is rarely associated with extensive forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1952 and is considered historical. OHM has determined no effect to this species.

Blue-eyed Mary (*Collinsia verna*) State Threatened. MNFI describes the habitat for this as moist soil rich beech-maple forests with a rich humus layer, and on levees and terraces within floodplain forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1995 and is considered historical. OHM has determined no effect to this species.

Cattail sedge (*Carex typhina*) State Threatened. MNFI describes the habitat for this species as bottomland forests in southern Lower Michigan, usually within first and second bottoms. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 2021. OHM has determined no effect to this species.

Creek heelsplitter (*Lasmigona compressa*) State Species of Special Concern. MNFI describes the habitat for this species as creeks and small rivers in a variety of substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 1934 and is considered historical. OHM has determined no effect to this species.

Hairy-fruited sedge (*Carex trichocarpa*) State Species of Special Concern. MNFI describes the habitat for this species as margins of floodplain forests and in open wetlands along streams and marsh borders. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1947. OHM has determined no effect to this species.

Hemlock parsley (*Conioselinum chinense*) State Species of Special Concern. MNFI describes the habitat for this species as Southern Michigan in moist peat in tamarack and cedar swamps, often with a significant hardwood component, and along stream banks. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1882 and is considered historical. OHM has determined no effect to this species.

Indiana bat (*Myotis sodalists*) State Endangered. A Not Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Least shrew (*Cryptotis parva*) State Threatened. MNFI describes the habitat for this species as dry upland meadows with dense coverage of grasses and forbs. It can also be found in marshy areas, fencerows, and woodland edges. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1945 and is considered historical. OHM has determined no effect to this species.

Little brown bat (*Myotis lucifugus*) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree



hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Raven's-footed sedge (*Carex crus-corvi*) State Endangered. MNFI describes the habitat for this species as southernmost Michigan in wet depressions in forested floodplains. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1924 and is considered historical. OHM has determined no effect to this species.

Round pigtoe (*Pleurobema sintoxia*) State Species of Special Concern. MNFI describes the habitat for this species as mud, sand, or gravel substrates of medium to large rivers. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2017. OHM has determined no effect to this species.

Showy orchis (*Galearis spectabilis*) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1895 and is considered historical. OHM has determined no effect to this species.

Slippershell (*Alasmidonta viridis*) State Threatened. MNFI describes the habitat for this species as creeks and headwaters of rivers in sand or gravel substrates. Occasionally, they occur in larger rivers and lakes and in mud substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2001. OHM has determined no effect to this species.

Yellow banded bumble bee (*Bombus terricola*) State Species of Special Concern. MNFI describes the habitat for this species as rich wooded areas. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1948 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1893 and is considered historical. OHM has determined no effect to this species.

Woodland vole (*Microtus pinetorum*) State Species of Special Concern) MNFI describes the habitat for this species as deciduous woodlands with loose sandy soils, deep humus, and heavy leaf litter. Although it prefers deciduous forests comprised of oak, maple and/or beech, the woodland vole can potentially be found in any forest type. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1988 and is considered historical. OHM has determined no effect to this species.

If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,



A handwritten signature in black ink, appearing to read 'Wade Rose'. The signature is stylized with large loops and a long horizontal stroke extending to the right.

Wade Rose, OHM Advisors Ecologist



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:
Project Code: 2024-0074707
Project Name: Master Meter Shubel

04/09/2024 18:07:24 UTC

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 >450 feet 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
- Bald & Golden Eagles
- 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

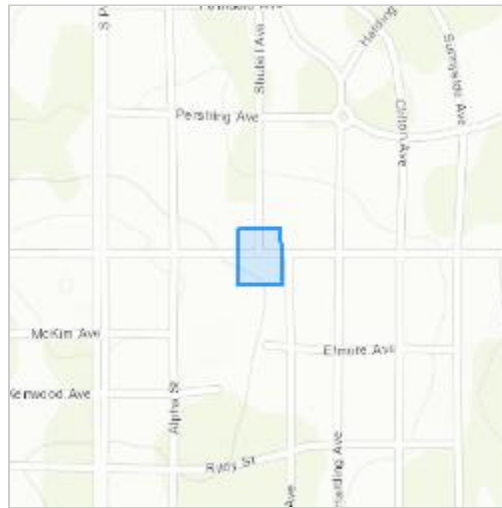
(517) 351-2555

PROJECT SUMMARY

Project Code: 2024-0074707
Project Name: Master Meter Shubel
Project Type: Water Supply Pipeline - Maintenance/Modification - Below Ground
Project Description: The project will involve the installation of a master meter on the existing water main via open cut. The project has an anticipated start date of spring 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.71184805,-84.53534355915644,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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 3 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/NVPJYPJYHRG3HLBAS2PGPRWO5E/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/NVPJYPJYHRG3HLBAS2PGPRWO5E/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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)

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

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> 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 <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10

NAME	BREEDING SEASON
<p>Chimney Swift <i>Chaetura pelagica</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9406</p>	Breeds Mar 15 to Aug 25
<p>Eastern Whip-poor-will <i>Antrastomus vociferus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/10678</p>	Breeds May 1 to Aug 20
<p>Golden-winged Warbler <i>Vermivora chrysoptera</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/8745</p>	Breeds May 1 to Jul 20
<p>Lesser Yellowlegs <i>Tringa flavipes</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Long-eared Owl <i>asio otus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Pectoral Sandpiper <i>Calidris melanotos</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9561</p>	Breeds elsewhere
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9398</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/9478</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9431</p>	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 "[Supplemental](#)

[Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

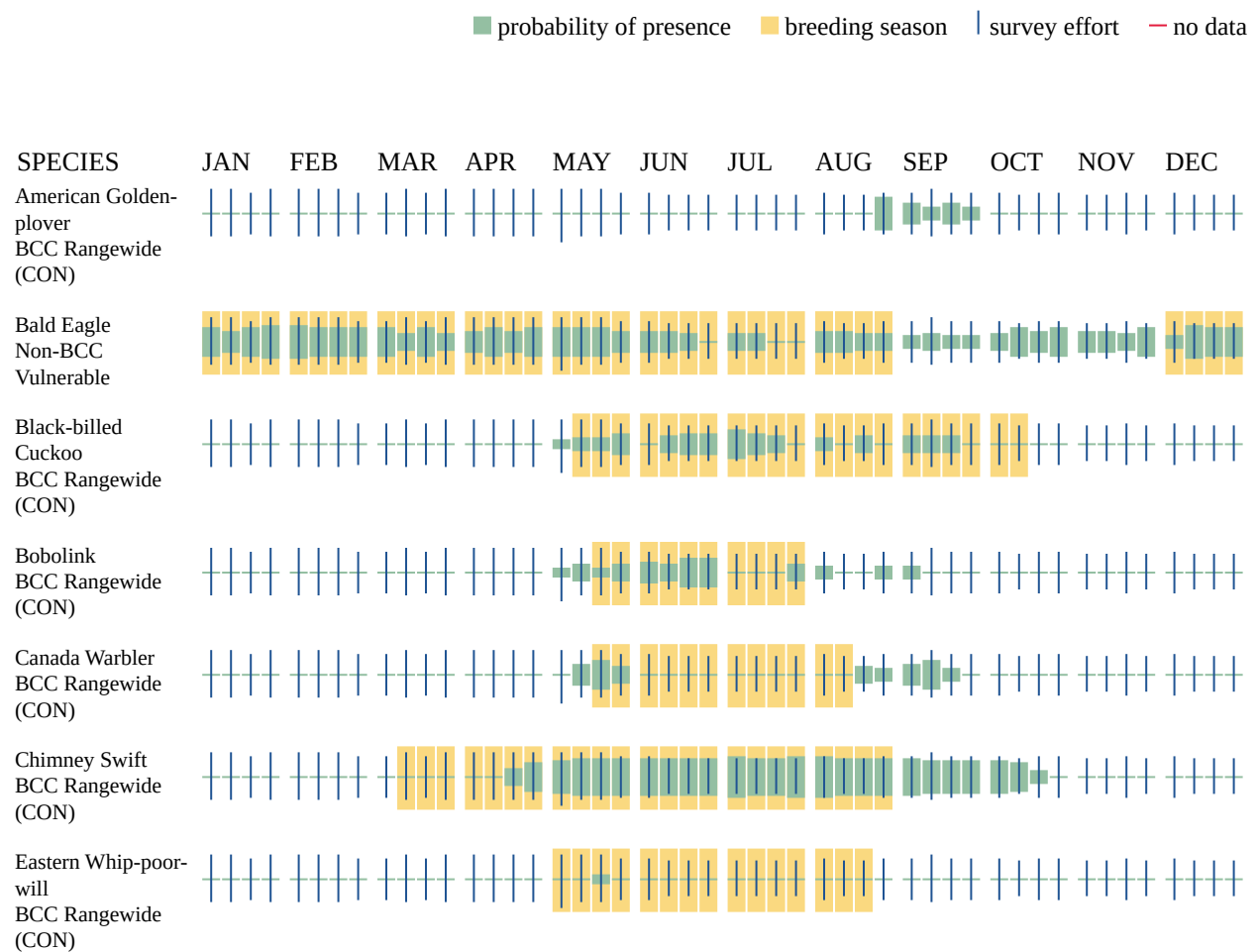
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

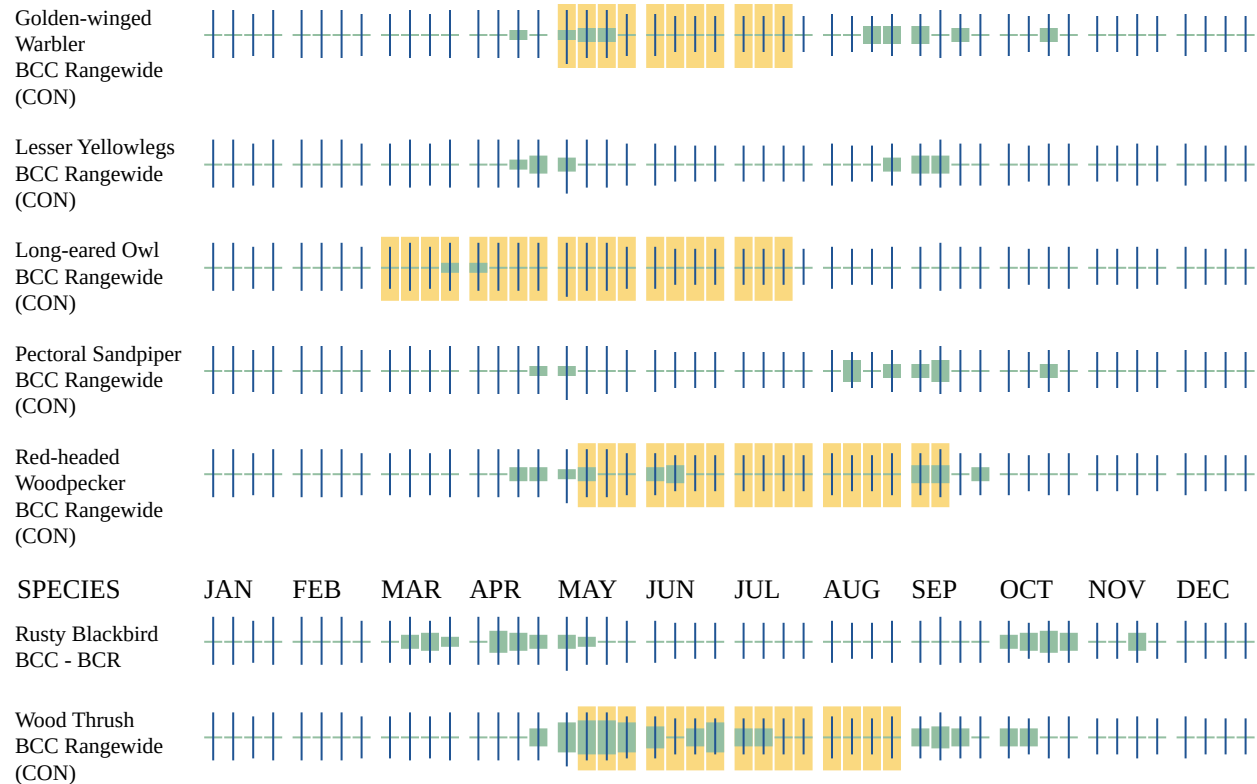
Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 04N, Range 02W, Section 22 and Ingham County

Query Results Generated on Mar 14, 2024

Displaying Record 1 to 20 of 20 Records Found




Database Updated on Mar 01, 2024



Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Bald eagle	Haliaeetus leucocephalus	SC	DL	2019	Animal		IN-01 Potter Park Zoo	USFWS. 2017. Bald Eagle Nest Shapefile.	04N	02W	22, 23	Ingham
	Black and gold bumble bee	Bombus auricomus	SC		1952-07-15			Lansing		04N	02W	8, 9, 15, 16, 17, 20, 21, 22	Ingham
	Blue-eyed Mary	Collinsia verna	T		1995-05-19			Lansing/Trowbridge Woods		04N	02W	8, 9, 10, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26	Ingham
	Cattail sedge	Carex typhina	T		2021-07-30	Plant	M	SE Lansing	Billington, C. 1923. MICH,BLH	04N	02W	14, 15, 16, 21, 22, 23, 24, 26, 27, 28, 34	Ingham
	Creek heelsplitter	Lasmigona compressa	SC		1934			Red Cedar River near Okemos/Lansing; Sloan Creek	2017-07-22. Unionidae download from IDIGBIO for new Special Concern mussels. Spreadsheet.	04N	02W	21, 22, 23	Ingham
	Great Blue Heron	Great Blue Heron			2009-03-17			Potter Park	Cuthrell, D. and M. Sanders.	04N	02W	22	Ingham

Rookery		Rookery								2009. MNFI Special Species Form of 17 March.			
Hairy-fruited sedge	Carex trichocarpa	SC		1947-07-13	Plant	S	Potter Park	Walpole, B.A. 1923. #1413 BLH	04N	02W	22, 23	Ingham	
Hemlock-parsley	Conioselinum chinense	SC		1882-08-00			Grand River Banks	Walters, Beverly. 2014. Excel spreadsheet of museum specimens for new SC/T/E species.	04N	02W	8, 9, 10, 15, 16, 17, 20, 21, 22	Ingham	
Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham	
Least shrew	Cryptotis parva	T		1945-11	Animal	GX		Wallace, G.J. 1948. The Barn Owl in Michigan: It's Distribution. Mich. St. Coll. Agr. Exp. Sta. Tech. Bulletin 208.	04N	02W	1, 2, 3, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham	
Little brown bat	Myotis lucifugus	T	UR	1958			Lansing	UMMZ online catalog for all collections of the	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9,	Ingham	

species *Myotis lucifugus*, downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.

10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36

	Raven's-foot sedge	<i>Carex cruscovri</i>	E	1924-09-20	Plant	G	POTTER PARK	Billington, C. 1924. BLH	04N	02W	22, 23	Ingham
	River fingernail clam	<i>Sphaerium fabale</i>	SC		Animal		Cedar River	Unknown. Unknown date. UMMZ Lot #67032. 1 collected.	04N	02W	21, 22, 23	Ingham
	Round pigtoe	<i>Pleurobema sintoxia</i>	SC	2001-07-17	Animal		RED CEDAR #6	Goforth, R. 2001. Riparian Ecosystem Phase II.	04N	02W	13, 22, 23	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T	1895-05-26	Plant	GX	NORTH OF MSU	Skeels, H.C. 1894. May 11 - MSC 26815 (no collection #).	04N	02W	1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T	1877	Plant	GX	LANSING		04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13,	Ingham

											14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	
	Slippershell	<i>Alasmidonta viridis</i>	T	2001-07-12	Animal		RED CEDAR #7		04N	02W	13, 22, 23, 27	Ingham
	Virginia spiderwort	<i>Tradescantia virginiana</i>	T	1923-06-08	Plant	GX	EAST LANSING	Walpole, B.L. 1923. BLH	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36	Ingham
	Woodland vole	<i>Microtus pinetorum</i>	SC	1938-07-13	Animal	GX		Orwoll, H. 1938. #M-15, 18, 88 MS.	04N	02W	1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 33, 34, 35, 36	Ingham
	Yellow banded	<i>Bombus terricola</i>	SC	1948-07-17	Animal		Lansing	Rowe, Logan, T. Wood, and D. Cuthrell. 2019.	04N	02W	8, 9, 10, 15, 16,	Ingham

bumble
bee

January 17 -
Excel file with
museum
specimen data
for the bumble
bees of Michigan
project.

17, 20,
21, 22

[New Search](#)

[Refine Search](#)

[◀ Previous 25 Records](#)

[Next 25 Records ▶](#)



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:

04/09/2024 18:08:58 UTC

Project code: 2024-0074707

Project Name: Master Meter Shubel

Subject: Verification letter for the project named 'Master Meter Shubel' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **April 09, 2024** your effect determination(s) for the 'Master Meter Shubel' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed	No effect
	Endangered	
Whooping Crane (<i>Grus americana</i>)	Experimental	No effect
	Population, Non-Essential	

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 October varies 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.

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.

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) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide 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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

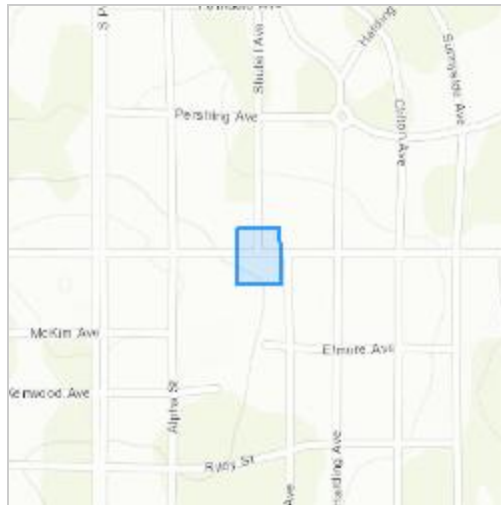
Master Meter Shubel

2. Description

The following description was provided for the project 'Master Meter Shubel':

The project will involve the installation of a master meter on the existing water main via open cut. The project has an anticipated start date of spring 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.71184805,-84.53534355915644,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. 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
31. 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
32. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
33. Does the action include removal/modification of an existing bridge or culvert?
No
34. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
35. 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
36. Does the action include herbicide application?
No
37. 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

38. 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

39. 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

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

No

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

Automatically answered

No

42. Will all tree cutting/trimming, prescribed fire, and/or pesticide 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: that 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

46. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573



April 5, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF CSO Project 008 Water Main.

