

Illinois Department of Natural Resources

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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 Sny Island Merchandising Company (hereinafter referred to as SIMCO) for the incidental take of the State-threatened butterfly mussel (*Ellipsaria lineolata*). The Illinois Department of Natural Resources (hereinafter referred to as Department) has determined that the taking is incidental to activities associated with the construction of a barge loading facility in Pool 24 of the Mississippi River in Pike County, Illinois.¹

Procedural History

The Department received a conservation plan prepared by Ecological Specialists, Inc., on behalf of SIMCO on February 25, 2016, as a request for authorization for the incidental take of butterfly mussels. The Department requested additional information on March 23, 2016, to make the conservation plan complete as prescribed by Ill. Adm. Code 1080.10. That additional information was received by the Department on May 5 and 20, 2016. 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 the installation of a 950-foot conveyor extending from the Illinois bank of the Mississippi River to a barge loading tower supported by eight support piers at SIMCO's barge loading facility in Pike County, Illinois. The project limits include an approximately 800-foot long by 250-foot wide area in which conveyor support piers, mooring dolphins, and a barge loading tower are to be constructed. The barge loading tower will provide a secure buffer and mooring structure while the terminal is in operation. The dolphins will be installed 50 feet, 140 feet, and 230 feet immediately upstream and downstream of the barge loading tower.

¹ The project location is further described as riverward of a peninsula along the left descending bank of the Mississippi River and associated grain elevator, at approximate River Mile 282.3, near Rockport, Illinois.

All structures will be installed using a barge-based pile driver and construction is anticipated to take approximately two weeks. SIMCO estimates that **the footprint of the installed structures will directly impact 202.2 ft² (0.005 acre) of riverbed and potential mussel habitat.** Take of the butterfly mussel could occur as a result of mechanical injury when the new structures are driven into the riverbed, temporary turbidity increases during construction, and hydraulic impacts from the operation of barges in the project area. Drilling noise and vibration could have an adverse effect on some life history stage of the mussels and their associated host fishes. The take of butterfly mussels that could result from this project is not the purpose of SIMCO'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 SIMCO's conservation plan.

To meet the "maximum extent practicable" standard, additional minimization and/or mitigation measures may be required beyond those proposed by SIMCO, based on the life history needs of the butterfly mussel. **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:

SIMCO states that they will privately fund the construction of the proposed barge loading facility. They will fully incorporate the conservation plan into construction and operation of the facility and will fund any costs associated with constraints or conditions imposed by the permitting process. SIMCO understands that if any additional activities are planned at the facility that may affect butterfly mussels or other endangered or threatened species, coordination with the Department will be required.

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:

The **butterfly mussel** is an Illinois State-threatened mussel species. It is known to inhabit large rivers in areas of moderate to swift current, and is usually found in substrates of coarse sand and gravel.

Butterfly mussels are long-term brooders, with females retaining developing glochidia in their gills from August until the following July. Known glochidial host fish for this species are freshwater drum (*Aplodinotus grunniens*), green sunfish (*Lepomis cyanellus*), and sauger (*Sander canadensis*).

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

On April 10 and 11, 2014, personnel from Ecological Specialists, Inc., performed a survey for freshwater mussels in and near the area that will be affected by this project. The survey found a total of 582 freshwater mussels of 18 species within the project area. Two butterfly mussels were found, comprising 0.3% of unionids found during the survey. SIMCO estimates that approximately 100 butterfly mussels occur within the project limits, and that construction activities have the potential to take up to two butterflies.

In Illinois, extant populations of butterfly mussels are in the Mississippi, Ohio, and extreme lower Rock Rivers, in 12 of 102 counties. There are currently 35 extant Element Occurrence Records for butterfly mussels in the Illinois Natural Heritage Database. The Department has eight (8) Incidental Take Authorizations issued or pending 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 Incidental Take Authorization issued for butterfly mussels in Pike County.

Based on the amount of habitat impacted by this project, the number of known occurrences of the butterfly mussel in Illinois, an assessment of the potential effect of this project on individual mussels in the project footprint, and the conservation measures included in this authorization for incidental take, the Department has concluded that the taking proposed herein will not reduce the likelihood of survival or recovery of the butterfly mussel 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.

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 SIMCO 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 SIMCO's request for authorization of incidental take was published in the *Breeze Courier* (official state newspaper) out of Taylorville on June 1, 2016 and in *The Pike Press* on June 1, 8, and 15 of 2016. A copy of the conservation plan was deposited at the Pittsfield Public Library, where it was available for public review. The deadline for public comment was July 15, 2016. No comments were received from the public.

