

Illinois
Department of
**Natural
Resources**

JB Pritzker, Governor • Natalie Phelps Finnie, Director
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www.dnr.illinois.gov

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 bp One Pipeline Company LLC, (hereinafter referred to as BP) for the incidental take of the Federally- and State-endangered Higgins Eye (*Lampsyllis higginsii*), Sheepnose (*Plethobasus cyphus*), and Spectaclecase (*Cumberlandia monodonta*), State-endangered Ohio Pigtoe (*Pleurobema cordatum*), and State-threatened Butterfly (*Ellipsaria lineolata*) and Monkeyface (*Quadrula metanevra*). The Illinois Department of Natural Resources (hereinafter referred to as the Department) has determined that the taking is incidental to work to perform emergency work on the pipeline to stabilize and protect it until the new portion can be installed; this could entail vortex-induced vibration (VIV) suppression clamps, fill material, sandbags, gravel bags, grout bags, and/or additional methods as deemed appropriate by the engineering team. The right of way runs through the Reed Wildlife State Habitat Area on North Morman Springs Road. The pipeline enters Illinois approximately 3.2 miles southwest of Niota, or approximately 4.3 miles northeast of Nauvoo.

Procedural History

The Department received a conservation plan prepared by EnviroScience, Inc., on February 28, 2022, as a request for authorization for the incidental take of Higgins Eye, Sheepnose, Spectaclecase, Ohio Pigtoe, Butterfly, and Monkeyface to fill a scour hole that developed underneath the 20-inch crude oil pipeline in this location. The final conservation plan was approved by the Department on May 13, 2022. Prior to the Department issuing the authorization, EnviroScience, Inc., contacted the Department with additional information from BP. At that time, the material cost to fill the scour hole was greater than expected. Further analysis found that it would cost less to replace this line with one that runs below the Mississippi River.

The Department received a conservation plan prepared by EnviroScience, Inc., on November 7, 2022, as a request for authorization for the incidental take of Higgins Eye, Sheepnose, Spectaclecase, Ohio Pigtoe, Butterfly, and Monkeyface. Additional information was requested by the Department on November 29 to make the conservation plan complete as prescribed by Ill. Adm. Code 1080.10. Additional information was received by the Department on January 4, 2023. The final conservation plan was approved by the Department on January 9, 2023. 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:

In the worst-case scenario prior to HDD installation and abandon-in-place decommission, BP may be required to install vortex-induced-vibration suppression clamps, fill material, sandbags, gravel bags, grout bags and/or additional methods deemed appropriate by the engineering team. Current data does not indicate that these will be necessary, but in case of a river flood causing scouring or other obstruction that might rapidly deteriorate the current conditions in the scour hole. This work is estimated to have an additional impact of no more than 6,250 ft² (0.14 acres). Efforts will be taken to minimize the streambed impact.

The project will not require equipment access (other than the work boats) or staging areas, nor will it require the use of temporary bladder dams or cofferdams. The site will be accessed via a nearby public boat launch. Work barges and other vessels may remain in the project location during non-working hours. The property owner affected by this project is the Illinois Department of Natural Resources (BP's ROW easement holder) Reed Wildlife State Habitat Area.

Take of Higgins Eye, Sheepnose, Spectaclecase, Ohio Pigtoe, Butterfly, and Monkeyface could occur as a result of placement of spuds from a work barge. Additionally, take may occur if the worst-case scenario plan needs to be enacted. Individuals may be crushed or buried. Indirect take could occur as a result of increased noise, vibration and turbidity in the water column that would adversely affect all life stages.

The take of Higgins Eye, Sheepnose, Spectaclecase, Ohio Pigtoe, Butterfly, and Monkeyface that could result from this project is not the purpose of BP'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 BP's conservation plan.

To meet the “maximum extent practicable” standard, additional minimization and/or mitigation measures may be required beyond those proposed by BP, based on the life history needs of Higgins Eye, Sheepnose, Spectaclecase, Ohio Pigtoe, Butterfly, and Monkeyface.

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:

BP states that all funding for the mitigation will be included in funding for the overall project, and by extension funding of the mitigation.

It is the Department’s opinion that BP’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:

Higgins Eye (*Lampsilis higginsii*) is a Federally endangered and Illinois state-endangered mussel species.

Habitat: Higgins Eye is a medium-sized mussel known to inhabit large rivers. Its preferred habitat consists of plant-free, stable areas of mixed sand and gravel. It is unlikely to be found in areas of shifting sands or silt.

Reproduction: Higgins Eye are long-term brooders. Females will retain developing glochidia in their gills over winter and release them in June to July. Glochidia will parasitize sauger, largemouth bass, smallmouth bass, walleye, yellow perch, black crappie, and green sunfish.

