



# 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 Illinois Department of Transportation (hereinafter referred to as IDOT) for the incidental take of the State-endangered Bluebreast Darter (*Etheostoma camurum*) and Bigeye Chub (*Hybopsis amblops*). The Illinois Department of Natural Resources (hereinafter referred to as Department) has determined that the taking is incidental to activities associated with the removal and replacement of existing sheet pile and rip rap around Piers 2 and 3 on the dual bridge structures carrying Interstate 74 (I-74) over the Vermilion River near Danville, Vermilion County, Illinois. The project lies at the downstream end of the Salt Fork Vermilion River Segment Illinois Natural Areas Inventory Site (INAI #1427) designated due to the unusual concentration of mussel resources.

*Note: There are two Vermilion Rivers in Illinois. One is part of the Illinois River drainage; the other is part of the Wabash River drainage. All references to the Vermilion River in this document are to the Wabash River tributary.*

### **Procedural History**

A Conservation Plan prepared by IDOT, was submitted to the Department on August 15, 2019, as a request for authorization for the incidental take of the Bluebreast Darter and Bigeye Chub. The Department requested additional information on January 31, 2020, to make the conservation plan complete as prescribed by Ill. Adm. Code 1080.10. Additional information was received by the Department on February 3, 2020. The final conservation plan was accepted as complete by the Department on February 4, 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 the removal and replacement of existing sheet pile and riprap around existing Piers 2 and 3 on the

dual bridge structures carrying I-74 over the Vermilion River near Danville, Vermilion County, Illinois. The replacement of existing sheet pile and riprap is proposed as a means to prevent scour and potential failure of the existing piers. Cofferdams will not be required to perform this work. Removal and replacement of materials will be performed from the bank or a causeway by mechanical means, such as a crane, excavator, or backhoe. 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 Bluebreast Darter and Bigeye Chub.

Total estimated area of impact within species habitat for the immediately proposed actions is **0.20 acres**. The Department concurs that the take of Bluebreast Darter and Bigeye Chub that could result from the immediately proposed project is not the purpose of IDOT'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 IDOT's conservation plan.

To meet the "maximum extent practicable" standard, additional minimization and/or mitigation measures may be required beyond those proposed by IDOT, based on the life history needs of the Bluebreast Darter and Bigeye Chub. **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.

IDOT's Conservation Plan assures that funding of the project, and the conservation measures, will consist of 10% State funds and 90% Federal funds. IDOT has a contractual obligation with the Illinois Natural History Survey (INHS) for post-construction surveys.

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:

**Bluebreast Darter** (*Etheostoma camurum*) is an Illinois State-endangered fish species.

**Habitat:** Bluebreast Darter is a small fish found in swift rocky riffles in small to medium rivers with high water quality.

**Distribution:** Bluebreast Darters occur north from Illinois to New York and south to Virginia and Alabama.

**Reproduction:** Spawning occurs roughly May to August. Eggs hatch in 7-10 days.

**Population:** Bluebreast Darter population decline has occurred because of increased pollution and turbidity in their habitats. The species has a low tolerance for silt.

**Range in Illinois:** In Illinois, Bluebreast Darter are found in the Vermilion River basin. Bluebreast Darter are found in 2 of 102 Illinois counties, including Vermilion and Champaign. There are currently 9 extant Element Occurrence Records of Bluebreast Darter in the Illinois Natural Heritage Database.

**Incidental Take Authorizations:** The Department has five previously issued or pending Incidental Take Authorizations for Bluebreast Darter. Types of projects included bridge repair, dam removal, and streambank restoration. The nearest past authorizations occurred within 11 miles upstream and 4 miles downstream in the Vermilion River basin. This is the fifth authorization for the taking of Bluebreast Darter in Vermilion County.

---

**Bigeye Chub** (*Hybopsis amblops*) is an Illinois State-endangered fish species.

**Habitat:** Bigeye Chub is a small fish found in vegetated clear pools and gravel riffles in creeks and small rivers.

**Distribution:** Bigeye Chub occurs from New York to Oklahoma and Illinois to Georgia.

**Reproduction:** Bigeye Chub spawn from roughly May to July.

**Population:** Bigeye Chub population decline has occurred because of poor water quality and habitat fragmentation. Historically, the species had been considered extirpated from Illinois; however, based on surveys, Bigeye Chub has expanded its distribution and become more abundant in the Vermilion River basin over the past few decades. The species is intolerant of siltation and pollution.

**Range in Illinois:** In Illinois, Bigeye Chub is found in the Vermilion, Wabash, and Embarras River basins. Bigeye Chub is found in 5 of 102 Illinois counties, including Vermilion, Champaign, Clark, Crawford, and Edwards. There are currently 28 extant Element Occurrence Records of Bigeye Chub in the Illinois Natural Heritage Database.

**Incidental Take Authorizations:** The Department has five previously issued or pending Incidental Take Authorizations for Bluebreast Darter. Types of projects included bridge repair, dam removal, and streambank restoration. The nearest past authorizations occurred within 11 miles upstream and 4 miles downstream in the

Vermilion River basin. This is the fifth authorization for the taking of Bluebreast Darter in Vermilion County.

