



**SCI ENGINEERING, INC.**

**EARTH • SCIENCE • SOLUTIONS**

GEOTECHNICAL  
ENVIRONMENTAL  
NATURAL RESOURCES  
CULTURAL RESOURCES  
CONSTRUCTION SERVICES

August 17, 2023

Sal Maniaci, AICP, MoCED  
Community and Economic Development Director  
City of Washington  
405 Jefferson Street  
Washington, Missouri 63090

RE: Threatened and Endangered Species Consultation Letter  
Oldenburg Industrial Park  
Franklin County, Missouri  
SCI No. 2023-0505.31

Dear Sal Maniaci:

SCI Engineering, Inc. (SCI) is pleased to submit the following *Threatened and Endangered Species Consultation Letter*, dated August 2023. At your request, SCI completed a desktop assessment and review of available reports to determine if suitable habitat for both federally and state-listed species potentially exist within the project limits.

The project site is located west of the southwest intersection of State Highway KK and Highway 100 in Washington, Missouri. SCI understands that a proposed industrial development is planned on the approximately 87-acre subject property. Tree clearing activities will be limited to road crossing and utility installation, equating to a total of approximately 0.55 acres.

## **HABITAT ASSESSMENT SUMMARY**

### **Project Area Landscape**

The proposed project action area currently consists primarily of agricultural fields. Wooded riparian corridors exist along on-site tributaries near the south project boundary and diagonally across the center of the site, meeting at the southeast corner.

### **Surrounding Landscape & Natural Areas**

The surrounding landscape is primarily composed of agricultural fields, grass pastureland, and small forested tracts on all sides. Residential and commercial development also exists in the surrounding areas.

### **Threatened and Endangered Species Desktop Review (U.S. Fish and Wildlife Service)**

The Information, Planning and Conservation (IPaC) Assistance Tool, administered by the USFWS, was accessed on June 27, 2023, to obtain an official federal species list for the project area. The IPaC report provides a list of federally listed threatened or endangered species that may be found within or near the project site. A copy of the IPaC Report is included as Appendix A. Identified species from the IPaC Report include the following: gray bat (*Myotis grisescens*), Indiana bat (*Myotis sodalis*), northern long-eared bat

(*Myotis septentrionalis*), tricolored bat (*Perimyotis subflavus*), and monarch butterfly (*Danaus plexippus*), as well as Critical Habitat for the Indiana bat. A brief description of the listed species and their preferred habitat is described below, along with an assessment of the likelihood that the species may be present within the site based on the existing site condition and effects of the proposed project. Please note that no field assessments have been completed at this time to confirm the findings of our desktop review.

**Gray bat (*Myotis grisescens*)** - This endangered species is generally found in caves year-round. During the winter gray bats hibernate in deep, vertical caves while in the summer they roost in caves which are scattered along rivers. These caves are typically found in limestone karst areas. ***The project site is primarily comprised of an agricultural field which appears to be void of known caves that may be considered suitable for gray bats. As such, suitable habitat for the gray bat is not likely present within the project area and it is unlikely that project development would negatively affect the species.***

**Indiana bat (*Myotis sodalis*)** – This endangered species hibernates during the winter in caves or, occasionally, in abandoned mines. They migrate to summer habitat in forested areas after emerging from hibernation. Preferred habitat includes live or dead trees and snags with peeling or exfoliating bark, split trunks, or cavities. Preferred tree species may include eastern cottonwood, maple species, oak species, American elm, ash species, shagbark hickory, or shellbark hickory. Foraging habitat typically includes upland forest, riparian areas, and stream corridors. Additionally, the site exists entirely within the Critical Habitat for the Indiana bat. ***The project site is a primarily comprised of an agricultural field with forested, riparian corridors that may be considered suitable for Indiana bats. While the habitat for the species on the site may exist, minimal tree clearing will occur within the November 1 through March 31 winter period when presence of bats is unlikely. Therefore, it is unlikely that the project development would negatively affect the species and “may affect, not likely to adversely affect” the habitat based on the proposed activities.***

