



Illinois
Department of
Natural Resources

One Natural Resources Way • Springfield, Illinois 62702-1271

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DEPT OF TRANSPORTATION
CARBONDALE / DISTRICT 9

Authorization for Incidental Take and Implementing Agreement

Pursuant to the Illinois Endangered Species Protection Act (520 ILCS 10/5.5), the Williamson County Highway Department's (WCHD) authorization for the incidental take of the State endangered Indiana crayfish (*Orconectes indianensis*) in Williamson County, Illinois as described/shown in the conservation plan received by the Department on 22 February 2012 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 replacement of the TR 603 bridge over Brushy Creek, Williamson County, Illinois.

Procedural History

WCHD prepared a conservation plan as described by the Illinois Endangered Species Protection Act (520 ILCS 10/5.5). That plan and IDOT / WCHD request for authorization for incidental take of Indiana crayfish (*Orconectes indianensis*) were received by the Illinois Department of Natural Resources (Department) on 22 February 2012. Public notice of IDOT/WCHD request for authorization of incidental take of Indiana crayfish was published in the Breeze Courier (Official State newspaper) on 9 March 2012 and in the Southern Illinoisan (local paper) on 29 February, 7 March, and 14 March 2012. Public comments on IDOT/WCHD conservation plan were accepted by the Department until 23 April 2012. No comments were received from the public during the period of 29 February 2012 and 13 April 2012.

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 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 proposed improvements consist of removing an in-stream 15' wide concrete box culvert and replacement with a 50' single span precast concrete deck beam bridge on H-pile supported

abutments. Construction will require the removal of the existing concrete box culvert and placement of the new abutments. Proposed work within the channel includes removal of existing structure as described above, driving piles for new abutments, placement of riprap for scour protection, and incidental grading along the stream banks within the existing right-of-way.

At the project site, habitat consists of the current in-stream concrete box culvert and low quality Indiana crayfish habitat immediately up- and down-stream of the existing crossing within the construction limits of this project.

For the purposes of this project, potential adverse affects consist mainly of excavation of culvert and placing of riprap within the stream bed. Excavation could create minor, short term siltation in the area immediately downstream of the structure, while any crayfish present under the existing structure could be covered or crushed during the excavation and placement of the riprap.

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

The area of the work zone has been limited to the existing right-of-way. Total impacted area within the stream is approximately 2,000 square feet. The distance from back to back of the abutments is 51.5', and the existing right-of-way is 40' wide. Riprap will be placed from abutment to abutment for the full width of the right-of-way for erosion and scour prevention.

Indiana crayfish habitat is located both upstream and downstream of the structure site. Based on the above description of the habitat, the areas upstream and downstream of the site are more suitable than at the current bridge site itself. Indeed, the 2 Indiana crayfish found from this site in the 2011 IDOT-tasks survey were located outside the construction limits. The streambed and habitats will be controlled by natural processes after construction activities are completed. Crayfish could move back into the area immediately adjacent to the bridge over time. Introduction of riprap within the channel and streambed at the bridge site may enhance the habitat characteristics within the immediate vicinity of the structure, and the scour prevention afforded by the new bridge will protect habitat downstream of the site.

The resident engineer acting as Williamson County's agent, will monitor the activities of the contractor for compliance with special provisions regarding mitigation and the use of best management practices (BMP's) to minimize erosion and siltation. Regular inspections will be made to ensure proper repair and maintenance of BMP's by the resident engineer, including weekly checks and immediately following significant rainfall events.

In order to avoid impacts to the Indiana Crayfish, in stream work shall be prohibited during the months of March, April and May.

Post construction monitoring of the project site will be performed by INHS, tasked by IDOT, Bureau of Design and Environment, Environment Section, in years 2 and 4 after project completion, defined for purposes of this Authorization as the day the bridge is open for traffic.

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

The project estimated budget will include line items for implementation of BMP's included in the SWPPP, including seeding of all disturbed areas draining to the stream.

