

## Authorization for Incidental Take and Implementing Agreement

Pursuant to the Illinois Endangered Species Protection Act (Act) (520 ILCS 10/5.5), authorization is hereby granted to the Illinois Department of Transportation (IDOT) for the incidental take of the little spectaclecase mussel (*Villosa lienosa*) at the U.S. Route 36/FAP 323 bridge over Brouilletts Creek in Edgar County, Illinois. The Illinois Department of Natural Resources (Department) has determined that this taking is incidental to the bridge replacement at this site.

### Procedural History

The Illinois Department of Transportation (IDOT), in conjunction with the Illinois Natural History Survey (INHS), prepared a conservation plan as described by the Act. That plan and a request for incidental take of little spectaclecase mussels were received by the Department on December 18, 2002. Public notice of the request for authorization of incidental take of little spectaclecase mussels was published in the Edwardsville Intelligencer (official state newspaper) on January 15, 2003 and in the Paris Beacon News (Paris, IL.) on January 15, January 22, and January 29, 2003. Public comments on the conservation plan were accepted by the Department until February 28, 2003. No comments were received by the public during the period of January 15 through February 28, 2003.

### Compliance with the Illinois Endangered Species Protection Act

The Act includes six criteria which 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 removal and replacement of the U.S. Route 36/FAP 323 bridge over Brouilletts Creek in Edgar County, Illinois. The project is being undertaken to improve safety in the area by replacing a deteriorating bridge. Mussels found within the reach of Brouilletts Creek, including the construction area, will be relocated (preferably upstream) to avoid direct harm to those mussels during construction. Relocation constitutes a "take" under the Act. This take is not the purpose of IDOT'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:

IDOT realizes that the only alternative that would not result in the take of listed freshwater mussels is the "do-nothing" alternative, which means that the U.S. Route 36/FAP 323 bridge would not be replaced. This alternative is unacceptable because in its

current condition this bridge endangers the public health and welfare. If not relocated, mussels would likely be buried or otherwise crushed and/or killed by construction activities. Relocation of mussels [to a suitable habitat elsewhere in Brouillets Creek, preferably upstream of the construction area] found in the immediate vicinity of the structure (existing right-of-way) will greatly reduce the likelihood that any endangered or threatened mussels will be adversely affected by construction activities.

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

This project is authorized by IDOT which receives funding from the Illinois General Assembly and the Federal Government in carrying out its programs. The projected cost of the preferred U.S. Route 36/FAP 323 bridge replacement alternative is \$548,100.00. IDOT will provide funding for the post-construction monitoring and evaluation period as detailed in the Conservation Plan. 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. IDOT exclusively abides by the National Environmental Policy Act (NEPA) 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.

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 or threatened species in the wild in Illinois, the biotic community of which the species is a part, or the habitat essential to the species existence in Illinois:

The little spectaclecase mussel is listed as endangered in Illinois because its populations have declined in recent decades. It is possible that several individuals of the little spectaclecase mussel are present in the project area. Any that are overlooked during the relocation effort could be at risk of injury or death as a result of bridge construction activities. The relocation will be conducted by experienced personnel under contract to IDOT (i.e. Illinois Natural History Survey biologists), making it unlikely that a significant number of individuals will be exposed to threats related to the bridge project.

The little spectaclecase mussel has been found in at least 10 locations in six (6) counties in Illinois since 1980. Eight (8) of those 10 locations have been confirmed since 1990. This mussel has healthy populations in the North Fork of the Vermilion River and the Little Vermilion River. With the precautions and mitigation measures that will be instituted as part of this project, potential losses of little spectaclecase mussels will be minimized and will not reduce the likelihood of survival or recovery of the species in Illinois. In an e-mail correspondence to Joseph A. Kath (IDNR, Office of Resource Conservation) dated January 24, 2003, Kevin S. Cummings (lead malacologist with the

Illinois Natural History Survey) stated that he was “directly involved with the fieldwork on this project and helped draft the conservation plan.” Mr. Cummings also stated that INHS staff “will be relocating them [mussels] before construction begins. There are plans to do two follow-up surveys to monitor the move. I feel that this is a very reasonable plan but if you have any specific questions regarding the plan, feel free to contact me.”

