



# Illinois Department of Natural Resources

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

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 Kendall County Highway Department (hereinafter referred to as KCHD) for the incidental take of the State-threatened River Redhorse (*Moxostoma carinatum*). The Illinois Department of Natural Resources (hereinafter referred to as Department) has determined that the taking is incidental to activities associated with the extension of Eldamain Road, including the construction of a bridge over the Fox River from River Road to IL 71, located 2.1 miles west of Yorkville in Kendall County, Illinois. This bridge project will cross a portion of the Fox River Illinois Natural Areas Inventory site (INAI#1444), which is included for specific habitat suitable for state-listed species, or state-listed species relocations, and for its unusual concentration of flora or fauna and/or for being a high quality stream.

### **Procedural History**

A Conservation Plan prepared by KCHD, was submitted to the Department on March 31, 2020, as a request for authorization for the incidental take of the River Redhorse. The Department requested additional information on April 30 and June 10, 2020, to make the conservation plan complete as prescribed by Ill. Adm. Code 1080.10. Additional information was received by the Department on May 26 and June 18, 2020. The final conservation plan was accepted as complete by the Department on August 24, 2020. The public notice period and public comments 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 construct a bridge over the Fox River to extend Eldamain Road from River Road to IL Highway 71. Construction of this 1,600-foot-long bridge will require the installation of seven (7) piers. One pier will be in the Fox River (Pier 2). Four (4) additional piers will be in the 100-year flood zone of the Fox River. In order to place these five (5) piers, KCHD will require the installation of temporary sheet pile cofferdams in the Fox River. Cofferdams will be used to prevent surface water and ground water intrusion into the work area while the piers are being constructed. Piers 2 and 3

will be constructed using Type 2 cofferdams and the remaining three piers will use Type 1. The differences between Type 1 and Type 2 cofferdams is the water elevation used to set the cofferdam height. Once construction is complete, the sheetpile cofferdams will be removed.

Pier 2 will be the only pier keyed into bedrock. The footing for the pier is 64 feet by 24 feet, or 1,536 square feet (0.035 acres). The cofferdam installed around the working area of the footing is slightly larger and estimated to be 68 feet by 28 feet, or 1,904 square feet.

Construction means and methods are designed by the contractor. A temporary causeway is likely the most feasible method to access Pier 2 for construction. Based on the pier location, it is anticipated that the causeway would be approximately 235-feet-long and 30-feet-wide (7,050 square feet) to accommodate the construction equipment. Combined with the cofferdam footprint (1,904 square feet), the total construction footprint within the streambed would be approximately 9,000 square feet (0.2 acres). The temporary causeway will be comprised of clean coarse aggregate, which will be removed when no longer required for construction. The streambed will be restored to its preconstruction cross-sectional elevation. All material shall be disposed of offsite or reused in construction.

Other near-stream work includes tree removal along the channel banks under and near the bridge and stream bank stabilization measures. Trees shall be removed in accordance with United States Fish and Wildlife Service Indiana Bat and Northern Long-eared Bat guidelines.

Further project detail is provided in the Conservation Plan. All proposed activities may result in direct burial or crushing of, and/or noise and vibration disturbance to the River Redhorse.

Total estimated area of impact within species habitat for the immediately proposed actions is **0.20 acres**. The Department concurs that the take of River Redhorse that could result from the immediately proposed project is not the purpose of KCHD'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 avoidance, minimization and mitigation were included in KCHD's conservation plan.

To meet the "maximum extent practicable" standard, additional minimization and/or mitigation measures may be required beyond those proposed by KCHD, based on the life history needs of the River Redhorse. **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.

Kendall County has secured the necessary funds to complete the project. Full project funding was approved by the Kendall County Board, a public agency, in September 2016. KCHD will be responsible for project implementation and oversight. The contractor will be required to post appropriate performance securities and insurance certificates. The avoidance, minimization, and mitigation measures described herein are part of this bridge construction project and will be funded accordingly.

The Department accepts this provision as assurance that adequate funding will be available to carry out the terms of the conservation plan.

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 is a part, or the habitat essential to the species' existence in Illinois:

**River Redhorse** (*Moxostoma carinatum*) is an Illinois state-threatened fish species.

**Habitat:** River redhorse is a large, bottom-feeding fish found in large clear creeks, rivers, and occasionally lakes. They prefer deep pools with moderate current over bedrock or gravel substrates, and are intolerant of high turbidity (murky water), siltation, and pollution.

**Reproduction:** Spawning occurs between June 1 and July 31. During this time, adult river redhorse migrate to shallow riffles to spawn at night. Mating takes place when two males press a single female between them, and eggs and sperm are released from the three fish. River Redhorse bury their eggs in fine gravel with their tails, and no further parental care is given.

**Population:** River Redhorse population decline has occurred because of poor water quality and habitat fragmentation. The presence of River Redhorse in an aquatic system is considered an indicator of good water quality.

**Range in Illinois:** In Illinois, River Redhorse are found in the Vermilion, Kankakee, Illinois, Des Plaines, Wabash, Fox, and Mississippi Rivers, including several smaller creeks and tributaries. River redhorse are found in eighteen (18) of 102 Illinois counties. There are currently thirty-six (36) extant Element Occurrence Records of river redhorse in the Illinois Natural Heritage Database.

