



Illinois Department of Natural Resources

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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 Kendall County Forest Preserve District (hereinafter referred to as KCFPD) for the incidental take of the State-endangered greater redhorse (*Moxostoma valenciennesi*) and 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 removal of the Millbrook Bridge over the Fox River in Kendall County, Illinois. The project area is also located within the Fox River Illinois Natural Areas Inventory Site (INAI #1444). The site is included on the INAI due to the presence of specific suitable habitat occupied by endangered and threatened species.

Procedural History

The Department received a conservation plan prepared by KCFPD on October 11, 2017, as a request for authorization for the incidental take of greater redhorse and river redhorse. Additional information was requested by the Department on November 9, 2017, to make the conservation plan complete as prescribed by Ill. Adm. Code 1080.10. Additional information was received by the Department on December 6, 2017 and January 30, 2018. The final conservation plan was accepted as complete by the Department on February 1, 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 demolish and remove the steel bridge trusses of the existing Millbrook Bridge over the Fox River. The concrete and stone abutments and piers will remain in place. During instream work, temporary cofferdams and a causeway will be constructed for dewatering, sediment control, and access. The instream structures will be constructed of non-erodible material. Neither the cofferdams, nor the causeway, will extend across the entire channel to maintain stream flow. All access will be

from the west bank. The cofferdams will be constructed in two phases. The Phase 1 cofferdam will extend from the west bank around the west span. The Phase 2 cofferdam will extend from the east bank around the two east spans. During Phase 2, a temporary stone causeway will be constructed from the west bank to allow access. The causeway will be constructed with stone riprap fill with a coarse aggregate surface. Culverts will be placed through the causeway to facilitate stream flow. During each cofferdam phase, the area will be dewatered and the steel trusses will be demolished by cutting or explosive charge and removed from the coffered area. All debris, equipment, cofferdams, and causeway materials will be removed at the completion of construction. The stone riprap from the causeway will be reused along the west bank to stabilize an eroded area. The estimated duration of the work is four weeks. Total estimated area of impact for species habitat is 0.7 acres.

Take of greater redhorse and river redhorse could occur as a result of being crushed or smothered by equipment or materials used to construct the cofferdams and causeway. Either species could become trapped in the cofferdams and take could occur during the dewatering process. Siltation and sedimentation could impact the gravel channel bottom that both species use for feeding and spawning. The proposed activities may result in indirect impact as a result of noise and vibration that may cause dispersal from habitat or reduce the reproductive success of the species. The take of greater redhorse and river redhorse that could result from this project is not the purpose of KCFPD'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 KCFPD's conservation plan.

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

KCFPD has appropriated the necessary funds to complete the project. Estimated costs include funding for demolition, implementation of erosion and sediment control measures, and implementation of the conservation plan.

It is the Department's opinion that KCFPD'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:

Greater Redhorse (*Moxostoma valenciennesi*)

Greater redhorse is an Illinois state-endangered fish species.

Habitat: Greater redhorse is a large, bottom-feeding fish that is typically found in fast-flowing, medium to large rivers, and is occasionally found in river reservoirs and large lakes. The species prefers clear water with substrates of clean sand, gravel, or boulders. The species has little tolerance of siltation and pollution, but can withstand some level of pollution if sufficient current exists to keep spawning areas free of silt deposition.

Reproduction: Spawning occurs in April and May in shallow runs with sand and gravel substrates. During this time, male greater redhorses hold territories and are periodically visited by females ready to breed. Females enter spawning sites from downstream and will hold a position on or just above the substrate for 3-5 seconds. If not joined by a male, she will drift further downstream to try a different spot. After spawning occurs, eggs are buried in the substrate with their tails and no further parental care is given.

Population: Greater redhorse population decline has occurred because of poor water quality and habitat fragmentation.

Range in Illinois: In Illinois, greater redhorses have been found in the Vermilion, Kankakee, Illinois, Wabash, and Fox River basins. Greater redhorse are found in 4 of 102 Illinois counties, including DeKalb, Kane, Kendall, and Livingston. There are currently 7 extant Element Occurrence Records of greater redhorse in the Illinois Natural Heritage Database.

Incidental Take Authorizations: The Department has 7 previously issued or pending Incidental Take Authorizations for greater redhorse. Previous projects included a bridge replacement, pipeline installation, and hydroelectric dam projects. This is the second authorization for the taking of greater redhorse in Kendall County, the first authorization executed for this species was over 33.5 river miles upstream.

River Redhorse (*Moxostoma carinatum*)

River redhorse 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. The species prefers deep pools with moderate current over bedrock or gravel substrates, and is intolerant of high turbidity (murky water), siltation, and pollution.

Reproduction: Spawning occurs between May and June. 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 River basin. River redhorse are found in twelve (12) of 102 Illinois counties. There are currently twenty-eight (28) extant Element Occurrence Records of river redhorse in the Illinois Natural Heritage Database.