Maintenance and repair of SWPPP items, and additional measures implemented during construction will be paid for by change order or force account. By law, the erosion and sediment control measures will remain in place for the life of the project.

The post-project monitoring will be performed under task by the IDOT – Bureau of Design and Environment, Environment Section.

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:

The Indiana crayfish is restricted to the Saline and Honey Creek drainages in southeastern Illinois. It is currently known from 5 counties. The IDNR Biotics database currently lists 25 locations for Indiana crayfish in Illinois, 3 of which are considered historic. The Brushy Creek location has been known since at least 1997. Adults were found at the site but outside the project zone in 2011. Habitat at Brushy Creek bridge site within the construction limits has been reported as not appropriate Indiana crayfish habitat by IDOT / INHS. Brushy Creek is a direct tributary of Sugar Creek, @ 0.5 miles downstream of the current bridge site. Brushy Creek is within 4.3 river miles of 3 other known Indiana crayfish locations in Sugar Creek and the species likely exists throughout this part of the stream system. This suggests the presence of a larger metapopulation of Indiana crayfish within the local watershed of Sugar Creek including the Brushy Creek sub-watershed.

Indiana crayfish are found in riffles and other shallow regions with gravel or cobble substrates in small to large creeks and small rivers. It lives in rocky riffles and pools of first, second and third order streams, frequently found under rocks, in woody debris and in shallow burrows within these streams.

The Indiana Crayfish occurs in several locations in southeastern Illinois and southwestern Indiana, including other sites in Williamson County within Sugar Creek and Brushy Creek. Suitable habitat exists both upstream and downstream of the bridge site. Due to the small area affected by construction of the new bridge, it is expected that the species will continue to exist in this reach of Brushy Creek.

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:

This authorization is, by definition, subject to those terms and conditions and official IDOT/WCHD 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:

Public notice of WCHD request for authorization of incidental take of Indiana crayfish was published in the Breeze Courier (Official State newspaper) on 9 March 2012 and in the Southern Illinoisan (local paper) on 29 February, 7 March, and 14 March 2012. Public comments on WCHD conservation plan were accepted by the Department until 23 April 2012.

No comments were received from the public during the period of 29 February 2012 and 13 April 2012.

Authorization

It is the determination of the Department of Natural Resources that the measures described in this Authorization and Implementing Agreement to be implemented by WCHD, will most likely adequately minimize and mitigate for the potential taking of a small number of Indiana crayfish due to the replacement of the TR 603 bridge over Brushy Creek in Williamson County, Illinois. Further, it is our opinion that the take authorized herein would not diminish the likelihood of the survival of the Indiana crayfish 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.

The Illinois Department of Natural Resources has determined that this authorized take is incidental to the replacement of the TR 603 bridge over Brushy Creek in Williamson County, 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 four (4) years after the official "project completion date". "Completion" shall be defined as the date the bridge is officially open for public use. This authorization is effective 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. The effective period of this authorization may be altered by mutual agreement between WCHD and the Department.
3. This authorization may be revoked pursuant to Section 5.5 of the Act if the Department finds that WCHD has failed to comply with any of these terms and conditions or has been responsible for the take of any Indiana crayfish (or any other State listed species) beyond that which is incidental to the construction and repair/replacement of the TR 603 bridge over Brushy Creek in Williamson County, Illinois.
4. The WCHD official identified below is authorized to execute this agreement. Execution by WCHD indicates acceptance of all terms and conditions described in this document.

For the IL Department of Transportation

Dennis W. Hillebrenner
Signature

For the Williamson Co Highway Department

Greg Smothers
Signature

DENNIS HILLEBRENNER - LOCAL ROADS ENGINEER
Please print name and official title

GREG SMOTHERS - CO. ENGINEER
Please print name and official title

7/11/2012
Date Signed

7/5/12
Date Signed

For the IL Department of Natural Resources

James Herkert
Dr. James Herkert, Office Director
IDNR-Office of Resource Conservation

8-1-12
Date Signed

Attach:
Submitted Conservation Plan

