

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 ExxonMobil Pipeline Company LLC (hereinafter referred to as EMPCo LLC) for the incidental take of the Federally- and State-endangered Sheepnose (*Plethobasus cyphus*), State-endangered Spike (*Elliptio dilatata*), and State-threatened Monkeyface (*Quadrula metanerva*) and Purple Wartyback (*Cyclonaias tuberculata*). 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 S-232 Mustang Lockport to Patoka Crude Oil pipeline crossing the Kankakee River near Custer Park, IL. The 50-foot wide EMPCo LLC pipeline right-of-way has one 18-inch diameter crude oil pipeline. The pipeline is exposed in two locations near each of the banks of the Kankakee River for a total of approximately 262 linear feet. This site is located approximately 0.25 miles south-southeast of the bridge carrying Wauponsee Glacial Trail over the Kankakee River, in the city of Custer Park within Will County, Illinois.

Procedural History

The Department received a conservation plan prepared by ARCADIS U.S. Inc. for EMPCo LLC on March 8, 2021, as a request for authorization for the incidental take of Sheepnose, Spike, Monkeyface, and Purple Wartyback. Additional information was requested by the Department on March 30, 2021 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 August 17, 2021. The final conservation plan was approved by the Department August 23, 2021. 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 due to pipeline exposure attributed to

streambed scour in Will County, Illinois. EMPCo LLC proposes to armor the 18" diameter pipeline with approximately 175 cubic yards of grout-filled articulated mat armoring along two segments of the pipeline. The two segments comprise approximately 262 linear feet of the 500-foot width of the Kankakee River at this location, and the grout-filled articulated mat will cover 34 feet of the 50-foot wide right of way for the pipeline that runs perpendicular to the river.

The fabric articulated mats are custom manufactured off-site. They are constructed with internal cables for strength and support and have zippers to connect segments. The empty grout bags will be placed in position by dive contractors, temporarily staked or weighted in place until filled with grout through an internal PVC pipe.

A concrete pump truck will be positioned on the upland bank within the right-of-way and filled by concrete supply trucks. As each fabric mat section is filled with grout, the next mat will be connected and filled, until all the mats in segment are filled. The zippers that connect the mats will be oriented with the stream flow to prevent turbulent flow and erosion. The fully cured mats will be approximately 6-inches high, and the cured mats will be a series of six-inch raised blocks. The concrete in the mats will also be enhanced with a non-toxic enzyme that will cause the grout to cure more rapidly.

The North area of direct impact is 9,117 square feet (ft²) covering 17 feet of pipeline and 34 feet of the right-of-way. The South area of direct impact is 5,005 ft² covering 92 linear feet of pipeline and 34 feet of the right-of-way. Total estimated area of impact for species habitat is 0.23 acres.

Take of the Sheepnose, Spike, Monkeyface, and Purple Wartyback could occur as a result of being crushed or trapped during installation of the matting system; 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 stages of the of Sheepnose, Spike, Monkeyface, and Purple Wartyback, and their glochidial host fish. The take of Sheepnose, Spike, Monkeyface, and Purple Wartyback that could result from this project is not the purpose of EMPCo LLC'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 EMPCo LLC's conservation plan.

To meet the "maximum extent practicable" standard, additional minimization and/or mitigation measures may be required beyond those proposed by EMPCo

LLC, based on the life history needs of the Sheepnose, Spike, Monkeyface, and Purple Wartyback.

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:

EMPCo LLC states that they will fully fund the maintenance of the S-232 Mustang Lockport to Patoka Crude Oil pipeline. The estimated costs include funding for all activities associated with the implementation of the conservation plan, including all mitigation and monitoring measures. EMPCo LLC understands that if any additional activities are planned at the facility that may affect Sheepnose, Spike, Monkeyface, and Purple Wartyback, or other endangered or threatened species, coordination with the Department will be required.

It is the Department's opinion that EMPCo LLC'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:

Sheepnose (*Plethobasus cyphus*) is a Federally and Illinois State-endangered mussel species.

Habitat: The species is known to inhabit medium to large rivers in shallow areas of moderate to swift current. It inhabits gravel or gravel mixed with sand, but has also been found in areas of mud, cobble, and boulders.