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **March 14, 2024**. During this Review, the project location was checked against known localities for rare species, and **17** State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Bald eagle	Haliaeetus leucocephalus	SC	2019
Black and gold bumble bee	Bombus auricomus	SC	1952
Blue-eyed Mary	Collinsia verna	T	1995
Cattail sedge	Carex typhina	T	2021
Creek heelsplitter	Lasmigona compressa	SC	1934
Hairy-fruited sedge	Carex trichocarpa	SC	1947
Hemlock-parsley	Conioselinum chinense	SC	1882
Indiana bat	Myotis sodalis	E	1974
Least shrew	Cryptotis parva	T	1945
Little Brown Bat	Myotis lucifugus	T	1958
Raven's-footed sedge	Carex crus-corvi	E	1924
Round pigtoe	Pleurobema sintoxia	SC	2017
Showy orchis	Galearis spectabilis	T	1895
Slippershell	Alasmidonta viridis	T	2001
Yellow banded bumble bee	Bombus terricola	SC	1948
Virginia spiderwort	Tradescantia virginiana	T	1923
Woodland vole	Microtus pinetorum	SC	1938

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project proposes to replace ~22,000 linear feet of watermain in conjunction with a City of Lansing CSO project. The project will involve open cut and directional drilling to install new water main. The project has an anticipated start of Spring of 2025.

For the **17** State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.



Bald Eagle (*Haliaeetus leucocephalus*) State Species of Special Concern. MNFI describes the nesting habitat for this species as a wide variety of habitats that provide suitable nest sites close to open water. Nests may be placed in snags or large live trees as well as on constructed platforms or utility poles. Field surveys will be conducted to determine if an active nesting site is within ¼ mile of the work zone. If present MDNR BMP's will be implemented regarding timing of construction activities.

Black and gold bumble bee (*Bombus auricomus*) State Species of Special Concern. MNFI describes the habitat for this species as prairies and grasslands and is rarely associated with extensive forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1952 and is considered historical. OHM has determined no effect to this species.

Blue-eyed Mary (*Collinsia verna*) State Threatened. MNFI describes the habitat for this as moist soil rich beech-maple forests with a rich humus layer, and on levees and terraces within floodplain forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1995 and is considered historical. OHM has determined no effect to this species.

Cattail sedge (*Carex typhina*) State Threatened. MNFI describes the habitat for this species as bottomland forests in southern Lower Michigan, usually within first and second bottoms. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 2021. OHM has determined no effect to this species.

Creek heelsplitter (*Lasmigona compressa*) State Species of Special Concern. MNFI describes the habitat for this species as creeks and small rivers in a variety of substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 1934 and is considered historical. OHM has determined no effect to this species.

Hairy-fruited sedge (*Carex trichocarpa*) State Species of Special Concern. MNFI describes the habitat for this species as margins of floodplain forests and in open wetlands along streams and marsh borders. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1947. OHM has determined no effect to this species.

Hemlock parsley (*Conioselinum chinense*) State Species of Special Concern. MNFI describes the habitat for this species as Southern Michigan in moist peat in tamarack and cedar swamps, often with a significant hardwood component, and along stream banks. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1882 and is considered historical. OHM has determined no effect to this species.

Indiana bat (*Myotis sodalists*) State Endangered. A Not Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Least shrew (*Cryptotis parva*) State Threatened. MNFI describes the habitat for this species as dry upland meadows with dense coverage of grasses and forbs. It can also be found in marshy areas, fencerows, and woodland edges. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1945 and is considered historical. OHM has determined no effect to this species.



Little brown bat (*Myotis lucifugus*) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Raven's-footed sedge (*Carex crus-corvi*) State Endangered. MNFI describes the habitat for this species as southernmost Michigan in wet depressions in forested floodplains. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1924 and is considered historical. OHM has determined no effect to this species.

Round pigtoe (*Pleurobema sintoxia*) State Species of Special Concern. MNFI describes the habitat for this species as mud, sand, or gravel substrates of medium to large rivers. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2017. OHM has determined no effect to this species.

Showy orchis (*Galearis spectabilis*) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1895 and is considered historical. OHM has determined no effect to this species.

Slippershell (*Alasmidonta viridis*) State Threatened. MNFI describes the habitat for this species as creeks and headwaters of rivers in sand or gravel substrates. Occasionally, they occur in larger rivers and lakes and in mud substrates. No work will occur below the ordinary high water or mark or in water work during project activities. The last observation of this species in within 1.5 miles of the project area occurred in 2001. OHM has determined no effect to this species.

Yellow banded bumble bee (*Bombus terricola*) State Species of Special Concern. MNFI describes the habitat for this species as rich wooded areas. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1948 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1893 and is considered historical. OHM has determined no effect to this species.

Woodland vole (*Microtus pinetorum*) State Species of Special Concern) MNFI describes the habitat for this species as deciduous woodlands with loose sandy soils, deep humus, and heavy leaf litter. Although it prefers deciduous forests comprised of oak, maple and/or beech, the woodland vole can potentially be found in any forest type. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1988 and is considered historical. OHM has determined no effect to this species.



If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wade Rose'. The signature is stylized with a large loop at the top and a horizontal line extending to the right.

Wade Rose, OHM Advisors Ecologist



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:
Project Code: 2024-0054109
Project Name: CSO Project 008 Water Main Replacement

February 26, 2024

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 >450 feet 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
- Bald & Golden Eagles
- 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: 2024-0054109

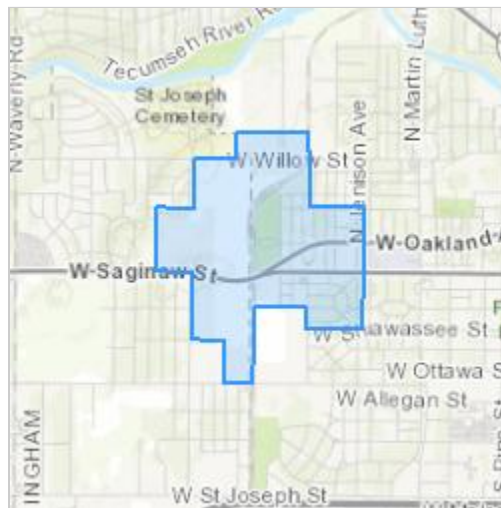
Project Name: CSO Project 008 Water Main Replacement

Project Type: Water Supply Pipeline - New Constr - Above Ground

Project Description: The project proposes to replace ~22,000 linear feet of watermain in conjunction with a City of Lansing CSO project. The project will involve open cut and directional drilling to install new water main. The project has an anticipated start of Spring of 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.7418981,-84.58135952826169,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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 1 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/MNNI3IY4AFCRPFJ22DZMMI7XXA/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/MNNI3IY4AFCRPFJ22DZMMI7XXA/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.

3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

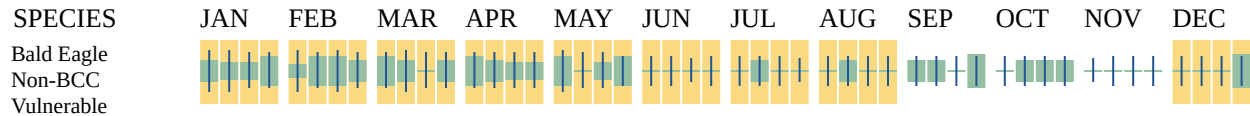
Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort — no data



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31


NAME	BREEDING SEASON
<p>Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399</p>	Breeds May 15 to Oct 10
<p>Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454</p>	Breeds May 20 to Jul 31
<p>Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643</p>	Breeds May 20 to Aug 10
<p>Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406</p>	Breeds Mar 15 to Aug 25
<p>Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745</p>	Breeds May 1 to Jul 20
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431</p>	Breeds May 10 to Aug 31

BCC Rangewide
(CON)


Lesser Yellowlegs
BCC Rangewide
(CON)



Long-eared Owl
BCC Rangewide
(CON)




Red-headed
Woodpecker
BCC Rangewide
(CON)



Rusty Blackbird
BCC - BCR



Wood Thrush
BCC Rangewide
(CON)



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 04N, Range 02W, Section 8 and Ingham County

Query Results Generated on Feb 26, 2024

Displaying Record 1 to 11 of 11 Records Found

Database Updated on Feb 01, 2024



[New Search](#)


[Refine Search](#)

[◀ Previous 25 Records](#)

[Next 25 Records ▶](#)

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Black and gold bumble bee	<i>Bombus auricomus</i>	SC		1952-07-15			Lansing		04N	02W	8, 9, 15, 16, 17, 20, 21, 22	Ingham
	Blue-eyed Mary	<i>Collinsia verna</i>	T		1995-05-19			Lansing/Trowbridge Woods		04N	02W	8, 9, 10, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26	Ingham
	Hemlock-parsley	<i>Conioselinum chinense</i>	SC		1882-08-00			Grand River Banks	Walters, Beverly. 2014. Excel spreadsheet of museum specimens for new SC/T/E species.	04N	02W	8, 9, 10, 15, 16, 17, 20, 21, 22	Ingham
	Indiana bat	<i>Myotis sodalis</i>	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (<i>Myotis sodalis</i>) in Michigan.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27,	Ingham

											28, 29, 30, 31, 32, 33, 34, 35, 36		
	Little brown bat	Myotis lucifugus	T	UR	1958		Lansing	UMMZ online catalog for all collections of the species Myotis lucifugus, downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham	
	Showy orchis	Galearis spectabilis	T		1895-05-26	Plant	GX	NORTH OF MSU	Skeels, H.C. 1894. May 11 - MSC 26815 (no collection #).	04N	02W	1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Showy orchis	Galearis spectabilis	T		1877	Plant	GX	LANSING		04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25,	Ingham

	Virginia spiderwort	Tradescantia virginiana	T	1923-06-08	Plant	GX	EAST LANSING	Walpole, B.L. 1923. BLH	04N	02W	26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham
	Woodland vole	Microtus pinetorum	SC	1938-07-13	Animal	GX		Orwoll, H. 1938. #M-15, 18, 88 MS.	04N	02W	1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36	Ingham
	Yellow banded bumble bee	Bombus terricola	SC	1948-07-17	Animal		Lansing	Rowe, Logan, T. Wood, and D. Cuthrell. 2019. January 17 - Excel file with museum specimen data for the bumble bees of Michigan project.	04N	02W	8, 9, 10, 15, 16, 17, 20, 21, 22	Ingham

Yellow
bumble
bee

Bombus
fervidus

SC

2023-05-
12

Roosevelt
Ave/Dans
Backyard

Multiple contributors.
[MNFI Rare Species Form].
2023.
Unpublished data from public survey form. File geodatabase with photos. Michigan Natural Features Inventory. Lansing, MI.

04N

02W

8

Ingham

[New Search](#)

[Refine Search](#)

[◀ Previous 25 Records](#)

[Next 25 Records ▶](#)



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:
Project code: 2024-0054109
Project Name: CSO Project 008 Water Main Replacement

February 26, 2024

Subject: Verification letter for the project named 'CSO Project 008 Water Main Replacement' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **February 26, 2024** your effect determination(s) for the 'CSO Project 008 Water Main Replacement' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed	No effect
	Endangered	
Whooping Crane (<i>Grus americana</i>)	Experimental Population, Non- Essential	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 October varies 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.

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.

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) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide 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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

CSO Project 008 Water Main Replacement

2. Description

The following description was provided for the project 'CSO Project 008 Water Main Replacement':

The project proposes to replace ~22,000 linear feet of watermain in conjunction with a City of Lansing CSO project. The project will involve open cut and directional drilling to install new water main. The project has an anticipated start of Spring of 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.7418981,-84.58135952826169,14z>



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.

Yes

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 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?

Yes

24. 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

25. 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
26. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
27. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
28. 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
29. 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
30. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
31. Does the action include removal/modification of an existing bridge or culvert?
No
32. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
33. 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
34. Does the action include herbicide application?
No
35. 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

36. 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

37. 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

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

No

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

Automatically answered

No

40. Will all tree cutting/trimming, prescribed fire, and/or pesticide 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: that 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

44. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573

April 9, 2024

Michigan Natural Features Inventory (MNFI) Web Database Review – DWSRF CSO Cherry St.

OHM has reviewed the Threatened and Endangered Species list generated by the MNFI Web Database, conducted on **April 9, 2024**. During this Review, the project location was checked against known localities for rare species, and **9** State threatened, endangered, or species of special concern have been documented within the 1.5 mile project area buffer and it is possible that without proper management negative impacts may occur. See Table 1 below for listed species, state status and last observation:

Common Name	Scientific Name	State Status	Last Observation
Blue-eyed Mary	Collinsia verna	T	1995
Cattail sedge	Carex typhina	T	2021
False hop sedge	Carex lupuliformis	T	1891
Indiana bat	Myotis sodalis	E	1974
Least shrew	Cryptotis parva	T	1945
Little Brown Bat	Myotis lucifugus	T	1958
Showy orchis	Galearis spectabilis	T	1895
Virginia spiderwort	Tradescantia virginiana	T	1923
Woodland vole	Microtus pinetorum	SC	1938

Additionally, ESA Section 7 species were generated via the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website. Determinations for Federally listed species will be made utilizing the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) website if applicable.

The project proposes the replacement of existing water main within the mapped area using open cut. The project has an anticipated start date of Spring 2025.

For the **9** State listed species in the document provided OHM Advisors has made preliminary determinations related to potential field surveys for listed species. In response to the Rare Species Review provided by MNFI Web Database OHM Advisors has prepared the following strategy and documentation to ensure this project does not result in take of species listed in the review.

Blue-eyed Mary (Collinsia verna) State Threatened. MNFI describes the habitat for this as moist soil rich beech-maple forests with a rich humus layer, and on levees and terraces within floodplain forests. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1995 and is considered historical. OHM has determined no effect to this species.

Cattail sedge (Carex typhina) State Threatened. MNFI describes the habitat for this species as bottomland forests in southern Lower Michigan, usually within first and second bottoms. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 2021. OHM has determined no effect to this species.



False hop sedge (*Carex lupuliformis*) State Threatened. MNFI describes the habitat for this species as floodplain forests and swamps in southern Lower Michigan, usually in lower bottoms and at the margins of vernal pools. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1891 and is considered historical. OHM has determined no effect to this species.

Indiana bat (*Myotis sodalist*) State Endangered. A Not Likely to Adversely Affect determination was reached for this species utilizing the U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation website Michigan All Species Determination Key. Best Management Practices will be implemented per USFWS guidelines as part of the NLAA determination concurrence letter.

Least shrew (*Cryptotis parva*) State Threatened. MNFI describes the habitat for this species as dry upland meadows with dense coverage of grasses and forbs. It can also be found in marshy areas, fencerows, and woodland edges. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1945 and is considered historical. OHM has determined no effect to this species.

Little brown bat (*Myotis lucifugus*) State Threatened. MNFI describes the roosting habitat for this species as man-made structures, utilizing barns, houses, large buildings, and the underside of bridges. They also roost in tree hollows and under loose bark. Impacts to this species will be mitigated utilizing Best Management Practices (BMPs) implemented as part of U.S Fish and Wildlife guidance for federally listed bat species during project activities. OHM has determined no effect to this species.

Showy orchis (*Galearis spectabilis*) State Threatened. MNFI describes the habitat for this species as deciduous woods, often near temporary spring ponds in sandy clay or rich loam soils, or in shady, rich microhabitats alongside common spring ephemerals. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1895 and is considered historical. OHM has determined no effect to this species.

Virginia spiderwort (*Tradescantia virginiana*) State Threatened. MNFI describes the habitat for this species as sandy ridges, borders of oak woods and barrens and other dry sites. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1923 and is considered historical. OHM has determined no effect to this species.

Woodland vole (*Microtus pinetorum*) State Species of Special Concern) MNFI describes the habitat for this species as deciduous woodlands with loose sandy soils, deep humus, and heavy leaf litter. Although it prefers deciduous forests comprised of oak, maple and/or beech, the woodland vole can potentially be found in any forest type. A desktop review of the surrounding landcover has determined that no suitable habitat is located within the project area. The last observation of this species in within 1.5 miles of the project area occurred in 1938 and is considered historical. OHM has determined no effect to this species.



If additional information is needed, please contact me via email at wade.rose@ohm-advisors.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wade Rose'. The signature is stylized with a large loop at the top and a horizontal line extending to the right.

Wade Rose, OHM Advisors Ecologist



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:
Project Code: 2024-0074487
Project Name: Landel Howard and Vine

04/09/2024 14:54:26 UTC

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 >450 feet 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
- Bald & Golden Eagles
- 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: 2024-0074487
Project Name: Landel Howard and Vine
Project Type: Water Supply Pipeline - New Constr - Below Ground
Project Description: The project proposes the replacement of existing water main within the mapped area using open cut. The project has an anticipated start date of Spring 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.738418499999995,-84.51098905561622,14z>



Counties: Ingham County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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 3 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 Fisheries¹, 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.

