



Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
www.dnr.illinois.gov

Pat Quinn, Governor
Marc Miller, 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 Holcim (US) Inc. (hereinafter referred to as Holcim) for the incidental take of the black sandshell mussel (*Ligumia recta*). The Illinois Department of Natural Resources (hereinafter referred to as Department) has determined that the taking is incidental to activities associated with installation of three piles into the left descending bank of the Mississippi River for a boat dock in Mississippi River Pool 16, River Mile 481.1, in Rock Island, Rock Island County, IL.

Procedural History

On November 4, 2013, the Department's consultation staff recommended that Holcim prepare a conservation plan for ITA based on a mussel survey conducted by Helms & Associates, which located the State-threatened black sandshell mussel on September 27, 2013. The conservation plan was submitted by Stanley Consultants, Inc. on behalf of Holcim on December 30, 2013. A revised conservation plan addressing discrepancies identified by the Department was received on March 7, 2014. The proposed public notice was received on March 7, 2014. 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 barge receiving system located on the left descending bank of the Mississippi River, in Mississippi River Pool 16 at River Mile 481.1 (N 41.503422°, W 90.599107°) Rock Island, Rock Island County. The work will include the installation of two piles 20" in diameter and one pile 42" in diameter. The take of the black sandshell mussel could result from crushing of individuals, loss of habitat, and translocation activity. The take of the black sandshell mussel that could result from this project is not the purpose of Holcim'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 to the black sandshell mussel.

Holcim states that no effort was made to minimize the affected area (14 square feet of piling with 60 square feet of buffer). Project plans include efforts to minimize the direct impact to the black sandshell mussel through relocation of mussels from the affected area to an area 150 yards upstream of the Schwiebert Boat Dock where suitable substrate and mussel concentrations are known to exist.

Additional measures, based on the life history needs of the black sandshell mussel, are required under the Authorities section below.

3. The parties to the conservation plan will ensure that adequate funding for the conservation plan will be provided:

Holcim is committed to funding the construction and operation of the work barge unloading facility including any costs associated with constraints or conditions imposed by the permitting process. Holcim has been anticipating the minimization and mitigation requirements addressed herein. It is the Department's opinion that Holcim's stated commitment to funding 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 is a part, or the habitat essential to the species' existence in Illinois:

Mussels are long lived animals that depend on host fish for one stage of their life cycle. Black sandshell host species include bluegill (*Lepomis macrochirus*), largemouth bass (*Micropterus salmoides*), sauger (*Stizostedion canadense*), and white crappie (*Pomoxis annularis*). Black sandshell mussels have an elongate shell that is pointed at the posterior end with a smooth, shiny, and dark green to brown or black surface. Black sandshells live in medium to large rivers in riffles or raceways in gravel or firm sand.

The black sandshell mussel is listed as a threatened species in Illinois because it has experienced a population decline in Illinois; occurring in 2005 in only 25% of the counties with historic records. It is a widespread species found in major river systems but uncommon throughout the State. Declines in habitat conditions are associated with management of the Mississippi River as a navigational canal, and with non-point source water pollution and sediment pollution. Dams, channelization, and dredging increase siltation, physically alter habitat conditions, and block the movement of fish hosts.

A mussel survey conducted by Helms & Associates for Holcim on September 27, 2013, found one black sandshell in the 75 square feet surveyed. Holcim has estimated the number of individual black sandshell mussels to be taken is 1-5 individuals.

The Illinois Natural Heritage Database includes 111 element occurrence records for the black sandshell mussel. Rock Island County contains 13 element occurrence records ranging from 1-149 individuals found. Black sandshells are found in 29 of 102 Illinois counties. According to the Department's data, black sandshells are inhabiting rivers with cobble, gravel, sand, boulders, mud, areas of silt, or hard-packed sand river bottoms. Statewide, the Department has issued 12 previous Incidental Take Authorizations (ITA) for black sandshells, including one in Rock Island County. The post-monitoring surveys received by the Department reflect that the species has recolonized those project areas successfully. Sampling of relocation sites also confirms presence of the species, however marking protocols were not established to confirm that the individuals present were relocated individuals.