Reproduction: Sheepnose are short-term brooders, with reproduction occurring between May and July. Glochidia are released in conglomerates that mimic food organisms of fish, so that they are eaten and glochidia can gain access to host fish. Sauger are confirmed natural host fish for Sheepnose and have been found to be successful in laboratory studies, but there are other species that could potentially be host fish: fathead minnow, creek chub, central stoneroller, and brook stickleback.

Population: Sheepnose are declining due to the destruction of habitat through stream channelization, maintenance, and dam construction. Low dissolved oxygen levels and point and non-point source pollution are an ongoing threat to Sheepnose.

Range in Illinois: The species has been found in the Mississippi, Rock, Ohio, Wabash, Kaskaskia, and Kankakee Rivers. They have been observed in 5 of 102 Illinois counties Massac, Pulaski, Rock Island, Shelby, and Will. There are currently 8 extant Element Occurrence Records for Sheepnose in the Illinois Natural Heritage Database.

Incidental Take Authorizations: The Department has twelve (12) pending or issued Incidental Take Authorizations for Sheepnose. Types of projects include an oil pipeline removal, a bridge installation, installation of a high-speed railway, pipeline maintenance, and barge fleeting facilities. Five (5) of the authorizations for Sheepnose are for projects in the Kankakee River.

Spike (*Elliptio dilatata*) is an Illinois State-threatened mussel species.

Habitat: The species is found in small to large rivers with sand and gravel substrates. They are occasionally found in reservoirs and lakes, usually associated with outlet habitats dominated by swift currents.

Reproduction: Spike are short-term brooders. Females brood their young in their gills from May through August before releasing glochidia. Glochidia are released and temporarily parasitize a host fish. Spike glochidial host fish include gizzard shad, flathead catfish, white crappie, black crappie, and yellow perch.

Population: Spike populations are declining due to widespread degradation of habitat throughout its range. Dams, channelization, and dredging can also impact glochidial host fish. They are also prone to impacts caused by the invasive zebra mussel.

Range in Illinois: In Illinois, Spike have been found in the Mississippi, Illinois, Kaskaskia, Kankakee, Fox, Sangamon, Wabash, and Little Wabash River basins in 17 of 102 counties. There are currently 30 extant Element Occurrence Records for Spike in the Illinois Natural Heritage Database.

Incidental Take Authorizations: There have been eighteen (18) previously issued or currently pending Incidental Take Authorizations for Spike in Illinois. Previous projects include bridge replacements, pipeline installation, water treatment outfall, and diffuser installation. Five of the previous Authorizations have been in Will County.

Monkeyface (*Quadrula metanerva*) is an Illinois state-threatened mussel species.

Habitat: Monkeyface are predominately found in medium to large rivers that have gravel or mixed sand and gravel substrates.

Distribution: This species is widespread in the United States. Populations can be found from Kansas, Nebraska, and Oklahoma east to West Virginia and Georgia, and range from Minnesota south to the Gulf of Mexico in Louisiana, Mississippi, and Alabama.

Reproduction: Monkeyface is a short-term brooder, with females retaining glochidia in their gills from late March to July. Glochidia host fish include Spotfin Shiner, Bluntnose Minnow, Eastern Blacknose Dace, and Creek Chub.

Population: Monkeyface populations are on the decline due to siltation, habitat loss, desiccation during droughts, pollution, impoundment and channelization, species introductions including Zebra Mussels, and increased water temperatures.

Range in Illinois: Monkeyface mussels are found in 10 drainages, but healthy populations are only found in the Mississippi River and Kankakee River. Monkeyface have been reported in 13 of 102 Illinois counties. There are currently 28 extant Element Occurrence Records for Monkeyface mussel.

Incidental Take Authorizations: This is the sixth (6) Incidental Take Authorization issued or pending for Monkeyface following its addition to the Illinois Threatened and Endangered Species List in May 2020. The other projects included adding riprap under a bridge around the piers, constructing a barge mooring facility, water withdrawal, and pipeline maintenance.

Purple Wartyback (*Cyclonaias tuberculata*) is an Illinois State-threatened mussel species.