-
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 <i>Myotis sodalis</i> 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/VASX5PCTABH2DMJVQOEM34ZWAY/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> 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/VASX5PCTABH2DMJVQOEM34ZWAY/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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)

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

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> 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 <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10

NAME	BREEDING SEASON
<p>Chimney Swift <i>Chaetura pelagica</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9406</p>	Breeds Mar 15 to Aug 25
<p>Eastern Whip-poor-will <i>Antrastomus vociferus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/10678</p>	Breeds May 1 to Aug 20
<p>Golden-winged Warbler <i>Vermivora chrysoptera</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/8745</p>	Breeds May 1 to Jul 20
<p>Lesser Yellowlegs <i>Tringa flavipes</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Long-eared Owl <i>asio otus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Pectoral Sandpiper <i>Calidris melanotos</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9561</p>	Breeds elsewhere
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9398</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/9478</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9431</p>	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 ["Supplemental](#)

[Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

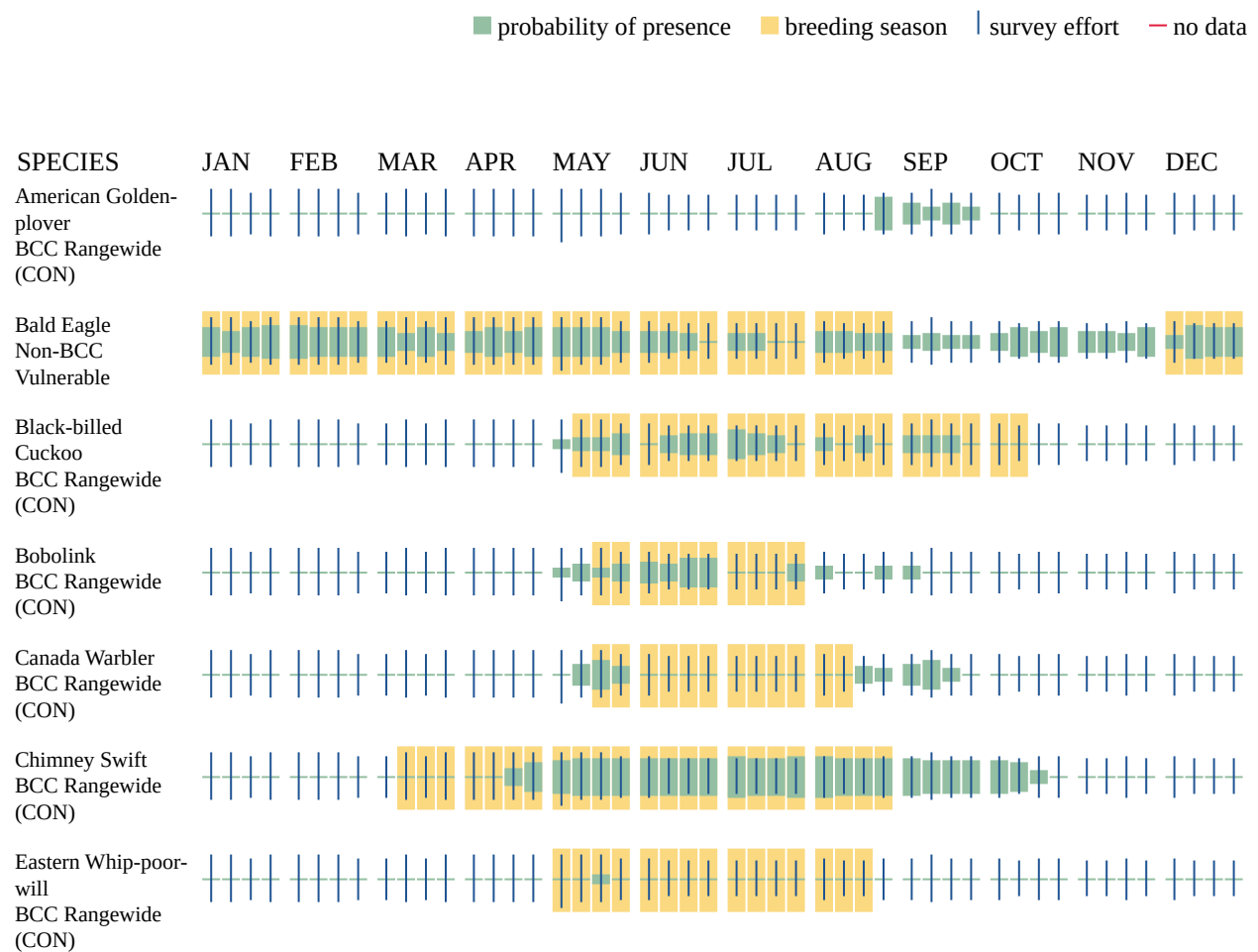
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email: wade.rose@ohm-advisors.com

Phone: 2482914573



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 04N, Range 02W, Section 14 and Ingham County



Query Results Generated on Apr 09, 2024

Displaying Record 1 to 10 of 10 Records Found

Database Updated on Apr 01, 2024

[New Search](#)
[Refine Search](#)
[◀ Previous 25 Records](#)
[Next 25 Records ▶](#)

Abstract	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	Blue-eyed Mary	Collinsia verna	T		1995-05-19			Lansing/Trowbridge Woods		04N	02W	8, 9, 10, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26	Ingham
	Cattail sedge	Carex typhina	T		2021-07-30	Plant	M	SE Lansing	Billington, C. 1923. MICH,BLH	04N	02W	14, 15, 16, 21, 22, 23, 24, 26, 27, 28, 34	Ingham
	False hop sedge	Carex lupuliformis	T		1891-07	Plant	GX	MICHIGAN STATE UNIVERSITY		04N	02W	12, 13, 14, 23, 24	Ingham
	Indiana bat	Myotis sodalis	E	LE	1974-10-11	Animal	GX	Lansing	Kurta, A. 1980. Status of the Indiana Bat (Myotis sodalis) in Michigan.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31,	Ingham

	Least shrew	<i>Cryptotis parva</i>	T		1945-11	Animal	GX		Wallace, G.J. 1948. The Barn Owl in Michigan: It's Distribution. Mich. St. Coll. Agr. Exp. Sta. Tech. Bulletin 208.	04N	02W	32, 33, 34, 35, 36 1, 2, 3, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Little brown bat	<i>Myotis lucifugus</i>	T	UR	1958			Lansing	UMMZ online catalog for all collections of the species <i>Myotis lucifugus</i> , downloaded from VertNet (www.vertnet.org) 2015-06-17 for the State of Michigan. Saved in Excel spreadsheet. Also point and polygon shapefiles created from the database catalogue.	04N	02W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T		1895-05-26	Plant	GX	NORTH OF MSU	Skeels, H.C. 1894. May 11 - MSC 26815 (no collection #).	04N	02W	1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	Ingham
	Showy orchis	<i>Galearis spectabilis</i>	T		1877	Plant	GX	LANSING		04N	02W	1, 2, 3, 4, 5, 6,	Ingham

7, 8, 9,
10, 11,
12, 13,
14, 15,
16, 17,
18, 19,
20, 21,
22, 23,
24, 25,
26, 27,
28, 29,
30, 31,
32, 33,
34, 35,
36

Virginia spiderwort Tradescantia virginiana T 1923-06-08 Plant GX EAST LANSING Walpole, B.L. 1923. BLH 04N 02W 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36 Ingham

 Woodland vole Microtus pinetorum SC 1938-07-13 Animal GX Orwoll, H. 1938. #M-15, 18, 88 MS. 04N 02W 1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 33, 34, 35, 36 Ingham

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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:

04/09/2024 14:56:07 UTC

Project code: 2024-0074487

Project Name: Landel Howard and Vine

Subject: Verification letter for the project named 'Landel Howard and Vine' 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 Wade Rose:

The U.S. Fish and Wildlife Service (Service) received on **April 09, 2024** your effect determination(s) for the 'Landel Howard and Vine' (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) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed	No effect
	Endangered	
Whooping Crane (<i>Grus americana</i>)	Experimental	No effect
	Population, Non-Essential	

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 October varies 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.

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.

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) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide 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.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

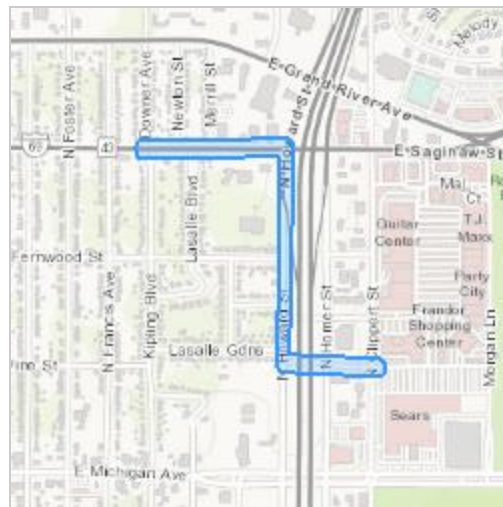
Landel Howard and Vine

2. Description

The following description was provided for the project 'Landel Howard and Vine':

The project proposes the replacement of existing water main within the mapped area using open cut. The project has an anticipated start date of Spring 2025.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.738418499999995,-84.51098905561622,14z>



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. 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

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

Automatically answered

Yes

21. Does your action involve prescribed fire?

No

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

No

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

No

24. 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

25. 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?

Yes

26. 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

27. 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
28. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?
Automatically answered
Yes
29. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?
Yes
30. 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
31. 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
32. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?
No
33. Does the action include removal/modification of an existing bridge or culvert?
No
34. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?
No
35. 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
36. Does the action include herbicide application?
No
37. 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

38. 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

39. 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

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

No

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

Automatically answered

No

42. Will all tree cutting/trimming, prescribed fire, and/or pesticide 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: that 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

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

46. 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: Lansing city (Clinton County, MI; Eaton County, MI; Ingham County, MI)

Name: Wade Rose

Address: 34000 Plymouth Rd

City: Livonia

State: MI

Zip: 48150

Email wade.rose@ohm-advisors.com

Phone: 2482914573

APPENDIX C: WATER RELIABILITY STUDY (2021)
AVAILABLE UPON REQUEST AT BWL OFFICE

APPENDIX D: OPINION OF PROBABLE COSTS

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Installation of one new and two (2) new offset wells
Project 1: Well Installation
 Conceptual Preliminary Final

Date: 2/22/2024
 Project No. _____
 Prepared By: AS
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Bore Hole, 415 Ft and Log/Report	3	LSUM	\$60,000	\$180,000
2	16" Steel Casing, 84 Ft	3	LSUM	\$33,000	\$99,000
3	Plumbness and Alignment Test, Well Development, Step Drawdown Test, Aquifer F	3	LSUM	\$61,000	\$183,000
4	5" Observation Well, 445 Ft	3	LSUM	\$32,000	\$96,000
5	Water Main, Connect to Existing	3	LSUM	\$38,000	\$114,000
6	Water Main, DI, 6 inch, Tr Det G, Modified, Raw, 30 Ft	3	LSUM	\$3,100	\$9,300
7	Pitless Adapter	3	LSUM	\$42,000	\$126,000
8	Submersible Pump with 30HP Motor	3	LSUM	\$35,000	\$105,000
9	Conc, Grade 3500	3	LSUM	\$11,000	\$33,000
10	Stainless Steel Enclosure	3	LSUM	\$13,000	\$39,000
11	Electrical	3	LSUM	\$43,000	\$129,000
12	Water Main, Rem	3	LSUM	\$21,000	\$63,000
13	Abandon Existing Well	3	LSUM	\$15,000	\$45,000
14	Existing Well House and Concrete Pad, Rem	3	LSUM	\$24,000	\$72,000
15	Access Drive	3	LSUM	\$46,000	\$138,000
16	Restoration	3	LSUM	\$10,000	\$30,000
SUBTOTAL:					\$1,461,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	10%			\$147,000
	General Requirements	10%			\$147,000
	Contingencies	30%			\$439,000
TOTAL CONSTRUCTION COST:					\$2,194,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$549,000
TOTAL PROJECT COSTS:					\$549,000
ENGINEER'S OPINION OF PROJECT COST					\$2,750,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Ammonia Conversion to Ammonia Hydroxide - 19.5%
Project 2A: Chemical Feed System at Wise WCP
 Conceptual Preliminary Final

Date: 2/22/2024
 Project No. _____
 Prepared By: AS
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Structure	1	LSUM	\$101,000	\$101,000
2	20 yr Process equipment	1	LSUM	\$137,000	\$137,000
SUBTOTAL:					\$238,000
CONTRACTUAL REQUIREMENTS					
	General Conditions and mobilization	20%			\$48,000
	Contingencies	30%			\$72,000
TOTAL CONSTRUCTION COST:					\$358,000
PROJECT COSTS					
	Design, Construction Engineering, Legal, Admin	25%			\$90,000
TOTAL PROJECT COSTS:					\$90,000
ENGINEER'S OPINION OF PROJECT COST					\$450,000
O & M Cost					
	Chemical				\$175,000

**Project Summary
Engineer's Opinion of Probable Project Cost**



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Ammonia Conversion to Liquid Ammonia sulphate
Project 2B: Chemical Feed System at Wise WCP
 Conceptual Preliminary Final

Date: 2/22/2024
 Project No. 0552-24-0010
 Prepared By: AS
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Structure	1	LSUM	\$99,000	\$99,000
2	20 yr Process equipment	1	LSUM	\$136,000	\$136,000
SUBTOTAL:					\$235,000
CONTRACTUAL REQUIREMENTS					
	General Conditions and mobilization	12%			\$29,000
	Contingencies	30%			\$71,000
TOTAL CONSTRUCTION COST:					\$335,000
PROJECT COSTS					
	Design, Construction Engineering, Legal, Admin	25%			\$84,000
TOTAL PROJECT COSTS:					\$84,000
ENGINEER'S OPINION OF PROJECT COST					\$420,000
O & M Cost					
	Chemical				\$835,000

**Project Summary
Engineer's Opinion of Probable Project Cost**



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Carbon Steel Replacement
Project 3A: Filter Press Service Pipes at Dye WCP
 Conceptual Preliminary Final

Date: 2/22/2024
 Project No. _____
 Prepared By: AS
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	8" Carbon Steel Sch 40	520	per 100ft	\$150	\$78,000
2	8" 90 deg Elbow	21	Nos.	\$350	\$8,000
3	8" tee	13	Nos.	\$200	\$2,600
4	8" 45 deg bend	2	Nos.	\$100	\$200
SUBTOTAL:					\$89,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	10%			\$9,000
	General Requirements	10%			\$9,000
	Contingencies	30%			\$27,000
TOTAL CONSTRUCTION COST:					\$134,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$34,000
TOTAL PROJECT COSTS:					\$34,000
ENGINEER'S OPINION OF PROJECT COST					\$170,000

**Project Summary
Engineer's Opinion of Probable Project Cost**



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Stainless steel Replacement
Project 3B: Filter Press Service Pipes at Dye WCP
 Conceptual Preliminary Final

Date: 2/22/2024
 Project No. _____
 Prepared By: AS
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	8" Stainless Steel	520	per 100ft	\$275	\$143,000
2	8" 90 deg Elbow	21	Nos.	\$365	\$8,000
3	8" tee	13	Nos.	\$875	\$11,400
4	8" 45 deg bend	2	Nos.	\$350	\$700
SUBTOTAL:					\$163,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	10%			\$17,000
	General Requirements	10%			\$17,000
	Contingencies	30%			\$49,000
TOTAL CONSTRUCTION COST:					\$246,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$62,000
TOTAL PROJECT COSTS:					\$62,000
ENGINEER'S OPINION OF PROJECT COST					\$310,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Refurbish Cedar Pump 4
Project 4A: Cedar Pump 4
 Conceptual Preliminary Final

Date: 2/22/2024
 Project No. 0552-24-0010
 Prepared By: AS
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Pump rebuild and motor unwiring from BWL	1	LSUM	\$27,000	\$27,000
2	Motor rewired	1	LSUM	\$150,000	\$150,000
3	VFD, 800 HP + installation	1	LSUM	\$218,000	\$218,000
4	Conduit and Wiring	1	LSUM	\$20,000	\$20,000
SUBTOTAL:					\$415,000
CONTRACTUAL REQUIREMENTS					
	General Conditions and mobilization	20%			\$83,000
	Contingencies	30%			\$125,000
TOTAL CONSTRUCTION COST:					\$623,000
PROJECT COSTS					
	Design, Construction Engineering, Legal, Admin	25%			\$156,000
TOTAL PROJECT COSTS:					\$156,000
ENGINEER'S OPINION OF PROJECT COST					\$780,000

**Project Summary
Engineer's Opinion of Probable Project Cost**



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Replace Cedar Pump 4
Project 4B: Cedar Pump 4
 Conceptual Preliminary Final

Date: 2/22/2024
 Project No. 0552-24-0010
 Prepared By: AS
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	3.8 MGD @ 150TDH pump with 150 HP motor	1	LSUM	\$81,000	\$81,000
2	Valves (isolation valves and check valves)	1	LSUM	\$85,000	\$85,000
3	VFD, 150 HP with installation	1	LSUM	\$60,000	\$60,000
4	Conduit and Wiring	1	LSUM	\$20,000	\$20,000
SUBTOTAL:					\$246,000
CONTRACTUAL REQUIREMENTS					
	General Conditions and mobilization	20%			\$50,000
	Contingencies	30%			\$74,000
TOTAL CONSTRUCTION COST:					\$370,000
PROJECT COSTS					
	Design, Construction Engineering, Legal, Admin	25%			\$93,000
TOTAL PROJECT COSTS:					\$93,000
ENGINEER'S OPINION OF PROJECT COST					\$470,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Refurbish North reservoir at Dye WCP
Project 5: North Reservoir at Dye WCP
 Conceptual Preliminary Final

Date: 2/22/2024
 Project No. _____
 Prepared By: AS
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Interior Spall repair	1	LSUM	\$11,000	\$11,000
2	Interior piping repaint	1	LSUM	\$31,000	\$31,000
3	Exterior membrane repair	1	LSUM	\$11,000	\$11,000
4	Overflow pipe modification	1	LSUM	\$31,000	\$31,000
5	Fall prevention devices	1	LSUM	\$6,100	\$6,100
6	Seal sidewall penetrations	1	LSUM	\$1,100	\$1,100
SUBTOTAL:					\$91,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	10%			\$10,000
	General Requirements	10%			\$10,000
	Contingencies	30%			\$28,000
TOTAL CONSTRUCTION COST:					\$139,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$35,000
TOTAL PROJECT COSTS:					\$35,000
ENGINEER'S OPINION OF PROJECT COST					\$180,000

**Project Summary
Engineer's Opinion of Probable Project Cost**



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Open Cut Water Main Installation
Project 6A: Sunset Loop
 Conceptual Preliminary Final

Date: 2/22/2024
 Project No. _____
 Prepared By: KLC
 Reviewer: AKB
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$29,000	\$29,000
2	Audio Video Route Survey	1	LSUM	\$5,000	\$5,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$19,000	\$19,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$8,000	\$8,000
5	Water Main, CL-54, DI, 12 inch, Pavement	550	Ft	\$235	\$129,250
6	Water Main, CL-54, DI, 12 inch, Greenbelt	200	Ft	\$220	\$44,000
7	Water Main, CL-54, DI, 12 inch, Directionall Drill	350	Ft	\$340	\$119,000
8	Fire Hydrant	3	Ea	\$10,000	\$30,000
9	Gate Valve and Well, 12 inch	4	Ea	\$8,000	\$32,000
10	Connection to Existing Water Main	2	Ea	\$5,500	\$11,000
11	Restoration	50%		\$365,250	\$182,625
SUBTOTAL:					\$609,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$49,000
	General Requirements	4%			\$25,000
	Contingencies	20%			\$122,000
TOTAL CONSTRUCTION COST:					\$805,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$202,000
	Finance and Legal	5%			\$41,000
	Geotechnical Services	1.5%			\$13,000
TOTAL PROJECT COSTS:					\$256,000
ENGINEER'S OPINION OF PROJECT COST					\$1,070,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Directional Drill Water Main Installation
Project 6B: Sunset Loop
 Conceptual Preliminary Final

Date: 2/22/2024
 Project No. _____
 Prepared By: KLC
 Reviewer: AKB
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$34,000	\$34,000
2	Audio Video Route Survey	1	LSUM	\$5,000	\$5,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$23,000	\$23,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$11,000	\$11,000
5	Water Main, CL-54, DI, 12 inch, Directionall Drill	1,100	Ft	\$340	\$374,000
6	Fire Hydrant	3	Ea	\$10,000	\$30,000
7	Gate Valve and Well, 12 inch	4	Ea	\$8,000	\$32,000
8	Connection to Existing Water Main	2	Ea	\$5,500	\$11,000
9	Restoration	40%		\$447,000	\$178,800
SUBTOTAL:					\$699,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$56,000
	General Requirements	4%			\$28,000
	Contingencies	20%			\$140,000
TOTAL CONSTRUCTION COST:					\$923,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$231,000
	Finance and Legal	5%			\$47,000
	Geotechnical Services	1.5%			\$14,000
TOTAL PROJECT COSTS:					\$292,000
ENGINEER'S OPINION OF PROJECT COST					\$1,220,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Open Cut Water Main Installation
Project 7A: Bath Loop
 Conceptual Preliminary Final

