



# Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271  
www.dnr.illinois.gov

Bruce Rauner, Governor  
Wayne A. Rosenthal, Director

## **Authorization for Incidental Take and Implementing Agreement**

Pursuant to the Illinois Endangered Species Protection Act (Act) (520 ILCS 10/5.5) and the regulations adopted to implement the Act (17 Ill. Adm. Code 1080), authorization is hereby granted to Metropolitan Mass Transit District (hereinafter referred to as MetroLINK) for the incidental take of the black sandshell (*Ligumia recta*) and butterfly (*Ellipsaria lineolata*). The Illinois Department of Natural Resources (hereinafter referred to as the Department) has determined that the taking is incidental to activities associated with the construction of the Channel Cat ferryboat terminal on the Mississippi River in Rock Island County, Illinois.<sup>1</sup> The project area is located within the Mississippi River – Moline Illinois Natural Areas Inventory Site (INAI #1295) and lies approximately one mile upstream of Sylvan Slough, an area known for high mussel diversity and abundance.

### **Procedural History**

The Department received a conservation plan from MetroLINK on June 12, 2015, as a request for authorization for the incidental take of black sandshell and butterfly. The Department requested additional information on July 10, 2015, to make the conservation plan complete as prescribed by Ill. Adm. Code 1080.10. That additional information was received by the Department on July 31 and August 25, 2015. The public notice period will be detailed under #6 of the Compliance section below.

### **Compliance with the Illinois Endangered Species Protection Act**

The Act includes six criteria that must be satisfied for the authorization of incidental take of an endangered or threatened species. These criteria and the Department's determination for each are listed below.

1. The taking will not be the purpose of, but will only be incidental to, the carrying out of an otherwise lawful activity:

The stated and apparent purpose of this proposed action is the construction of a 64 feet x 64 feet terminal ferry dock that extends 114 feet into the Mississippi River anchored by up to ten (10) steel piles drilled eight (8) feet deep into bedrock in Rock Island County, Illinois. A barge-mounted boring machine will be used to drill holes for the steel pile installations. One large cable will tie in the upstream outer corner to the landside anchoring system. The installation will take approximately two (2) months. The permanent impact area associated with the installation of the steel piles is approximately **49 square feet (4.6 square**

<sup>1</sup> The project location is further described as River Mile 487.7, 3000 block of River Drive, Moline, Illinois.

meters). Take of black sandshell and butterfly mussels could occur when the steel piles are placed into the riverbed as a result of burial or crushing. Drilling noise and vibration could also have adverse effect on some life history stage of the mussels. The take of black sandshell and butterfly that could result from this project is not the purpose of MetroLINK's activities, but is incidental to the carrying out of an otherwise lawful activity.

2. The parties to the conservation plan will, to the maximum extent practicable, minimize and mitigate the impact caused by the taking:

Proposed minimization and mitigation measures were included in MetroLINK's conservation plan.

To meet the "maximum extent practicable" standard, additional minimization and/or mitigation measures may be required beyond those proposed by MetroLINK, based on the life history needs of the black sandshell and butterfly mussels. **All required minimization and mitigation measures are presented under the Authorization section below.**

3. The parties to the conservation plan will ensure that adequate funding for the conservation plan will be provided:

MetroLINK is a grant recipient of U.S. Department of Transportation Federal Transit Administration funds which have been awarded for this Channel Cat ferryboat terminal project. Grantees are required to carry out the responsibilities and obligations of the project, including but not limited to conducting an environmental review and constructing the project pursuant to applicable State and federal guidelines, as well as maintaining satisfactory control and a state of good repair throughout the project's useful life. MetroLINK is committed to funding the minimization and mitigation that will be required as part of this project using available State and federal funds. MetroLINK understands that if any additional activities are planned at the facility that may affect black sandshell and butterfly mussels or other endangered or threatened species, coordination with the Department will be required.