**Northern long-eared bat (*Myotis septentrionalis*)** – Similar to the Indiana bat, this threatened species hibernates in caves or mines only during the winter. The rest of the year they roost under loose tree bark in tree crevices or cavities during the day and forage around tree canopies of floodplain, riparian, and upland forests at night. ***The project site is primarily comprised of an agricultural field with forested, riparian corridors that may be considered suitable for Northern long-eared bats. While the habitat for the species on the site may exist, minimal tree clearing will occur within the November 1 through March 31 winter period when presence of bats is unlikely. Therefore, it is unlikely that the project development would negatively affect the species.***

**Tricolored bat (*Perimyotis subflavus*)** - Please note that the USFWS recently listed the Tricolored bat on September 14, 2022, as a Proposed Endangered species. Proposed endangered species are in danger of extinction throughout all or a significant portion of their range and the USFWS has proposed a draft rule to list the species as endangered. Proposed endangered species are not protected by the take prohibitions of Section 9 of the Endangered Species Act (ESA) until the rule to list is finalized. If the rule is finalized, it will add this species to the List of Endangered and Threatened Wildlife and extend the ESA’s protections to the species.

**Monarch butterfly (*Danaus plexippus*)** - There are generally no Section 7 ESA requirements for candidate species, however the USFWS encourages any opportunity to conserve the species. This large butterfly lives in a variety of habitats throughout North America and across the world. During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (primarily *Asclepias spp.*). Monarchs need nighttime roosting sites during migration. In the western population, roosting generally occurs in both native and non-native deciduous and evergreen trees. Monarchs have been observed using narrow-leaved tree species such as willows, Russian olives, locusts, pines, and eucalyptus as roosting sites. Adults use a

wide variety of flowering plants throughout migration and breeding seasons. *As part of this species assessment, SCI reviewed the habitat requirements for this species and determined that since the area primarily exists as an agricultural field, the majority of project area does not likely contain Monarch butterfly habitat within the proposed action area.*

### **Threatened and Endangered Species Desktop Review (Missouri Department of Conservation)**

The Natural Heritage Review, administered through the Missouri Department of Conservation (MDC), was accessed in order to determine if state-listed threatened and endangered species are listed within or near the project site. The Natural Heritage review was requested on June 27, 2023, and the review request returned a Level One Report: No Known Records. Therefore, no additional coordination with MDC in regard to state-listed species is likely necessary.

### **SUMMARY**

In summary, Indiana and Northern long-eared bat habitat may exist on site. However, tree clearing is being kept to a minimum and is scheduled to take place within the November 1 through March 31 winter tree clearing period when it is unlikely that that bat species will be present within the site. Thus, SCI has concluded that a “**no effect**” conclusion would be appropriate for this project if project tree clearing is conducted between November 1 and March 31.

SCI is providing our professional opinion regarding the suitability of habitat for threatened and endangered species. Please note that field assessments may be necessary to confirm the findings of our desktop assessment. Although SCI is providing our professional opinion, the USFWS and MDNR have the sole authority to determine if the project site contains suitable habitat for Federally or State listed species. Likewise, the USFWS and MDNR have the sole authority to regulate any action which may affect a Federally or State listed threatened or endangered species.

If you have any questions regarding this assessment or need additional information, please contact me at (618) 206-3038 or [sbillings@sciengineering.com](mailto:sbillings@sciengineering.com).

Respectfully,

**SCI ENGINEERING, INC.**



Michael S. Holm, CESSWI  
Staff Scientist



Scott E. Billings  
Senior Project Scientist

MSH/SEB/rah

Enclosures

- Appendix A – USFWS IPAC Report
- Appendix B – MDNR Heritage Database Review

# **Appendix A**



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Missouri Ecological Services Field Office  
101 Park Deville Drive  
Suite A  
Columbia, MO 65203-0057  
Phone: (573) 234-2132 Fax: (573) 234-2181

In Reply Refer To:  
Project Code: 2023-0048107  
Project Name: Oldenberg Industrial Park

June 27, 2023

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:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

## Threatened and Endangered Species

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirement for obtaining a Technical Assistance Letter from the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. **Note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days.** The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

## Consultation Technical Assistance

Refer to the Midwest Region [S7 Technical Assistance](#) website for step-by-step instructions for making species determinations and for specific guidance on the following types of projects:

projects in developed areas, HUD, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.

### **Federally Listed Bat Species**

Indiana bats, gray bats, and northern long-eared bats occur throughout Missouri and the information below may help in determining if your project may affect these species.

