



Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
www.dnr.illinois.gov

Bruce Rauner, Governor
Wayne A. Rosenthal, Director

Authorization for Incidental Take and Implementing Agreement

Pursuant to the Illinois Endangered Species Protection Act (Act) (520 ILCS 10/5.5) and the regulations adopted to implement the Act (17 Ill. Adm. Code 1080), authorization is hereby granted to Hardin County for the incidental take of the State-endangered Kentucky crayfish (*Orconectes kentuckiensis*). The Illinois Department of Natural Resources (hereinafter referred to as Department) has determined that the taking is incidental to activities associated with bridge replacement at Bassett School Road (TR 101C) over Hosick Creek in Hardin County, Illinois, approximately one mile northeast of Elizabethtown, Illinois.

Procedural History

The Department received a conservation plan prepared for Hardin County by Brown & Roberts, Inc., on behalf of Hardin County on July 12, 2017, as a request for authorization for the incidental take of Kentucky crayfish. Additional information was requested by the Department on August 11, 2017, to make the conservation plan complete as prescribed by Ill. Adm. Code 1080.10. Additional information was received by the Department on September 20 and 29, 2017, and January 24, 2018. The final conservation plan was approved by the Department on February 14, 2018. The public notice period will be detailed under #6 of the Compliance section below.

Compliance with the Illinois Endangered Species Protection Act

The Act includes six criteria that 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 to replace an existing bridge with a new bridge over Hosick Creek in Hardin County, Illinois. Hardin County proposes to remove the existing structure using an excavator from the adjacent banks. New abutments will then be constructed by driving or setting piles. Riprap will be placed for scour protection. The project will finish with grading along the stream banks. Total estimated area of impact for species habitat is **2,728 square feet or 0.06 acres.**

Take of Kentucky crayfish could occur as a result of increased noise, increased siltation and sedimentation, and being crushed or smothered by construction

activities. The take of Kentucky crayfish that could result from this project is not the purpose of Hardin County'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:

Proposed minimization and mitigation measures were included in Hardin County's conservation plan.

To meet the "maximum extent practicable" standard, additional minimization and/or mitigation measures may be required beyond those proposed by Hardin County, based on the life history needs of the Kentucky crayfish.

All required minimization and mitigation measures are presented under the Authorization section below.

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

Hardin County has budgeted for the project. Estimated costs including funding to implement erosion and sediment control measures. Hardin County and the Illinois Department of Transportation (IDOT) are responsible for funding the monitoring through the Intergovernmental Agreement for the Illinois Transportation Biological Survey Program.

It is the Department's opinion that Hardin County's stated commitment to funding their proposed minimization and mitigation measures is sufficient to satisfy this criterion.

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 species or threatened species in the wild within the State of Illinois, the biotic community of which the species are a part, or the habitat essential to the species' existence in Illinois:

Kentucky Crayfish (*Orconectes kentuckiensis*)

The Kentucky crayfish is an Illinois state-endangered crustacean.

Habitat: Kentucky crayfish are fully aquatic invertebrates that are found in streams with rocky substrate. Presence is high in pools with gravel but some individuals are found in streams under brush. The species prefers clear water.

Reproduction: Mating occurs in October and November. Females have been observed in southern Illinois carrying fertilized eggs on the underside of their abdomen in March and April, and carrying young in July. Reproductive males

have been observed from July through April, however only 31% of males will mature sexually. The species has a two-year life span.

Population: The greatest threat to the species is loss of habitat due to decreased water quality, siltation, damming of flowing waters, and the removal of rocky substrate and woody debris. Introduction of non-native crayfish species is also a concern.

Range in Illinois: Kentucky crayfish are found in only 1 of 102 Illinois counties. There are currently 2 extant Element Occurrence Records of Kentucky crayfish in the Illinois Natural History Database.

Incidental Take Authorizations: The Department has issued one previous Incidental Take Authorization for Kentucky crayfish. This was a bridge replacement project. This is the second authorization for the taking of Kentucky crayfish in Hardin County.