Date: 2/22/2024
 Project No. _____
 Prepared By: KLC
 Reviewer: AKB
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$53,000	\$53,000
2	Audio Video Route Survey	1	LSUM	\$10,000	\$10,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$34,000	\$34,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$22,000	\$22,000
5	Water Main, CL-54, DI, 12 inch, Pavement	1,700	Ft	\$235	\$399,500
6	Water Main, CL-54, DI, 12 inch, Directional Drill	500	Ft	\$340	\$170,000
7	Fire Hydrant	4	Ea	\$10,000	\$40,000
8	Gate Valve and Well, 12 inch	4	Ea	\$8,000	\$32,000
9	Connection to Existing Water Main	2	Ea	\$5,500	\$11,000
10	Restoration	50%		\$652,500	\$326,250
SUBTOTAL:					\$1,098,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$88,000
	General Requirements	4%			\$44,000
	Contingencies	20%			\$220,000
TOTAL CONSTRUCTION COST:					\$1,450,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$363,000
	Finance and Legal	5%			\$73,000
	Geotechnical Services	1.5%			\$22,000
TOTAL PROJECT COSTS:					\$458,000
ENGINEER'S OPINION OF PROJECT COST					\$1,910,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Directional Drill Water Main Installation
Project 7B: Bath Loop
 Conceptual Preliminary Final

Date: 2/22/2024
 Project No. _____
 Prepared By: KLC
 Reviewer: AKB
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$62,000	\$62,000
2	Audio Video Route Survey	1	LSUM	\$10,000	\$10,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$43,000	\$43,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$22,000	\$22,000
5	Water Main, CL-54, DI, 12 inch, Directionall Drill	2,200	Ft	\$340	\$748,000
6	Fire Hydrant	4	Ea	\$10,000	\$40,000
7	Gate Valve and Well, 12 inch	4	Ea	\$8,000	\$32,000
8	Connection to Existing Water Main	2	Ea	\$5,500	\$11,000
9	Restoration	40%		\$831,000	\$332,400
SUBTOTAL:					\$1,300,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$104,000
	General Requirements	4%			\$52,000
	Contingencies	20%			\$260,000
TOTAL CONSTRUCTION COST:					\$1,716,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$429,000
	Finance and Legal	5%			\$86,000
	Geotechnical Services	1.5%			\$26,000
TOTAL PROJECT COSTS:					\$541,000
ENGINEER'S OPINION OF PROJECT COST					\$2,260,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Open Cut Water Main Installation
Project 8A: CSO19
 Conceptual Preliminary Final

Date: 2/22/2024
 Project No. _____
 Prepared By: KLC
 Reviewer: AKB
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$148,000	\$148,000
2	Audio Video Route Survey	1	LSUM	\$20,000	\$20,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$96,000	\$96,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$76,000	\$76,000
5	Water Main, CL-54, DI, 8 inch, Pavement	5,588	Ft	\$190	\$1,061,720
6	Water Main, CL-54, DI, 12 inch, Pavement	2,000	Ft	\$235	\$470,000
7	Fire Hydrant	9	Ea	\$10,000	\$90,000
8	Gate Valve and Well, 8 inch	6	Ea	\$7,000	\$42,000
9	Gate Valve and Well, 12 inch	6	Ea	\$8,000	\$48,000
10	Connection to Existing Water Main	22	Ea	\$5,500	\$121,000
11	Restoration	50%		\$1,832,720	\$916,360
SUBTOTAL:					\$3,089,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$248,000
	General Requirements	4%			\$124,000
	Contingencies	20%			\$618,000
TOTAL CONSTRUCTION COST:					\$4,079,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$1,020,000
	Finance and Legal	5%			\$204,000
	Geotechnical Services	1.5%			\$62,000
TOTAL PROJECT COSTS:					\$1,286,000
ENGINEER'S OPINION OF PROJECT COST					\$5,370,000

**Project Summary
Engineer's Opinion of Probable Project Cost**



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Directional Drill Water Main Installation
Project 8B: CSO19
 Conceptual Preliminary Final

Date: 2/22/2024
 Project No. _____
 Prepared By: KLC
 Reviewer: AKB
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$141,000	\$141,000
2	Audio Video Route Survey	1	LSUM	\$20,000	\$20,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$133,000	\$133,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$76,000	\$76,000
5	Water Main, CL-54, DI, 8 inch, Directionall Drill	5,588	Ft	\$285	\$1,592,580
6	Water Main, CL-54, DI, 12 inch, Directionall Drill	2,000	Ft	\$340	\$680,000
7	Fire Hydrant	9	Ea	\$10,000	\$90,000
8	Gate Valve and Well, 8 inch	6	Ea	\$7,000	\$42,000
9	Gate Valve and Well, 12 inch	6	Ea	\$8,000	\$48,000
10	Connection to Existing Water Main	22	Ea	\$5,500	\$121,000
11	Restoration	40%		\$2,573,580	\$1,029,432
SUBTOTAL:					\$3,973,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$318,000
	General Requirements	4%			\$159,000
	Contingencies	20%			\$795,000
TOTAL CONSTRUCTION COST:					\$5,245,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$1,312,000
	Finance and Legal	5%			\$263,000
	Geotechnical Services	1.5%			\$79,000
TOTAL PROJECT COSTS:					\$1,654,000
ENGINEER'S OPINION OF PROJECT COST					\$6,900,000

**Project Summary
Engineer's Opinion of Probable Project Cost**



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Open Cut Water Main Installation
Project 9A: Pennsylvania
 Conceptual Preliminary Final

Date: 2/22/2024
 Project No. _____
 Prepared By: KLC
 Reviewer: AKB
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$76,000	\$76,000
2	Audio Video Route Survey	1	LSUM	\$15,000	\$15,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$49,000	\$49,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$22,000	\$22,000
5	Water Main, CL-54, DI, 12 inch, Pavement	2,165	Ft	\$235	\$508,775
6	Water Main, CL-54, DI, 12 inch, Directionall Drill	850	Ft	\$340	\$289,000
7	Fire Hydrant	7	Ea	\$10,000	\$70,000
8	Gate Valve and Well, 12 inch	4	Ea	\$8,000	\$32,000
9	Connection to Existing Water Main	8	Ea	\$5,500	\$44,000
10	Restoration	50%		\$943,775	\$471,888
SUBTOTAL:					\$1,578,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$127,000
	General Requirements	4%			\$64,000
	Contingencies	20%			\$316,000
TOTAL CONSTRUCTION COST:					\$2,085,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$522,000
	Finance and Legal	5%			\$105,000
	Geotechnical Services	1.5%			\$32,000
TOTAL PROJECT COSTS:					\$659,000
ENGINEER'S OPINION OF PROJECT COST					\$2,750,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Directional Drill Water Main Installation
Project 9B: Pennsylvania
 Conceptual Preliminary Final

Date: 2/22/2024
 Project No. _____
 Prepared By: KLC
 Reviewer: AKB
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$88,000	\$88,000
2	Audio Video Route Survey	1	LSUM	\$15,000	\$15,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$61,000	\$61,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$31,000	\$31,000
5	Water Main, CL-54, DI, 12 inch, Directionall Drill	3,015	Ft	\$340	\$1,025,100
6	Fire Hydrant	7	Ea	\$10,000	\$70,000
7	Gate Valve and Well, 12 inch	4	Ea	\$8,000	\$32,000
8	Connection to Existing Water Main	8	Ea	\$5,500	\$44,000
9	Restoration	40%		\$1,171,100	\$468,440
SUBTOTAL:					\$1,835,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$147,000
	General Requirements	4%			\$74,000
	Contingencies	20%			\$367,000
TOTAL CONSTRUCTION COST:					\$2,423,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$606,000
	Finance and Legal	5%			\$122,000
	Geotechnical Services	1.5%			\$37,000
TOTAL PROJECT COSTS:					\$765,000
ENGINEER'S OPINION OF PROJECT COST					\$3,190,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Open Cut Water Main Installation
Project 10A: Mt. Hope
 Conceptual Preliminary Final

Date: 2/22/2024
 Project No. _____
 Prepared By: KLC
 Reviewer: AKB
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$160,000	\$160,000
2	Audio Video Route Survey	1	LSUM	\$15,000	\$15,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$121,000	\$121,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$28,000	\$28,000
5	Water Main, CL-54, DI, 24 inch, Pavement	2,750	Ft	\$465	\$1,278,750
6	Water Main, CL-54, DI, 24 inch, Directionall Drill	1,250	Ft	\$630	\$787,500
7	Fire Hydrant	8	Ea	\$10,000	\$80,000
8	Gate Valve and Well, 24 inch	5	Ea	\$25,000	\$125,000
9	Connection to Existing Water Main	9	Ea	\$13,000	\$117,000
10	Restoration	50%		\$1,278,750	\$639,375
SUBTOTAL:					\$3,352,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$269,000
	General Requirements	4%			\$135,000
	Contingencies	20%			\$671,000
TOTAL CONSTRUCTION COST:					\$4,427,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$1,107,000
	Finance and Legal	5%			\$222,000
	Geotechnical Services	1.5%			\$67,000
TOTAL PROJECT COSTS:					\$1,396,000
ENGINEER'S OPINION OF PROJECT COST					\$5,830,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Directional Drill Water Main Installation
Project 10B: Mt. Hope
 Conceptual Preliminary Final

Date: 2/22/2024
 Project No. _____
 Prepared By: KLC
 Reviewer: AKB
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$203,000	\$203,000
2	Audio Video Route Survey	1	LSUM	\$15,000	\$15,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$145,000	\$145,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$40,000	\$40,000
5	Water Main, CL-54, DI, 24 inch, Directionall Drill	4,000	Ft	\$630	\$2,520,000
6	Fire Hydrant	8	Ea	\$10,000	\$80,000
7	Gate Valve and Well, 24 inch	5	Ea	\$25,000	\$125,000
8	Connection to Existing Water Main	9	Ea	\$13,000	\$117,000
9	Restoration	40%		\$2,520,000	\$1,008,000
SUBTOTAL:					\$4,253,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$341,000
	General Requirements	4%			\$171,000
	Contingencies	20%			\$851,000
TOTAL CONSTRUCTION COST:					\$5,616,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$1,404,000
	Finance and Legal	5%			\$281,000
	Geotechnical Services	1.5%			\$85,000
TOTAL PROJECT COSTS:					\$1,770,000
ENGINEER'S OPINION OF PROJECT COST					\$7,390,000

**Project Summary
Engineer's Opinion of Probable Project Cost**



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Installation of three (3) offset wells per year FY26 through FY29
Project 11: Well Installation
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	FY26 Well Construction	3	LSUM	\$341,300	\$1,023,900
2	FY26 Well Electrical	3	LSUM	\$44,800	\$134,400
3	FY26 Well Water Main, Rem	3	LSUM	\$21,900	\$65,700
4	FY26 Well Abandon Existing Well	3	LSUM	\$15,600	\$46,800
5	FY26 Well Existing Well House and Concrete Pad, Rem	3	LSUM	\$25,000	\$75,000
6	FY26 Well Access Drive	3	LSUM	\$47,900	\$143,700
7	FY26 Well Restoration	3	LSUM	\$10,400	\$31,200
8	FY27 Well Construction	3	LSUM	\$354,900	\$1,064,700
9	FY27 Well Electrical	3	LSUM	\$46,600	\$139,800
10	FY27 Well Water Main, Rem	3	LSUM	\$22,800	\$68,400
11	FY27 Well Abandon Existing Well	3	LSUM	\$16,300	\$48,900
12	FY27 Well Existing Well House and Concrete Pad, Rem	3	LSUM	\$26,000	\$78,000
13	FY27 Well Access Drive	3	LSUM	\$49,800	\$149,400
14	FY27 Well Restoration	3	LSUM	\$10,900	\$32,700
15	FY28 Well Construction	3	LSUM	\$369,100	\$1,107,300
16	FY28 Well Electrical	3	LSUM	\$48,400	\$145,200
17	FY28 Well Water Main, Rem	3	LSUM	\$23,700	\$71,100
18	FY28 Well Abandon Existing Well	3	LSUM	\$16,900	\$50,700
19	FY28 Well Existing Well House and Concrete Pad, Rem	3	LSUM	\$27,000	\$81,000
20	FY28 Well Access Drive	3	LSUM	\$51,800	\$155,400
21	FY28 Well Restoration	3	LSUM	\$11,300	\$33,900
22	FY29 Well Construction	3	LSUM	\$383,900	\$1,151,700
23	FY29 Well Electrical	3	LSUM	\$50,400	\$151,200
24	FY29 Well Water Main, Rem	3	LSUM	\$24,600	\$73,800
25	FY29 Well Abandon Existing Well	3	LSUM	\$17,600	\$52,800
26	FY29 Well Existing Well House and Concrete Pad, Rem	3	LSUM	\$28,100	\$84,300
27	FY29 Well Access Drive	3	LSUM	\$53,900	\$161,700
28	FY29 Well Restoration	3	LSUM	\$11,700	\$35,100
SUBTOTAL:					\$6,458,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	10%			\$646,000
	General Requirements	10%			\$646,000
	Contingencies	30%			\$1,938,000
TOTAL CONSTRUCTION COST:					\$9,688,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$2,422,000
TOTAL PROJECT COSTS:					\$2,422,000
ENGINEER'S OPINION OF PROJECT COST					\$12,110,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Refurbish Secondary Basin No. 1 and 2 at Dye WCP - FY26
Project 12: Secondary Basin No. 1 and 2 at Dye WCP
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Chain and flight equipment	2	LSUM	\$300,000	\$600,000
2	Sprocket Motion monitoring, with monitoring only panel	2	LSUM	\$61,000	\$122,000
3	301SS Gritshield collector and drive chain protector	2	LSUM	\$6,000	\$12,000
4	Ball detent torque limiters	2	LSUM	\$30,000	\$60,000
5	Installation (6 days and 8 hrs time period)	2	LSUM	\$50,000	\$100,000
SUBTOTAL:					\$894,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	10%			\$90,000
	General Requirements	10%			\$90,000
	Contingencies	30%			\$269,000
TOTAL CONSTRUCTION COST:					\$1,343,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$336,000
TOTAL PROJECT COSTS:					\$336,000
ENGINEER'S OPINION OF PROJECT COST					\$1,680,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Replace Radios at Wells - FY26
Project 13: Replace Radios at Wells
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Motorola Solutions Inc Capacity Max Trunked Radio System	1	LSUM	\$3,536,000	\$3,536,000
	Includes:				
	(2) Redundant Sites with (8) SLR 8000 800 MHz Repeaters Per Site				
	(8) Channel TX Combiner and Multi-Coupler				
	Capacity Max Server, Router and Switch				
	Smart Pwer Monitor and Power Distribution Unit				
	All Equipment in 7.5 Fout Post Rack				
	Capacity Max Trunked System Controller License				
	Capacity Max Site Connection License				
	Capacity Max System Advisor License				
	Capacity Max System Advisor NBI License				
	Capacity Max Data Gateway Connection License				
	PC and Monitor				
	GW3-Trbo with Capacity Max Licensing				
	Spare SLR 8000 800MHz Repeater				
	Spare Capacity Max Server, Switch and Router				
	Spare Capacity Max License				
	Wave On-Cloud Radio Interface Gateway				
	Wave On-Cloud Subscriber Licensing				
	Edge Node Enabler Package				
	SUBTOTAL:				\$3,536,000
	CONTRACTUAL REQUIREMENTS				
	General Conditions	10%			\$354,000
	General Requirements	10%			\$354,000
	Contingencies	30%			\$1,061,000
	TOTAL CONSTRUCTION COST:				\$5,305,000
	PROJECT COSTS				
	Design and Construction Engineering	5%			\$266,000
	TOTAL PROJECT COSTS:				\$266,000
	ENGINEER'S OPINION OF PROJECT COST				\$5,580,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Consolidation of External System - FY26
Project 14A: State Secondary Complex Consolidation
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$239,000	\$239,000
2	Audio Video Route Survey	1	LSUM	\$5,000	\$5,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$156,000	\$156,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$75,000	\$75,000
5	Water Main, CL-54, DI, 16 inch, Pavement	6,800	Ft	\$325	\$2,210,000
6	Water Main, CL-54, DI, 16 inch, Directionall Drill	700	Ft	\$450	\$315,000
7	Fire Hydrant	15	Ea	\$10,500	\$157,500
8	Gate Valve and Well, 16 inch	16	Ea	\$21,000	\$336,000
9	Connection to Existing Water Main, 16-inch	1	Ea	\$7,250	\$7,250
10	Restoration	50%		\$3,025,750	\$1,512,875
SUBTOTAL:					\$5,014,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$402,000
	General Requirements	4%			\$201,000
	Contingencies	20%			\$1,003,000
TOTAL CONSTRUCTION COST:					\$6,620,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$1,655,000
	Finance and Legal	5%			\$331,000
	Geotechnical Services	1.5%			\$100,000
TOTAL PROJECT COSTS:					\$2,086,000
ENGINEER'S OPINION OF PROJECT COST					\$8,710,000

**Project Summary
Engineer's Opinion of Probable Project Cost**



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Consolidation of External System - FY26
Project 14B: State Secondary Complex Consolidation
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$286,000	\$286,000
2	Audio Video Route Survey	1	LSUM	\$5,000	\$5,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$198,000	\$198,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$75,000	\$75,000
5	Water Main, CL-54, DI, 16 inch, Directional Drill	7,500	Ft	\$450	\$3,375,000
6	Fire Hydrant	15	Ea	\$10,500	\$157,500
7	Gate Valve and Well, 16 inch	16	Ea	\$21,000	\$336,000
8	Connection to Existing Water Main, 16 inch	1	Ea	\$7,250	\$7,250
9	Restoration	40%		\$3,875,750	\$1,550,300
SUBTOTAL:					\$5,990,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$480,000
	General Requirements	4%			\$240,000
	Contingencies	20%			\$1,198,000
TOTAL CONSTRUCTION COST:					\$7,908,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$1,977,000
	Finance and Legal	5%			\$396,000
	Geotechnical Services	1.5%			\$119,000
TOTAL PROJECT COSTS:					\$2,492,000
ENGINEER'S OPINION OF PROJECT COST					\$10,400,000