*Gray bats* - Gray bats roost in caves or mines year-round and use water features and forested riparian corridors for foraging and travel. If your project will impact caves, mines, associated riparian areas, or will involve tree removal around these features – particularly within stream corridors, riparian areas, or associated upland woodlots –gray bats could be affected.

*Indiana and northern long-eared bats* - These species hibernate in caves or mines only during the winter. In Missouri the hibernation season is considered to be November 1 to March 31. During the active season in Missouri (April 1 to October 31) they roost in forest and woodland habitats. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags  $\geq 5$  inches diameter at breast height (dbh) for Indiana bat, and  $\geq 3$  inches dbh for northern long-eared bat, that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Tree species often include, but are not limited to, shellbark or shagbark hickory, white oak, cottonwood, and maple. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, Indiana bats or northern long-eared bats could be affected.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas;
- Trees found in highly-developed urban areas (e.g., street trees, downtown areas);
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees; and
- A stand of eastern red cedar shrubby vegetation with no potential roost trees.

### **Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species**

1. If IPaC returns a result of “There are no listed species found within the vicinity of the project,” then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **No Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records. An example ["No Effect" document](#) also can be found on the S7 Technical Assistance website.
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2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project – other than bats (see #3 below) – then project proponents can conclude the proposed activities **may affect** those species. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain [Life History Information for Listed and Candidate Species](#) through the Species website.
3. If IPaC returns a result that one or more federally listed bat species (Indiana bat, northern long-eared bat, or gray bat) are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** these bat species **IF** one or more of the following activities are proposed:
  - a. Clearing or disturbing suitable roosting habitat, as defined above, at any time of year;
  - b. Any activity in or near the entrance to a cave or mine;
  - c. Mining, deep excavation, or underground work within 0.25 miles of a cave or mine;
  - d. Construction of one or more wind turbines; or
  - e. Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

If none of the above activities are proposed, project proponents can conclude the proposed activities will have **no effect** on listed bat species. Concurrence from the Service is not required for **No Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records. An example ["No Effect" document](#) also can be found on the S7 Technical Assistance website.

If any of the above activities are proposed in areas where one or more bat species may be present, project proponents can conclude the proposed activities **may affect** one or more bat species. We recommend coordinating with the Service as early as possible during project planning. If your project will involve removal of over 5 acres of suitable forest or woodland habitat, we recommend you complete a Summer Habitat Assessment prior to contacting our office to expedite the consultation process. The Summer Habitat Assessment Form is available in Appendix A of the most recent version of the [Range-wide Indiana Bat Summer Survey Guidelines](#).

### **Other Trust Resources and Activities**

*Bald and Golden Eagles* - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. Should bald or golden eagles occur within or near the project area please contact our office for further coordination. For communication and wind energy projects, please refer to additional guidelines below.

*Migratory Birds* - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA

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to proactively prevent the mortality of migratory birds whenever possible and we encourage implementation of recommendations that minimize potential impacts to migratory birds. Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

*Communication Towers* - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed [voluntary guidelines for minimizing impacts](#).

*Transmission Lines* - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to [guidelines](#) developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

*Wind Energy* - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's [Wind Energy Guidelines](#). In addition, please refer to the Service's [Eagle Conservation Plan Guidance](#), which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

#### **Next Steps**

Should you determine that project activities **may affect** any federally listed species or trust resources described herein, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

If you have not already done so, please contact the Missouri Department of Conservation (Policy Coordination, P. O. Box 180, Jefferson City, MO 65102) for information concerning Missouri Natural Communities and Species of Conservation Concern.

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

John Weber

Attachment(s):

- Official Species List
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## **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:

**Missouri Ecological Services Field Office**

101 Park Deville Drive

Suite A

Columbia, MO 65203-0057

(573) 234-2132

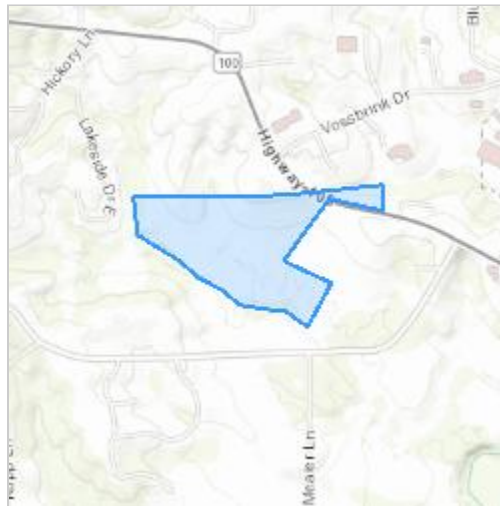
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## PROJECT SUMMARY

