



# 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 Marathon Pipe Line, LLC (hereinafter referred to as MPL) for the incidental take of the State-threatened eastern sand darter (*Ammocrypta pellucidum*). The Illinois Department of Natural Resources (hereinafter referred to as the Department) has determined that the taking is incidental to activities associated with the covering and stabilizing of Muddy Creek WRCL 739 pipeline crossing Muddy Creek. The 50-foot wide MPL pipeline right-of-way has one 10-inch diameter oil pipeline. The pipeline is exposed across Muddy Creek for approximately 69 feet. This site is located 100 feet south of Cumberland Road, one mile east of Woodbury in the city of Jewett within Cumberland County, Illinois.

### **Procedural History**

The Department received a conservation plan prepared by ARCADIS U.S. Inc. for MPL on April 14, 2017, as a request for authorization for the incidental take of eastern sand darter. Additional information was requested by the Department on May 12, 2017 to make the conservation plan complete as prescribed by Ill. Adm. Code 1080.10. Additional information was received by the Department on July 6, August 9, 14, and 24, 2017. The final conservation plan was approved by the Department August 24, 2017. 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 cover and stabilize a pipeline using a geotextile matting system and rock riprap due to pipeline exposure attributed to bed degradation and bank migration in Cumberland County, Illinois. MPL proposes to armor the 10" diameter pipeline with an articulating concrete revetment mattress system. Installation of fish exclusion barriers will occur prior to project commencement. After installation of cofferdams, the project area will be dewatered while still allowing Muddy Creek to flow continuously. The area will then be graded as necessary. A geotextile

material will be placed atop the grade, followed by a Submar mat system. These mats will extend across the creek from the right-descending high bank to the left-descending high bank. The edges of the mat system will toe in to 2-foot deep anchor trenches at the flank edges and 3-foot deep anchor trenches on the upstream and downstream edges. A 3-foot deep by 10-foot long subgrade rock grade control is to be installed on the downstream end of the mat system. An erosion control blanket will be placed on disturbed areas. The Submar mat system will cover and protect the pipeline. All work will be done with a Caterpillar 329 trackhoe, a mini trackhoe, and a skid steer. Total estimated area of impact for species habitat is 0.095 acre.

Take of the eastern sand darter could occur as a result of being crushed or trapped during installation of the cofferdams, matting system, and/or rock riprap; sedimentation within and downstream from the project site; and temporary turbidity increases during construction. Disturbance from noise and vibration within the river could have an adverse effect on some life history stage of the eastern sand darter. The take of eastern sand darter that could result from this project is not the purpose of MPL'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 MPL's conservation plan.

To meet the "maximum extent practicable" standard, additional minimization and/or mitigation measures may be required beyond those proposed by MPL, based on the life history needs of the eastern sand darter.

**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:

MPL states that they will fully fund the construction and operation of the Muddy Creek WRCL 739 Pipeline. The estimated costs include funding for all activities associated with the implementation of the conservation plan, including all mitigation and monitoring measures. MPL understands that if any additional activities are planned at the facility that may affect eastern sand darter, or other endangered or threatened species, coordination with the Department will be required.

It is the Department's opinion that MPL'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:

The **eastern sand darter** is a State-threatened fish species in Illinois. It is a small fish, ranging from 2-3 inches in length. It is found in slow-moving areas of medium to large size streams. Eastern sand darters are only found in areas with clean sandy substrates and are known to vacate an area if clean sand is compromised by mud or silt. The species spends much of their time on the stream bottom buried in the sand with only their snout and eyes exposed waiting for food items to float by. Eastern sand darters feed on small insects, insect larvae, and zooplankton.

Eastern sand darter spawn typically takes place in June or early July, though females have been observed carrying eggs as late as August. Females are able to mate twice per breeding season, producing up to 350 eggs with an average clutch size of 71 eggs. Females bury eggs in sand, after which point no further parental care is given. Eggs hatch after less than seven days, and fry begin feeding after nine days. Juvenile eastern sand darters reach sexual maturity after one year. Eastern sand darter populations have declined due to habitat loss, increased siltation of sandy habitats, declining water quality, and habitat alteration due to the installation of dams and other manmade structures.

In Illinois, eastern sand darters have been found in the Vermilion, Embarras, and Little Wabash River basins. Eastern sand darters have been found in 9 of 102 Illinois counties including Champaign, Coles, Crawford, Cumberland, Jasper, Lawrence, Mercer, Richland, and Vermilion. There are currently 26 extant Element Occurrence Records for eastern sand darter in the Illinois Natural Heritage Database.

There have been four (4) previously issued or pending incidental take authorizations for the eastern sand darter in the State of Illinois. Project types have included dam removal, bridge replacement, and streambank stabilization projects. This is the first authorization for eastern sand darter in Cumberland County. To minimize take of the eastern sand darter, previous projects have limited the amount of construction equipment and materials in the water. They have relocated fish from dewatered area, released them immediately downstream, and continued to search for stranded fish throughout the project duration. For mitigation, previous applicants have provided compensatory mitigation for conservation benefit of the species and installed bendway weirs to decrease sedimentation to habitat.