Population: The species is rare or extirpated from much of their historical range. Decline is due to poor habitat conditions resulting from human river management, non-point and point-source water and sediment pollution, and the infestation of invasive zebra mussels. Higgins Eye was the first freshwater mussel species to gain federal protection in the United States.

Range in Illinois: Higgins Eye have been found in the Mississippi River. They have been observed in 6 of 102 Illinois counties: Carrol, Henderson, Jo Daviess, Mercer, Rock Island, and Whiteside. There are currently 15 extant Element Occurrence Records for Higgins eye in the Illinois Natural Heritage Database.

Incidental Take Authorizations: The Department has eleven (11) pending or issued Incidental Take Authorizations for Higgins Eye. Types of projects include

bridge installations, dredging, dolphin installations, and pipeline maintenance. This is the first (1) ITA for Higgins Eye in Hancock County. All of the ITAs for Higgins eye have been in the Mississippi River.

Sheepnose (*Plethobasus cyphus*) is a Federally endangered 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 host fish for Sheepnose, but there are other unconfirmed species that could potentially be host fish: fathead minnow, creek chub, central stoneroller, and brook stickleback.

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

Range in Illinois: They have been observed in four (4) of 102 Illinois counties, including Pulaski, Rock Island, Shelby, and Will Counties. There are currently seven (7) extant Element Occurrence Records for Sheepnose in the Illinois Natural Heritage Database.

Incidental Take Authorizations: The Department has thirteen (13) 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, piling, water withdrawal, and pipeline maintenance. BP's project is the first authorization for the taking of Sheepnose in Hancock County.

Spectaclecase (*Cumberlandia monodonta*) is a Federally endangered and Illinois state-endangered mussel species.

Habitat: The species is found in large rivers with swiftly flowing water. They inhabit areas among boulders in patches of sand, cobble, or gravel in areas of reduced current.

Reproduction: Spectaclecase are short-term brooders and may spawn twice a year, releasing their glochidia from April to May and again from October to November. Glochidia are released in conglomerates of ten to hundreds of thousands of glochidia. Host fish for spectaclecase are unknown.

Population: Habitat loss and degradation are the primary cause of population decline. Spectaclecase mussels live close together in colonies, making them vulnerable to infestations of the invasive zebra mussel.

Range in Illinois: Spectaclecase have been found in the Mississippi River, in two (2) of 102 Illinois counties: Henderson and Rock Island. There are currently 2 extant Element Occurrence Records for Spectaclecase in the Illinois Natural Heritage Database.

Incidental Take Authorizations: The Department has issued five (5) Incidental Take Authorizations for spectaclecase. Previous authorizations were issued for bridge projects and a dolphin installation. This is the first authorization for the taking of spectaclecase in Hancock County.

Ohio Pigtoe (*Pleurobema cordatum*) is an Illinois State-threatened mussel species.

Habitat: Ohio Pigtoe has a preferred habitat in large rivers, with tolerance for some reservoir environments. In rivers, populations of Ohio Pigtoe can be found above riffles in heterogenous gravel, cobble, and boulder substrates, and in deeper flowing waters in mud, sand, or gravel. When found in a reservoir, the habitat is dam tailwaters or overbanks.

Reproduction: Ohio Pigtoe are short-term brooders. Reproduction occurs from April to August, after which glochidia are released. Host fish for Ohio Pigtoe include Rosefin Shiner, Creek Chub, Guppy, and Brook Stickleback.

Population: Ohio Pigtoe have become rare in occurrence and density. The species was previously known from the upper Mississippi, and St. Lawrence River. However, it is localized in the Ohio, Muskingum, Green, Tennessee, and Cumberland Rivers, and extirpated from the Wabash River, and other tributaries of the Ohio River. The decline has been attributed to pollution, alteration to river channels including impoundment and siltation, and commercial harvest of shells.

Range in Illinois: Ohio Pigtoe mussels are found occasionally in the Wabash and Ohio Rivers, in three (3) of 102 counties: Hancock, Massac, and Pulaski. There are currently four (4) extant Element Occurrence Records for Ohio Pigtoe mussels in the Illinois Natural Heritage Database. During a 2014 survey for a scour hole near this pipeline, one live individual and fresh and weathered shell material was found.

Incidental Take Authorizations: The Department has four (4) other pending or issued Incidental Take Authorizations for Ohio Pigtoe. Previous authorizations were issued for a dredge project and a pilling installation. Both of these were issued for the Ohio River. This is the first authorization for Hancock County and the Mississippi River.

Butterfly (*Ellipsaria lineolata*) is an Illinois state-threatened mussel species.

Habitat: They are found in large rivers in areas with moderate to swift currents. They favor substrates of coarse sand and gravel.