Project Code: 2023-0048107  
Project Name: Oldenberg Industrial Park  
Project Type: Government / Municipal (Non-Military) Construction  
Project Description: City of Washington - 115 ac - Construct public utilities (roadway, sewer, water) for a new industrial park. The development will occur in an active row crop field. Construction is anticipated to begin in 3 months.

### Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.5649619,-91.07816362154381,14z>



Counties: Franklin County, Missouri

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## 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.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, 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
Gray Bat <i>Myotis grisescens</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6329">https://ecos.fws.gov/ecp/species/6329</a>	Endangered
Indiana Bat <i>Myotis sodalis</i> There is <b>final</b> critical habitat for this species. Your location overlaps the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5949">https://ecos.fws.gov/ecp/species/5949</a> General project design guidelines: <a href="https://ipac.ecosphere.fws.gov/project/5QR5YNBPAZB4PNABQGGTBB7IGI/documents/generated/6868.pdf">https://ipac.ecosphere.fws.gov/project/5QR5YNBPAZB4PNABQGGTBB7IGI/documents/generated/6868.pdf</a>	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a> General project design guidelines: <a href="https://ipac.ecosphere.fws.gov/project/5QR5YNBPAZB4PNABQGGTBB7IGI/documents/generated/6868.pdf">https://ipac.ecosphere.fws.gov/project/5QR5YNBPAZB4PNABQGGTBB7IGI/documents/generated/6868.pdf</a>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered

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**INSECTS**

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

**CRITICAL HABITATS**

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> <a href="https://ecos.fws.gov/ecp/species/5949#crithab">https://ecos.fws.gov/ecp/species/5949#crithab</a>	Final

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## **IPAC USER CONTACT INFORMATION**

Agency: City of Washington  
Name: Andrea Lueken  
Address: 405 Jefferson Street  
City: Washington  
State: MO  
Zip: 63090  
Email: alueken@washmo.gov  
Phone: 6363901013

## **LEAD AGENCY CONTACT INFORMATION**

Lead Agency: Economic Development Administration

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# **Appendix B**



## Missouri Department of Conservation

Missouri Department of Conservation's Mission is to protect and manage the forest, fish, and wildlife resources of the state and to facilitate and provide opportunities for all citizens to use, enjoy and learn about these resources.

### **Natural Heritage Review Level One Report: No Known Records**

**Foreword:** Thank you for accessing the Missouri Natural Heritage Review Website developed by the Missouri Department of Conservation with assistance from the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, Missouri Department of Transportation and NatureServe. The purpose of this report is to provide information to federal, state and local agencies, organizations, municipalities, corporations, and consultants regarding sensitive fish, wildlife, plants, natural communities, and habitats to assist in planning, designing, and permitting stages of projects.

### **PROJECT INFORMATION**

**Project Name and ID Number:** Oldenberg -6/27/2023 #12956

**User Project Number:** City 6/27/2023

**Project Description:** Township 44N Range 1W Section 18 Lat:38deg34'00" Long: 91deg04'32" Unnamed tributary to St. John's Creek Franklin County, MO

**Project Type:** Residential, Commercial and Governmental Building Development

**Contact Person:** Andrea Lueken

**Contact Information:** alueken@washmo.gov or 636-390-1013

**Disclaimer:** This NATURAL HERITAGE REVIEW REPORT identifies if a species or natural community tracked by the Natural Heritage Program is known to occur within or near the project area submitted, and shares recommendations to avoid or minimize project impacts to sensitive species or natural habitats. Incorporating information from the Natural Heritage Program into project plans is an important step in reducing impacts to Missouri's sensitive natural resources. If an occurrence record is present, or the proposed project might affect federally listed species, the user must contact the Department of Conservation or U.S. Fish and Wildlife Service for more information.