**Project Summary
Engineer's Opinion of Probable Project Cost**



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Consolidation of External System - FY26
Project 15A: Windsor Estates Consolidation
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$70,000	\$70,000
2	Audio Video Route Survey	1	LSUM	\$10,000	\$10,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$48,000	\$48,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$24,000	\$24,000
5	Water Main, CL-54, DI, 12 inch, Pavement	1,750	Ft	\$250	\$437,500
6	Water Main, CL-54, DI, 12 inch, Greenbelt	650	Ft	\$225	\$146,250
7	Water Main, CL-54, DI, 12 inch, Directional Drill	600	Ft	\$350	\$210,000
8	Fire Hydrant	6	Ea	\$10,500	\$63,000
9	Gate Valve and Well, 12 inch	7	Ea	\$8,350	\$58,450
10	Connection to Existing Water Main, 16 inch	2	Ea	\$7,250	\$14,500
11	Restoration	40%		\$929,700	\$371,880
SUBTOTAL:					\$1,454,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$117,000
	General Requirements	4%			\$59,000
	Contingencies	20%			\$291,000
TOTAL CONSTRUCTION COST:					\$1,921,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$481,000
	Finance and Legal	5%			\$97,000
	Geotechnical Services	1.5%			\$29,000
TOTAL PROJECT COSTS:					\$607,000
ENGINEER'S OPINION OF PROJECT COST					\$2,530,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Consolidation of External System - FY26
Project 15B: Windsor Estates Consolidation
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$89,000	\$89,000
2	Audio Video Route Survey	1	LSUM	\$10,000	\$10,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$61,000	\$61,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$30,000	\$30,000
5	Water Main, CL-54, DI, 12 inch, Directional Drill	3,000	Ft	\$350	\$1,050,000
6	Fire Hydrant	6	Ea	\$10,500	\$63,000
7	Gate Valve and Well, 12 inch	7	Ea	\$8,350	\$58,450
8	Connection to Existing Water Main, 16 inch	2	Ea	\$7,250	\$14,500
9	Restoration	40%		\$1,185,950	\$474,380
SUBTOTAL:					\$1,850,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$148,000
	General Requirements	4%			\$74,000
	Contingencies	20%			\$370,000
TOTAL CONSTRUCTION COST:					\$2,442,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$611,000
	Finance and Legal	5%			\$123,000
	Geotechnical Services	1.5%			\$37,000
TOTAL PROJECT COSTS:					\$771,000
ENGINEER'S OPINION OF PROJECT COST					\$3,220,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Open Cut Water Main Installation - FY26
Project 16A: CSO 026
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$326,000	\$326,000
2	Audio Video Route Survey	1	LSUM	\$15,000	\$15,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$213,000	\$213,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$156,000	\$156,000
5	Water Main, CL-54, DI, 8 inch, Pavement	14,650	Ft	\$200	\$2,930,000
6	Water Main, CL-54, DI, 12 inch, Pavement	675	Ft	\$250	\$168,750
7	Water Main, CL-54, DI, 14 inch, Pavement	250	Ft	\$275	\$68,750
8	Water Main, CL-54, DI, 8 inch, Directional Drill	450	Ft	\$300	\$135,000
9	Fire Hydrant	31	Ea	\$10,500	\$325,500
10	Gate Valve and Well, 8 inch	47	Ea	\$7,250	\$340,750
11	Gate Valve and Well, 12 inch	3	Ea	\$8,350	\$25,050
12	Gate Valve and Well, 14 inch	2	Ea	\$10,500	\$21,000
13	Connection to Existing Water Main, 8 inch	15	Ea	\$4,650	\$69,750
14	Restoration	50%		\$4,084,550	\$2,042,275
SUBTOTAL:					\$6,837,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$547,000
	General Requirements	4%			\$274,000
	Contingencies	20%			\$1,368,000
TOTAL CONSTRUCTION COST:					\$9,026,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$2,257,000
	Finance and Legal	5%			\$452,000
	Geotechnical Services	1.5%			\$136,000
TOTAL PROJECT COSTS:					\$2,845,000
ENGINEER'S OPINION OF PROJECT COST					\$11,880,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Directional Drill Water Main Installation - FY26
Project 16B: CSO 026
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$405,000	\$405,000
2	Audio Video Route Survey	1	LSUM	\$15,000	\$15,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$277,000	\$277,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$151,000	\$151,000
5	Water Main, CL-54, DI, 8 inch, Directionall Drill	15,100	Ft	\$300	\$4,530,000
6	Water Main, CL-54, DI, 12 inch, Directionall Drill	675	Ft	\$350	\$236,250
7	Water Main, CL-54, DI, 14 inch, Directionall Drill	250	Ft	\$400	\$100,000
8	Fire Hydrant	31	Ea	\$10,500	\$325,500
9	Gate Valve and Well, 8 inch	3	Ea	\$7,250	\$21,750
10	Gate Valve and Well, 12 inch	2	Ea	\$8,350	\$16,700
11	Gate Valve and Well, 14 inch	15	Ea	\$10,500	\$157,500
12	Connection to Existing Water Main, 8 inch	15	Ea	\$4,650	\$69,750
13	Restoration	40%		\$5,457,450	\$2,182,980
SUBTOTAL:					\$8,488,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$680,000
	General Requirements	4%			\$340,000
	Contingencies	20%			\$1,698,000
TOTAL CONSTRUCTION COST:					\$11,206,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$2,802,000
	Finance and Legal	5%			\$561,000
	Geotechnical Services	1.5%			\$169,000
TOTAL PROJECT COSTS:					\$3,532,000
ENGINEER'S OPINION OF PROJECT COST					\$14,740,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Refurbish South Reservoir at Dye WCP - FY27
Project 17: South Reservoir at Dye WCP
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Interior Spall Repair	1	LSUM	\$118,200	\$118,200
2	Interior Piping Paint	1	LSUM	\$36,300	\$36,300
3	Exterior Spall Repair	1	LSUM	\$2,400	\$2,400
4	Exterior Crack Repair	1	LSUM	\$2,400	\$2,400
5	Exterior Membrane Repair	1	LSUM	\$12,900	\$12,900
6	Overflow Pipe Modification	1	LSUM	\$36,300	\$36,300
7	Fall prevention devices	1	LSUM	\$4,700	\$4,700
SUBTOTAL:					\$213,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	10%			\$22,000
	General Requirements	10%			\$22,000
	Contingencies	30%			\$64,000
TOTAL CONSTRUCTION COST:					\$321,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$81,000
TOTAL PROJECT COSTS:					\$81,000
ENGINEER'S OPINION OF PROJECT COST					\$410,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Dye WCP Filter Media Replacement - FY27
Project 18: Replace Filter Media at Dye WCP
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Filter Media Replacement to GAC	1	LSUM	\$1,006,000	\$1,006,000
SUBTOTAL:					\$1,006,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	10%			\$101,000
	General Requirements	10%			\$101,000
	Contingencies	30%			\$302,000
TOTAL CONSTRUCTION COST:					\$1,510,000
PROJECT COSTS					
	Design and Construction Engineering	10%			\$151,000
TOTAL PROJECT COSTS:					\$151,000
ENGINEER'S OPINION OF PROJECT COST					\$1,670,000

**Project Summary
Engineer's Opinion of Probable Project Cost**



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Wise WCP Filter Media Replacement - FY27
Project 19: Replace Filter Media at Wise WCP
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Filter Media Replacement to GAC	1	LSUM	\$1,006,000	\$1,006,000
SUBTOTAL:					\$1,006,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	10%			\$101,000
	General Requirements	10%			\$101,000
	Contingencies	30%			\$302,000
TOTAL CONSTRUCTION COST:					\$1,510,000
PROJECT COSTS					
	Design and Construction Engineering	10%			\$151,000
TOTAL PROJECT COSTS:					\$151,000
ENGINEER'S OPINION OF PROJECT COST					\$1,670,000

**Project Summary
Engineer's Opinion of Probable Project Cost**



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Abel Pump Replacement - FY27
Project 20: Replace Abel Pump No. 3 & 4
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Abel High Service Pump No. 3 & 4 Replacement	2	LSUM	\$790,000	\$1,580,000
	SUBTOTAL:				\$1,580,000
	CONTRACTUAL REQUIREMENTS				
	General Conditions and mobilization	20%			\$316,000
	Contingencies	30%			\$474,000
		TOTAL CONSTRUCTION COST:			\$2,370,000
	PROJECT COSTS				
	Design, Construction Engineering, Legal, Admin	25%			\$593,000
		TOTAL PROJECT COSTS:			\$593,000
	ENGINEER'S OPINION OF PROJECT COST				\$2,970,000

**Project Summary
Engineer's Opinion of Probable Project Cost**



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Consolidation of External System - FY27
Project 21A: Grand Pointe Subdivision Consolidation
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$102,000	\$102,000
2	Audio Video Route Survey	1	LSUM	\$20,000	\$20,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$66,000	\$66,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$51,000	\$51,000
5	Water Main, CL-54, DI, 8 inch, Pavement	5,085	Ft	\$210	\$1,067,850
6	Fire Hydrant	11	Ea	\$10,820	\$119,020
7	Gate Valve and Well, 8 inch	10	Ea	\$7,580	\$75,800
8	Connection to Existing Water Main, 8 inch	1	Ea	\$4,870	\$4,870
9	Restoration	50%		\$1,267,540	\$633,770
SUBTOTAL:					\$2,140,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$172,000
	General Requirements	4%			\$86,000
	Contingencies	20%			\$428,000
TOTAL CONSTRUCTION COST:					\$2,826,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$707,000
	Finance and Legal	5%			\$142,000
	Geotechnical Services	1.5%			\$43,000
TOTAL PROJECT COSTS:					\$892,000
ENGINEER'S OPINION OF PROJECT COST					\$3,720,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Consolidation of External System - FY27
Project 21B: Grand Point Subdivision Consolidation
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$133,000	\$133,000
2	Audio Video Route Survey	1	LSUM	\$20,000	\$20,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$92,000	\$92,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$51,000	\$51,000
5	Water Main, CL-54, DI, 8 inch, Directionall Drill	5,085	Ft	\$310	\$1,576,350
6	Fire Hydrant	11	Ea	\$10,820	\$119,020
7	Gate Valve and Well, 8 inch	10	Ea	\$7,580	\$75,800
8	Connection to Existing Water Main, 8 inch	1	Ea	\$4,870	\$4,870
9	Restoration	40%		\$1,776,040	\$710,416
SUBTOTAL:					\$2,782,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$223,000
	General Requirements	4%			\$112,000
	Contingencies	20%			\$557,000
TOTAL CONSTRUCTION COST:					\$3,674,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$919,000
	Finance and Legal	5%			\$184,000
	Geotechnical Services	1.5%			\$56,000
TOTAL PROJECT COSTS:					\$1,159,000
ENGINEER'S OPINION OF PROJECT COST					\$4,840,000

**Project Summary
Engineer's Opinion of Probable Project Cost**



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Open Cut Water Main Installation - FY27
Project 22A: CSO 022
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$563,000	\$563,000
2	Audio Video Route Survey	1	LSUM	\$15,000	\$15,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$366,000	\$366,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$196,000	\$196,000
5	Water Main, CL-54, DI, 8 inch, Pavement	11,950	Ft	\$210	\$2,509,500
6	Water Main, CL-54, DI, 12 inch, Pavement	2,040	Ft	\$260	\$530,400
7	Water Main, CL-54, DI, 14 inch, Pavement	1,450	Ft	\$290	\$420,500
8	Water Main, CL-54, DI, 16 inch, Pavement	4,125	Ft	\$340	\$1,402,500
9	Water Main, CL-54, DI, 8 inch, Directional Drill	1,550	Ft	\$310	\$480,500
10	Water Main, CL-54, DI, 12 inch, Directional Drill	560	Ft	\$370	\$207,200
11	Fire Hydrant	44	Ea	\$10,820	\$476,080
12	Gate Valve and Well, 8 inch	61	Ea	\$7,580	\$462,380
13	Gate Valve and Well, 12 inch	12	Ea	\$8,660	\$103,920
14	Gate Valve and Well, 14 inch	4	Ea	\$10,820	\$43,280
15	Gate Valve and Well, 16 inch	12	Ea	\$21,640	\$259,680
16	Connection to Existing Water Main, 8 inch	30	Ea	\$4,870	\$146,100
17	Connection to Existing Water Main, 12 inch	9	Ea	\$5,950	\$53,550
18	Connection to Existing Water Main, 14 inch	1	Ea	\$6,490	\$6,490
19	Connection to Existing Water Main, 16 inch	2	Ea	\$7,580	\$15,160
20	Restoration	50%		\$7,117,240	\$3,558,620
SUBTOTAL:					\$11,816,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$946,000
	General Requirements	4%			\$473,000
	Contingencies	20%			\$2,364,000
TOTAL CONSTRUCTION COST:					\$15,599,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$3,900,000
	Finance and Legal	5%			\$780,000
	Geotechnical Services	1.5%			\$234,000
TOTAL PROJECT COSTS:					\$4,914,000
ENGINEER'S OPINION OF PROJECT COST					\$20,520,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Directional Drill Water Main Installation - FY27
Project 22B: CSO 022
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$684,000	\$684,000
2	Audio Video Route Survey	1	LSUM	\$15,000	\$15,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$474,000	\$474,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$217,000	\$217,000
5	Water Main, CL-54, DI, 8 inch, Directional Drill	13,500	Ft	\$310	\$4,185,000
6	Water Main, CL-54, DI, 12 inch, Directional Drill	2,600	Ft	\$370	\$962,000
7	Water Main, CL-54, DI, 14 inch, Directional Drill	1,450	Ft	\$420	\$609,000
8	Water Main, CL-54, DI, 16 inch, Directional Drill	4,125	Ft	\$470	\$1,938,750
9	Fire Hydrant	44	Ea	\$10,820	\$476,080
10	Gate Valve and Well, 8 inch	61	Ea	\$7,580	\$462,380
11	Gate Valve and Well, 12 inch	12	Ea	\$8,660	\$103,920
12	Gate Valve and Well, 14 inch	4	Ea	\$10,820	\$43,280
13	Gate Valve and Well, 16 inch	12	Ea	\$21,640	\$259,680
14	Connection to Existing Water Main, 8 inch	30	Ea	\$4,870	\$146,100
15	Connection to Existing Water Main, 12 inch	9	Ea	\$5,950	\$53,550
16	Connection to Existing Water Main, 14 inch	1	Ea	\$6,490	\$6,490
17	Connection to Existing Water Main, 16 inch	2	Ea	\$7,580	\$15,160
18	Restoration	40%		\$9,261,390	\$3,704,556
SUBTOTAL:					\$14,356,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$1,149,000
	General Requirements	4%			\$575,000
	Contingencies	20%			\$2,872,000
TOTAL CONSTRUCTION COST:					\$18,952,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$4,738,000
	Finance and Legal	5%			\$948,000
	Geotechnical Services	1.5%			\$285,000
TOTAL PROJECT COSTS:					\$5,971,000
ENGINEER'S OPINION OF PROJECT COST					\$24,930,000

**Project Summary
Engineer's Opinion of Probable Project Cost**



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Open Cut Water Main Installation - FY27
Project 23A: Landel System, Grossbeck Area
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$378,560	\$378,560
2	Audio Video Route Survey	1	LSUM	\$16,230	\$16,230
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$246,610	\$246,610
4	Soil Erosion and Sedimentation Control	1	LSUM	\$196,860	\$196,860
5	Water Main, CL-54, DI, 8 inch, Pavement	17,990	Ft	\$210	\$3,777,900
6	Water Main, CL-54, DI, 8 inch, Directionall Drill	150	Ft	\$310	\$46,500
7	Fire Hydrant	37	Ea	\$10,820	\$400,340
8	Gate Valve and Well, 8 inch	72	Ea	\$7,580	\$545,760
9	Connection to Existing Water Main, 8 inch	11	Ea	\$4,870	\$53,570
10	Restoration	50%		\$4,726,710	\$2,363,355
SUBTOTAL:					\$8,026,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$643,000
	General Requirements	4%			\$322,000
	Contingencies	20%			\$1,606,000
TOTAL CONSTRUCTION COST:					\$10,597,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$2,650,000
	Finance and Legal	5%			\$530,000
	Geotechnical Services	1.5%			\$159,000
TOTAL PROJECT COSTS:					\$3,339,000
ENGINEER'S OPINION OF PROJECT COST					\$13,940,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025 - FY27
 Work: Directional Drill Water Main Installation
Project 23B: Landel System, Grossbeck Area
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$489,970	\$489,970
2	Audio Video Route Survey	1	LSUM	\$16,230	\$16,230
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$339,630	\$339,630
4	Soil Erosion and Sedimentation Control	1	LSUM	\$196,860	\$196,860
5	Water Main, CL-54, DI, 8 inch, Directionall Drill	18,140	Ft	\$310	\$5,623,400
6	Fire Hydrant	37	Ea	\$10,820	\$400,340
7	Gate Valve and Well, 8 inch	72	Ea	\$7,580	\$545,760
8	Connection to Existing Water Main, 8 inch	11	Ea	\$4,870	\$53,570
9	Restoration	40%		\$6,590,630	\$2,636,252
SUBTOTAL:					\$10,302,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$825,000
	General Requirements	4%			\$413,000
	Contingencies	20%			\$2,061,000
TOTAL CONSTRUCTION COST:					\$13,601,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$3,401,000
	Finance and Legal	5%			\$681,000
	Geotechnical Services	1.5%			\$205,000
TOTAL PROJECT COSTS:					\$4,287,000
ENGINEER'S OPINION OF PROJECT COST					\$17,890,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Open Cut Water Main Installation - FY28
Project 24A: Kalamazoo Street and Pine Street
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$47,000	\$47,000
2	Audio Video Route Survey	1	LSUM	\$15,000	\$15,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$31,000	\$31,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$19,000	\$19,000
5	Water Main, CL-54, DI, 8 inch, Pavement	1,900	Ft	\$220	\$418,000
6	Fire Hydrant	4	Ea	\$11,250	\$45,000
7	Gate Valve and Well, 8 inch	12	Ea	\$7,880	\$94,560
8	Connection to Existing Water Main, 8 inch	4	Ea	\$5,070	\$20,280
9	Connection to Existing Water Main, 10 inch	1	Ea	\$5,630	\$5,630
10	Restoration	50%		\$571,440	\$285,720
SUBTOTAL:					\$981,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$79,000
	General Requirements	4%			\$40,000
	Contingencies	20%			\$197,000
TOTAL CONSTRUCTION COST:					\$1,297,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$325,000
	Finance and Legal	5%			\$65,000
	Geotechnical Services	1.5%			\$20,000
TOTAL PROJECT COSTS:					\$410,000
ENGINEER'S OPINION OF PROJECT COST					\$1,710,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Directional Drill Water Main Installation - FY28
Project 24A: Kalamazoo Street and Pine Street
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$60,000	\$60,000
2	Audio Video Route Survey	1	LSUM	\$15,000	\$15,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$41,000	\$41,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$19,000	\$19,000
5	Water Main, CL-54, DI, 8 inch, Directionall Drill	1,900	Ft	\$330	\$627,000
6	Fire Hydrant	4	Ea	\$11,250	\$45,000
7	Gate Valve and Well, 8 inch	12	Ea	\$7,880	\$94,560
8	Connection to Existing Water Main, 8 inch	4	Ea	\$5,070	\$20,280
9	Connection to Existing Water Main, 10 inch	1	Ea	\$5,630	\$5,630
10	Restoration	40%		\$792,470	\$316,988
SUBTOTAL:					\$1,244,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$100,000
	General Requirements	4%			\$50,000
	Contingencies	20%			\$249,000
TOTAL CONSTRUCTION COST:					\$1,643,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$411,000
	Finance and Legal	5%			\$83,000
	Geotechnical Services	1.5%			\$25,000
TOTAL PROJECT COSTS:					\$519,000
ENGINEER'S OPINION OF PROJECT COST					\$2,170,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Open Cut Water Main Installation - FY28
Project 25A: Cherry Street
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$93,000	\$93,000
2	Audio Video Route Survey	1	LSUM	\$15,000	\$15,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$59,000	\$59,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$4,000	\$4,000
5	Water Main, CL-54, DI, 8 inch, Pavement	1,400	Ft	\$220	\$308,000
6	Water Main, CL-54, DI, 24 inch, Pavement	320	Ft	\$530	\$169,600
7	Water Main, CL-54, DI, 8 inch, Directional Drill	900	Ft	\$330	\$297,000
8	Fire Hydrant	6	Ea	\$11,250	\$67,500
9	Gate Valve and Well, 8 inch	17	Ea	\$7,880	\$133,960
10	Butterfly Valve and Well, 24-inch	4	Ea	\$39,380	\$157,520
11	Connection to Existing Water Main, 8 inch	8	Ea	\$5,070	\$40,560
12	Connection to Existing Water Main, 24 inch	1	Ea	\$11,250	\$11,250
13	Restoration	50%		\$1,185,390	\$592,695
SUBTOTAL:					\$1,949,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$156,000
	General Requirements	4%			\$78,000
	Contingencies	20%			\$390,000
TOTAL CONSTRUCTION COST:					\$2,573,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$644,000
	Finance and Legal	5%			\$129,000
	Geotechnical Services	1.5%			\$39,000
TOTAL PROJECT COSTS:					\$812,000
ENGINEER'S OPINION OF PROJECT COST					\$3,390,000

