



Illinois Department of Natural Resources

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JB Pritzker, Governor
Colleen Callahan, 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 the Williamson County Highway Department (hereinafter referred to as Williamson County) for the incidental take of the State-endangered Indiana Crayfish (*Orconectes indianensis*). The Illinois Department of Natural Resources (hereinafter referred to as the Department) has determined that the taking is incidental to activities associated with the reconstruction of the Canaville Road Bridge over the South Fork of the Saline River in Williamson County, IL. The project is located approximately 4 miles southeast of Marion or 5.3 miles northeast of Creal Springs, and is 0.4 miles east of the intersection of Canaville Road and Wards Mill Road.

Procedural History

The Department received a conservation plan prepared by Hampton, Lenzini and Renwick, Inc., for Williamson County on April 20, 2022, as a request for authorization for the incidental take of Indiana Crayfish. Additional information was requested by the Department on May 4, and June 16, 2022, to make the conservation plan complete as prescribed by Ill. Adm. Code 1080.10. Additional information was received by the Department on May 5, and June 28, 2022. The final conservation plan was approved by the Department on July 6, 2022. 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 the existing bridge superstructure, install stone riprap around the piers and abutments, and reconstruct the roadway approaches for the bridge carrying Canaville Road over South Fork of the Saline River in Williamson County, Illinois.

The existing bridge superstructure will be removed and replaced with a new three span PPC deck beam bridge. The existing abutment and piers will remain and reused in place. No equipment will be placed in the stream for removal of the bridge deck. Stone riprap will be placed along the abutment slopes and around the piers for scour control.

Riprap that is placed in the creek for scour control or removal of any of the woody debris from the stream would be considered habitat alteration. The area of permanent impact to the channel due to the riprap is 0.11 acres (4930 square feet).

Stone riprap (RR4, 9" median size) will be placed around the bridge abutments and piers as a permanent scour countermeasure. The bed for the riprap will be excavated so the finished surface of the riprap will conform to the existing channel. All excavated material will be removed from the channel and disposed in an upland location. The stone riprap will be placed by mechanical means to its full course thickness in one operation. Staging of materials will also be in an upland area. Temporary stockpiling of riprap or excavated material in the channel will not be allowed.

Take of Indiana Crayfish could occur as a result of the excavation and placing of riprap within the stream bed. Individuals may be crushed, buried, or subject to desiccation if they remain in excavated sediment by construction activities. Indirect take could occur as a result of increased noise, vibration, and turbidity in the water column that would adversely affect all life stages. Impacts to riparian areas from vegetation clearing and woody debris removal, construction, or staging may temporarily adversely affect water quality.

The take of Indiana Crayfish that could result from this project is not the purpose of Williamson 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 Williamson County's conservation plan.

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

Williamson County states that the project is funded with Motor Fuel Tax funds and is already programmed. The project construction, including implementation of all measures of the Conservation Plan, will be funded for this improvement out of the County's allotment. Mitigation funds will also be paid from Williamson County. The monitoring activities will be funded through the Intergovernmental Agreement for the Illinois Transportation Biological Survey Assessment Program between IDOT and the University of Illinois.

It is the Department's opinion that Williamson 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:

Indiana Crayfish (*Orconectes indianensis*) is an Illinois state-endangered crustacean.

Habitat: The Indiana Crayfish is a fully aquatic invertebrate that is found in streams with coarse substrate. Presence is high in high gradient streams with riffles, runs, and pools of clear water and absent in areas that are heavily sedimented. They prefer habitat of rock cobble, boulder, or woody debris.

Distribution: The Indiana Crayfish is found in the Ohio River drainage and Wabash River drainage in southern Illinois and Indiana. In Illinois it is found in the southeastern part of the state and is limited to parts of the Saline River and small tributaries to the Ohio River.

Reproduction: Fertilization most likely occurs in early spring and fall, since reproductive males have been found in March, August, September, October, and November. Females carry fertilized eggs on the underside of their abdomen in the spring and likely release juveniles in April and May. They carry only one clutch of eggs per year. 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: The Indiana crayfish is found in three (3) of 102 Illinois counties: Hardin, Saline, and Williamson. There are currently five (5) extant Element Occurrence Records of Indiana crayfish in the Illinois Natural History Database. Records are from streams with riffles and quiet pools with substrate of rock, riprap, large cobble, rocky sandstone, and woody debris; there is little to no

siltation with clear water. Two (2) watersheds contain Indiana Crayfish: the Lower Ohio-Bay and Saline.

Incidental Take Authorizations: The Department has eight (8) previously issued or pending Incidental Take Authorizations for Indiana Crayfish. Six were for bridge repair/replacement projects on streams. This is the fifth (5) authorization for the taking of Indiana Crayfish in Williamson County.