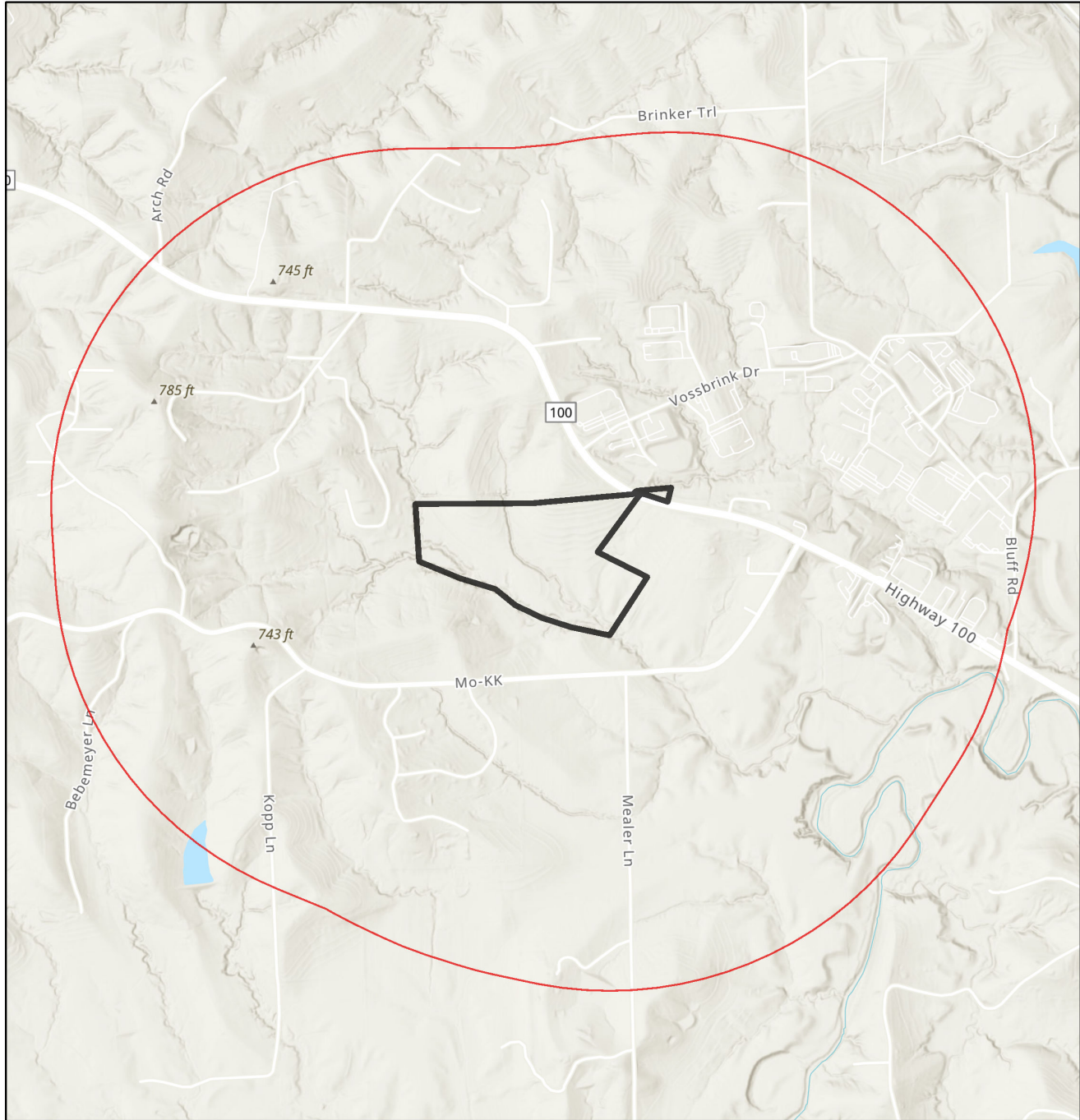
This Natural Heritage Review Report is not a site clearance letter for the project. Rather, it identifies public lands and records of sensitive resources located close to and/or potentially affected by the proposed project. If project plans or location change, this report may no longer be valid. Because land use conditions change and animals move, the existence of an occurrence record does not mean the species/habitat is still present. Therefore, reports include information about records near but not necessarily on the project site. Lack of an occurrence record does not mean that a sensitive species or natural community is not present on or near the project area. On-site verification is the responsibility of the project. However, the Natural Heritage Program is only one reference that should be used to evaluate potential adverse project impacts and additional information (e.g. wetland or soils maps, on-site inspections or surveys) should be considered. Reviewing current landscape and habitat information, and species' biological characteristics would additionally ensure that Missouri Species of Conservation Concern are appropriately identified and addressed in planning efforts.