Incidental Take Authorizations: The Department has thirteen (13) 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. Past applicants have been required to minimize instream project footprints, conduct instream work outside of fish spawning season, relocate fish trapped in cofferdams, and provide monetary support for future fish research. This is the second authorization for the taking of river redhorse in Kendall County, the first authorization executed for this species was over 33.5 river miles upstream.

Based on the amount of habitat impacted by this project, the number of known occurrences of the threatened 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 greater redhorse and river redhorse 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 KCFPD 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 KCFPD's request for authorization of incidental take was published in the *Breeze Courier* (official state newspaper) on February 8, 2018, and in the *Kendall County Record* on February 8, 15, 22, and March 1, 2018. A copy of the conservation plan was deposited at the Yorkville Public Library, where it was available for public review. The deadline for public comment was April 1, 2018. No comments were received from the public.

Authorization

It is the determination of the Department that the measures that will be implemented by KCFPD will adequately minimize and mitigate the anticipated taking of greater redhorse and river redhorse incidental to activities associated with Millbrook Bridge removal over the Fox River in Kendall County, Illinois. Further, the Department has concluded that the take authorized herein will not reduce the likelihood of survival or recovery of the greater redhorse and river redhorse 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. Additional listed species may inhabit the Fox River, **this agreement does not authorize take of any species except the greater redhorse and river redhorse.**

All terms and conditions included in the aforementioned conservation plan submitted by KCFPD 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 KCFPD 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 KCFPD has failed to comply with any of these terms and conditions or has been responsible for the taking of the greater redhorse and river redhorse beyond that which is incidental to activities associated with the Millbrook Bridge removal over the Fox River in Kendall County, Illinois.

2. The effective period of this authorization may be altered by mutual written agreement between KCFPD 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 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. **KCFPD 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 KCFPD shall be qualified in working with these species 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 of this agreement per the Illinois Fish and Aquatic Life Code (515 ILCS 5/1-150).
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. KCFPD shall notify the Department's Endangered Species Program by email correspondence of construction commencement and completion of the Millbrook Bridge removal over the Fox River. A **project status report** shall be submitted to the Department within **90 days** of project completion summarizing the implementation or status of minimization (including a list of all species relocated from within cofferdams), 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.
10. KCFPD shall conduct, or cause to be conducted, the following pre-construction or construction efforts:

- a. Erosion and sediment control measures shall be implemented in all areas. Disturbance of vegetation shall be minimized to prevent erosion and sedimentation. All disturbed areas shall be stabilized upon completion of construction activities.
- b. Erosion and sediment control measures shall be monitored daily to ensure effectiveness.
- c. Erosion and sediment control measures shall be inspected prior to continuation of construction, after events of heavy rain.
- d. No construction debris shall be deposited into the stream channel. Excavated materials shall be removed from the channel and disposed in an upland location.
- e. Cofferdams and a causeway shall be used to facilitate construction. Work shall take place during periods of low flow to avoid failure of cofferdams and causeway.
- f. Culverts shall be placed in the temporary stone causeway to maintain stream flow.
- g. Timber mats or low ground pressure tires shall be used on construction equipment to access dewatered areas in the channel.
- h. All fish and other aquatic species shall be removed from the coffered area during dewatering and relocated to suitable habitat (fish downstream) by a permitted biologist.
- i. Work shall not occur during the spawning seasons of greater redhorse or river redhorse (April through June).

11. KCFPD shall conduct, or cause to be conducted, the following post-construction monitoring measures for greater redhorse and river redhorse during **Year 2**:

- a. A survey of the project area fish assemblage. The survey shall use IDNR protocols (two, thirty-minute runs of pulsed-DC boat electrofishing) in a reach centered on the project area. The survey shall be conducted during summer flow conditions.
- b. The survey shall be conducted outside spawning season (April through June).
- 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 survey reach, length of 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 with the report.
- d. The survey 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 calculated as follows:

- a. KCFPD shall acquire and protect in perpetuity similar riverine habitat in Little Rock Creek, a tributary to the Fox River 2.5 miles upstream. The proposed acquisition is a 135-acre property with 1.25 miles of stream corridor with habitat suitable for the greater redhorse and river redhorse, including suitable spawning substrate.

- b. Mitigation payments are nonrefundable, including events of revocation or termination. Proof of acquisition must be provided to the Department within 6 months of execution.

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

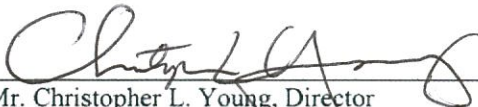
(217)557-8243

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 KCFPD official identified below is authorized to execute this agreement. Execution by KCFPD 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 KCFPD 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

8/23/18
Date

For Kendall County Forest Preserve District:


Mr. David Guritz, Director

8/15/2018
Date