

Illinois  
Department of  
Natural Resources

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<http://dnr.state.il.us>

Rod R. Blagojevich, Governor

April 18, 2006

Mr. Dennis Markwell,  
Illinois Department of Transportation  
13473 Illinois Highway 133 - P.O. Box 610  
Paris, Illinois 61944-0610

**RE:** *Incidental Take Authorization - Conservation Plan Review (Slippershell mussel)  
FAP 326 (IL 47) - Sangamon River crossing, Champaign County, Illinois  
Section No. (129BR-3)BR; IDOT Job No.: P-95-017-03*

Dear Mr. Markwell:

Pursuant to the Illinois Endangered Species Protection Act (520 ILCS 10/5.5) the Illinois Department of Transportation's (IDOT) authorization for the incidental take of the State threatened slippershell mussel (*Alasmidonta viridis*) in Champaign County, Illinois [associated with the FAP 326 (IL 47) project described above] is hereby granted, subject to the terms and conditions described in the attached Authorization and Implementing Agreement. The Illinois Department of Natural Resources has determined that this authorized take is incidental to the construction/repair of the IL 47 bridge, Sangamon River crossing (FAP 326), in Champaign County, Illinois.

Please have an authorized IDOT Official(s) sign the last page of both copies of the Authorization and Implementing Agreement and return **both** copies to my the attention. Upon receipt, I will have the agreements signed and return one (1) fully executed copy to you for your official records. This authorization shall be effective once signed by the Department.

Thank you for your cooperation and assistance during the incidental take preparation and review process. Please do not hesitate to contact our office at (217)782-6384 with any questions or comments you may have regarding this authorization agreement.

Sincerely,

Joseph A. Kath  
Terrestrial Endangered Species Project Manager  
IDNR-Office of Resource Conservation

Enclosures

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

Pursuant to the Illinois Endangered Species Protection Act (520 ILCS 10/5.5) the Illinois Department of Transportation's (IDOT) authorization for the incidental take of the State threatened slippershell mussel (*Alasmidonta viridis*) in Champaign County, Illinois (as described/shown in the conservation plan received by the Department on 7 December 2005) is hereby granted, subject to the terms and conditions described in the attached Authorization and Implementing Agreement. The Illinois Department of Natural Resources has determined that this authorized take is incidental to the construction/repair of the IL 47 bridge, Sangamon River crossing (FAP 326), in Champaign County, Illinois.

### Procedural History

IDOT [Paris, IL. Field office] prepared a conservation plan as described by the Illinois Endangered Species Protection Act (520 ILCS 10/5.5). That plan and IDOT's request for authorization for incidental take of slippershell mussels were received by the Illinois Department of Natural Resources (Department) on 7 December 2005. Public notice of IDOT's request for authorization of incidental take of slippershell mussels was published in the Edwardsville Intelligencer (Official State newspaper) and the Champaign News Gazette (Champaign County) on December 27, 2005, as well as on January 3, 2006 and January 11, 2006. Public comments on IDOT's conservation plan were accepted by the Department until February 10, 2006. No comments were received by the public during the period of December 27, 2005 through February 10, 2006.

### Compliance with the Endangered Species Protection Act

The Illinois Endangered Species Protection Act includes six (6) criteria which must be met for the authorization of incidental take of an endangered or threatened species. These criteria and the Department's determination for each criteria 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 to construct/repair a bridge on Illinois Route 47 (FAP 326; IDOT Job #P-95-017-03) impacting a portion of the Sangamon River in Champaign County, Illinois. This portion of the Sangamon River potentially contains habitat for freshwater mussels, including State listed species. In the course of these construction activities, IDOT, acting through subconsultants [INHS-Illinois Natural History Survey staff] will relocate all observed mussels (listed or non-listed species) disturbed by construction, hence a technical "taking" of these species. Such taking is not the purpose of the activities proposed by IDOT, but is incidental to the carrying out of a lawful activity.