4. Based on the best available scientific data, the Department has determined that the taking will not reduce the likelihood of survival or recovery of the endangered species or threatened species in the wild within the State of Illinois, the biotic community of which the species is a part, or the habitat essential to the species' existence in Illinois:

Freshwater mussels are secretive animals that spend almost all of their lives buried in river (or rarely, lake) bottoms. They require stable river / stream substrates and depend on host fish for completion of one stage of their life cycle. Black sandshell mussels have an elongate shell that is pointed at the posterior end with a smooth, shiny, and dark green to brown or black surface. Black sandshell prefers gravel and/or firm sand substrates in medium to large rivers. Their larvae

(glochidia) have been observed to transform on members of the sunfish family as well as walleye (*Sander vitreus*) and sauger (*Sander canadensis*). It is a widespread species that is fairly common in the Upper and Middle Mississippi, Ohio, Rock, and Kankakee Rivers but is rare elsewhere. It formerly occupied large stretches of the Fox, Illinois, Vermilion, and Wabash Rivers.

In May 2015, personnel from the U.S. Fish and Wildlife Service, Rock Island Field Office, performed a survey for freshwater mussels in and near the area that will be affected by this project. The survey found a total of 66 freshwater mussels in the areas that will be directly affected by the ferry dock and steel pile installation and the buffers around those locations. Seven individual black sandshells were found.

The Illinois Natural Heritage Database includes 92 element occurrence records for the black sandshell that are classified as extant populations (observed in the last ten years). The black sandshell is listed as a threatened species in Illinois because of its reduced distribution and abundance relative to historic records. The species now occurs in approximately half of the drainages in which it was formerly found. The decline of the species is believed to be related to siltation and pollution as well as the fragmentation of riverine habitat by dams.

The Department has issued 18 previous authorizations for the incidental take of black sandshells. Project types included bridge repair/replacement, dredging of barge/boat channels, pipeline installation or removal, dam removal, and placement of rock and/or rip rap for navigation improvements. Typical minimization and mitigation measures have included reduction of the project footprint, relocation of mussels prior to construction, funding of species research, funding of species propagation, compensatory mitigation payments, and post-construction surveys to assess the status of mussels at project sites and relocation areas. Post-project surveys completed to date show the continued presence of black sandshell mussels in and near project sites.

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Butterfly mussels grow to five inches in length and have a yellow to yellowish-brown or yellowish-green shell with scattered broken brown rays that appear as spots, bars, wavy patterns or V-shapes. Host fish include freshwater drum (*Aplodinotus grunniens*), green sunfish (*Lepomis cyanellus*), and sauger (*Sander canadensis*). Butterfly mussels live in large rivers with fairly swift current and coarse sand and gravel substrate.

The butterfly mussel is listed as a threatened species in Illinois because it has been lost from much of its range. It has been recorded in the Kaskaskia, Illinois, Rock, Wabash, Ohio, and Mississippi Rivers but is currently extant in just the Mississippi and Ohio Rivers. It is widespread but only locally abundant. Declines in water quality due to agriculture runoff and industrial pollution as well as habitat alteration from dredging, impoundments, sand and gravel mining, and navigational improvements are thought to contribute to population declines.

In May 2015, personnel from the U.S. Fish and Wildlife Service, Rock Island Field Office, performed a survey for freshwater mussels in and near the area that will be affected by this project. The survey found a total of 66 freshwater mussels in the areas that will be directly affected by the ferry dock and steel pile installation and the buffers around those locations. One individual butterfly mussel was found.

The Illinois Natural Heritage Database includes 31 element occurrence records considered extant (observed in the last ten years) for the butterfly mussel in Illinois. Ten of the element occurrence records for butterfly are found within Rock Island County. According to the Department's data, butterfly mussels inhabit large rivers and their side channels and pools with silt, sand, clay, gravel and/or rock substrate. The Department has issued four previous authorizations for incidental take of butterfly mussels. All butterfly authorizations have been issued for projects in the Mississippi River, two of those have occurred in Rock Island County. Project types include dredging of barge/boat channels and piling/dock installation. Previous ITAs have required a reduction in the project area, mussel relocation and monitoring, low draft vessels with reduced speeds, and erosion and pollution control measures.