Based on the amount of habitat impacted by this project, the number of known occurrences of Indiana Crayfish 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 conservation plan, and the understanding that vulnerability and recovery information on the species remains limited; it is the conclusion of the Department that the taking anticipated as a result of this project will not reduce the likelihood of survival or recovery of the species in the wild within the State of Illinois, the biotic community of which these 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 Williamson 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 Williamson County's request for authorization of incidental take was published in the *Breeze Courier* (official state newspaper) on July 28, 2022, and in *The Marion Star* on July 28, August 4, August 11, and August 18, 2022. A copy of the conservation plan was deposited at the Marion Carnegie Library and the Williamson County Highway Department where it was available for public review. The deadline for public comment was September 16, 2022. No comments were received from the public.

Authorization

It is the determination of the Department that the measures that will be implemented by Williamson County will adequately minimize and mitigate the anticipated taking of Indiana Crayfish incidental to activities associated with the reconstruction of the Canaville Road Bridge over the South Fork of the Saline River in Williamson County. Further, the Department has concluded that the taking authorized herein will not reduce the likelihood of survival or recovery of the 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.

All terms and conditions included in the aforementioned conservation plan submitted by Williamson 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 Williamson 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 seven (7) 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 Williamson County has failed to comply with any of these terms and conditions or has been responsible for the taking of the Indiana Crayfish beyond that which is incidental to activities associated with the reconstruction of the Canaville Road Bridge over the South Fork of the Saline River in Williamson County, IL

2. The effective period of this authorization may be altered by mutual written agreement between Williamson 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. All on-site personnel shall be educated on the sensitive biological resources in the area, the identification of Indiana Crayfish, 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. **Williamson 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. Department staff must be accompanied by an employee of Williamson County Highway Department and are required to adhere to IDOT's health and safety requirements.
6. Biological consultants employed by, or conducting work on behalf of, Williamson County shall 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. Williamson County shall notify the Department's Endangered Species Program by email correspondence of construction commencement and completion of work to reconstruct the Canaville Road Bridge over the South Fork of the Saline River in Williamson County, IL. A **project status report** shall be submitted to the Department within **90 days** of completion summarizing the implementation 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.
8. 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).
9. Williamson County shall conduct, or cause to be conducted, the following pre-construction or construction efforts:
 - a. No equipment shall enter the stream to remove the bridge deck. To the extent practicable, equipment entry to place riprap shall be minimized.
 - b. Instream work shall be prohibited from March 1 to May 31.
 - c. Sediment and erosion best management practices shall be utilized.
 - 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 and after heavy rain events to ensure effectiveness.
 - f. All in-stream work will be conducted during low flow conditions.
 - g. No bedding fabric shall be placed under the riprap.
 - h. Debris and excavated material shall be removed from the streambed as soon as practicable.
 - i. Stone shall not be stockpiled in the stream channel.
 - j. All disturbed areas shall be seeded upon completion of construction activities.
10. Williamson County shall conduct, or cause to be conducted, thorough surveys for Indiana Crayfish within the project area in Years 1 and 3 following project completion:
 - a. sampling within a 60-meter reach of the stream extending downstream from the upstream edge of the bridge using both quantitative and qualitative methods. Four 1-meter squared areas of suitable habitat immediately downstream of the bridge will be sampled using kick-seining methods. Kick-seining involves disturbing the substrate by sweeping feet back and forth immediately upstream of a stationary minnow seine and allowing the current to carry aquatic life into the net. All

substrate within the quadrat will be vigorously disturbed to dislodge crayfish. All crayfish within each quadrat will be individually identified and counted. After quadrat sampling, other suitable habitat will be sampled by kick-seining with a 10-foot minnow seine for 30 minutes.

- b. A report including, but not limited to, the survey methodology utilized, water temperature, habitat characteristics, the species and abundance of crayfish located, density estimates from quadrat samples, length, sex (if discernable), and a map of the species locations and areas surveyed shall be provided to the Department within 90 days of completion of the survey.**

11. Mitigation to the maximum extent practicable is required by the Act. Mitigation requirements for this authorization are calculated as follows:

The estimated cost for the riprap to be placed along the piers as a scour counter measure may also serve as habitat enhancement in excess of \$6,600. This potential habitat enhancement is serving as mitigation for this project

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

12. 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.

13. The Williamson County official identified below is authorized to execute this agreement. Execution by Williamson County indicates acceptance of all terms and conditions described in this authorization.
14. The execution of this agreement does not waive or excuse the responsibilities of Williamson 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.

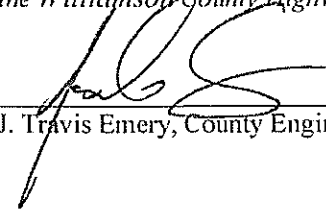
For the Illinois Department of Natural Resources:



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

Oct 21, 2022
Date

For the Williamson County Highway Department:



Mr. J. Travis Emery, County Engineer

OCTOBER 21, 2022
Date