Based on the amount of habitat impacted by this project, the number of known occurrences of the endangered species in Illinois, an assessment of the potential effect of this project on the listed species in the project footprint, the conservation measures included in this authorization for incidental take, and the understanding that vulnerability and recovery information on the species remains limited; the Department has concluded that the taking proposed herein will not reduce the likelihood of survival or recovery of the Kentucky crayfish in the wild within the State of Illinois, the biotic community of which the species are a part, or the habitat essential to the species' existence in Illinois.

5. Any measures required under Section 5.5(b)(6) of the Act will be performed:

These measures are listed below under "Authorization." This authorization is, by definition, subject to those terms and conditions and the signature of a representative of Hardin County 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 Hardin County's request for authorization of incidental take was published in the *Breeze Courier* (official state newspaper) on February 21, 2018, and in the *Hardin County Independent* on February 21, 28, and March 9, 2018. A copy of the conservation plan was deposited at the Rosiclare Memorial Library, where it was available for public review. The deadline for public comment was April 9, 2018. No comments were received from the public.

Authorization

It is the determination of the Department that the measures that will be implemented by Hardin County will adequately minimize and mitigate the anticipated taking of Kentucky crayfish

incidental to activities associated with bridge replacement at Bassett School Road over Hosick Creek. Further, the Department has concluded that the take authorized herein will not reduce the likelihood of survival or recovery of the Kentucky 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.

All terms and conditions included in the aforementioned conservation plan submitted by Hardin County to the Department are incorporated into this agreement by reference and are made a part thereof.

Pursuant to Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5] and the Administrative Rules for the Incidental Taking of Endangered and Threatened Species [Ill. Adm. Code 1080.40(b)], this authorization is issued subject to the following terms and conditions, which may include additions or modifications to the minimization and mitigation measures proposed by Hardin County in the conservation plan:

1. This authorization is effective upon the signature of the Department and shall remain in effect for a period of **five (5) years** from the date of the Department signature, unless terminated by written agreement of both parties.

This authorization may be revoked pursuant to the Act and Ill. Adm. Code 1080.80(b) if the Department finds that Hardin County has failed to comply with any of these terms and conditions or has been responsible for the taking of the Kentucky crayfish beyond that which is incidental to activities associated with bridge replacement at Bassett School Road over Hosick Creek in Hardin County, Illinois.

2. The effective period of this authorization may be altered by mutual written agreement between Hardin County and the Department. The Illinois Endangered Species Protection Board shall be notified of any such alteration.

Any substantive changes, including but not limited to a change in the project footprint or a change in the State-listed species which could potentially be affected, will require that a new conservation plan be submitted to the Department to initiate the review and public notice process as required by the Act.

3. This authorization may only be transferred upon approval and written authorization by the Department.
4. Notification to all on-site personnel shall be provided on the sensitive biological resources in the area, the identification of the listed species, regulations protecting the species, where the species might be found, avoidance areas, travel restrictions for equipment and vehicles, how to report sightings or incidents that may involve take, and the importance of avoiding take of the species. **Hardin County shall submit a copy of the education materials to the Department.**