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

The conservation plan prepared by IDOT, in conjunction with Illinois Natural History Survey/INHS staff, and received by the Department on 7 December 2005 stated that freshwater mussel surveys, and subsequent relocations, would be conducted prior to initiation of bridge construction/repair and most likely during the spring/summer while water temperatures are at or above 50 degrees Fahrenheit. All mussels observed (listed or non-listed species) are to be relocated in order to minimize impacts. Mussel surveys will be conducted using standard survey techniques including searching by feel to methodically cover the area to be disturbed by the project (viewing boxes, wading in shallow water, SCUBA in deeper water-if applicable, although not likely with this project). All mussels found will be identified to species. Mussels will be relocated into areas of suitable habitat, in the same stream/river, preferably upstream of the construction site. Specifically, the transplant site will be close to the collection area and have similar to better water quality and substrate. INHS staff have extensive experience with Midwestern mussels. INHS staff will provide the Department with a report detailing the results of all mussel surveys and relocation efforts within 60 days of completing all surveys/relocations. In summary, mussel surveys and related relocations will occur only after Department authorization and prior to any construction activities.

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

In an official correspondence to the Department dated 7 December 2005, IDOT verified that adequate funding exists to support and implement all (mitigation) activities described in the official Conservation Plan. This correspondence states that the FAP 326 project is authorized by the Illinois Department of Transportation, which receives its funding from the Illinois General Assembly and the Federal Government in carrying out its programs. IDOT has committed to budget and authorize adequate funding to provide for project construction activities and implementation of all mitigation activities (via INHS staff) required and described in the official conservation plan.

4. Based on the best available scientific data, the Department has determined that the taking will not reduce the likelihood of the survival or recovery of the endangered species 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:

Construction and repair of the IL. 47 bridge (FAP 326) in Champaign County, Illinois will not reduce the likelihood of the survival of state-listed threatened or endangered mussels in Illinois. For the purposes of biological comparison, it should be noted that the freshwater mussel fauna of the Fox River and its tributaries in Illinois and Wisconsin were surveyed by Department staff during the summers of 1997-2001. A total of 3,585 live individuals comprised of 23 species were collected from 96 sampling stations. Of this total, 31 slippershell mussels (*Alasmidonta viridis*) were collected.

In North America, the slippershell mussel (*Alasmidonta viridis*) is known from the upper Mississippi, Ohio, Cumberland, and Tennessee river drainages and lower and middle sections of the St. Lawrence. In Illinois, it is known from the Sangamon, Kankakee, Vermilion, and Little Vermilion river systems. This mussel inhabits small to medium sized streams where it is usually found buried in sandy substrates in shallow water. Unfortunately, the slippershell now has a restricted distribution in Illinois, and its numbers have been reduced most likely as a result of increased siltation and channelization in small to medium sized streams throughout the state. Any live animals that are overlooked during the relocation effort could be at risk of injury or death as a result of construction activities. The relocation of all mussels encountered will make it unlikely that a significant number of individuals will be exposed to threats related to the construction/repair of the IL 47 bridge, Sangamon River crossing (FAP 326), in Champaign County, Illinois.

As stated in the April 1996 Technical Report (working draft) titled - "Measures to minimize harm to *Lampsilis higginsii* [federally endangered Higgins Eye mussel] caused by passage of commercial navigation vessels in the upper Mississippi River" [prepared by the U.S. Army Corps of Engineers-Waterways Experiment Station]: Relocation is one of several methods that can be used to protect freshwater mussels. Relocation can be used to recolonize areas where previous populations were extirpated, to remove mussels from proposed construction sites, to boost numbers of endangered species, or to protect against high densities of the zebra mussel (*Dreissena polymorpha*). The survival of relocated mussels is closely linked to habitat quality.