**Project Summary
Engineer's Opinion of Probable Project Cost**



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Directional Drill Water Main Installation - FY28
Project 25B: Cherry Street
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$95,000	\$95,000
2	Audio Video Route Survey	1	LSUM	\$15,000	\$15,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$71,000	\$71,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$4,000	\$4,000
5	Water Main, CL-54, DI, 8 inch, Directionall Drill	2,300	Ft	\$330	\$759,000
6	Water Main, CL-54, DI, 24 inch, Directionall Drill	320	Ft	\$710	\$227,200
7	Fire Hydrant	6	Ea	\$11,250	\$67,500
8	Gate Valve and Well, 8 inch	17	Ea	\$7,880	\$133,960
9	Butterfly Valve and Well, 24-inch	4	Ea	\$39,380	\$157,520
10	Connection to Existing Water Main, 8 inch	8	Ea	\$5,070	\$40,560
11	Connection to Existing Water Main, 24 inch	1	Ea	\$11,250	\$11,250
12	Restoration	40%		\$986,200	\$394,480
SUBTOTAL:					\$1,976,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$159,000
	General Requirements	4%			\$80,000
	Contingencies	20%			\$396,000
TOTAL CONSTRUCTION COST:					\$2,611,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$653,000
	Finance and Legal	5%			\$131,000
	Geotechnical Services	1.5%			\$40,000
TOTAL PROJECT COSTS:					\$824,000
ENGINEER'S OPINION OF PROJECT COST					\$3,440,000

**Project Summary
Engineer's Opinion of Probable Project Cost**



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Installation of Elevated Water Tower - FY29
Project 26: Elevated Water Tower
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Bonds & Insurance (Max 1.5%)	1	LSUM	\$263,220	\$263,220
2	Mobilization (Max 3%)	1	LSUM	\$531,120	\$531,120
3	Water Tower Access Drive	1	LSUM	\$72,540	\$72,540
4	Water Tower Foundation	1	LSUM	\$3,860,540	\$3,860,540
5	Water Tower Concrete Pedestal, Piping and Appurtenances	1	LSUM	\$6,290,330	\$6,290,330
6	Elevated Tower Pedestal Doors and Windows	1	LSUM	\$251,520	\$251,520
7	Elevated Tower 2.5 Million Gallon Steel Tank	1	LSUM	\$3,026,430	\$3,026,430
8	Painting	1	LSUM	\$989,710	\$989,710
9	Valve Vault & Valves	1	LSUM	\$121,670	\$121,670
10	Water Main, Valves, Hydrant, & Connection	1	LSUM	\$1,354,700	\$1,354,700
11	Electrical & Instrumentation	1	LSUM	\$768,600	\$768,600
12	Exterior Lighting	1	LSUM	\$88,910	\$88,910
13	Earthwork	1	LSUM	\$604,820	\$604,820
14	HMA Paving	1	LSUM	\$156,770	\$156,770
15	Fencing & Gates	1	LSUM	\$94,760	\$94,760
SUBTOTAL:					\$18,212,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	10%			\$1,822,000
	General Requirements	10%			\$1,822,000
	Contingencies	30%			\$5,464,000
TOTAL CONSTRUCTION COST:					\$27,320,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$6,830,000
TOTAL PROJECT COSTS:					\$6,830,000
ENGINEER'S OPINION OF PROJECT COST					\$34,150,000

**Project Summary
Engineer's Opinion of Probable Project Cost**



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Wise WCP Plant Optimization - FY29
Project 27: Wise WCP Plant Optimization
 Conceptual Preliminary Final

Date: 4/12/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	5 MGD Optimization at Wise WCP	1	LSUM	\$4,100,000	\$4,100,000
SUBTOTAL:					\$4,100,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	10%			\$410,000
	General Requirements	10%			\$410,000
	Contingencies	30%			\$1,230,000
TOTAL CONSTRUCTION COST:					\$6,150,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$1,538,000
TOTAL PROJECT COSTS:					\$1,538,000
ENGINEER'S OPINION OF PROJECT COST					\$7,690,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Open Cut Water Main Installation - FY29
Project 29A: CSO 008
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$497,190	\$497,190
2	Audio Video Route Survey	1	LSUM	\$16,880	\$16,880
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$320,590	\$320,590
4	Soil Erosion and Sedimentation Control	1	LSUM	\$1,130	\$1,130
5	Water Main, CL-54, DI, 8 inch, Pavement	16,950	Ft	\$220	\$3,729,000
6	Water Main, CL-54, DI, 12 inch, Pavement	2,975	Ft	\$270	\$803,250
7	Water Main, CL-54, DI, 16 inch, Pavement	10	Ft	\$350	\$3,500
8	Water Main, CL-54, DI, 20 inch, Pavement	50	Ft	\$440	\$22,000
9	Water Main, CL-54, DI, 12 inch, Directional Drill	1,700	Ft	\$390	\$663,000
10	Fire Hydrant	45	Ea	\$11,250	\$506,250
11	Gate Valve and Well, 8 inch	86	Ea	\$7,880	\$677,680
12	Gate Valve and Well, 12 inch	13	Ea	\$9,000	\$117,000
13	Butterfly Valve and Well, 20 inch	1	Ea	\$28,130	\$28,130
14	Connection to Existing Water Main, 8 inch	18	Ea	\$5,070	\$91,260
15	Connection to Existing Water Main, 12 inch	6	Ea	\$6,190	\$37,140
16	Restoration	50%		\$6,399,610	\$3,199,805
SUBTOTAL:					\$10,714,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$858,000
	General Requirements	4%			\$429,000
	Contingencies	20%			\$2,143,000
TOTAL CONSTRUCTION COST:					\$14,144,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$3,536,000
	Finance and Legal	5%			\$708,000
	Geotechnical Services	1.5%			\$213,000
TOTAL PROJECT COSTS:					\$4,457,000
ENGINEER'S OPINION OF PROJECT COST					\$18,610,000

**Project Summary
Engineer's Opinion of Probable Project Cost**



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Directional Drill Water Main Installation - FY29
Project 29B: CSO 008
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

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Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$647,000	\$647,000
2	Audio Video Route Survey	1	LSUM	\$15,000	\$15,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$446,000	\$446,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$1,000	\$1,000
5	Water Main, CL-54, DI, 8 inch, Directionall Drill	16,950	Ft	\$330	\$5,593,500
6	Water Main, CL-54, DI, 12 inch, Directionall Drill	4,675	Ft	\$390	\$1,823,250
7	Water Main, CL-54, DI, 16 inch, Directionall Drill	10	Ft	\$490	\$4,900
8	Water Main, CL-54, DI, 20 inch, Directionall Drill	50	Ft	\$600	\$30,000
9	Fire Hydrant	45	Ea	\$11,250	\$506,250
10	Gate Valve and Well, 8 inch	86	Ea	\$7,880	\$677,680
11	Gate Valve and Well, 12 inch	13	Ea	\$9,000	\$117,000
12	Butterfly Valve and Well, 20 inch	1	Ea	\$28,130	\$28,130
13	Connection to Existing Water Main, 8 inch	18	Ea	\$5,070	\$91,260
14	Connection to Existing Water Main, 12 inch	6	Ea	\$6,190	\$37,140
15	Restoration	40%		\$8,909,110	\$3,563,644
SUBTOTAL:					\$13,582,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$1,087,000
	General Requirements	4%			\$544,000
	Contingencies	20%			\$2,717,000
TOTAL CONSTRUCTION COST:					\$17,930,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$4,483,000
	Finance and Legal	5%			\$897,000
	Geotechnical Services	1.5%			\$269,000
TOTAL PROJECT COSTS:					\$5,649,000
ENGINEER'S OPINION OF PROJECT COST					\$23,580,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Open Cut Water Main Installation - FY29
Project 30A: Landel System, Howard Street and Vine Street
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$90,000	\$90,000
2	Audio Video Route Survey	1	LSUM	\$15,000	\$15,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$58,000	\$58,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$29,000	\$29,000
5	Water Main, CL-54, DI, 8 inch, Pavement	2,820	Ft	\$230	\$648,600
6	Water Main, CL-54, DI, 8 inch, Directionall Drill	330	Ft	\$330	\$108,900
7	Fire Hydrant	7	Ea	\$11,700	\$81,900
8	Gate Valve and Well, 8 inch	27	Ea	\$8,190	\$221,130
9	Connection to Existing Water Main, 8 inch	13	Ea	\$5,270	\$68,510
10	Restoration	50%		\$1,129,040	\$564,520
SUBTOTAL:					\$1,886,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$151,000
	General Requirements	4%			\$76,000
	Contingencies	20%			\$378,000
TOTAL CONSTRUCTION COST:					\$2,491,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$623,000
	Finance and Legal	5%			\$125,000
	Geotechnical Services	1.5%			\$38,000
TOTAL PROJECT COSTS:					\$786,000
ENGINEER'S OPINION OF PROJECT COST					\$3,280,000

Project Summary
Engineer's Opinion of Probable Project Cost



Owner: LBWL
 Project: DWSRF Project Planning Document FY2025
 Work: Directional Drill Water Main Installation - FY29
Project 30B: Landel System, Howard Street and Vine Street
 Conceptual Preliminary Final

Date: 4/11/2024
 Project No. _____
 Prepared By: NAP
 Reviewer: _____
 Current ENR: 13532

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization, Max 5%	1	LSUM	\$108,000	\$108,000
2	Audio Video Route Survey	1	LSUM	\$15,000	\$15,000
3	Traffic Maintenance and Control, Max 5%	1	LSUM	\$74,000	\$74,000
4	Soil Erosion and Sedimentation Control	1	LSUM	\$32,000	\$32,000
5	Water Main, CL-54, DI, 8 inch, Directionall Drill	3,150	Ft	\$340	\$1,071,000
6	Fire Hydrant	7	Ea	\$11,700	\$81,900
7	Gate Valve and Well, 8 inch	27	Ea	\$8,190	\$221,130
8	Connection to Existing Water Main, 8 inch	13	Ea	\$5,270	\$68,510
9	Restoration	40%		\$1,442,540	\$577,016
SUBTOTAL:					\$2,249,000
CONTRACTUAL REQUIREMENTS					
	General Conditions	8%			\$180,000
	General Requirements	4%			\$90,000
	Contingencies	20%			\$450,000
TOTAL CONSTRUCTION COST:					\$2,969,000
PROJECT COSTS					
	Design and Construction Engineering	25%			\$743,000
	Finance and Legal	5%			\$149,000
	Geotechnical Services	1.5%			\$45,000
TOTAL PROJECT COSTS:					\$937,000
ENGINEER'S OPINION OF PROJECT COST					\$3,910,000

APPENDIX E: PART 201 AND PART 213 SITES

**Lansing Board Of Water and Light
DWSRF Project Plan
Appendix E: Contamination Sites**

Contamination Site Name	Contamination Site Address	Contamination Risk Condition	Identified Contaminants
Brown Brothers/Total Contracting	600 East Clark Road, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Non-Petroleum Hydrocarbons, Not Otherwise Classified, PCB, Petroleum Volatile and Semi Volatile Organic Compounds
Apollo Investments	Old Grand River Ave., Lansing MI	Risks Not Determined	Petroleum Volatile and Semi Volatile Organic Compounds
Roger's Engine Shop	7293 W. Grand River, Lansing MI	Risks Not Determined	Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
Capital Region International Airport	Capital City Airport4100 Capital City Blvd, Lansing MI	Risks Present and Require Action in Long-term	Per- and Polyfluoroalkyl Substances
CRAA Heating Oil UST	Capital City Airport4100 Capital City Blvd, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds
Capital City Airport/Solvent Contm	16641 Airport Service Drive, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics
Marathon/Ashland-Lansing Terminal	6300 W. Grand River, Lansing MI	Risks Present and Require Action in Short-term	Petroleum Volatile and Semi Volatile Organic Compounds
Sunshine Center Laundry & Dry Cleaners	16795 South US 27, Dewitt MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds
15714 Old US Highway 27 - West of	15714 Old U.S. Highway 27, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics
1541 West Round Lake Road	1541 West Round Lake Road, Dewitt MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead
1049 East Wieland Road	1049 East Wieland Road, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
116 and 128 South Bridge Street	128 South Bridge Street, Dewitt MI	Risks Present and Immediate	Chlorinated Volatile and Semi Volatile Organic Compounds
116 East Main Street	116 East Main Street, Dewitt MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
14485 U.S. Highway 27	14485 Old U.S. Highway 27, Dewitt MI	Risks Present and Require Action in Long-term	Lead, Petroleum Volatile and Semi Volatile Organic Compounds
16164 South US-27	16164 South US-27, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
16700, 16701, 16702 & 16704 Rademaker Ro	16700, 16701, 16702 & 16704 Rademaker Rd, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics
16749 Dewitt Road	16749 Dewitt Road, Lansing MI	Risks Present and Require Action in Long-term	Carcinogenic PAHs, Elements/Metals/Other Inorganics, Lead
16800 South US 27 Highway N of Greenwood	16800 South US 27 Highway N of GreenwoodAve & S of Coleman Rd, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
16815 Dewitt Road	16815 Dewitt Road, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead
2.9 Acre Undeveloped Parcel Brook & Wiel	2.9 Acre Undeveloped Parcel Brook & Wieland Roads, Dewitt MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
4100 4150 Hunsaker Drive	4100 4150 Hunsaker Drive, East Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics
6701 W. Grand River	6701 West Grand River Avenue, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
7157 East Saginaw Highway	7157 East Saginaw Highway, East Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
7397 M-78 Highway Bath Township	7397 M-78 Highway East, East Lansing MI	Risks Present and Require Action in Short-term	Lead, Petroleum Volatile and Semi Volatile Organic Compounds
Airport Road and West Grand River Avenue	Airport Road and West Grand River AvenueVacant Parcel, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead
DeWitt Township	DeWitt Township, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
Grand River	Old Airport Road & Corporate Aviation Dr, Lansing MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
N. Martin Luther King	North Martin Luther King Jr Boulevard, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
NW Corner of Sheridan and DeWitt Roads (NW Corner of Sheridan and DeWitt Roads, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead
South Business US-27	13215 Old US 27, Dewitt MI	Risks Present and Require Action in Long-term	Lead, Petroleum Volatile and Semi Volatile Organic Compounds
Consumers Energy Dewitt City Gate Valve	NW Corner of Airport Road and Clark Road, Dewitt MI	Risks Controlled-Interim	Petroleum Volatile and Semi Volatile Organic Compounds
Capital Region International Airport - M	3700 CAPITOL CITY BLVD, LANSING MI	Risks Present and Require Action in Long-term	Per- and Polyfluoroalkyl Substances
16333 South US-27, Lansing	16333 South US-27, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead
Huckaba Junkyard	5410 South Waverly, Lansing MI	Risks Present and Require Action in Short-term	Petroleum Volatile and Semi Volatile Organic Compounds
Grand Trunk Delta Diesel Spill	Mt. Hope Hwy and Lansing Rd., Delta Twp MI	Risks Present and Require Action in Short-term	Carcinogenic PAHs, Petroleum Volatile and Semi Volatile Organic Compounds
Van Alstine Property	138 Hume Blvd., Lansing MI	Risks Not Determined	
Reith-Riley	4150 Creyts Road, Lansing MI	Risks Present and Require Action in Short-term	Carcinogenic PAHs, Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Pesticides/Herbicides, Petroleum Volatile and Semi Volatile Organic Compounds
Former Delta Township Sanitary Dump	2201 N. Canal Road, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics
310 S. Waverly	310 S. Waverly Rd., Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds
Truck and Tractor Equipment Company	4214 West Mount Hope, Lansing MI	Risks Controlled-Interim	Carcinogenic PAHs, Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead
Wash King (formerly known as: 536 Elmwoo	516 Elmwood Dr., Lansing MI	Risks Present and Immediate	Chlorinated Volatile and Semi Volatile Organic Compounds
4220 West Saginaw Highway & 809 Thomas L	4220 West Saginaw Highway809 Thomas L Parkway, Lansing MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
4244 West Saginaw Highway	4244 West Saginaw Highway, Lansing MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds
2904 Snow Road	2904 Snow Road, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead
2930 South Creyts Road	2930 South Creyts Road, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics
2960 Ena Drive	2960 Ena Drive, MI	Risks Not Determined	
3908 W. Saginaw	3908 W. Saginaw, MI	Risks Not Determined	
4135 Vondell Parkway	4135 Vondell Parkway, Lansing MI	Risks Present and Immediate	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics
4238 W. Saginaw Hwy	4238 W. Saginaw Hwy, Lansing MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds
4607 West Saginaw Highway	4607 West Saginaw Highway, MI	Risks Not Determined	
6141 Jomar Court	6141 Jomar Court, Lansing MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead
628 Park Place	628 Park Place, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics
6300 West St. Joseph Highway	6300 West St. Joseph Highway, Lansing MI	Risks Not Determined	
6441 Jomar Court	6441 Jomar Court, MI	Risks Not Determined	
East of Creyts Rd, North of Mt Hope Hwy	East of Creyts Rd, North of Mt Hope Hwy, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Mercury
S. Waverly & Old Lansing Rds.	S. Waverly & Old Lansing Rds., MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
W. Saginaw Hwy.	West Saginaw Highway, Lansing MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
7828 Lanac Street	7828 Lanac Street, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
8132 West Saginaw Highway	8132 West Saginaw Highway, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead
West Mount Hope Highway & South Creyts R	6500 6530 West Mount Hope Highway, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics
3100 South Creyts Road, Lansing	3100 South Creyts Road, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics
Delta Crossing	8110 West Saginaw Highway, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead
Delta Crossing - BJ's Wholesale Club	825 North Marketplace Boulevard, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead
Kamp's Pallets	4201 S CREYTS RD, LANSING MI	Risks Present and Require Action in Long-term	Per- and Polyfluoroalkyl Substances
219 North Waverly Road	219 North Waverly Road, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics
Adams Plating	521 North Rosemary Street, Lansing MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Non-Petroleum Hydrocarbons, Per- and Polyfluoroalkyl Substances
Ashland Chemical	1800 Glenrose, Lansing MI	Risks Not Determined	Chlorinated Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
Baker St Contamination Area	Baker St. (& Washington St), Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
Barrels, Inc.	1404 North Larch Street, Lansing MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead, Mercury, Non-Petroleum Hydrocarbons, PCB, Petroleum Volatile and Semi Volatile Organic Compounds
Lansing BrdWater&Light-EckertStn	601 Island Avenue, Lansing MI	Risks Controlled-Interim	Petroleum Volatile and Semi Volatile Organic Compounds
LBWL, Ottawa Station	209 Ottawa, Lansing MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds

City LF Paulson St	East of corner of Garland & Paulson Rd, Lansing MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
Conrail	1321 E. Cavanaugh, Lansing MI	Risks Present and Require Action in Short-term	Petroleum Volatile and Semi Volatile Organic Compounds
Foster Street Abandoned Plating Area	722 South Foster Street, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead
Granger LF Paulson St	923 East Paulson Street, Lansing MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics
Gunn Rd LF	Gunn Road, Holt MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics, Lead
Aurelius Road Landfill	5801 Aurelius Road, Lansing MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
Macs All Car Service	1800 1/2 Glenrose, Lansing MI	Risks Not Determined	Elements/Metals/Other Inorganics, Lead, Non-Petroleum Hydrocarbons, Petroleum Volatile and Semi Volatile Organic Compounds
Motor Wheel, Inc.	2401 N HIGH ST, LANSING MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
Municipal Well Lansing No 10 12	SUNSET ST, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds
Municipal Well Lansing No 10 15	2240 W WILLOW, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds
Municipal Well Lansing No 25 2	115 S CEDAR, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds
Municipal Well Lansing No 25 13	512 N CEDAR ST, Lansing MI	Risks Not Determined	Elements/Metals/Other Inorganics
Municipal Well Lansing No 25 19	1420 CENTER ST, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Non-Petroleum Hydrocarbons
Municipal Well Lansing No 25 20	TURNER ST, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Non-Petroleum Hydrocarbons
Municipal Well Lansing No 30-07	1016 Heald Pl., Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds
Municipal Well Lansing No 45 02	500 S CEDAR ST, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds
Municipal Well Lansing No 50 20	750 S. Pennsylvania, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Non-Petroleum Hydrocarbons
DB & B Plating	3435 West Holmes Road, Lansing MI	Risks Not Determined	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead
BOC Plant #1 East Tank Farm	920 Townsend, Lansing MI	Risks Present and Require Action in Short-term	
BOC Plant #1 Central Tank Farm	920 Townsend, Lansing MI	Risks Present and Require Action in Short-term	
Trumark, Inc.	1820 Sunset Avenue, LANSING MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead
W R Grace Company	2401 N HIGH ST, LANSING MI	Risks Present and Require Action in Short-term	Non-Petroleum Hydrocarbons, Pesticides/Herbicides, Petroleum Volatile and Semi Volatile Organic Compounds
BOC, PLANT 1	920 Townsend, Lansing MI	Risks Present and Require Action in Short-term	
BOC PLANT #1, TANK #8	920 Townsend, Lansing MI	Risks Present and Require Action in Short-term	
Mun Wells City Of Lansing	830 Hazel Street, Lansing MI	Risks Present and Require Action in Short-term	
Barnard Manufacturing Company	1400 Sunset Avenue, Lansing MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics, Elements/Metals/Other Inorganics
Consumers Power-Lansing Center (00017310)	530 W WILLOW ST, LANSING MI	Risks Present and Require Action in Short-term	Carcinogenic PAHs, Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
Lansing, City of, Pine & Genessee Street	Corner of Genessee and Pine Streets, Lansing MI	Risks Not Determined	
Fresh-Up Car Wash	6505 South Pennsylvania Avenue, Lansing MI	Risks Present and Require Action in Short-term	Lead, Petroleum Volatile and Semi Volatile Organic Compounds
Kings Auto Property	314 South Charles Street, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead, PCB
BWL-Dye Water Conditioning Plnt	149 S. CEDAR, Lansing MI	Risks Present and Require Action in Short-term	Carcinogenic PAHs, Petroleum Volatile and Semi Volatile Organic Compounds
Lansing, City of, Westmont Sub.	No Address Entered, LANSING MI	Contact Lead Division	
Lansing Center	333 E MICHIGAN AVE, LANSING MI	Risks Present and Require Action in Short-term	Carcinogenic PAHs, Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
Motor Wheel Facility-Saginaw St	735 East Saginaw Street, Lansing MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
Ashland Chemical-Turner St	2011 Turner Street, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
Parker Hannifin	1355 N. Cedar Street, Mason MI	Risks Not Determined	
Accident Fund of Mich bldg	232 South Capital Ave, Lansing MI	Risks Controlled-Interim	Petroleum Volatile and Semi Volatile Organic Compounds
Grovenburg Road Contamination	1625 Grovenburg Road, Holt MI	Risks Not Determined	
Cedar Park Shopping Center	2495 North Cedar, Holt MI	Risks Present and Immediate	Chlorinated Volatile and Semi Volatile Organic Compounds
Estes Furniture	1310 Turner Street, Lansing MI	Contact Lead Division	
Drake's Refinery	3125 South Martin Luther King Blvd, Lansing MI	Risks Present and Require Action in Short-term	
SE Corner Michigan/Pennsylvania	SE CORNER MICHIGAN/PENNSYLVANIA, Lansing MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds
1818 Bassett Street	1818 Bassett Street, Lansing MI	Risks Present and Immediate	Carcinogenic PAHs, Chlorinated Volatile and Semi Volatile Organic Compounds, Lead
1408 Lake Lansing Road, Lansing	1408 LAKE LANSING RD, LANSING MI	Risks Present and Require Action in Long-term	Carcinogenic PAHs, Elements/Metals/Other Inorganics, Lead
2320-2420 S. Washington Ave	2320-2420 S. Washington Ave, Lansing MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics
South Cedar Street & Cavanaugh Road - No	411 - 425 Cavanaugh Road& 4200 - 4220 South Cedar Street, Lansing MI	Risks Present and Require Action in Long-term	Carcinogenic PAHs, Petroleum Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
1301 Turner Street	1301 Turner Street, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Elements/Metals/Other Inorganics, Lead
2011 2013 2015 East Michigan Avenue	2011 2013 2015 East Michigan Avenue, Lansing MI	Risks Present and Immediate	Chlorinated Volatile and Semi Volatile Organic Compounds
1818 Bassett St. Supplement	1818 Bassett Street, Lansing MI	Risks Not Determined	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
Former Lansing Connecting RR	Sections 15 & 22, T4N, R2W, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
Motor Wheel Factory (former)	1600 N. Larch Street, Lansing MI	Risks Present and Require Action in Short-term	
Race St. Mill Waterfront	212 E. Grand River Ave., Lansing MI	Contact Lead Division	
Old Town Extension	201 East Grand River Avenue, Lansing MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
Ottawa Street Power Station	330 North Grand Ave., Lansing MI	Risks Controlled-Interim	
Riverfront Place	Grand River, Dewitt MI	Contact Lead Division	
Sunshine Laundry	402 N. Homer, Lansing MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds
Lansing Waterfront Development Project	Michigan Avenue and the Grand River, Lansing MI	Risks Present and Require Action in Short-term	
Bharat Forge America	2807 S Martin Luther King Jr Blvd, Lansing MI	Risks Present and Require Action in Short-term	
Boys Training School	East Saginaw Street, Lansing MI	Risks Present and Require Action in Short-term	
Palmer Engineering	4171 East Holt Road, Holt MI	Risks Controlled-Interim	
Kent Cleaners	2911 South Washington Avenue, LANSING MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Per- and Polyfluoroalkyl Substances
Lansing USPFO (00033459)	3245 West Saint Joseph Street, Lansing MI	Risks Present and Require Action in Short-term	Lead, Petroleum Volatile and Semi Volatile Organic Compounds
Delhi Township WWTP	5961 Mccue Rd, Holt MI	Risks Present and Require Action in Short-term	Petroleum Volatile and Semi Volatile Organic Compounds
Lansing City Market	333 North Cedar420 East Shiawassee, Lansing MI	Contact Lead Division	
Ottawa Block Redevelopment	810 West Ottawa Street, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead, Mercury
Former Lansing Fuel & Gas Company	225 North Grand Avenue, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
LBWL Comfort Street Landfill	Intersection of Comfort & Sunset Street, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead
Guardian Oil	2547 W Main St, Lansing MI	Risks Present and Require Action in Short-term	Lead, Petroleum Volatile and Semi Volatile Organic Compounds
Medical Waste Site #62	Gunn Road, Holt MI	Risks Controlled-Interim	
Lansing Automotive & Equipment Bldg.	2211 West Main St., Lansing MI	Contact Lead Division	
1941 Benjamin Drive (00041662)	1941 Benjamin Drive, Lansing MI	Contact Lead Division	Non-Petroleum Hydrocarbons, Petroleum Volatile and Semi Volatile Organic Compounds
2710 North Grand River	2710 North Grand River, Lansing MI	Risks Not Determined	Chlorinated Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
Ingham County Land Bank Authority Prop.	300 W. North, Lansing MI	Risks Present and Require Action in Short-term	
Industrial Metals Products Company	3417 West St. Joseph Street, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds
635 Filley Street	635 Filley Street, Lansing MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
CSX Transportation - Ensel Yard	Track CH, south of Filley, Lansing MI	Risks Present and Require Action in Short-term	Petroleum Volatile and Semi Volatile Organic Compounds
Provident Place	2216-2224 E. Michigan Ave., Lansing MI	Risks Present and Require Action in Short-term	Lead, Petroleum Volatile and Semi Volatile Organic Compounds

Former Blind Bizz	2000 Block of N. Cedar Street, Holt MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
600 Block Urban	600-636 E. Michigan Ave., Lansing MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
Sportsman's Retail Fishing Headquarters	No Address Entered, LANSING MI	Risks Not Determined	
2222 Sandhill Rd/fueloil release	2222 Sandhill Road (rental home), Mason MI	Risks Not Determined	
Wolverine Pipeline	Abbott Road, pipeline ROW, East Lansing MI	Risks Controlled-Interim	
North Lansing Landfill	1500 LAKE LANSING RD, LANSING MI	Contact Lead Division	
3701 West Saginaw Street, a portion of	3701 West Saginaw Street, MI	Risks Not Determined	
934 Clark Street	934 Clark Street, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
2361 Cedar Street	2361 Cedar Street, Holt CDP MI	Risks Not Determined	
735 East Michigan Avenue	735 East Michigan Avenue, Lansing MI	Risks Not Determined	
1601 - 1631 East Kalamazoo Street	1601 - 1631 East Kalamazoo Street, Lansing MI	Risks Not Determined	
1146 South Washington Avenue	1146 South Washington Avenue, Lansing MI	Risks Present and Require Action in Short-term	Lead
532 East Shilwassee Street	532 East Shilwassee, Lansing MI	Risks Not Determined	Mercury
Allen Place	1601 - 1631 East Kalamazoo Street, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Mercury
2100 - 2120 South Washington Avenue	2100 - 2120 South Washington Avenue, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead, Lead, Mercury, Mercury, PCB
1611 East Kalamazoo Street (Allen Place)	1611 E KALAMAZOO ST, LANSING MI	Risks Present and Require Action in Short-term	
3425 South Martin Luther King Junior Bou	3425 South Martin Luther King Junior, Lansing MI	Risks Present and Require Action in Short-term	Lead, Petroleum Volatile and Semi Volatile Organic Compounds
735 East Hazel Street	735 East Hazel Street, Lansing MI	Risks Present and Immediate	Chlorinated Volatile and Semi Volatile Organic Compounds, PCB, Petroleum Volatile and Semi Volatile Organic Compounds
5901 South Pennsylvania Avenue	5901 S Pennsylvania Ave, Lansing MI	Risks Present and Require Action in Short-term	Petroleum Volatile and Semi Volatile Organic Compounds
4518 Aurelius Road - West of (Parcel 1)	4518 Aurelius Road - West of (Parcel 1), Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Elements/Metals/Other Inorganics, Lead, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
0 South Avenue & 0 South Fairview Avenue	0 South Avenue & 0 South Fairview Avenue, Lansing MI	Risks Not Determined	
108,110,112,116 and 120 S Howard St and	108,110,112,116 and 120 S Howard St and 121,123,205,209 and 215 Detroit St, MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
1102 South Washington Avenue	1102 South Washington Avenue, Lansing MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
1125 North Cedar Street	1125 North Cedar Street, Mason MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Mercury
1127 North Cedar Street	1127 North Cedar Street, Lansing MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics, Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
112 North Larch Street	112 North Larch Street, MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
1146 South Washington Avenue	1146 South Washington Avenue, MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead
1149 South Pennsylvania Avenue	1149 South Pennsylvania Avenue, Lansing MI	Risks Not Determined	
1206 East Oakland Avenue	1206 East Oakland Avenue, Lansing MI	Risks Present and Require Action in Long-term	Lead
121, 123 and 125 East Kalamazoo Street	121, 123 and 125 East Kalamazoo Street, MI	Risks Not Determined	
1212 and 1214 South Washington Avenue	1212 and 1214 South Washington Avenue, MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead, Mercury
1214 South Washington Avenue	1214 South Washington Avenue, MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Elements/Metals/Other Inorganics, Lead, Lead, Mercury, Mercury
1214 Turner Road	1214 Turner Road, Lansing MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics, Elements/Metals/Other Inorganics
1216 and 1218 Turner Road	1216 and 1218 Turner Road, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Elements/Metals/Other Inorganics, Lead, Lead, Mercury, Mercury
121 West Washtenaw Street	121 West Washtenaw Street, MI	Risks Not Determined	
1234 South Holmes Street	1234 South Holmes Street, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead, Mercury
124 North Larch Street	124 North Larch Street, Lansing MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds, Chlorinated Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
1250 Roth Drive & 6911 South Cedar Stree	1250 Roth Drive & 6911 S. Cedar St., MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Chlorinated Volatile and Semi Volatile Organic Compounds
128 South Howard Street	128 South Howard Street, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
1308 & 1314 North Larch Street	1308 & 1314 North Larch Street, Lansing MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Chlorinated Volatile and Semi Volatile Organic Compounds, Lead, Lead, Mercury, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Com
1313 South Waverly Road	1313 South Waverly Road, MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics, Elements/Metals/Other Inorganics
1330 Diamond Reo Way	1330 Diamond Reo Way, MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Chlorinated Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
136 East Malcolm X Street	136 East Malcolm X Street, MI	Risks Not Determined	
1375 Cedar Street	1375 Cedar Street, MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds, Chlorinated Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
1406 Sunset Avenue	1406 Sunset Avenue, Lansing MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics, Elements/Metals/Other Inorganics
1415 Lake Lansing Road	1415 Lake Lansing Road, Lansing MI	Risks Not Determined	
1509 Turner Street	1509 Turner Street, Lansing MI	Risks Controlled-Interim	Lead, Lead, Petroleum Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
15891 South US-27	15891 South US-27, Lansing MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
1600 Cedar Street	1600 Cedar Street, MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
1601 - 1631 East Kalamazoo Street	1601 - 1631 East Kalamazoo Street, Lansing MI	Risks Not Determined	
1620 East Michigan Avenue	1620 East Michigan Avenue, Lansing MI	Risks Not Determined	
1623 South Washington Avenue	1623 South Washington Avenue, MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
1624 East Cavanaugh Road	1624 East Cavanaugh Road, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead, Mercury
1694 North Cedar Street	1694 North Cedar Street, MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
1700 North Grand River Avenue	1700 North Grand River Avenue, Lansing MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
1781 Holloway Drive	1781 Holloway Drive, Holt CDP MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics
1800 & 1806 South Washington Avenue	1800 & 1806 South Washington Avenue, Lansing MI	Risks Present and Require Action in Short-term	Petroleum Volatile and Semi Volatile Organic Compounds
1901 South Cedar Street	1901 South Cedar Street, MI	Risks Not Determined	
200, 204, and 208 South Howard Street	200 204 208 South Howard Street, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Mercury
2004 North Aurelius Road	2004 North Aurelius Road, MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
2005 Seager Street	2005 Seager Street, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead
2017 Turner Road	2017 Turner Road, Lansing MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds
201 North Pennsylvania Ave	201 North Pennsylvania Ave, Lansing MI	Risks Present and Require Action in Long-term	Carcinogenic PAHS
2040 North Aurelius Road	2040 North Aurelius Road, MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
2049 N. Cedar St.	2049 N. Cedar St., MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
205 West Allegan	205 West Allegan, MI	Risks Controlled-Interim	Petroleum Volatile and Semi Volatile Organic Compounds
2101 West Willow Street	2101 West Willow Street, MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
2108 North Cedar Street	2108 North Cedar Street, Holt CDP MI	Risks Controlled-Interim	Lead, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
213 - 221 South Grand Avenue	213 - 221 South Grand Avenue, Lansing MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds, Mercury
2150 Depot Street	2150 Depot Street, Holt CDP MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics
2174 and 2176 Cedar Street	2174 and 2176 Cedar Street, MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds
2186 Jolly Road	2186 Jolly Road, MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics
2200 South Washington Avenue	2200 South Washington Avenue, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds

220 North Pennsylvania Avenue	220 North Pennsylvania Avenue, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead, Mercury
2224 East Michigan Avenue	2224 East Michigan Avenue, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
2227 Spikes Lane	2227 Spikes Lane, Lansing MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
2231 West Willow Street	2231 West Willow Street, MI	Risks Present and Immediate	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Mercury, Per- and Polyfluoroalkyl Substances, Water Quality Characteristics
2284 Woodlake Drive	2284 Woodlake Drive, MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
2311 North High Street	2311 North High Street, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead, Mercury
231 South Capitol Avenue	231 S CAPITOL AVE, LANSING MI	Risks Controlled-Interim	Petroleum Volatile and Semi Volatile Organic Compounds
2320 North Grand River Avenue	2320 North Grand River Avenue, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead
2361 Cedar Street	2361 Cedar Street, MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds
2375 Cedar Street	2375 Cedar Street, MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds
2398 Jolly Rd (a portion of), a portion	2398 Jolly Rd (a portion of), a portion of 2350, 2360 and 2362 Jolly Oak Road, MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics
2400-2408 South Cedar Street	2400-2408 South Cedar Street, MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
240 Museum Drive	240 Museum Drive, MI	Risks Present and Require Action in Short-term	Carcinogenic PAHs, Elements/Metals/Other Inorganics, Lead, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
2419 North Cedar Street	2419 North Cedar Street, MI	Risks Present and Require Action in Short-term	Carcinogenic PAHs, Carcinogenic PAHs, Chlorinated Volatile and Semi Volatile Organic Compounds, Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Elements/Metals/Other Inorganics
2515 - 2535 North Grand River Avenue	2515 - 2535 North Grand River Avenue, Lansing MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
2605 Taylor St.	2605 Taylor St., MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds, Chlorinated Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
2615 Taylor Street	2615 Taylor Street, MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
2619 East Michigan Avenue	2619 East Michigan Avenue, Lansing MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
2621 North Grand River Avenue	2621 North Grand River Avenue, Lansing MI	Risks Present and Require Action in Long-term	Lead, Petroleum Volatile and Semi Volatile Organic Compounds
2628 East Kalamazoo Street	2628 East Kalamazoo Street, Lansing MI	Risks Present and Require Action in Short-term	Lead, Petroleum Volatile and Semi Volatile Organic Compounds
2706 North East Street	2706 North East Street, Lansing MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
2715 North Grand River Avenue	2715 North Grand River Avenue, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
2820 Alpha Access Street	2820 Alpha Access Street, MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead
2829 South Martin Luther King Junior Bou	2829 S MARTIN LUTHER KING JR BLVD, Lansing MI	Risks Present and Immediate	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
2918 North East Street	2918 North East Street, MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics
300 North Grand Avenue	300 North Grand Avenue, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
3012 7th Avenue	3012 7th Avenue, MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
3015 East Grand River Avenue & 919 North	3015 E Grand River Ave & 919 N Clippert, Lansing MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
301 Hosmer Street	301 Hosmer Street, Lansing MI	Risks Not Determined	
301 West Lenawee Street	301 West Lenawee Street, MI	Risks Not Determined	
3020 East Saginaw Street	3020 East Saginaw Street, Lansing MI	Risks Present and Require Action in Long-term	Lead, Petroleum Volatile and Semi Volatile Organic Compounds
3104 South Cedar Street	3104 South Cedar Street, Lansing MI	Risks Controlled-Interim	Petroleum Volatile and Semi Volatile Organic Compounds
310 East North Street	310 East North Street, Lansing MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
Oliver Towers / Capitol View Apartments	313 North Capitol Avenue, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
313 East Grand River Avenue	313 East Grand River Avenue, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics
316 - 324 South Hosmer Street	316 - 324 South Hosmer Street, Lansing MI	Risks Not Determined	
316 North Capitol Avenue	316 North Capitol Avenue, MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
319 South Homer Street	319 South Homer Street, Lansing MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
320 South Hosmer Street	320 South Hosmer Street, Lansing MI	Risks Present and Require Action in Long-term	Lead, Petroleum Volatile and Semi Volatile Organic Compounds
3222 Logan St.	3222 Logan St., Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds
3222 South M.L.King Blvd	3222 South M.L.King Blvd, MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds
3340 Ranger Road	3340 Ranger Road, Lansing MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds, Chlorinated Volatile and Semi Volatile Organic Compounds
3412 South Martin Luther King Jr. Blvd	3412 South Martin Luther King Jr. Blvd, Lansing MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics
3414 Aurelius Road	3414 Aurelius Road, MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
3600 Dunckel Road (Portion of) and an un	3600 Dunckel Road (Portion of) and an unaddressed parcel along Collons Road, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics
3600 S. MARTIN LUTHER KING BLVD.	3600 S. MARTIN LUTHER KING BLVD., MI	Risks Controlled-Interim	Petroleum Volatile and Semi Volatile Organic Compounds
3612 South Logan Street	3612 South Logan Street, MI	Risks Not Determined	
3631 S. Cedar Street	3631 S. Cedar Street, MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
3701, 3709, 3713, and 3715 S Cedar St	3701, 3709, 3713, and 3715 S Cedar St, MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
3824 South Cedar Street	3824 South Cedar Street, MI	Risks Present and Require Action in Long-term	Carcinogenic PAHs, Carcinogenic PAHs
3825 West Jolly Road	3825 W JOLLY RD, Lansing MI	Risks Not Determined	
400-420 East Saginaw Street	400-420 East Saginaw Street, Lansing MI	Risks Present and Require Action in Short-term	Petroleum Volatile and Semi Volatile Organic Compounds
404-410 Kalamazoo Plaza	404-410 Kalamazoo Plaza, MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead
4136-4184 East Willoughby Road	4136-4184 East Willoughby Road, Holt CDP MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics
416 East South Street	416 East South Street, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
422 Liberty Street	422 Liberty Street, Lansing MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
425 S Grand Avenue	425 S Grand Avenue, MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics, Lead, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
428 Liberty Street	428 Liberty Street, MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
4488 Holt Road	4488 Holt Road, MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
4924 Contec Drive	4924 Contec Drive, MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics
500 South Hosmer	500 South Hosmer, Lansing MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics
5015 S. Pennsylvania Avenue	5015 S. Pennsylvania Avenue, MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
501 & 503 (535) South Capitol Avenue & 5	501-503 S Capitol & 520 S Washington Ave, MI	Risk Controlled	Elements/Metals/Other Inorganics, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
5032 South Cedar Street	5032 South Cedar Street, MI	Risks Controlled-Interim	Petroleum Volatile and Semi Volatile Organic Compounds
506 South Hosmer Street	506 South Hosmer Street, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
507 East Shiawassee Street	507 East Shiawassee Street, MI	Risks Controlled-Interim	Lead, Petroleum Volatile and Semi Volatile Organic Compounds
5101 S. Waverly Dr. 5101 S. Waverly Dr.	5101 S. Waverly Dr., Lansing MI	Risks Controlled-Interim	Lead, Petroleum Volatile and Semi Volatile Organic Compounds
518 East Shiawassee Street	518 East Shiawassee Street, MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead
5212 West Saginaw Highway	5212 West Saginaw Highway, MI	Risks Controlled-Interim	Petroleum Volatile and Semi Volatile Organic Compounds
526-560 North Larch Street	526-560 North Larch Street, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics
527 East Grand River Avenue	527 East Grand River Avenue, Lansing MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
5311 South Pennsylvania Avenue	5311 South Pennsylvania Avenue, MI	Risks Controlled-Interim	Petroleum Volatile and Semi Volatile Organic Compounds
540 - 608 West Willow Street	540 & 608 West Willow Street, Lansing MI	Risks Not Determined	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead
5643 Enterprise Drive	5643 Enterprise Drive, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics
5731 Enterprise Drive	5731 Enterprise Drive, MI	Risks Controlled-Interim	Petroleum Volatile and Semi Volatile Organic Compounds
5920 and 5924 South Pennsylvania Avenue	5920 and 5924 South Pennsylvania Avenue, MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Elements/Metals/Other Inorganics
601 North Cedar Street	601 North Cedar Street, MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
6030 S Pennsylvania Avenue	6030 S Pennsylvania Avenue, MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
608 West Saginaw Street	608 West Saginaw Street, Lansing MI	Risks Controlled-Interim	Mercury

609 May Street	609 May Street, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead, Mercury
611 East Grand River Avenue	611 East Grand River Avenue, Lansing MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics
616 West Saint Joseph Street	616 West Saint Joseph Street, Lansing MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
622 E Grand River Ave & 1038 N Larch St	622 E Grand River Ave & 1038 N Larch St, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
700 704 - 708 East Oakland Avenue	700 704 - 708 East Oakland Avenue, Lansing MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
701 East South Street	701 East South Street, Lansing MI	Risks Present and Require Action in Short-term	Carcinogenic PAHs, Elements/Metals/Other Inorganics, Lead, Mercury
703 E. Shiawassee	703 E. Shiawassee, MI	Risks Controlled-Interim	Petroleum Volatile and Semi Volatile Organic Compounds
707 East Grand River Avenue	707 East Grand River Avenue, MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead, Mercury
707 Prudden Street	707 Prudden Street, Lansing MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
711 East Grand River Avenue	711 East Grand River Avenue, MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
719 E. St. Joseph St.	719 E. St. Joseph St., MI	Risks Controlled-Interim	Petroleum Volatile and Semi Volatile Organic Compounds
735 East Hazel Street	735 E HAZEL ST, LANSING MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
736 lake Lansing Road	736 lake Lansing Road, MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics
805 Vine Street	805 Vine Street, MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Elements/Metals/Other Inorganics, Lead, Lead
809 West Holmes Road	809 West Holmes Road, Lansing MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds
8.56 acre parcel of vacant land	8.56 acre parcel of vacant land, MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead, Mercury
902 East Grand River Avenue	902 East Grand River Avenue, Lansing MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics, Lead, Mercury
914 Filley Street	914 Filley Street, MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds
919 Clippert Street	919 Clippert Street, MI	Risks Present and Require Action in Short-term	Petroleum Volatile and Semi Volatile Organic Compounds
927 West Saginaw Street	927 West Saginaw Street, Lansing MI	Risks Controlled-Interim	Petroleum Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
Martin Luther King Jr Boulevard - Parcel	Martin Luther King Jr Boulevard/Parcel West of, Lansing MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
E. side of S. Cedar St. between Greenlaw	E. side of S. Cedar St. between Greenlaw and S. Park Blvd. and 517 S. Park Blvd., MI	Risks Present and Require Action in Long-term	Lead, Petroleum Volatile and Semi Volatile Organic Compounds
Filley Street, Parcel 1	Filley Street, Parcel 1, MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
Grand Ave & Kalamazoo St.	Grand Ave & Kalamazoo St., MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
Immediately East of 2558 East Jolly Road	Immediately East of 2558 East Jolly Road , MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics
NE Intersection of Jolly&Jolly Oak Rds	NE Intersection of Jolly & Jolly Oak Rds, MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics
N. Grand River & N. Waverly Road	N. Grand River & N. Waverly Road, MI	Risks Not Determined	
North Grand River Avenue Parcel No. 33-0	North Grand River Avenue Parcel No. 33-01-01-05-451-051, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Mercury
NW Corner of Aurelius & E Cavanaugh Rd	NW Corner of Aurelius & E Cavanaugh Rd, MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
Part of 1310 Turner Street	Part of 1310 Turner Street, Lansing MI	Risks Present and Require Action in Long-term	Carcinogenic PAHs, Carcinogenic PAHs, Elements/Metals/Other Inorganics, Elements/Metals/Other Inorganics, Lead, Lead
Sheridan Street & East Saginaw Street	Sheridan and Saginaw Streets, MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead
5 Larch Street	5 Larch Street, MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
Baker Street & Conrail ROW - Southwest o	Baker Street & Conrail ROW - SW of, Lansing MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
S of Haco Dr., E. of Pennsylvania	S of Haco Dr., E. of Pennsylvania, MI	Risks Controlled-Interim	Carcinogenic PAHs, Carcinogenic PAHs
South Hosmer Street	South Hosmer Street, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Lead
SW corner MLK Blvd & Holmes Rd	SW corner MLK Blvd & Holmes Rd, MI	Risks Present and Require Action in Long-term	
Vacant Land West of 4518 Aurelius Road	Vacant Land West of 4518 Aurelius Road, MI	Risks Present and Require Action in Short-term	Carcinogenic PAHs, Carcinogenic PAHs, Elements/Metals/Other Inorganics, Elements/Metals/Other Inorganics, Lead, Lead
Beaver Street & Center Street - Southwes	Beaver Street & Center Street-SW Corner, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Mercury
515 North Larch Street	515 N LARCH ST, LANSING MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
Elevation Apartments	2362 Jolly Oak Road, Okemos MI	Risks Present and Require Action in Long-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
2700 North East Street	2700 North East Street, Lansing MI	Risks Present and Require Action in Long-term	Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
4160 Keller Road	4160 Keller Road, Holt CDP MI	Risks Present and Require Action in Short-term	Petroleum Volatile and Semi Volatile Organic Compounds
5016 South Martin Luther King Junior Bou	5016 S MARTIN LUTHER KING JR BLVD, LANSING MI	Risks Controlled-Interim	Petroleum Volatile and Semi Volatile Organic Compounds
1159 & 1229 South Pennsylvania Avenue	1159 & 1229 South Pennsylvania Avenue, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead, Mercury
1974 Cedar Street	1974 Cedar Street, Holt CDP MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
1125 North Washington Avenue	1125 North Washington Avenue, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics
1401 Case Street	1401 Case Street, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
2345 Jarco Drive	2345 Jarco Drive, Holt CDP MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds
6030 South Martin Luther King Jr Blvd, Lansing MI	6030 South Martin Luther King Jr Blvd, Lansing MI	Risks Controlled-Interim	Mercury
0 River Street	0 River Street, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Mercury
Brown's Appliance	940 E. Cesar E. Chavez, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds
526 & 536 East Cesar E Chavez Avenue	526 & 536 East Cesar E Chavez Avenue, Lansing MI	Risks Present and Immediate	Elements/Metals/Other Inorganics, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
1900 East Kalamazoo Street	1900 East Kalamazoo Street, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
1703 East Michigan Avenue	1703 East Michigan Avenue, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Mercury
406 - 410 South Washington Square	406 - 410 South Washington Square, Lansing MI	Risks Controlled-Interim	Chlorinated Volatile and Semi Volatile Organic Compounds
2395 Washington Road - portion of	2395 Washington Road, Lansing MI	Risks Present and Require Action in Short-term	Mercury
1811 North Grand River Avenue	1811 North Grand River Avenue, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Mercury
112 East Malcolm X Street	112 East Malcolm X Street, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
5128 - 5224 South Cedar Street	5128 - 5224 South Cedar Street, Lansing MI	Risks Present and Immediate	Chlorinated Volatile and Semi Volatile Organic Compounds
Quality Dairy - Formerly	1400 South Washington Avenue, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
3532 & 3558 Kansas Road & 2446 Jolly Roa	3532 & 3558 Kansas Road& 2446 Jolly Road, Okemos MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Mercury
620 May Street	620 May Street, Lansing, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Petroleum Volatile and Semi Volatile Organic Compounds
1905 South Washington Avenue, Lansing	1905 South Washington Avenue, Lansing MI	Risks Present and Immediate	Chlorinated Volatile and Semi Volatile Organic Compounds, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
1510 and 1514 Turner Street	1510 and 1514 Turner Street, Lansing MI	Risks Present and Immediate	Elements/Metals/Other Inorganics
2727 Prospect Street	2727 Prospect Street, Lansing MI	Risks Present and Require Action in Short-term	Lead, PCB
1435 Diamond Reo Way, Lansing	1435 Diamond Reo Way, Lansing MI	Risks Present and Require Action in Short-term	Petroleum Volatile and Semi Volatile Organic Compounds
600 South Capital Avenue, Lansing	600 South Capital Avenue, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Mercury
820 West Miller Road, Lansing	820 West Miller Road, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds
1400 East Cavanaugh Road, Lansing	1400 East Cavanaugh Road, Lansing MI	Risks Present and Require Action in Long-term	Lead, Petroleum Volatile and Semi Volatile Organic Compounds
215 South Larch Street	215 South Larch Street, Lansing MI	Risks Present and Require Action in Short-term	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead
2200 William Street	2200 William Street, Lansing MI	Risks Present and Require Action in Short-term	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
Stadium North Lofts and Senior Lofts	500 North Cedar Street, Lansing MI	Risks Present and Require Action in Long-term	
306 East South Street, Lansing	306 East South Street, Lansing MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
0 North Larch Street	0 North Larch Street, Lansing MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
Cavanaugh Road & Sycamore Creek - South	Cavanaugh Road & Sycamore Creek, Lansing MI	Risks Not Determined	
1300 North Larch Street	1300 North Larch Street, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Lead, Mercury
East Paulson Street - Vacant Land East o	East Paulson Street, Lansing MI	Risks Controlled-Interim	Lead
220 South Larch Street, Lansing	220 South Larch Street, Lansing MI	Risks Present and Immediate	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds

1001 West Saginaw Street, Lansing	1001 West Saginaw Street, Lansing MI	Risks Present and Immediate	Chlorinated Volatile and Semi Volatile Organic Compounds, Lead
600 South Pennsylvania Avenue	600 South Pennsylvania Avenue, Lansing MI	Risk Controlled	Chlorinated Volatile and Semi Volatile Organic Compounds
Schoolcraft Drive	Schoolcraft Drive, Lansing MI	Risks Controlled-Interim	Elements/Metals/Other Inorganics, Lead, Mercury, Petroleum Volatile and Semi Volatile Organic Compounds
618 Sheridan Street, Lansing	618 Sheridan Street, Lansing MI	Risks Present and Immediate	Chlorinated Volatile and Semi Volatile Organic Compounds, Elements/Metals/Other Inorganics, Lead, Petroleum Volatile and Semi Volatile Organic Compounds
1926 Turner Street, Lansing	1926 Turner Street, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Petroleum Volatile and Semi Volatile Organic Compounds
314 North Verlinden Avenue - north of	314 North Verlinden Avenue - north of, Lansing MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics, Per- and Polyfluoroalkyl Substances
2209 2213 2215 East Michigan Avenue	2209 2213 2215 East Michigan Avenue, Lansing MI	Risks Present and Require Action in Long-term	Lead, Mercury
1845 Cedar Street	1845 Cedar Street, Holt CDP MI	Risks Present and Require Action in Long-term	Elements/Metals/Other Inorganics
2200 Olds Avenue	2200 Olds Avenue, Lansing MI	Risks Present and Require Action in Short-term	Petroleum Volatile and Semi Volatile Organic Compounds
1600 Turner Road	1600 Turner Road, Lansing MI	Risks Present and Require Action in Long-term	Petroleum Volatile and Semi Volatile Organic Compounds
690 N. MARTIN LUTHER KING JR. BLVD. PERR	690 N. MARTIN LUTHER KING JR. BLVD. PERRY STREET & N MARTIN LUTHER KING JR., MI	Risks Not Determined	
114 W Michigan	114 W Michigan, MI	Risks Not Determined	

APPENDIX F: PUBLIC MEETING DOCUMENTS

APPENDIX G: SUBMITTAL FORM AND RESOLUTION FOR DWSRF PROJECT PLANNING DOCUMENT

APPENDIX H: NORTH RESERVOIR MAINTENANCE INSPECTION
REPORT

AVAILABLE UPON REQUEST AT BWL OFFICE

APPENDIX I: SOUTH RESERVOIR MAINTENANCE INSPECTION
REPORT
AVAILABLE UPON REQUEST AT BWL OFFICE