**Incidental Take Authorizations:** The Department has fourteen (14) previously issued or pending Incidental Take Authorizations for River Redhorse. Previous projects included bridge replacements, a diffuser installation, hydroelectric dam construction, dam removal, railroad construction, and oil pipeline installation. This is the third authorization for the taking of River Redhorse in Kendall County

on the Fox River. The previous ITAs are for a bridge replacement, 5 miles downstream, and an oil pipeline, approximately 29 miles upstream.

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Based on the amount of habitat impacted by this project, the number of known occurrences of River Redhorse in Illinois, an assessment of the potential effect of this project on individual species in the project footprint, the conservation methods included in this authorization for 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 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 an official KCHD signature on this agreement indicates KCHD's 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 KCHD's request for authorization of incidental take was published in the *Breeze Courier* (official state newspaper) on July 2, 2020, and in *The Kendall County Record* on July 2, 9, 16, and 23, 2020. A copy of the conservation plan was deposited at the Yorkville Public Library and the KCHD office, where it was available for public review. The deadline for public comment was August 24, 2020. No comments were received from the public.

### **Authorization**

It is the determination of the Department that the measures to be implemented by KCHD will adequately minimize and mitigate the anticipated taking of River Redhorse associated with the construction of the bridge as part of a project to extend Eldamain Road over the Fox River in Kendall County, Illinois. Further the Department has concluded that the taking authorized herein will not reduce the likelihood of survival or recovery of River Redhorse 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 KCHD 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 KCHD in the conservation plan:

1. This authorization is effective upon the signature of the Department and shall remain in effect for a period of **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 KCHD has failed to comply with any of these terms and conditions or has been responsible for the taking of River Redhorse beyond that which is incidental to the construction of a bridge over the Fox River in Kendall County, Illinois.

2. The effective period of this authorization may be altered by mutual written agreement between KCHD and the Department. The Illinois Endangered Species Protection Board shall be notified of 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 River Redhorse; regulations protecting the species; where the species might be found; avoidance areas; travel restrictions for equipment; how to report sightings or incidents that may involve take; the importance of avoiding take of the species; and response protocol if the species are found. **KCHD 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 potential habitat and species management practices.
6. Biological consultants employed by KCHD 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. The salvage of non-listed aquatic life is hereby authorized by the Department with signature of this agreement per the Illinois Fish and Aquatic Life Code (515 ILCS 5/1-150).

8. KCHD shall notify the Department's Endangered Species Program by email correspondence of construction commencement and completion of the project. A **project status report** shall be submitted to the Department **within 90 days** following completion (defined as the date of KCHD's final inspection) summarizing the implementation of minimization and mitigation measures and evaluating the effectiveness or status 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 and/or translocated from 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. KCHD shall conduct, or cause to be conducted, the following pre-construction, construction or post-construction efforts:
  - a. All erosion and sediment control best management practices shall be used to prevent sediments from entering waterways and minimize increased turbidity. This shall include daily inspections, and additional inspections immediately prior to, and following, heavy rain events for the area.
  - b. Installation of a turbidity curtain or floating silt fence during installation and removal of the causeway and cofferdam.
  - c. A cover crop shall be used along with erosion control blankets to reduce the risk of soil erosion into the Fox River during construction.
  - d. A biological monitor shall be onsite to collect and relocate any fish that become trapped inside the cofferdam during the dewatering process when reasonably safe to do so.
  - e. Agitate water in vicinity of causeway installation and removal, and prior to pulling out the existing sheet pile and riprap, and prior to installing new materials (e.g. riprap) to scare fish from the vicinity (where fish may be present).
  - f. Use of a causeway to keep equipment out of stream with minimal disruption to flow. Normal downstream flow shall be maintained with the use of culverts in the causeway.
  - g. Heavy equipment shall not enter the water during placement of clean rip rap; except that arms and buckets will have limited entry.
  - h. No instream work shall occur between June 1 and July 31 to avoid fish spawning season. This restriction applies only to the period when causeways and cofferdams are built.
  - i. The stream bed impact area shall be returned to its pre-construction condition.
  - j. No equipment or vehicles shall be staged in the floodplain of the Fox River.
  - k. Soil bioengineering techniques shall be used that integrate native plantings and natural materials along with stone riprap protection on the banks for long-term stabilization.

11. KCHD shall conduct, or cause to be conducted, a thorough community-based survey for River Redhorse within a reach centered on the project area during **Years 2 and 5** following construction completion:

- a. The survey shall use Department protocols (two, thirty-minute runs of pulsed-DC electro-fishing targeting suitable fish habitat) and shall be conducted between August 1 and October 31.
- b. Fish shall be processed in the field and released at the site.
- c. **A report including, but not limited to, the survey methodology utilized, a map of the surveyed reach, recorded abundance of each encountered species for each thirty-minute run, an estimate of mean width and depth within the surveyed reach, and a qualitative description of survey reach characteristics (e.g. flow, substrate, habitat composition). Photos (which include distinguishing characteristics) of listed species shall be included in the report. The report shall be provided to the Department within 90 days of completion of the survey.**

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

- a. KCHD will provide **\$15,600** to the IDNR Wildlife Preservation Fund earmarked to bring conservation benefit to the River Redhorse.
- b. The compensatory mitigation 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 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.ITAcoordinator@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 KCHD official identified below is authorized to execute this agreement. Execution by KCHD 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 KCHD 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:*

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

Oct. 19, 2020  
Date

*For the Kendall County Highway Department:*

Francis C. Klaas  
Mr. Francis C. Klaas, P.E.  
Kendall County Engineer

10-14-20  
Date