5. The Department reserves the right of entry by its staff or representatives to inspect species, potential habitat, and species management practices.
6. Biological consultants employed by Hardin County shall be qualified in working with Kentucky crayfish and hold the necessary permits for work with non-listed and listed species; these include an Illinois Department of Natural Resources (IDNR) Scientific Collection Permit as authorized under 17 Illinois Administrative Code 520, and an IDNR Endangered Species Permit as authorized under 17 Illinois Administrative Code 1070.
7. The salvage of non-listed aquatic life is hereby authorized by the Department with signature per the Illinois Fish and Aquatic Life Code (515 ILCS 5/1-150).
8. Hardin County shall notify the Department's Endangered Species Program by email correspondence of construction commencement and completion of the bridge replacement over Hosick Creek. A **project status report** shall be submitted to the Department within **90 days** of project completion (defined as bridge open to the public) summarizing the implementation or status of minimization, mitigation, and restoration measures and evaluating the effectiveness of those measures and shall include a project photo log. The report shall also include a map and GPS coordinates of any listed species found within the project footprint, description of any injuries or mortalities, and the disposition of any individuals that were injured or killed.
9. Any discoveries of additional State-listed species beyond those identified in this agreement **halts work** and shall be reported to the Department within 48 hours accompanied by location information (photograph, map, and GPS coordinates).
10. Hardin County shall conduct, or cause to be conducted, the following pre-construction or construction efforts:
 - a. In-stream work shall be avoided between March 1 through May 15, to minimize impacts to the Kentucky crayfish.
 - b. Within four weeks or less, prior to construction, rocks ranging in approximate size of 5"x 5" to 24"x 24" (or reasonably movable) shall be moved outside of the limits of construction to remove any occupied refugia.
 - c. Erosion and sediment control measures shall be implemented in all areas where appropriate and as advised in the Storm Water Pollution Prevention Plan.
 - d. Disturbance of vegetation shall be minimized to prevent erosion and sedimentation. Existing vegetation will be preserved where attainable and disturbed portions of the site will be stabilized.
 - e. Erosion and sediment control measures shall be monitored weekly to ensure effectiveness.
 - f. Erosion and sediment control measures shall be inspected prior to continuation of construction, after events of heavy rain.

- g. No equipment shall be placed in the water during construction. Excavation and installation shall be performed from the adjacent banks. No cofferdams and no causeways.
 - h. No construction debris shall be deposited into the stream channel. Excavated materials shall be removed from the channel and disposed in an upland location.
 - i. Pile driving activities shall be completed within the duration of a single day.
 - j. All disturbed areas shall be seeded upon completion of construction activities.
11. Hardin County shall conduct, or cause to be conducted, the following post-construction monitoring measures for Kentucky crayfish in the project area during Year 2 and Year 4 when water levels and temperatures are suitable:
- a. A thorough survey for Kentucky crayfish shall be conducted in the project area, plus 5 yards upstream and 25 yards downstream, replicating the pre-construction survey extent.
 - b. **A report including, but not limited to, the survey methodology utilized, water temperature, number of Kentucky crayfish located, sex, range of size differences observed, and a map of the species locations, as well as any suitable habitat, shall be provided to the Department within 90 days of completion of the surveys.**
12. Mitigation to the maximum extent practicable is required by the Act. Mitigation requirements for this authorization are calculated as follows:
- a. Hardin County shall provide compensatory mitigation in the amount of \$5,275 to the Illinois Wildlife Preservation Fund.
 - b. The donation shall be provided **within 90 days of execution of this agreement**. Mitigation payments are nonrefundable, including events of revocation or termination.

Mitigation values are based on the Department's best current understanding of the species life history needs, real estate values, and impact analysis relevant to the project site's proposed conceptual design elements available at the time of review.

13. All reports, notifications, and other project documentation shall be submitted to:

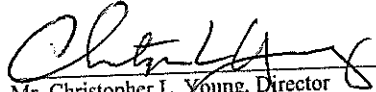
Illinois Department of Natural Resources
Office of Resource Conservation
Endangered Species Program – Incidental Take Authorization Coordinator
One Natural Resource Way
Springfield, IL 62702-1271

(217)557-8243
DNR.ITAcordinator@illinois.gov

The Department's Endangered Species Program shall provide all reports required under this agreement to the Illinois Endangered Species Protection Board and to the Department's Natural Heritage Database.

14. The Hardin County official identified below is authorized to execute this agreement. Execution by Hardin County indicates acceptance of all terms and conditions described in this authorization.
15. The execution of this agreement does not waive or excuse the responsibilities of Hardin County to comply with other Federal, State, or local regulations, including but not limited to obtaining any required permits for the execution of this project.

For the Illinois Department of Natural Resources:


Mr. Christopher L. Young, Director
Office of Resource Conservation

6/21/18
Date

For Hardin County:


Mr. Justin Hastie, Hardin County Engineer

6/5/18
Date