

Conservation Plan for the state endangered Little Spectaclecase (*Villosa lienosa*) at TR 391 over Skillet Fork, Wayne County, Illinois.

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

A. Legal Description of the project area:

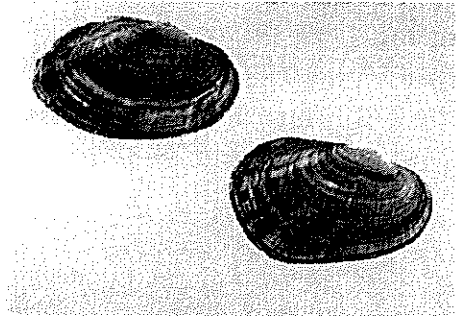
The southwest quarter of the northwest quarter of Section 26, Township 1 South, Range 5 East of the Third Principal Meridian. The project is located within the road right-of-way of TR 391 approximately 4.5 miles northwest of Wayne City in Hickory Hill Township, Wayne County.

The approximate coordinates of the bridge are: latitude 38.41162° North, longitude 88.62191° West.

B. Biological Data on the affected species:

Little Spectaclecase (*Villosa lienosa*)

The historical range of this small species is from southern Missouri north to northern Indiana and from western Missouri to eastern Ohio, including the Mississippi and Ohio River systems. Their usual habitat is substrate of sand, mud or fine gravel. Currently, the Little Spectaclecase is rarely found in its range and is now restricted to a limited number of clean, clear creeks and headwaters of rivers. The life span of this species is not known.



C. Description of activities that will result in a take.

The project consists of excavation around the existing bridge pier piling to repair deterioration of the steel HP piles. The areas around the deterioration will be cleaned to allow the placement and welding of steel splice plates to restore the HP pile to full section. After the steel splice plates are in place, concrete encasements will be poured around the repairs to prevent further deterioration of the piling at the waterline.

Proposed work within the stream channel includes excavation around the pier piling, placement of steel splice plates, and concrete encasement of the pier piling.

Temporary work will consist of cofferdams to control water inflow during construction around the pier piling. After completion of the in-stream work, any temporary work (i.e. cofferdams) will be removed and the area restored to its original configuration.

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

If not relocated, mussels would likely be buried or crushed by construction activities.

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

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

The footprint of the work zone has been minimized to reduce the impact to the mussel habitat. The total footprint is approximately 1200 square feet (approximately 0.03 acres). The length of impact along the stream channel will be approximately 50 linear feet. The amount of habitat affected is equal to the area required to complete the in-stream portion of the work.

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

Similar habitat is located both upstream and downstream of the work area. After work is complete, the streambed and habitats will be controlled by natural processes, namely flooding. 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 mussels will be moved from their locations within the limits of construction to suitable habitat within the adjacent stream channel prior to construction. This work will be done by INHS. This will prevent the mussels from being affected by construction activity. Siltation has the greatest potential to cause harm to remaining mussels downstream of the bridge. Soil conserving practices will be implemented to minimize the amount of eroded soil entering the channel.

The Wayne County Highway Department will ensure that the contractor performing the work will implement erosion and sediment control best management practices in order to minimize siltation. Best management practices are described in detail in the Illinois Department of Transportation Bureau of Design and Environment Manual Chapter 59 and IDOT's Standard Specifications for Road and Bridge Construction Section 280 and can be accessed through the IDOT website.

- D. Plans for monitoring the effects of the measures implemented to minimize or mitigate the effects of the proposed action on the endangered or threatened species.**

Inspections to ensure proper working order and maintenance of practices will be made daily by the engineering staff with the Wayne County Highway Department. Additional inspections will be made immediately prior to and following events of heavy rain for the area.

- E. 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.**

The installation and effectiveness of the soil conserving practices will be monitored daily by engineering staff with the Wayne County Highway Department. If through daily monitoring, eroded soil is observed leaving the jobsite or limits of construction, additional soil conserving practices shall be installed or measures taken to minimize soil erosion.

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

The estimate for the cost of the bridge repair is \$60,000.00. This estimate includes funding for design and implementation of erosion and sediment control measures. Additional soil conserving practices and measures necessary to deal with changed and unforeseen circumstances would be funded through change order and force account practices. By law, the erosion and sediment control plan must be in place for the life of the project.

3. Alternative actions that would not result in the take.

The only alternative which does not result in the taking of the listed species is to leave the existing bridge in place. The bridge would continue in its deteriorated condition. Normal maintenance will not correct the structural deficiencies of the bridge. These deficiencies could lead to sudden collapse and potential injury or loss of life. The "do nothing" approach is not considered feasible or prudent because it poses an unacceptable safety hazard and places intolerable restrictions on travel and transport.

Another alternative is to leave the existing bridge in place and build another bridge on a nearby alignment. There would be no disturbance at the existing bridge site, but there would be in-stream impacts required to construct the new bridge. There is similar habitat located upstream and downstream from the existing bridge and the in-stream work required to construct the new bridge would likely result in a take of the species at the alternate location. This alternative is not considered practical since it would result in a take of the species at the proposed bridge site.

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

The Little Spectaclecase is fairly uncommon in Illinois. The reason for inclusion on the list of threatened species in Illinois is because of its limited range in the state. It is fairly widespread but uncommon in the Ohio River drainage system.

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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County Engineer

Wayne County Highway Department

Fairfield, IL

Susan Dees Hargrove
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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 shall be responsible for the review of this Conservation Plan and for subsequent issuance of the Incidental Take Authorization.

The Wayne County Highway Department is responsible for securing authorization for incidental take of state-listed species; securing all permits, including Section 404; inspection of the work and contractor compliance with the contract documents.

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, who oversees the use of state-distributed funding among local agencies.

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

The Wayne 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 issued to the applicant.

Not applicable since the Little Spectaclecase mussel (*Villosa lienosa*) is not federally threatened or endangered.

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

Not applicable.

6. References

7. Attachments

Location Map

Pile Repair sheets by Hampton, Lenzini, and Renwick, Inc.