**U.S. Fish and Wildlife Service – Endangered Species Act (ESA) Coordination:** Lack of a Natural Heritage Program occurrence record for federally listed species in your project area does not mean the species is not present, as the area may never have been surveyed. Presence of a Natural Heritage Program occurrence record does not mean the project will result in negative impacts. This report does not fulfill Endangered Species Act consultation with the U.S. Fish and Wildlife Service (USFWS) for listed species. Direct contact with the USFWS may be necessary to complete consultation and it is required for actions with a federal connection, such as federal funding or a federal permit; direct contact is also required if ESA concurrence is necessary. Visit [IPaC: Home \(fws.gov\)](https://www.fws.gov/ipac) to initiate USFWS Information for Planning and Conservation (IPaC) consultation. Contact the Columbia Missouri Ecological Field Services Office (573-234-2132, or by mail at 101 Park Deville Drive, Suite A, Columbia, MO 65203) for more information.

**Transportation Projects:** If the project involves the use of Federal Highway Administration transportation funds, these recommendations may not fulfill all contract requirements. Please contact the Missouri Department of Transportation at 573-526-4778 or visit [Home Page | Missouri Department of Transportation \(modot.org\)](https://www.modot.org) for additional information on recommendations.





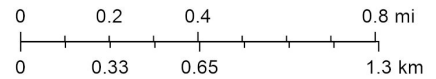
# Oldenberg -6/27/2023



June 27, 2023

1:24,927

-  Buffered Project Boundary
-  Project Boundary



Esri, NASA, NGA, USGS, FEMA, Missouri Dept. of Conservation, Missouri DNR, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

### Species or Communities of Conservation Concern within the Area:

There are no known records of Species or Natural Communities of Conservation Concern within the defined Project Area.

### Other Special Search Results:

No results have been identified for this project location.

### Project Type Recommendations:

**New construction, maintenance and remodeling, including government, commercial and residential buildings and other structures.** Fish, forest, and wildlife impacts can be avoided by siting projects in locations that have already been disturbed or previously developed, where and when feasible, and by avoiding alteration of areas providing existing habitat, such as wetlands, streams, forest, native grassland, etc. The project should be managed to minimize erosion and sedimentation/runoff to nearby wetlands, streams and lakes, including adherence to any Clean Water Act permit conditions. Project design should include stormwater management elements that assure storm discharge rates to streams for heavy rain events will not increase from present levels. Revegetate areas in which the natural cover is disturbed to minimize erosion using native plant species compatible with the local landscape and wildlife needs. Annual ryegrass may be combined with native perennials for quicker green-up. Avoid aggressive exotic perennials such as crownvetch and sericea lespedeza. Pollutants, including sediment, can have significant impacts far downstream. Use silt fences and/or vegetative filter strips to buffer streams and drainages, and monitor the site after rain events and until a well-rooted ground cover is reestablished. Please see [Best Management Practices for Construction and Development Projects Affecting Missouri Rivers and Streams \(mo.gov\)](#).

### Project Location and/or Species Recommendations:

**Endangered Species Act Coordination - If this project has the potential to alter habitat (e.g. tree removal, projects in karst habitat) or cause direct mortality of bats, please coordinate directly with U.S. Fish and Wildlife Service (Ecological Services, 101 Park Deville Drive, Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132 Ext. 100 for Ecological Services) for further coordination under the Endangered Species Act. Indiana bats (*Myotis sodalis*, federal- and state-listed endangered) and Northern long-eared bats (*Myotis septentrionalis*, federal-listed threatened) may occur near the project area. Both of these species of bats hibernate during winter months in caves and mines. During the summer months, they roost and raise young under the bark of trees in wooded areas, often riparian forests and upland forests near perennial streams. During project activities, avoid degrading stream quality and where possible leave snags standing and preserve mature forest canopy. Do not enter caves known to harbor Indiana bats or Northern long-eared bats, especially from September to April.**

**Karst:** This county has known karst geologic features (e.g., caves, springs, and sinkholes, all characterized by subterranean water movement). Few karst features are recorded in Natural Heritage records, and ones not noted here may be encountered at the project site or affected by the project. Cave fauna (many of which are Species of Conservation Concern) are influenced by changes to water quality; please check your project site for any karst features and make every effort to protect groundwater in the project area. Additional information and specific recommendations are available at [Management Recommendations for Construction and Development Projects Affecting Missouri Karst Habitat \(mo.gov\)](#).