Authorization

It is the determination of the Department that the measures that will be implemented by SIMCO will adequately minimize and mitigate the anticipated taking of butterfly mussel incidental to activities associated with the construction of a barge loading facility in the Mississippi River in Pike County, Illinois. Further, the Department has concluded that the take authorized herein will not reduce the likelihood of survival or recovery of the butterfly mussel 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. Additional listed mussel species are known to inhabit the Mississippi River, **this agreement does not authorize take of any species except the butterfly mussel.**

All terms and conditions included in the aforementioned conservation plan submitted by SIMCO 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 SIMCO 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 SIMCO has failed to comply with any of these terms and conditions or has been responsible for the taking of butterfly mussels beyond that which is incidental to activities associated with the construction of a barge loading facility in the Mississippi River in Pike County, Illinois.

2. The effective period of this authorization may be altered by mutual written agreement between SIMCO 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 is non-transferable.
4. All personnel working in the vicinity of the project shall receive educational materials including species identification information, protected status of the species, and response protocol in place when mussels are encountered, living or dead. A copy of the educational flyer shall be provided 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 SIMCO 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 and an IDNR Endangered Species Permit.
7. SIMCO shall notify the Department of the commencement and completion of the barge loading facility on the Mississippi River. The Department shall be informed of any State-listed species sighting and provided location information (photograph and GPS coordinates) within 48 hours of such sighting. The Department shall be notified immediately of the discovery of dead specimens and will provide guidance on preservation and disposition.
8. Erosion and sediment control measures shall be implemented in all areas affected by riparian activities. Disturbance of vegetation shall be minimized to prevent erosion and sedimentation. All disturbed areas shall be seeded or otherwise stabilized upon completion of construction activities.
9. SIMCO shall conduct, or cause to be conducted, a thorough search for freshwater mussels in the project area during biologically suitable mussel relocation periods. All mussels found within the footprint and 5-foot diameter buffer of the intermediate conveyor support pier, dolphins, and barge loading tower piers shall be relocated to suitable habitat pre-approved by the Department. This search shall be conducted no more than 30 days prior to project initiation. Mussels will not be relocated when air temperatures are at or below 32 degrees Fahrenheit, nor when water temperatures are at or below 40 degrees Fahrenheit. All mussels will be held in mesh bags suspended in the river or in containers of water that is changed every hour (every half-hour when air temperatures are at or above 87 degrees Fahrenheit). Water in containers shall be taken from the river where the mussels were collected. No mussels shall be held for more than three (3) hours before being returned to suitable habitat in the river.

All freshwater mussels found shall be identified to species and enumerated. All butterfly mussels shall receive Passive Integrated Transponder tags to aid in identification of these individuals during monitoring. In addition, half of the non-listed mussels relocated (including a sampling representative of the diversity found) shall be etched or glitter-glued, such that they can be useful to the collection of relocation survivability data.

Those conducting the search must be qualified at accurate identification of freshwater mussel species. All native freshwater mussels found during this search shall have zebra mussels removed from their shells and be relocated to suitable habitat pre-approved by the Department. **A report including, but not limited to, the survey methodology utilized, the species and numbers of mussels located, the age and size of each individual sampled, an accounting of marked individuals, and maps of the area searched and the relocation site shall be provided to the Department within 60 days of completion of the survey and relocation effort.**

10. SIMCO shall conduct, or cause to be conducted, a thorough search for freshwater mussels around the project area and relocation site in year one following completion of the project. For example, if the project is completed in 2016, this search for freshwater mussels shall be conducted in 2017 when water levels and temperatures are suitable. **A report including, but not limited to, the survey methodology utilized, the species and numbers of mussels located (noting any marked individuals), the age and size of each individual sampled, an analysis of survival rates, and a map of the species locations shall be provided to the Department within 60 days of completion of the survey.**

If no State-listed species are relocated, no year-one survey is required at the relocation site.

11. The salvage and relocation of non-listed mussels 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. No compensatory mitigation is being sought for the actions proposed in SIMCO's conservation plan based on the Department's analysis of the species status in the local area, the project area footprint size, the number of individuals to be potentially impacted, and the benefits from relocation and monitoring efforts.
13. All reports, notifications, and other project documentation shall be submitted to:

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

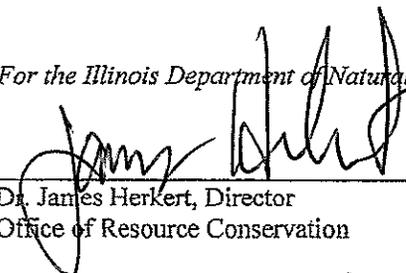
(217)557-8243
DNR.ITAcoordinator@illinois.gov

The Department's Endangered Species Program shall provide all reports required under this agreement to the Illinois Endangered Species Protection Board and to the Department's Natural Heritage Database.

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

15. The execution of this agreement does not waive or excuse the responsibilities of SIMCO 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:



Dr. James Herkert, Director
Office of Resource Conservation

Date

9-9-14

For Sny Island Merchandising Company:



Mr. Gregory A. Dolbeare
President

Date

9-9-14