Mussel relocation is a common conservation practice used by government agencies and private consultants throughout North America and Europe. A 1995 relocation project by the Virginia Cooperative Fish and Wildlife Research Unit showed that out of a total of 5,409 mussels taken from Kentucky Lake and relocated in the Holston River (TN.), only one (1) ebonyshell mussel (*Fusconaia ebena*) did not survive the collection, quarantine, and relocation process. In addition, the Illinois Natural History Survey relocated over 4,000 mussels representing 20 species in the Kankakee River in 1987. Information compiled during annual surveys of these transplant sites suggest that relocation results in the reduction of damage to mussel communities from localized efforts and is a reasonable conservation strategy.

5. Any measures required under Section 5.5 of the Illinois Endangered Species Protection Act will be performed:

Additional measures are listed below under “Authorization.” This authorization is, by definition, subject to those terms and conditions and IDOT’s signature on this authorization 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 was printed in the Edwardsville Intelligencer (official state newspaper) on January 15, 2003 and in The Paris Beacon News (Paris, IL.) on January 15, January 22, and January 29, 2003. Public comments on the conservation plan were accepted by the Department until February 28, 2003. No comments were received by the public during the period of January 15 through February 28, 2003.

#### Authorization

It is the determination of the Department that the measures that would be implemented by IDOT at the project site will adequately minimize and mitigate the anticipated taking (relocation) of little spectaclecase mussels associated with the removal and replacement of the U.S. Route 36/FAP 323 bridge over Brouilletts Creek in Edgar County, Illinois. Further, it is our opinion that the take authorized herein will not diminish the likelihood of the survival of the little spectaclecase mussel 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.

Pursuant to Section 5.5 of the Illinois Endangered Species Protection Act, this authorization is issued subject to the following additional terms and conditions:

1. This authorization is effective upon signature of the Department and shall remain in effect for a period of six (6) years after IDOT approval of the project punch list (otherwise referred to as the "project completion date") for the proposed bridge replacement, unless terminated pursuant to Section 5.5. of the Illinois Endangered Species Protection Act.
2. Prior to demolition of the existing bridge and construction of the new U.S. Route 36/FAP 323 bridge, IDOT shall conduct, or cause to be conducted, a thorough survey of the reach of Brouilletts Creek that will be directly affected by construction activities and shall relocate any and all freshwater mussels found within the area that will be directly affected by the bridge replacement to suitable habitat preferably upstream of the project site. 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. Relocated mussels shall be identified to species and enumerated. A report on the species and numbers of mussels relocated and the location(s) at which they were released shall be provided to the Department within 60 days of completion of the relocation.
3. IDOT shall conduct, or cause to be conducted, a thorough survey of both the construction area (within existing right-of-way) and the mussel relocation site(s) for freshwater mussels in the second (2nd) and fifth (5<sup>th</sup>) year following completion of bridge construction. "Completion" shall be defined as the date the bridge is officially open for public use. For example, if the bridge over Brouilletts Creek is completed in 2004, these surveys shall be conducted in 2006 and 2009. Freshwater mussels located within the construction right-of-way and relocation site(s) 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 relocation site(s) and the manner in which that habitat has changed since the previous survey.
4. The effective period of this authorization may be altered by mutual agreement between IDOT and the Department.
5. This authorization may be revoked pursuant to Section 5.5 of the Act if the Department finds that IDOT has failed to comply with any of these terms and conditions or has been responsible for the take of any little spectaclecase mussels beyond that which is incidental to the removal and replacement of the U.S. Route 36/FAP 323 bridge over Brouilletts Creek in Edgar County, Illinois.

6. The IDOT official identified below is authorized to execute this agreement. Execution by IDOT indicates acceptance of all terms and conditions described in this document.

For the Illinois Department of  
Natural Resources



~~Tim Hickmann, Acting Director~~  
BLAIR ANDERSON  
IDNR-Office of Resource Conservation

Date Signed

4/28/03

For the Illinois Department  
of Transportation



Signature

Dave Clark District Engineer  
Printed Name and Title

Date Signed

4/21/03

