



Illinois Department of Natural Resources

One Natural Resources Way • Springfield, Illinois 62702-1271

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Authorization for Incidental Take and Implementing Agreement

Pursuant to the Illinois Endangered Species Protection Act (520 ILCS 10/5.5), the Hardin County Highway Department's (HCHD) authorization for the incidental take of the State endangered Indiana crayfish (*Orconectes indianensis*) in Hardin County, Illinois as described/shown in the conservation plan received by the Department on 20 January 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 Township Road 97 bridge over Haney Creek, Hardin County, Illinois.

Procedural History

HCHD and its agent, Southern Engineering Corporation (Johnson City, IL) prepared a conservation plan as described by the Illinois Endangered Species Protection Act (520 ILCS 10/5.5). That plan and HCHD request for authorization for incidental take of Indiana crayfish were received by the Illinois Department of Natural Resources (Department) on 20 January 2012. Public notice of HCHD request for authorization of incidental take of Indiana crayfish was first published in the Breesee Courier (Official State newspaper) on 15 March 2012 and in the Hardin County Independent (local paper) on 15, 22 and 29 March 2012. Public comments on HCHD conservation plan were accepted by the Department until 28 April 2012. No comments were received from the public during the period of 15 March 2012 to 28 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 a single span, structurally deficient (25.0 sufficiency rating) wooden deck bridge and replacement with a single span precast concrete deck beam bridge on H-pile supported abutments. Construction will require the removal of the existing wooden pile abutments 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. The bridge, roadway and right-of-way are under the jurisdiction of Hardin County. Federal funding will be used for the project.

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

For the purposes of this project, takings consist of potential mortality or injury from excavation and/or placing of riprap within the stream bed. Excavation could create minor, short term siltation in the area immediately downstream of the structure, while some crayfish could be covered or crushed during the excavation and placement of the riprap. There will be no long term damage or overall loss of habitat in the project zone after completion.

The area of the work zone has been limited to the existing right-of-way. Total impacted area within the stream is slightly more than 3000 square feet. The distance from back to back of the abutments is 51.5', and the existing right of way is 60' wide. Riprap will be placed from abutment to abutment for the full width of the right-of-way for erosion and scour prevention.

The streambed and habitats will be controlled by natural processes after construction activities are completed. Crayfish should 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.

A Storm Water Pollution Prevention Plan (SWPPP) will be prepared and implemented in accordance with IDOT's National Pollution Discharge Elimination System Permit No. ILR10. The SWPPP will be coordinated with the BDE for review at 50% and 100% completion.

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

Four weeks prior to the start of in-stream work, the Hardin County Engineer (Danny Lowry) will notify the Bureau of Design and Environment (BDE) (Barb Traeger) of the date of the County's intent to begin in-stream work. In that notification, the Engineer will provide an estimate of the total number of days of in-stream work for project completion. Within one week of receipt of notification, the BDE will task the Illinois Natural History Survey (INHS) to move by hand the rocks within the stream to a location just outside and upstream of the limits of construction. The moving of rocks will be completed **at least one week** before the start of in-stream work tied to the bridge replacement. **Rock moving will be accomplished in June - February so that bridge construction may be initiated shortly thereafter.** Moving the rocks should encourage crayfish to move to habitats outside of the construction zone prior to start of in-stream work.

The Hardin County Engineer will notify the BDE when contract plans are at 50% and 100% completion. 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. Monitoring reports will be prepared by the INHS and submitted to the BDE for review. Monitoring reports will be coordinated with the IDNR Division of Ecosystems and Environment, Transportation Review Program. (*SEE #4 and #5 in Authorization below for further conditions*).

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

The Illinois Department of Transportation is responsible for all biological clearance coordination and recommendations related to the project.

Hardin County is responsible for securing authorization for the incidental take; securing all permits, Section 404 and Office of Water Resources; inspection of the work and contractor compliance with the contract documents.

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. (*SEE #6 in Authorization below for further conditions*)

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 River and tributaries and Haney / Rock 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 Haney Creek location has been known since at least 1972. Adults have been recorded in the creek on 7 different surveys between 1972 and 2005. Adults were found at the site both within and outside the project zone on two separate surveys in 2010. This suggests the presence of a large, reproducing population of Indiana crayfish throughout most of Haney Creek.

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.

At the project site, habitat consists of a series of isolated pools during the time of sampling in both 2010 visits. The pools varied in depth from 0.1 m to >1 m. The streambed was 3-5m wide and had substrate consisting of silted cobble (round) / slab rock (flat) rock and trash (e.g. couches, washer/dryer, and tires). The tree-line riparian area was >5 m on either side. Habitat at Haney Creek bridge site is good as it is throughout this stream.

Indiana crayfish habitat is located both upstream and downstream of the structure site. Only short-term and correctable and mitigated habitat damages will result from the project. There will be no long-term or permanent loss of Indiana crayfish habitat from this project provided this plan

is implemented as written and agreed.

The Indiana Crayfish occurs in several locations in southeastern Illinois and southwestern Indiana, including other sites in Hardin County. Suitable good quality habitat exists both upstream and downstream of the bridge site outside the project boundaries. Due to the small area affected by construction of the new bridge and the lack of permanent habitat damage or loss, it is likely that the species will continue to exist in this reach of Haney Creek and recolonize the project area.

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 these terms and conditions below. The official HCHD and IDOT signature(s) on this authorization indicates their commitment to performing those measures as presented in this Authorization.

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 HCHD request for authorization of incidental take of Indiana crayfish was first published in the Breese Courier (Official State newspaper) on 15 March 2012 and in the Hardin County Independent (local paper) on 15, 22 and 29 March 2012. Public comments on IDOT/WCHD conservation plan were accepted by the Department until 28 April 2012. No comments were received from the public during the period of 15 March 2012 and 28 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 HCHD and IDOT, will most likely adequately minimize and mitigate for the potential taking of a small number of Indiana crayfish due to the replacement of the TR97 bridge over Haney Creek in Hardin 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 97 bridge over Haney Creek in Hardin 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 HCHD, IDOT and the Department.
3. This authorization may be revoked pursuant to Section 5.5 of the Act if the Department finds that HCHD and / or IDOT 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 71 bridge over Haney Creek in Hardin County, Illinois
4. Project status reporting and Monitoring reports produced and distributed will also be sent to the IDNR ITA Coordinator by email (DNR.ITACoordinator@illinois.gov) or by mail (Illinois Department of Natural Resources, ITA Coordinator, 1660 W. Polk Ave, Charleston, IL 61920) when provided to IDNR – Ecosystems and Environment. **This report is required** (even if there are no actions to report) for each 12 month period and will be **due November 1st of each year this agreement remains in effect. The first report will be due 1 November 2012.**
5. The resident engineer acting as Hardin 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.
6. The Hardin County Highway Department and IDOT assure that all necessary resources (including funds and personnel) are or will be made available to execute and complete all

minimization and mitigation conditions specified in this Incidental Take Authorization.

7. The HCHD and IDOT officials identified below are authorized to execute this agreement. Execution by HCHD and IDOT indicates acceptance of all terms and conditions described in this document.

For the IL Department of Transportation

Dennis W. Hillebrenner
Signature

DENNIS W. HILLEBRENNER
Please print name and official title
LOCAL ROADS ENGINEER
7/30/2012
Date Signed

For the Hardin County Highway Department

Danny Lowry
Signature

DANNY LOWRY
Please print name and official title
County Engineer
07/26/12
Date Signed

For the IL Department of Natural Resources

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

8-21-12
Date Signed

Attach:

Submitted Conservation Plan
Submitted Implementing Agreement