

IDOT Conservation Plan for the Wavy-rayed Lampmussel (*Lampsilis fasciola*) and Purple Wartyback (*Cyclonaias tuberculata*) inhabiting the Salt Fork of the Vermilion River under the IL 49 bridge in Champaign County

1. Description of the impact likely to result from the proposed taking

A. Legal description of the project area

Specific locality information for this project has been taken from Homer, Illinois (7.5', 1968 edition; NAD 1927) U.S. Geological Survey Topographic Quadrangle.

Illinois, Champaign County, 1.13 miles North of Homer IL, at FAP 836 (IL 49) bridge, 2nd Principal Meridian, Township 19 North, Range 14 West, Southwest ¼, Southwest ¼, Section 32.

B. Biological Data

Wavy-rayed Lampmussel Biological Data

The Wavy-rayed Lampmussel (*Lampsilis fasciola*) is state-endangered in Illinois. It inhabits clear rivers and streams with steady water flow and gravel or sand substrate often stabilized with cobble or boulders. It is most abundant in small to medium-sized streams. Wavy-rayed Lampmussels spawn in August, but the glochidia (larvae) are not released until the following summer. Two known fish hosts for this species are the smallmouth bass (*Micropterus dolomieu*) and largemouth bass (*Micropterus salmoides*).

Purple Wartyback Biological Data

The Purple Wartyback (*Cyclonaias tuberculata*) is state-threatened in Illinois. It is found in mixed substrates in waterways ranging in size from small streams to large rivers. It was once widespread but is now uncommon in most of the Midwest. The Purple Wartyback spawning period begins in June and ends in August. Known host species are Black Bullhead (*Ameiurus melas*), Yellow Bullhead (*Ameiurus natalis*), Channel Catfish (*Ictalurus punctatus*), and Flathead Catfish (*Pylodictis olivaris*).

C. Habitat description of activities that will result in take.

Salt Fork at the IL 49 bridge, structure number 010-0137, is approximately 100 feet in width, with depths ranging from 4 to 6 feet. The construction associated with the replacement of the bridge over Salt Fork will likely result in the take of Wavy-rayed Lampmussels and Purple Wartybacks in the area of structure construction.

D. Explanation of the anticipated adverse effects on the listed species.

If not relocated, mussels would likely be buried or otherwise crushed or killed by construction activities. It will be impossible to relocate all mussels in the area so some take will likely occur.

2. Measures the applicant will take to minimize and mitigate that impact

A. Plans to minimize the area affected by the proposed action, the number of individuals of an endangered or threatened species that will be taken, and the amount of habitat affected.

Before construction begins, INHS scientists will relocate any Wavy-rayed Lampmussels and Purple Wartyback mussels located in the immediate vicinity of the structure (existing right-of-way) to a suitable habitat elsewhere in Salt Fork. Construction activity will be limited to the existing right-of-way.

B. Plans for management of the area affected by the proposed action that will allow continued use of the area by the species.

If measures are taken to minimize substrate disturbance in the area around the bridge, mussels should move back into the area over time.

C. Description of all measures to be implemented to minimize or mitigate the effects of the proposed action on the endangered or threatened species.

The Wavy-rayed Lampmussels and Purple Wartyback mussels will be moved from their locations within existing right-of-way to a suitable habitat within Salt Fork. This will prevent the mussels from being affected by construction activity involved in the structure replacement.

D. Plans for monitoring the effects of the measures implemented.

It is the recommendation of the Illinois Department of Natural Resources (Department), that IDOT conduct, or cause to be conducted, a thorough survey of the construction area following completion of bridge construction. "Completion" shall be defined as the date the bridge is officially open for public use. Freshwater mussels located within the construction right-of-way shall be identified to species and enumerated and the length of each mussel shall be measured to the nearest millimeter. Handling of mussels shall be in compliance with any and all conditions and/or protocols included in the State and/or Federal authorizations for this work. A report on the species, numbers, and sizes of mussels found shall be provided to the Department within 60 days of the completion of each survey. Each report shall also include a qualitative evaluation of the habitat for freshwater mussels being provided by the construction right-of-way area and the manner in which that habitat has changed since the previous survey.

E. Projected cost of each measure that will minimize or mitigate the effects of proposed action on endangered or threatened species.

The estimated cost of the preferred bridge replacement alternative is \$1,475,000.00.

F. Adaptive management practices that will be used to deal with changed or unforeseen circumstances that affect the effectiveness of measures instituted to minimize or mitigate the effects of the proposed action on endangered or threatened species.

Due to the nature of the project, IDOT does not anticipate any changed or unforeseen circumstances. The bridge replacement will be completed and no additional work will be necessary afterwards.

G. Verification that funding to support mitigation activities will be available for the life of conservation plan.

The Illinois Department of Transportation has contractual obligation with the Illinois Natural History Survey.

3. Alternative actions that would not result in the take

The only alternative that would not result in the take of listed freshwater mussels is the “do nothing” alternative, which means that the bridge would not be replaced. This alternative is unacceptable because in its current condition, this bridge endangers the traveling public and does not fulfill the purpose and need of the project.

4. Data and information to assure that the proposed taking will not reduce the likelihood of the survival of the species.

The wavy-rayed Lampmussel is known to occur in the Ohio, Mississippi, and Tennessee River systems, the upper Allegheny River drainage in New York, lakes Erie and St. Clair and their drainages, and in tributaries of the Great Lakes, including the Niagara River. Populations are relatively stable in Kentucky, Tennessee, and Virginia.

