

# 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 Exelon Generation Company, LLC (hereinafter referred to as Exelon) for the incidental take of the Higgins eye pearl mussel (*Lampsilis higginsii*), sheepsnose mussel (*Plethobasus cyphus*), butterfly (*Ellipsaria lineolata*), and black sandshell (*Ligumia recta*). The Illinois Department of Natural Resources (hereinafter referred to as the Department) has determined that the taking is incidental to activities associated with the ongoing operation of Exelon's Quad Cities Nuclear Power Station (QCS) at Cordova in Rock Island County, Illinois<sup>1</sup>. The activities at QCS which may result in incidental taking of these species include implementation of an alternate thermal standard, periodic dredging in front of the intake forebay, and removal of Edison Pier. Portions of the area that may be affected by Exelon's activities are within the Mississippi River – Cordova Illinois Natural Areas Inventory Site (INAI #1296).

### Procedural History

The Department received a conservation plan from Exelon on January 16, 2015, as their request for authorization for the incidental take of the Higgins eye pearl mussel, sheepsnose mussel, butterfly, and black sandshell. Much of the information in the conservation plan was from a Habitat Conservation Plan<sup>2</sup> prepared by Exelon as application for authorization of incidental take from the U.S. Fish and Wildlife Service and included in the conservation plan by reference. The Department requested additional information on February 11, 2015, to make the conservation plan complete as prescribed by 17 Ill. Adm. Code 1080.10. That additional information was received by the Department on March 6, 2015. The public notice period will be detailed under #6 of the Compliance section below.

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<sup>1</sup> The project location is further described as three miles north of Cordova, Illinois, Rock Island County on the east bank of the Mississippi River at approximate Mississippi River Mile 506.7, in the southeast quarter of Section 7 and the northeast quarter of Section 18, Township 20 North, Range 2 East. Exelon has also defined an area of influence adjacent to the Quad Cities Nuclear Power Station, which includes the area from an imaginary line from 50 yards north of the Edison Pier (Mississippi River Mile 506.8L) across the Mississippi River to the confluence of the Wapsipinicon River, downstream to the Cordova Slough Light, which is near the confluence of Steamboat Slough and the main channel of the Mississippi River (approximate Mississippi River 503.0R). The lower boundary of the area of influence is an imaginary line from this point perpendicular to the main channel of the Mississippi River.

<sup>2</sup> All references to the "Habitat Conservation Plan" are to the document prepared by Exelon and submitted to the U.S. Fish and Wildlife Service as application for a federal incidental take permit. The U.S. Fish and Wildlife Service issued incidental take permit #TE17852A-0 to Exelon on August 16, 2010. That permit allows incidental take of the Higgins eye pearl mussel and the sheepsnose mussel. The federal incidental take permit is valid through August 15, 2034.

## 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 necessity to conduct various activities for the continued operation of the QCS. Those activities include implementation of an alternate thermal standard, periodic dredging in front of the intake forebay, and removal of Edison Pier – each activity is further described below.

**Alternate thermal standard** – Exelon discharges cooling water into the Mississippi River under a National Pollutant Discharge Elimination System (NPDES) permit. The NPDES permit places limits on water temperatures to protect aquatic species. In September 2014, Exelon received approval from the Illinois Pollution Control Board (IPCB) for an increase in the number of hours during which those temperature limits (as prescribed in 35 Ill. Adm. Code 303.331) may be exceeded (excursion hours). The number of allowable excursion hours was **increased from 87.6 to 219 hours per year**. Per the IPCB decision, the QCS expends excursion hours when the water temperatures at the edge of the mixing zone exceed the statutory limit by 3 degrees Fahrenheit. Further approval by IPCB included a temperature standard exceedance of 5 degrees Fahrenheit for 131.4 of the 219 hours per year during July, August, and September. Exelon expects no direct take of any freshwater mussels as a result of this change, but has acknowledged that the temperature change could result in potentially reduced recruitment of freshwater mussels due to short-term harassment. Harassment is considered a form of take as defined in the Act.

**Dredging** – The natural currents of the Mississippi River deposit coarse sediments in front of the cooling water intake at the QCS, especially during periods of high flow in the river. In order to take in the amount of water needed for cooling; these sediments must be removed periodically. Exelon anticipates that dredging will occur on an average of every two years, though that frequency will vary depending on the rate of sediment deposition. In March 2005, the Department authorized incidental take of the butterfly as a result of dredging at the QCS. Exelon's conservation plan requests authorization for incidental take of additional mussel species that have been found in the vicinity of the QCS but have not been previously found in the area to be dredged.