Habitat: The species is predominantly found in small to medium-sized streams and the main headwaters of large rivers. The species prefers gravel or mud substrates.

Reproduction: Purple Wartyback is a short-term brooder, with females retaining glochidia in their gills from May to late August. Glochidia are released and temporarily parasitize a host fish. Purple Wartyback glochidial host fish include black bullhead, yellow bullhead, channel catfish, and flathead catfish.

Population: Purple Wartyback populations are jeopardized by habitat degradation and pollution. They are also being impacted by infestations of the non-native zebra mussel.

Range in Illinois: In Illinois, Purple Wartyback are found in the Kankakee, Vermillion, Ohio, Fox, and Rock River basins. They have been found in 10 of 102 Illinois counties, including Champaign, Grundy, Iroquois, Kankakee, Massac, Pulaski, Rock Island, Vermilion, Will, and Winnebago. There are currently 35 extant Element Occurrence Records for Purple Wartyback mussels in the Illinois Natural Heritage Database.

Incidental Take Authorizations: The Department has twenty-one (21) previously issued or pending Incidental Take Authorizations for Purple Wartyback. Types of projects included bridge repair or installation, pipeline maintenance, high-speed railway construction, and dredging. Five of the previous projects have taken place in Will County in the Kankakee River.

Based on the amount of habitat impacted by this project, the number of known occurrences of the Sheepnose, Spike, Monkeyface, and Purple Wartyback 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 EMPCo LLC 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 EMPCo LLC's request for authorization of incidental take was published in the *Breeze Courier* (official state newspaper) on August 25, 2021, and in the *Braidwood Journal* on August 25, September 1, September 8, and September 15, 2021. A copy of the conservation plan was deposited at the Fossil Ridge Library in Braidwood, where it was available for public review. The deadline for public comment was October 15, 2021. No comments were received from the public.

Authorization

It is the determination of the Department that the measures that will be implemented by EMPCo LLC will adequately minimize and mitigate the anticipated taking of Sheepnose, Spike, Monkeyface, and Purple Wartyback incidental to activities associated with maintenance on S-232 Mustang Lockport to Patoka Crude Oil pipeline crossing the Kankakee River in Will County, Illinois. 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 EMPCo LLC 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 EMPCo LLC in the conservation plan:

1. This authorization is effective upon the signature of the Department and shall remain in effect for a period of twelve (12) 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 EMPCo LLC has failed to comply with any of these terms and conditions or has been responsible for the taking of the Sheepnose, Spike, Monkeyface, and Purple Wartyback beyond that which is incidental to activities associated with the maintenance of the S-232 Mustang Lockport to Patoka Crude Oil pipeline in Will County, Illinois.

2. The effective period of this authorization may be altered by mutual written agreement between EMPCo LLC 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 Sheepnose, Spike, Monkeyface, and Purple Wartyback, 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. **EMPCo LLC 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 EMPCo LLC 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. EMPCo LLC shall notify the Department's Endangered Species Program by email correspondence of construction commencement and completion of the maintenance of the pipeline. 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. The final pH monitoring Plan to the Illinois Environmental Protection Agency shall be included.