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Based on the amount of habitat impacted by this project, the number of known occurrences of the black sandshell and butterfly mussels in Illinois, an assessment of the potential effect of this project on individual mussels in the project footprint, and the conservation measures included in this authorization for incidental take, the Department has concluded that the taking proposed herein will not reduce the likelihood of survival or recovery of the black sandshell and butterfly mussels in the wild within the State of Illinois, the biotic community of which the species is a part, or the habitat essential to the species' existence in Illinois.

5. Any measures required under Section 5.5(b)(6) of the Act will be performed:

These measures are listed below under "Authorization." This authorization is, by definition, subject to those terms and conditions and the signature of a representative of MetroLINK indicates their commitment to performing those measures.

6. The public has received notice of the application and has had the opportunity to comment before the Department made any decision regarding the application:

Public notice of MetroLINK's request for authorization of incidental take was published in the Breeze Courier (official state newspaper) on September 1, 2015 and in The (Moline) Dispatch on September 1, 8, and 15 of 2015. A copy of the conservation plan was deposited at the Moline Public Library, where it was available for public review. The deadline for public comment was October 16, 2015. No comments were received from the public.

## Authorization

It is the determination of the Department that the measures that will be implemented by MetroLINK will adequately minimize and mitigate the anticipated taking of black sandshell and butterfly mussels incidental to activities associated with the installation of ten (10) steel piles to construct the Channel Cat ferryboat terminal on the Mississippi River in Rock Island County, Illinois. Further, the Department has concluded that the take authorized herein will not reduce the likelihood of survival or recovery of the black sandshell and butterfly mussels in the wild within the State of Illinois, the biotic community of which the species is a part, or the habitat essential to the species' existence in Illinois. Additional listed mussel species are known to inhabit the Mississippi River in the vicinity of this project, this agreement does not authorize take of any species except black sandshell and butterfly mussels.

All terms and conditions included in the aforementioned conservation plan submitted by MetroLINK to the Department are incorporated into this agreement by reference and are made a part thereof.

Pursuant to Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5] and the Administrative Rules for the Incidental Taking of Endangered and Threatened Species [Ill. Adm. Code 1080.40(b)], this authorization is issued subject to the following terms and conditions, which may include additions or modifications to the minimization and mitigation measures proposed by the applicant in the conservation plan:

1. This authorization is effective upon the signature of the Department and shall remain in effect for a period of **seven (7) years** from the date of the Department signature, unless terminated by written agreement of both parties.

This authorization may be revoked pursuant to the Act and Ill. Adm. Code 1080.80(b) if the Department finds that MetroLINK has failed to comply with any of these terms and conditions or has been responsible for the taking of black sandshell and butterfly mussels beyond that which is incidental to activities associated with the installation of ten steel piles to construct the Channel Cat ferryboat terminal on the Mississippi River in Rock Island County, Illinois.

2. The effective period of this authorization may be altered by mutual written agreement between MetroLINK and the Department. The Illinois Endangered Species Protection Board shall be notified of any such alteration.

Any substantive changes, including but not limited to a change in the project footprint or a change in the State-listed species which could potentially be affected, will require that a new conservation plan be submitted to the Department to initiate the review and public notice process as required by the Act.