**Invasive exotic species** are a significant issue for fish, wildlife and agriculture in Missouri. Seeds, eggs, and larvae may be moved to new sites on boats or construction equipment. Please inspect and clean equipment thoroughly before moving between project sites. See [Managing Invasive Species in Your Community | Missouri Department of Conservation \(mo.gov\)](#) for more information.

- Remove any mud, soil, trash, plants or animals from equipment before leaving any water body or work area.
- Drain water from boats and machinery that have operated in water, checking motor cavities, live-well, bilge and transom wells, tracks, buckets, and any other water reservoirs.
- When possible, wash and rinse equipment thoroughly with hard spray or HOT water (>140° F, typically available at do-it-yourself car wash sites), and dry in the hot sun before using again.

**Streams and Wetlands – Clean Water Act Permits:** Streams and wetlands in the project area should be protected from activities that degrade habitat conditions. For example, soil erosion, water pollution, placement of fill, dredging, in-stream activities, and riparian corridor removal, can modify or diminish aquatic habitats. Streams and wetlands may be protected under the Clean Water Act and require a permit for any activities that result in fill or other modifications to the site. Conditions provided within the U.S. Army Corps of Engineers (USACE) Clean Water Act Section 404 permit ([Kansas City District Regulatory Branch \(army.mil\)](#)) and the Missouri Department of Natural Resources (DNR) issued Clean Water Act Section 401 Water Quality Certification ([Section 401 Water Quality Certification | Missouri Department of Natural Resources \(mo.gov\)](#)), if required, should help minimize impacts to the aquatic organisms and aquatic habitat within the area. Depending on your project type, additional permits may be required by the Missouri Department of Natural Resources, such as permits for stormwater, wastewater treatment facilities, and confined animal feeding operations. Visit [Wastewater Permits | Missouri Department of Natural Resources \(mo.gov\)](#) for more information on DNR permits. Visit both the USACE and DNR for more information on Clean Water Act permitting.

**For further coordination with the Missouri Department of Conservation and the U.S. Fish and Wildlife Services, please see the contact information below:**

Email (preferred): [NaturalHeritageReview@mdc.mo.gov](mailto:NaturalHeritageReview@mdc.mo.gov)  
MDC Natural Heritage Review  
Science Branch  
P.O. Box 180  
Jefferson City, MO  
65102-0180  
Phone: 573-522-4115 ext. 3182

U.S. Fish and Wildlife Service  
Ecological Service  
101 Park Deville Drive  
Suite A  
Columbia, MO  
65203-0007  
Phone: 573-234-2132

**Miscellaneous Information**

FEDERAL Concerns are species/habitats protected under the Federal Endangered Species Act and that have been known near enough to the project site to warrant consideration. For these, project managers must contact the U.S. Fish and Wildlife Service Ecological Services (101 Park Deville Drive Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132; Fax 573-234-2181) for consultation.

STATE Concerns are species/habitats known to exist near enough to the project site to warrant concern and that are protected under the Wildlife Code of Missouri (RSMo 3 CSR 1 0). "State Endangered Status" is determined by the Missouri Conservation Commission under constitutional authority, with requirements expressed in the Missouri Wildlife Code, rule 3CSR 1 0-4.111. Species tracked by the Natural Heritage Program have a "State Rank" which is a numeric rank of relative rarity. Species tracked by this program and all native Missouri wildlife are protected under rule 3CSR 10-4.110 General Provisions of the Wildlife Code.

See [Missouri Species and Communities of Conservation Concern Checklist \(mo.gov\)](#) for a complete list of species and communities of conservation concern. Detailed information about the animals and some plants mentioned may be accessed at [Mofwis Search Results](#). Please contact the Missouri Department of Conservation to request printed copies of any materials linked in this document.