Relocation sites should have the same conditions of substratum type and stability, and water velocity as the original habitat. Research from the federally endangered Higgins Eye mussel (*Lampsilis higginsii*) recovery team, under the guidance of the United States Fish and Wildlife Service, has determined that minimal mortality (<12%) and high recovery rate (>88%) were shown when aerial exposure of mussels was less than four (4) hours and when relocations were conducted in spring or autumn when air (12-18 C) and water temperature (15-23 C) were moderate.

As per standard IDOT construction guidelines, construction personnel associated with the FAP 326 project will implement sediment control and construction management measures to minimize the extent and duration of project related disturbance to the Sangamon River and any potential for direct/indirect impacts on mussels and/or mussel habitat. These measures may include the use of coffer dams, silt fencing, or other sediment control measures to limit downstream sedimentation during construction.

5. Any measures required under Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.40(b)], will be performed:

Additional measures are listed below under "Authorization." This authorization is, by definition, subject to those terms and conditions and official IDOT signature(s) 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:

IDOT [Paris, IL. Field office] prepared a conservation plan as described by the Illinois Endangered Species Protection Act (520 ILCS 10/5.5). That plan and IDOT's request for authorization for incidental take of slippershell mussels were received by the Illinois Department of Natural Resources (Department) on 7 December 2005. Public notice of IDOT's request for authorization of incidental take of slippershell mussels was published in the Edwardsville Intelligencer (Official State newspaper) and the Champaign News Gazette (Champaign County) on December 27, 2005, as well as on January 3, 2006 and January 11, 2006. Public comments on IDOT's conservation plan were accepted by the Department until February 10, 2006. No comments were received by the public during the period of December 27, 2005 through February 10, 2006.

#### Authorization

It is the determination of the Department that the measures to be implemented by IDOT and the INHS will adequately minimize and mitigate for the anticipated taking (relocation) of a small number of slippershell mussels due to the to the construction/repair of the IL 47 bridge, Sangamon River crossing (FAP 326), in Champaign County, Illinois. Further, it is our opinion that the take (relocation) authorized herein would not diminish the likelihood of the survival of the slippershell 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 [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.40(b)], 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 repair/replacement, unless terminated pursuant to Section 5.5. of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.80].

2. Prior to demolition/repair of the existing bridge and construction/repair of the new FAP 326 bridge, IDOT/INHS shall conduct, or cause to be conducted, a thorough survey of the reach of Sangamon River that will be directly affected by construction activities and shall relocate any and all (listed or non-listed species) 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/INHS 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 FAP 326 bridge is completed in 2006, these surveys shall be conducted in 2008 and 2011. 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.

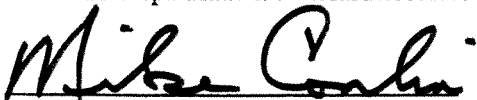
4. All mussels encountered within the State of Illinois during this project shall be subject to the general U.S. Fish and Wildlife Service handling protocol for determining presence/absence of species as found in "Section H" of the attached Federal Fish and Wildlife document.

5. The effective period of this authorization may be altered by mutual agreement between IDOT and the Department.

6. 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 slippershell mussels beyond that which is incidental to the removal, replacement, and/or repair of the FAP 326 bridge over the Sangamon River in Champaign County, Illinois.

7. 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 IL. Department of Natural Resources

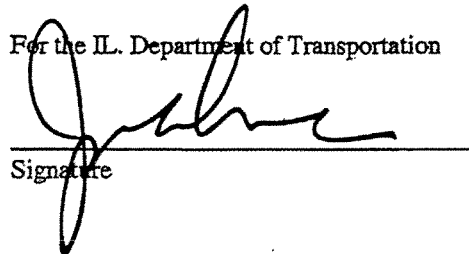


Mike Conlin, Acting Director  
Office of Resource Conservation

4.24.06

Date Signed

For the IL. Department of Transportation



Signature

JOSEPH E. CROWE DEPUTY DIRECTOR  
Please print name and official title OF INHS

04/19/06

Date Signed