3. This authorization is non-transferable.

4. All personnel working in the vicinity of the project shall receive educational materials including species identification information, protected status of the species, and response protocol in place for when the species is encountered, living or dead. A copy of the educational flyer shall be provided to the Department. The Department shall be informed of any sighting and provided location information within 48 hours of such sighting.
5. The Department reserves the right of entry by its staff or representatives to inspect species, potential habitat, and species management practices. MetroLINK shall notify the Department's Endangered Species Program of the initiation and completion of the subject project.
6. Biological consultants employed by MetroLINK shall hold the necessary permits for work with non-listed and listed species; these include an IDNR Scientific Collection Permit and an IDNR Endangered Species Permit.
7. MetroLINK shall conduct, or cause to be conducted, a thorough search for freshwater mussels at each 30-inch diameter pile site plus 5-foot diameter buffer during biologically suitable mussel relocation periods. This search shall be conducted no more than 30 days prior to project initiation. Mussels will not be relocated when air temperatures are at or below 32 degrees Fahrenheit, nor when water temperatures are at or below 40 degrees Fahrenheit. All mussels will be held in mesh bags suspended in the river or in containers of water changed every hour (every half-hour when air temperatures are at or above 87 degrees Fahrenheit). Water in containers shall be taken from the river where the mussels were collected. No mussels shall be held for more than three (3) hours before being returned to suitable habitat in the river.

All freshwater mussels found shall be identified to species, marked, and enumerated. Those conducting the search must be qualified at accurate identification of freshwater mussel species. All native freshwater mussels found during this search shall have zebra mussels removed from their shells and be relocated to suitable habitat pre-approved by the Department. A report including, but not limited to, the survey methodology utilized, the species and numbers of mussels located, the age and size of each individual sampled, and maps of the area searched and the relocation site shall be provided to the Department within 60 days of completion of the survey and relocation effort.

8. MetroLINK shall conduct, or cause to be conducted, a thorough search for freshwater mussels at each 30-inch diameter pile site plus 5-foot diameter buffer and the relocation site in year two following completion of the project. For example, if the project is completed in 2016, this search for freshwater mussels shall be conducted in 2018 when water levels and temperatures are suitable. A report including, but not limited to, the survey methodology utilized, the species and numbers of mussels located (noting any marked individuals), the age and size of each individual sampled, and a map of the species locations shall be provided to the Department within 60 days of completion of the survey.

If no State-listed species are relocated, no year-two survey is required at the relocation site.

9. No compensatory mitigation is being sought for the actions proposed in MetroLINK's conservation plan based on the Department's analysis of the species status in the local area, the project area footprint size, the number of individuals to be potentially impacted, and the benefits from relocation and monitoring efforts.
10. MetroLINK shall submit reports on all surveys within 60 days of survey completion.
11. All reports, notifications, and other project documentation shall be submitted to:

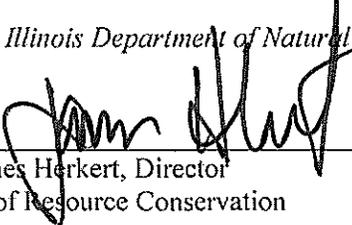
Illinois Department of Natural Resources  
Office of Resource Conservation  
Endangered Species Program – Incidental Take Authorization Coordinator  
One Natural Resource Way  
Springfield, IL 62702-1271

(217)557-8243  
[DNR.ITAcoordinator@illinois.gov](mailto:DNR.ITAcoordinator@illinois.gov)

The Department's Endangered Species Program shall provide all reports required under this agreement to the Illinois Endangered Species Protection Board and to the Department's Natural Heritage Database.

12. The MetroLINK official identified below is authorized to execute this agreement. Execution by MetroLINK indicates acceptance of all terms and conditions described in this authorization.
13. The execution of this agreement does not waive or excuse the responsibilities of MetroLINK to comply with other Federal, State, or local regulations, including but not limited to obtaining any required permits for the execution of this project.

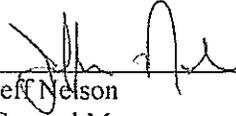
*For the Illinois Department of Natural Resources:*

  
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Dr. James Herkert, Director  
Office of Resource Conservation

\_\_\_\_\_  
Date

2-25-16

*For Metropolitan Mass Transit District:*

  
\_\_\_\_\_  
Jeff Nelson  
General Manager

\_\_\_\_\_  
Date

2/12/16