Based on the life history needs of the species, the amount of habitat impacted by this project, the number of known occurrences of the black sandshell 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 black sandshell 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. The signature of a representative of Holcim indicates Holcim's commitment to perform 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 Holcim's request for authorization of incidental take was published in the Breeze-Courier (official state newspaper) on April 3rd, and in the Dispatch on April 3rd, 10th, and 17th, 2014. The deadline for public comment was May 17, 2014. No comments were received from the public.

Authorization

It is the determination of the Department that the measures that will be implemented by Holcim will adequately minimize and mitigate the anticipated taking of black sandshell mussels incidental to the the installation of two spud piles and one anchor pile for a barge receiving system in Rock Island County, Illinois. Further, the Department has concluded that the take

authorized herein will not reduce the likelihood of survival or recovery of the black sandshell 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.

All terms and conditions included in the aforementioned conservation plan submitted by Holcim 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 avoidance, minimization, and mitigation measures proposed by the applicant under #2 in the Compliance section above:

1. This authorization is effective upon the signature of the Department and shall remain in effect for a period of six (6) 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 Holcim has failed to comply with any of these terms and conditions or has been responsible for the taking of black sandshell mussels beyond that which is incidental to the the installation of three pilings for a barge receiving system in Rock Island, Rock Island County, Illinois.

2. The effective period of this authorization may be altered by mutual written agreement between Holcim 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 impacted, 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. Holcim shall notify the Department upon commencement of the project.
5. All personnel working in the vicinity of the project shall receive educational materials including species identification information, protected status of the species, and protocol in place for when the species is encountered, living or dead. A copy of the educational flyer shall be provided to the Department. The Department shall be informed of any sighting and provided location information within 48 hours of such sighting.
6. Holcim shall conduct, or cause to be conducted, a thorough search for freshwater mussels in the project area during biologically suitable mussel relocation periods.

This search shall be conducted no more than 45 days prior to project initiation. All freshwater mussels found shall be identified to species, marked, and enumerated. 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 previously identified. 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, 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.

7. Holcim shall conduct, or cause to be conducted, a thorough search for freshwater mussels around the project area and relocation site in year two and year five following completion of the project. For example, if the project is completed in 2014, this search for freshwater mussels shall be conducted in 2016 and 2019 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, and a map of the species locations shall be provided to the Department within 60 days of completion of the survey.
8. All documentation, including maps, shall be submitted to:

Jenny Skufca, Endangered Species Project Manager
Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702
(217)557-8243
jenny.skufca@illinois.gov

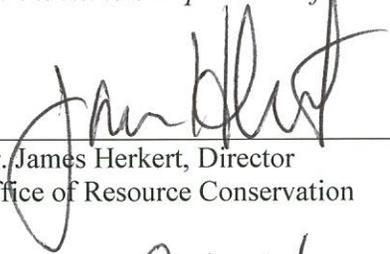
The Department's Endangered Species Program shall provide all reports required under this agreement to the Illinois Endangered Species Protection Board and to the Illinois Natural Heritage Database.

9. Mitigation settlement dollars submitted to the Department earmarked for the conservation benefit of State-listed species are non-refundable, including events of revocation or termination. No compensatory mitigation is sought for the actions proposed in Holcim's conservation plan based on the Department's analysis of the species status in the local area, the project area footprint size, and the number of individuals to be potentially impacted as confirmed by a pre-construction mussel survey.
10. The Department reserves the right of entry by its staff or representatives to inspect potential habitat and species management practices to assure compliance with these terms and conditions.

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

12. The execution of this agreement does not waive or excuse the responsibilities of Holcim 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

8-1-14

Date Signed

For Holcim (US) Inc.



Patrick Roesler Project Manager
Holcim (US) Inc

Patrick Roesler Terminal Ops. Mgr.

Please print name and official title

8-25-2014

Date Signed