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. EMPCo LLC shall conduct, or cause to be conducted, the following pre-construction or construction efforts:
 - a. A turbidity/sediment curtain shall be used downstream of the areas of direct impact.
 - b. In the case of an accidental release, the response plan shall be implemented as soon as possible. In the event that this protocol is utilized, it shall be reported to the Department within 24 hours.
 - c. Per the Water Quality Certification, continuous pH monitoring shall occur.
 - d. No in-stream excavation, cofferdams, or dewatering shall be used to install the grout bags.
 - e. Divers shall place and secure the grout bags in place until the material cures.
 - f. All associated equipment shall be staged and stored outside of the river in a controlled area.
 - g. Should it be determined that a boat is necessary for diver health and safety, one may be used.
 - h. Work shall not be performed during high flow events.
 - i. A trained and permitted engineer or technician shall be on-site to monitor armoring activities.
 - j. Additional relocation efforts for mussels shall be conducted before work begins and shall adhere to the details provided in item 10.
10. In addition to the September/October 2020 mussel relocation effort documented in the mussel survey attached to the Conservation Plan, EMPCo LLC shall conduct, or cause to be conducted, a pre-construction mussel relocation effort.
 - a. The search extent shall be 557m² area of direct impact originating at the north bank of the Kankakee River and the 320m² area of direct impact originating at the south bank of the Kankakee River.
 - b. The search areas shall be divided into 5m² cells and shall be searched using tactile techniques. Each cell shall be searched for a minimum of 15 minutes.
 - i. If at least one mussel is collected from a cell that cell shall be searched for a second time.
 - ii. If the second search effort within a cell yields a number of individuals greater than 10% of the number of individuals collected during the first pass a third search shall be conducted within that cell. Additional passes shall continue until the 10% condition is no longer met.
 - c. Collected state-listed mussels shall be relocated to suitable habitat in a reach of the Kankakee River adjacent to the Evans-Judge Preserve. If suitable habitat does not occur at this locale, an alternative recipient site shall be identified in

coordination with the Department and the United States Fish and Wildlife Service (USFWS). Each individual shall be marked with a Passive Integrated Transponder (PIT) tag before release. Each individual shall be hand placed into the sediment and oriented with their siphon-end up.

- d. All non-listed mussels shall be relocated to suitable habitat at least 900 meters upstream or 300 meters downstream of the search areas and may be released using a broadcast method.
 - e. A report including, but not limited to, the relocation methodology used, water temperature during relocation efforts, habitat characteristics in both the areas of direct impact and recipient sites, species identity and abundance of relocated mussels, length, growth ring count (i.e., estimate of age), sex (if discernable), cell and pass of origin, and the unique identification marker (i.e., PIT number; if applicable) for each relocated individual of listed species and the first 100 of non-listed species, and a map of the areas of direct impact and recipient sites shall be provided to the Department within 90 days of completion of the mussel relocation.
11. The relocation 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).
 12. EMPCo LLC shall conduct, or cause to be conducted, thorough surveys within the areas of direct impact and relocation site in **Years 2 and 4** following relocation in addition to the USFWS-required monitoring in **Year 2, 4, 6, 8, and 10** following construction completion (for example, if the project is completed in 2022, monitoring shall take place in 2024, 2026, etc. until 2032):
 - a. The areas of direct impact shall be qualitatively searched for 2 person-hours each. The recipient site for listed species shall be qualitatively searched for 6 person-hours.
 - b. A report including, but not limited to, the survey methodology used, water temperature during surveys, habitat characteristics, species identity and abundance collected, length, growth ring count (i.e., estimate of age), sex (if discernable), tag number (if applicable), and search hour of origin for each individual, map of searched areas, and estimate of survival rate shall be provided to the Department within 90 days of completion of the survey.
 - c. All monitoring reports submitted to the USFWS shall also be provided to the Department.
 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, EMPCo LLC shall submit **\$30,000** to the Wildlife Preservation Fund to be earmarked for the conservation benefit of State-listed Sheepnose, Spike, Monkeyface, and Purple Wartyback.

- 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 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:

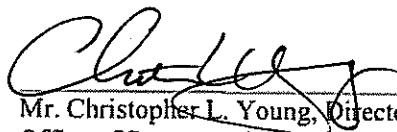
Illinois Department of Natural Resources
Office of Resource Conservation
Endangered Species Program – Incidental Take Authorization Coordinator
One Natural Resource Way
Springfield, IL 62702-1271

(217)557-8243
DNR.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.

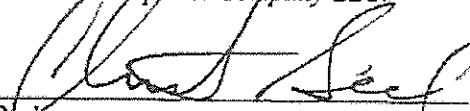
15. The EMPCo LLC official identified below is authorized to execute this agreement. Execution by EMPCo LLC indicates acceptance of all terms and conditions described in this authorization.
16. The execution of this agreement does not waive or excuse the responsibilities of EMPCo LLC to comply with other 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

March 28, 2022
Date

For ExxonMobil Pipeline Company LLC:


Clint Beek
Right of Way & Claims Manager

3/15/22
Date