

**CONSERVATION PLAN FOR THE THREATENED
SLIPPERSHELL MUSSEL (*ALASMIDONTA VIRIDIS*)
BIG TIMBER ROAD BRIDGE
REPLACEMENT OVER TYLER CREEK
RUTLAND TOWNSHIP, KANE COUNTY, ILLINOIS**

INTRODUCTION

On September 27, 2006, the Illinois Department of Natural Resources (IDNR) notified Kane County Division of Transportation (KDOT) that the state protected slippershell mussel (*Alasmidonta viridis*) was recently identified in Tyler Creek within the study area of the Phase I assessment of the Big Timber Road bridge replacement (Local Agency Section No. 01-00266-00-BR) and channel relocation. This Conservation Plan has been developed to address the presence of the mussel and to begin the process of obtaining an Incidental Take Authorization for the slippershell mussel in the location of the proposed Big Timber Road Project on Tyler Creek.

The Kane County Division of Transportation is proposing the replacement of two bridge spans with a single bridge structure on Big Timber Road at Tyler Creek near the intersection with Damisch Road in Rutland Township, Kane County, IL. The project is located in the W 1/2 of Section 26 and the East 1/2 of Section 27, Township 42 North, Range 7 East. KDOT is completing the final stages of the Phase I evaluation. This plan is being prepared and submitted to IDNR as part of that submittal. It is anticipated that the project will also require an Individual Section 404 Permit from the United States Army Corps of Engineers (USACE) and Section 401 Water Quality Certification from the Illinois Environmental Protection Agency. Issuance of the Incidental Take Authorization by IDNR is anticipated to be a special condition of the Section 404 permit.

CONSERVATION MEASURES

The proposed conservation measures for the Big Timber Bridge Project include the following:

1. Perform a pre-project mussel survey of the main stem of Tyler Creek and its tributary in the project area. The survey will be designed to locate all potential mussel species with emphasis on locating live individuals of the slippershell mussel species.
2. Relocate all live non-invasive mussels to appropriate upstream habitats.
3. KDOT's consultant will survey the project area in the spring or summer of the construction year prior to the initiation of any in-stream work. The

- applicant proposed to survey the entire construction zone and an additional 300 feet downstream of the construction zone. The surveys will be conducted using standard methodology including wading in shallow water.
4. All mussels (listed and non-listed species) found will be identified to species. The surveys will be conducted by a team of professionals and a state licensed firm.
 5. A set of relocation protocols will be developed for the site-specific conditions. The relocation team will have extensive experience in developing mussel relocation protocols. Mussels found in the construction area will be relocated to areas of suitable habitat upstream of the construction zone in appropriate habitat.
 6. Upon completion of the survey, KDOT will prepare a report detailing the methods and results of the mussel relocations. This report will include details on the number and species of mussels relocated. The report will also identify if state-listed species are relocated.
 7. No long-term monitoring of the relocation sites is planned.
 8. To minimize the extent of project-related disturbance to Tyler Creek and any potential for indirect impacts to mussels or mussel habitat, KDOT and its contractor(s) will implement stringent erosion and sediment control and construction management measures. These measures may include but are not limited to use of fluming, coffer dams, silt fencing or other sediment control measures to limit downstream sedimentation during construction. The Illinois Environmental Protection Agency (IEPA) will issue the project a 401 Water Quality Certification with conditions requiring strict erosion and sediment control measures be followed. Erosion and sediment control during construction will comply with the Kane County Storm Water Ordinance. Erosion and Sediment Control Plans for each phase of construction will be reviewed by the Kane-DuPage County Soil & Water Conservation District.

SPECIES SURVIVAL

Construction and operation of the proposed project will not reduce the likelihood of survival of state endangered or threatened mussels in Illinois. The nearest known location of state protected mussels is 1.5 miles downstream of the project area. If state listed mussels are present at the Big Timber Road crossing of Tyler Creek, they will be relocated to appropriate habitat along with any other mussels found during the preconstruction survey. The use of strict erosion and sediment control measures will minimize any short-term construction related impacts.

