

**Conservation Plan for the Purple Wartyback (*Cyclonaias tuberculata*)
inhabiting the Salt Fork of the Vermilion River under the Township
Road 38 Bridge in Vermilion County**

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

A. Legal description of the project area

Southwest Quarter of the Northwest Quarter of Section 31 Township 19 North Range 13 West of the Second Principal Meridian. The project area will be a highway right of way dedication in the name of the People of Vance Township.

B. Biological Data

Purple Wartyback Biological Data

Purple Wartybacks are 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. Its 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 Township Road 38 bridge, structure number 092-3054, is approximately 150 feet in width, with normal 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 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 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 representatives should relocate any Purple Wartyback mussels located in the immediate vicinity of the structure (existing and proposed right-of-way) to a suitable habitat elsewhere in Salt Fork. An undetermined number of Purple Wartybacks may possibly remain and could be affected by the construction. Construction activity will be limited to the existing and proposed 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.

All Purple Wartyback mussels located will be moved from their locations within existing and proposed 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 \$1,100,000 dollars.

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, the Vermilion County Highway Department does not anticipate any changed or unforeseen circumstances. The bridge replacement will be completed and no additional work will be necessary after completion.

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

One alternative that would not result in the take of listed freshwater mussels is the “do nothing” alternative. This means the bridge would not be replaced and would eventually deteriorate until it is unusable by the agricultural community thereby causing undue hardship. The other alternative is to provide a 150'+ span with no piers in the stream and no instream work to set a truss bridge. This alternative is not economically feasible as the cost is beyond the capabilities of the local agencies to fund resulting in the same effect as the “do nothing” alternative.

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

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 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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Vermilion County Highway Department

Glen Kruse
Endangered Species Program Manager
Illinois Department of Natural Resources

Christopher A. Phillips
Director of the Center for Biodiversity
Illinois Natural History Survey

Michael Hine
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 is responsible for the review of this Conservation Plan and for subsequent issuance of the Incidental Take Authorization.

The Illinois Natural History Survey will have duties of surveying for threatened or endangered mussels and moving the Purple Wartyback mussels away from the project location. Post construction, the INHS will examine Salt Fork for colonization by Purple Wartyback mussels.

The Illinois Department of Transportation is responsible for all biological clearance coordination and recommendations related to the project and addresses those items listed under the Incidental Take Notice.

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 Vermilion County Highway Department, as directed by 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 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 Purple Wartyback (*Cyclonaias tuberculata*) are considered animals under the Illinois Endangered Species Act (ILCS 10/2)