The Purple Wartyback is known to occur in the following rivers: Black, Chippewa, Flambeau, Rock, Jump, Mississippi, Namekagon and St. Croix. This species is considered to be widespread but uncommon in most of the Midwest. It is endangered in Wisconsin, threatened in Iowa, a species of Special Concern in Michigan, and a species of Special Interest in Ohio.

5. An implementing agreement, which shall include, but not be limited to:

A. Names of all participants in the execution of the conservation plan, including public bodies, corporations, organizations, and private individuals.

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District Engineer, District 5
Illinois Department of Transportation,

Glen Kruse
Endangered Species Program Manager
Illinois Department of Natural Resources

Chris Phillips, Ph.D.
Director of the Center for Biodiversity
Illinois Natural History Survey

Michael Hine, P.E.
Design and Environment Bureau Chief
Illinois Department of Transportation

B. The obligations and responsibilities of each of the identified participants with schedules and deadlines for completion of activities in the Conservation Plan and a schedule for preparation of progress report to be provided to the Department.

The Illinois Department of Natural Resources (IDNR) is responsible for the review of this Conservation Plan and for subsequent issuance of the Incidental Take Authorization permit.

The Illinois Natural History Survey (INHS) will have duties of surveying for threatened or endangered mussels and moving the Wavy-rayed Lampmussels and Purple Wartyback mussels away from the project location to suitable habitat. Post construction, the INHS will examine the impacted area for re-colonization by Wavy-rayed Lampmussels and Purple Wartyback mussels.

The Illinois Department of Transportation (IDOT) is responsible for obtaining biological clearance from IDNR, coordination and implementing recommendations to the contractor related to and constructing the project and addressing commitments listed under the Incidental Take Authorization permit.

C. Assurances that each participant in the execution of the conservation plan has the legal authority to carry out their respective obligations and responsibilities under the conservation plan.

This project is authorized by the Illinois Department of Transportation, which receives funding from Illinois General Assembly and the Federal government in carrying out its programs.

D. Assurances of compliance with all other federal, state, and local regulations pertinent to the proposed action and to execution of the conservation plans.

The Illinois Department of Transportation exclusively abides by the National Environmental Policy Act and all associated state and federal environmental laws in carrying out its mission of performing the most environmentally sensitive methods of transportation planning and engineering.

E. Copies of any federal authorizations for taking already issues to the applicant.

Not applicable since the Wavy-rayed Lampmussel (*Lampsilis fasciola*) and Purple Wartyback (*Cyclonaias tuberculata*) are not federally threatened or endangered.

F. For projects that will result in the taking of endangered or threatened species of plants, copies of expressed written permission of the landowner.

Not applicable since the Wavy-rayed Lampmussel (*Lampsilis fasciola*) and Purple Wartyback (*Cyclonaias tuberculata*) are considered animals under the Illinois Endangered Species Act (ILCS 10/2)

PUBLIC NOTICE

The Illinois Department of Transportation (IDOT) has applied for Incidental Take authorization to the Illinois Department of Natural Resources (IDNR), Office of Resource Conservation, concerning two Illinois listed mussel species, the Wavy-rayed Lampmussels (*Lampsilis fasciola*) and Purple Wartyback (*Cyclonaias tuberculata*).

IDOT mailing address is:

Illinois Department of Transportation
Attn: Mr. Dennis Markwell
13473 IL HWY 133 / P.O. Box 610
Paris, IL 61944-0610

The location of the site that, through IDOT bridge replacement, may impact the Wavy-rayed Lampmussel and Purple Wartyback inhabiting Salt Fork is Illinois, Champaign County, Salt Fork of the Vermilion River, North of Homer at the IL Route 49 (FAP 836) bridge, 2nd Principal Meridian, Township 19 North, Range 14 West, SW ¼, SW ¼, Section 32.

The activity of removing and replacing the bridge over Salt Fork may take an undetermined amount of Wavy-rayed Lampmussels and Purple Wartybacks that could still be under or downstream of the bridge.

In addition, in accordance with the IDOT Conservation Plan, Illinois Natural History Survey (INHS) scientists will visit the site after bridge replacement to determine if Wavy-rayed Lampmussels and Purple Wartybacks have re-colonized the area.

In order to avoid impact to the species, any Wavy-rayed Lampmussels and Purple Wartybacks that are discovered by INHS personnel prior to construction will be relocated to other suitable habitat within Salt Fork. The structure design that represents the least impact to aquatic resources and has the greatest public safety will be chosen.

A copy of the Conservation Plan is available for inspection at (1) The Illinois Department of Transportation, 13473 IL HWY 133, Paris, Illinois 61944-0610; 2) Illinois Department of Natural Resources, Division of Resource Protection & Stewardship, Illinois State Fairground, 1 Natural Resources Way, Springfield, Illinois 62702-1272; 3) Homer Community Library, 101 North Main, Homer, Illinois, 61849.

Comments on this proposal should be directed to Glen Kruse, Illinois Department of Natural Resources, Division of Resource Protection & Stewardship, 1 Natural Resources Way, Springfield, Illinois 62702-1272 or e-mail to endspec@dnrmail.state.il.us.

The comment period closes thirty (30) days after the final publication of this notice that first appears in the Champaign News-Gazette and the Edwardsville Intelligencer (Official State Newspaper) on(). The final publication is scheduled for (). Therefore, the comment period closes on ().