Reproduction: Butterfly mussels are long-term brooders. Females retain developing glochidia in their gills from August until the following July. Glochidia

are released and temporarily parasitize a host fish. Butterfly glochidial host fish include freshwater drum, green sunfish, and sauger.

Population: Butterfly mussel populations are shrinking due to a decline in habitat conditions associated with river/water management, impacts from the invasive zebra mussel, and from overharvest caused by the button and pearl industries.

Range in Illinois: In Illinois, Butterfly mussels have been found in the Mississippi and Ohio Rivers, in 13 of 102 counties. There are currently 32 extant Element Occurrence Records for butterfly mussels in the Illinois Natural Heritage Database.

Incidental Take Authorizations: The Department has twenty-one (21) previously issued or pending Incidental Take Authorizations for butterfly mussels. Types of projects included dredging, construction of offshore structures, bridge removal and replacement, riprap installation, and boat dock installation. This is the first authorization for Hancock County.

Monkeyface (*Quadrula metanevra*) are 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 11 Watersheds, 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 31 extant Element Occurrence Records for Monkeyface mussel.

Incidental Take Authorizations: This is the twelfth (12) Incidental Take Authorization issued or pending for Monkeyface. This is the first authorization for Hancock County. Other projects have included bridge repairs, water withdrawal, and pipeline maintenance.

Based on the amount of habitat impacted by this project, the number of known occurrences of Higgins Eye, Sheepnose, Spectaclecase, Ohio Pigtoe, Butterfly, and Monkeyface 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 BP 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 BP's request for authorization of incidental take was published in the *Breeze Courier* (official state newspaper) on January 18, 2023, and in *The Hancock County Pilot-Journal* on January 18, 25, February 1, and 8, 2023. A copy of the conservation plan was deposited at the Nauvoo Public Library where it was available for public review. The deadline for public comment was March 10, 2023. No comments were received from the public.

Authorization

It is the determination of the Department that the measures that will be implemented by BP will adequately minimize and mitigate the anticipated taking of Higgins Eye, Sheepnose, Spectaclecase, Ohio Pigtoe, Butterfly, and Monkeyface incidental to activities associated with work to perform emergency work to stabilize the pipeline in Hancock County, IL. 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 BP to the Department are incorporated into this agreement by reference and are made a part thereof. In the event there is conflict between the conservation plan and this authorization, this authorization shall control.

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 BP 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 BP has failed to comply with any of these terms and conditions

or has been responsible for the taking of Higgins Eye, Sheepnose, Spectaclecase, Ohio Pigtoe, Butterfly, and Monkeyface beyond that which is incidental to activities associated emergency work on the pipeline to stabilize and protect it until the new portion can be installed Mississippi River in Hancock County, IL.

2. The effective period of this authorization may be altered by mutual written agreement between BP 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 Higgins Eye, Sheepnose, Spectaclecase, Ohio Pigtoe, Butterfly, and Monkeyface, 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. **BP submitted a copy of the educational materials to the Department on January 4, 2023.**
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, or conducting work on behalf of, BP 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. BP shall notify the Department's Endangered Species Program by email correspondence of construction commencement and completion of emergency work to stabilize and protect the existing pipeline until the new portion can be installed under the bed of the Mississippi River in Hancock County, IL. 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.

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. BP shall conduct, or cause to be conducted, the following pre-construction or construction efforts:
 - a. Work shall not be performed during high flow events.
 - b. The minimum number of spuds shall be utilized to stabilize each barge safely and securely.
 - c. The comprehensive "Spill Mitigation and Response Plan" including local contacts must be present and accessible on site.
 - d. A trained and permitted biologist shall be on-site to monitor activities.
 - e. Emergency repairs, if needed, shall use the smallest footprints practicable.
10. The Department will not be requiring monitoring at the area of direct impact.
11. Mitigation to the maximum extent practicable is required by the Act. Mitigation requirements for this authorization are calculated as follows:

In lieu of onsite mitigation, BP shall submit **\$5,580** to the Illinois Wildlife Preservation fund. Mitigation payment shall be paid within 90 days of emergency work.

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.

12. 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 Resources Way
Springfield, IL 62702-1271

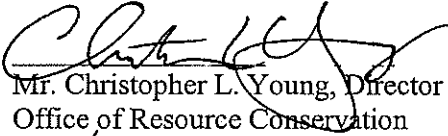
(217)557-8243
DNR.ITAcordinator@illinois.gov

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.

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

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

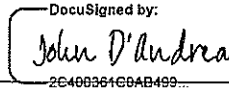
*For the Illinois Department of Natural
LLC:*


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

7/28/23

Date

For bp One Pipeline Company Resources:

DocuSigned by:

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Mr. John D'Andrea
NA Operations Manager

7/27/2023

Date