Erosion and sediment control during construction will comply with the Kane County Storm Water Ordinance and IEPA NPDES Permit No. ILR 10. Erosion and sediment control plans for construction will be reviewed by the Kane-DuPage County Soil & Water Conservation District as part of the 404 permit process. Any potential sedimentation impacts will be further minimized by relocating all mussels located within the project area and any found an additional 300 feet downstream of the project to a new area with suitable habitat upstream of the project area on main stem Tyler Creek.

IMPLEMENTING AGREEMENT

The Kane County Division of Transportation will contract with a qualified subcontractor subject to IDNR approval to conduct the preconstruction survey and mussel relocations. The survey will occur in the spring/summer of the year of construction prior to initiation of in-stream construction. The field personnel from the qualified subcontractor will hold authorization under Section 5/3.22 Chapter 20 and Section 5/20-100, Chapter 515 of the Illinois Compiled Statutes to collect aquatic invertebrates (Illinois T&E species permit and collecting permit). The Applicant will provide a report detailing the results of the preconstruction mussel surveys and subsequent relocations to the IDNR, Division of Natural Heritage, within 45 days of the surveys. The surveys and relocations will occur prior to the initiation of construction activities when water and air temperatures are in compliance with acceptable protocols and standards for mussel relocations.

Authorization for Incidental Take and Implementing Agreement

Pursuant to the Illinois Endangered Species Protection Act (520 ILCS 10/5.5) Kane County's Division of Transportation authorization for the incidental take of the State threatened slippershell mussel (*Alasmidonta viridis*) in Kane County, Illinois will be associated solely with the Big Timber Bridge Replacement Project provided that the Illinois Department of Natural Resources finds that an incidental take is warranted. The implementing agreement will be based upon procedures and guidelines described in the Final Conservation Plan, as approved by the Illinois Department of Natural Resources, subject to the terms and conditions described in the final Authorization and Implementing Agreement.

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 criterion 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 reconstruction of one crossing of Tyler Creek by Big Timber Road where 2 crossings now exist.

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 Kane County Division of Transportation states that freshwater mussel surveys, and subsequent relocations, will be conducted prior to initiation of construction 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). All mussels found will be identified to species. Mussels will be relocated into areas of suitable habitat, in the same stream/river, 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. KDOT's consultant shall have extensive experience with Midwestern mussels. Consulting staff shall provide the Department with a report detailing the results of all mussel surveys and relocation efforts within 45 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:

The Kane County Division of Transportation will not begin work without adequate funding to undertake and implement the conservation plan. The project will require both financial and engineering plan approval by IDOT prior to letting. Issuance of the Incidental Take permit will also be required by IDOT before final approval. KDOT will identify funding for the conservation plan as part of the design process.

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 of the Big Timber Bridge corridor project in Kane County, Illinois will not reduce the likelihood of the survival of state-listed threatened or endangered mussels in Illinois. 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. 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. This project will remove a small reach of channelization and return the stream to a more natural morphology.

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 of the Big Timber bridge replacement project, in Kane County, Illinois.

5. Any measures required under Section 5.5 of the Illinois Endangered Species Protection Act [520 n.CS10/5.5 - 17 n. Adm. Code Part 1080.40(b)], will be performed:

Additional measures necessary will be included in the authorization. Kane County is willing to meet appropriate measures listed in the permit.

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:

Kane County and the Kane County Division of Transportation, prepared a conservation plan as described by the Illinois Endangered Species Protection Act (520 ILCS 10/5.5). That plan and Kane County's formal request for authorization for incidental take of slippershell mussels (*Alasmidonta viridis*) are forthcoming.

PREPARED FOR KANE COUNTY AND THE KANE COUNTY DIVISION OF
TRANSPORTATION BY WILLS BURKE KELSEY ASSOCIATES, LTD.

By:

Patrick Kelsey, CPSS/SC
Executive Vice President

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