---

Based on the amount of habitat impacted by this project, the number of known occurrences of Bluebreast Darter and Bigeye Chub 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 IDOT signature on this agreement indicates IDOT'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 IDOT's request for authorization of incidental take was published in the *Breeze Courier* (official state newspaper) on February 18, 2020, and in *The Commercial-News* on February 18, 25, and March 4, 2020. A copy of the conservation plan was deposited at the Danville Public Library, where it was available for public review. The deadline for public comment was April 5, 2020. No comments were received from the public.

### **Authorization**

It is the determination of the Department that the measures to be implemented by IDOT will adequately minimize and mitigate the anticipated taking of Bluebreast Darter and Bigeye Chub associated with the removal and replacement of sheet pile and riprap around Piers 2 and 3 on dual structures carrying I-74 across the Vermilion River in Vermilion County, Illinois. Further the Department has concluded that the taking authorized herein will not reduce the likelihood of survival or recovery of Bluebreast Darter or Bigeye Chub 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 IDOT 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 IDOT in the conservation plan:

1. This authorization is effective upon the signature of the Department and shall remain in effect for a period of 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 IDOT has failed to comply with any of these terms and conditions or has been responsible for the taking of Bluebreast Darter or Bigeye Chub beyond that which is incidental to the removal and replacement of sheet pile and riprap at Piers 2 and 3 of the dual bridge structures carrying I-74 over the Vermilion River in Vermilion County, Illinois.

2. The effective period of this authorization may be altered by mutual written agreement between IDOT 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 Bluebreast Darter and Bigeye Chub; 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. IDOT 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 IDOT 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. IDOT 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 IDOT'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. Based on the Department's concern for mussel resources in this INAI, a Memorandum of Understanding held by the Department and the IDOT to minimize impacts to INAI's and streams, and the elapsed time period since mussels were relocated from the project footprint; IDOT shall conduct, or cause to be conducted, a thorough relocation of all mussels from within the area of direct impact and a buffer extending 10 meters upstream and 50 meters downstream. A moving transect search method shall be used within the impact area and buffer. Transects shall be one-meter-wide, perpendicular to stream flow, and extend the entirety of the wetted stream width. Transects shall be resampled until subsequent passes no longer yield  $\geq 10\%$  of the total individuals collected. Mussels should be held in mesh bags within the stream, except for processing. Each mussel should be identified to species, and length and a count of external growth rings shall be recorded. Relocation should occur when water temperatures are between  $15^{\circ}$  and  $30^{\circ}$  C to minimize stress and mortality. Mussels shall be relocated to suitable habitat at least 300 meters downstream and within the same waterbody pre-approved by the Department. All mussels shall be marked uniquely to each individual. If the project is not performed within two years of the relocation, another mussel relocation shall occur.

**A report shall be submitted to IDNR within 90 days of relocation. The report shall include maps of survey and relocation sites, survey and relocation methods, species, length and growth ring count of each individual relocated, unique marking, and transect and survey pass of origin for each individual relocated.**

*This Agreement does not authorize the take of any State-listed mussel species. If a State-listed mussel is found during relocation, work will be halted pursuant to Paragraph #9 above.*

11. IDOT shall conduct, or cause to be conducted, the following pre-construction, construction or post-construction efforts:
  - a. Careful attention to erosion and sediment control practices due to the sensitivity of these species to turbidity.
  - b. Installation of a turbidity curtain during installation and removal of the causeway.
  - c. Avoid impact during most of species spawning periods (May 1 – July 31).
  - d. 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 to scare fish from the vicinity (where fish may be present).
  - e. Use of causeway to keep equipment out of stream with minimal disruption to flow.
  - f. Ensure that the stream bed impact area is returned to better than pre-construction condition.
  
12. IDOT shall conduct, or cause to be conducted, a thorough community-based survey for Bluebreast Darter and Bigeye Chub 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. If riffles are present within the survey reach, a supplemental targeted survey for Bluebreast Darter using kick-seine shall be conducted. Ten kicks or 10% of the riffle area, whichever is less, shall be sampled for each riffle.
  - c. Fish shall be processed in the field and released at the site.
  - d. **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 and each kick (if applicable), 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.**
  
13. Mitigation to the maximum extent practicable is required by the Act. Mitigation requirements for this authorization are as follows:
  - a. IDOT will provide **\$20,800** to the IDNR Wildlife Preservation Fund earmarked to bring conservation benefit to the Bluebreast Darter and/or the Bigeye Chub.
  - 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.

14. 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

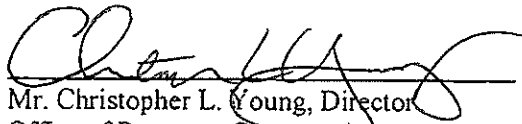
(217)557-8243  
DNR.ITAcordinator@illinois.gov

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.

15. The IDOT official identified below is authorized to execute this agreement. Execution by IDOT indicates acceptance of all terms and conditions described in this authorization.

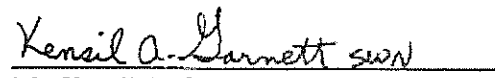
16. The execution of this agreement does not waive or excuse the responsibilities of IDOT to comply with other Federal, State, or local regulations, including but not limited to obtaining any required permits for the execution of this project.

*For the Illinois Department of Natural Resources:*

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

5/21/2020  
Date

*For the Illinois Department of Transportation:*

  
Mr. Kensil A. Garnett, P.E.  
Region 3 Engineer

05/21/2020  
Date