Based on the amount of habitat impacted by this project, the number of known occurrences of the eastern sand darter 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 eastern sand darter 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 MPL 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 MPL's request for authorization of incidental take was published in the *Breeze Courier* (official state newspaper) on August 25, 2017, and in the *Effingham Daily News* on August 25, September 1, and 8, 2017. A copy of the conservation plan was deposited at the Effingham Public Library, where it was available for public review. The deadline for public comment was October 8, 2017. No comments were received from the public.

### Authorization

It is the determination of the Department that the measures that will be implemented by MPL will adequately minimize and mitigate the anticipated taking of eastern sand darter incidental to activities associated with maintenance on Muddy Creek WRCL 739 pipeline crossing Muddy Creek in Cumberland County, Illinois. Further, the Department has concluded that the take authorized herein will not reduce the likelihood of survival or recovery of the eastern sand darter 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 MPL 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 MPL 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 MPL has failed to comply with any of these terms and conditions or has been responsible for the taking of the eastern sand darter beyond that which is incidental to activities associated with the maintenance of Muddy Creek WRCL 739 pipeline in Cumberland County, Illinois.

2. The effective period of this authorization may be altered by mutual written agreement between MPL 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. The Department reserves the right of entry by its staff or representatives to inspect species, potential habitat, and species management practices.
5. Biological consultants employed by MPL 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.
6. MPL shall notify the Department's Endangered Species Program by email correspondence of construction commencement and completion of the maintenance of Muddy Creek WRCL 739 pipeline. A **project status report** shall be submitted to the Department within **120 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.
7. All on-site personnel shall be educated 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. MPL shall submit a copy of the education materials to the

**Department.**

8. Any discoveries of additional State-listed species beyond those identified in this agreement shall be reported to the Department within 48 hours accompanied by location information (photograph, map, and GPS coordinates).
9. MPL shall conduct, or cause to be conducted, the following pre-construction or construction efforts:
  - a. Block nets as fish exclusion barriers shall be installed both upstream and downstream of the pipeline crossing and secured with anchor bags, filled with gravel. They shall be left in place for the duration of the project.
  - b. Gravel for the anchor bags shall not consist of existing bed materials to reduce disturbance to the stream substrate.
  - c. A qualified biologist shall conduct visual inspections of the block nets to ensure proper function and remove debris or tangled fish.
  - d. Once block nets are installed, any fish remaining between the two nets (within the project area) shall be captured and released downstream of the project area.
  - e. To reduce take of the eastern sand darter, seining and dip netting will occur prior to electrofishing. Remaining fish may be removed by electrofishing.
  - f. Block nets shall be monitored for stunned fish.
  - g. When relocating fish from the project area, fish handling shall be kept to a minimum.
  - h. Fish shall be released as promptly as is practicable.
  - i. Stream banks shall be recontoured to resemble pre-construction conditions and disturbed areas shall be stabilized with native seed mix to prevent soil erosion.
10. MPL shall conduct, or cause to be conducted, the following post-construction monitoring measures approximately **30 days** following construction completion:
  - a. A thorough survey of in-stream water quality, habitat conditions, soil stability/erosion and vegetation recruitment within the project site. **A report including, but not limited to, the survey methodology utilized and results shall be provided to the Department within 90 days of survey completion or concurrently with the report required under #6 above.**
11. MPL shall conduct, or cause to be conducted, the following post-construction monitoring measures in **Year 2 and Year 5** following construction completion (for example, if the project is completed in 2017, monitoring shall take place in 2019 and 2022):
  - a. A thorough survey of presence/absence of eastern sand darter surrounding the project site. This survey shall occur from 250 feet upstream to 250 feet downstream of the project site. This survey shall also include identifying potential habitat for eastern sand darter. **A report including, but not limited to, the survey methodology utilized, the species and number of fish located, the age of each individual sampled if possible, and a map of the species locations and**

**suitable habitat shall be provided to the Department within 90 days of survey completion.**

12. 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).
13. Mitigation to the maximum extent practicable is required by the Act. Mitigation requirements for this authorization are calculated as follows:
  - a. In lieu of onsite mitigation, MPL shall submit **\$5,200** to the Illinois Department of Natural Resources to be earmarked for the conservation benefit of State-listed aquatic species.
  - b. The compensatory mitigation shall be provided to the Department **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/or 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:

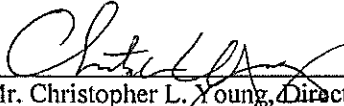
Illinois Department of Natural Resources  
Office of Resource Conservation  
Endangered Species Program – Incidental Take Authorization Coordinator  
One Natural Resource Way  
Springfield, IL 62702-1271

(217)557-8243  
[DNR.ITAcordinator@illinois.gov](mailto: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 MPL official identified below is authorized to execute this agreement. Execution by MPL 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 MPL 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:

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

11/1/17  
\_\_\_\_\_  
Date

For Marathon Pipe Line, LLC:

  
\_\_\_\_\_  
Joshua Stuff *AM*  
Environmental, Safety & Regulatory Manger

10/27/17  
\_\_\_\_\_  
Date