**Removal of Edison Pier** – This structure has been in place since the original construction of the QCS in the 1960s. It is believed that the presence of the Edison Pier may exacerbate the accumulation of sediments in front of the cooling water intake. Exelon currently has no schedule to remove the pier, but demolition planning has been done and it is possible that removal could be undertaken in the next few years. If the pier is removed, it will be done using shore-based heavy equipment.

For planning purposes, Exelon has defined an area of influence (detailed description in footnote on Page 1 of this document) that covers approximately 1,173 acres. None of the proposed activities will affect this entire area. The alternate thermal standard could affect water temperatures within limits established in the NPDES permit over a variable area of the Mississippi River downstream of the QCS. Under an existing permit from the U.S. Army Corps of Engineers, Exelon is authorized to dredge an area of 500 feet by 700 feet (approximately 8 acres). Removal of the Edison Pier, if it should occur, will directly affect only the area occupied by the pier.

It is the determination of the Department that the take of Higgins eye pearlymussel, sheepsnose mussel, butterfly, and black sandshell that could result from the activities described by Exelon in their conservation plan is not the purpose of those 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:

Exelon's conservation plan describes measures that will be implemented to minimize and mitigate the potential adverse effects of the project on Higgins eye pearlymussel, sheepsnose mussel, butterfly, and black sandshell and their habitats. These measures are summarized below.

- Continued use of a diffuser system for the discharge of cooling water into the Mississippi River:

This system uses two 16-foot diameter pipes that are buried in the bed of the Mississippi River. One pipe extends nearly across the river, and the second ends about 300 feet before the end of the first. At the location of these pipes, the Mississippi River is about 2,200 feet wide. Each diffuser pipe is fitted with 20 discharge risers of 36-inch diameter and spaced at 19-foot, 8-inch intervals in the deep part of the river and with 14 discharge risers of 24-inch diameter spaced at 78-foot, 8-inch intervals in the shallower parts of the river. The diffuser system avoids the discharge of large volumes of heated water into a small portion of the river and allows for rapid mixing of the cooling water with the entire flow of the river.

- Survey of the dredge area and relocation of freshwater mussels:  
If the area subject to maintenance dredging must be expanded or when renewal of the U.S. Army Corps of Engineers permit for dredging is necessary (Exelon's current dredging permit is valid until 2016), Exelon will conduct a survey to determine if any of the endangered or threatened species of freshwater mussels are present in the area to be dredged. That survey will be conducted using intensive methods because these mussel species may occur at low densities, making them easy to overlook using standard, qualitative methods. If any individuals of Higgins eye pearlymussel, sheepsnose mussel, butterfly, or black

sandshell are found in this survey, those mussels will be relocated to suitable habitat outside of the project area.

- Survey of Edison Pier site:

If the decision is made to remove the Edison Pier, Exelon will conduct a mussel survey of the immediate vicinity of the pier no more than 30 days before removal begins. As in the dredging area, intensive survey methods will be used to enhance the likelihood of finding any rare mussels that may be present. If any individuals of Higgins eye pearlymussel, sheepsnose mussel, butterfly, and black sandshell are found, those mussels will be relocated to suitable habitat outside of the project area.
- Exotic species control:

Any equipment used for dredging and/or removal of the Edison Pier will be cleaned following established guidelines to avoid the introduction of zebra mussels or other potential exotic or invasive species. This will be done even if work is not occurring in the immediate vicinity of known endangered or threatened species locations.
- Contaminant control:

Any fill material that may be used will be free of contaminants.
- Fish propagation for infestation with mussel glochidia:

Exelon has converted the spray canal at the QCS into a fish rearing facility which is operated by personnel from the Fishery Research Laboratory at Southern Illinois University. The spray canal was formerly part of the cooling system at the QCS, but was found to be inadequate for that purpose. Exelon will produce yearling walleye to be available for inoculation with the glochidia (larval stage) of the Higgins eye pearlymussel. If inoculation is not used as a species recovery tool in any given year, Exelon will contribute the monetary equivalent to the Iowa HEA (Habitat Equivalency Analysis) Fund for support of other mussel recovery programs. Support for other mussel species, including the butterfly and black sandshell, will also be considered for this program as determined by federal and state agencies. The species of fish to be reared by Exelon will depend on the mussel species selected because glochidia are fish-host-specific. These fish have been assigned an estimated value of \$1.00 per fish and Exelon will contribute a monetary equivalent to the Iowa HEA Fund for mussel recovery in any year in which fish are not needed.
- Development of parameters for determining appropriate species augmentation/reintroduction sites and rates with regard to protection of native resident genetics:

Exelon will work with the U.S. Fish and Wildlife Service, the Department, and other natural resource agencies to develop biological, ecological and habitat parameters to determine if an extant mussel population is suitable for augmentation with mussels reared in a hatchery. This is intended to assure that

augmentation of native mussel populations will not lead to genetic swamping or introduction of undesirable genetic traits.

- **Development of propagation technology for the Higgins eye pearl mussel:**  
Exelon will develop the technology to propagate the Higgins eye pearl mussel, and possibly the sheepsnose mussel, at the QCS. If broodstock for these species is not available or if propagation is not successful, propagation of other mussel species, including the butterfly and black sandshell, may be undertaken. This will allow inoculation of fish produced at the QCS with glochidia also produced on-site. Release of inoculated fish to the Mississippi River will be facilitated by the proximity of the QCS to potential release sites.
- **Adaptive Management:**  
Exelon will utilize an adaptive management approach in implementation of the conservation plan. Details on this approach are included in the Habitat Conservation Plan prepared by Exelon and are incorporated herein by reference.

It is the opinion of the Department that the minimization and mitigation measures proposed by Exelon, along with any additional terms and conditions listed in the Authorization section below, will, to the maximum extent practicable, minimize and mitigate the impact caused by the taking.

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

In their Habitat Conservation Plan, Exelon estimates the minimum annual cost of mitigation, monitoring and reporting at \$20,000. A fund shall be established through the Iowa HEA Fund for mussel recovery with the purpose of implementation of all minimization, monitoring, and mitigation obligations. Exelon has adequate resources to fulfill all commitments made in the Habitat Conservation Plan and this agreement. Exelon will present an annual budget for implementation of the conservation plan as part of their annual report to the Department by March 31 of each year.

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 **Higgins eye pearl mussel** is listed as an endangered species in Illinois because of its greatly reduced range and abundance compared to historic times. All recent records of the Higgins eye pearl mussel in Illinois are from the Mississippi River in Rock Island, Whiteside, and Jo Daviess County or in the lower reaches of the Rock River. It was formerly also found in the Illinois, Spoon, and Kankakee Rivers. The species is also listed as endangered at the federal level.

The Illinois Natural Heritage Database includes nine element occurrence records for Higgins eye pearlymussel that are classified as extant populations. Even where the species is still found, it occurs at lower densities and abundance than in the past. The species is thought to be primarily adapted to large river habitats with moderate current. It has been found in a variety of substrates, but generally does not occupy unstable coarse sands, firmly packed clay, flocculent silt, organic material, bedrock, or concrete.

The Department has issued one previous incidental take authorization for Higgins eye pearlymussel. That project, replacement of a bridge on the Mississippi River, was postponed after the authorization was issued and has not yet been initiated.

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The **sheepnose mussel** is listed as an endangered species in Illinois because of its greatly reduced range and abundance in the state. Sheepnose mussels were once found in most of the major rivers in Illinois, including the Mississippi, Wabash, Ohio, Rock, Kaskaskia, Kankakee, Embarras, Sangamon, and Fox. All recent records are from the Kankakee or Mississippi Rivers. With the exception of Pennsylvania, the sheepnose mussel is listed as endangered or threatened by every state in which it occurs. The species was added to the federal list of endangered species in 2012.

The Illinois Natural Heritage Database includes eight element occurrence records for the sheepnose mussel that are classified as extant populations. These occurrences are limited to Kankakee, Rock Island and Will Counties. Where the species can still be found, it occurs in small numbers and only over small areas.

The Department has issued three previous incidental take authorizations for sheepnose mussels. One of those projects, the replacement of a bridge over the Mississippi River, was postponed after the authorization was issued and has not been initiated. The other two authorizations required the relocation of freshwater mussels before work began and post-construction surveys to evaluate the success of relocation. One of these authorizations, issued in 2002, was for removal of an oil pipeline from the bed of the Kankakee River. That project was completed and a post-completion mussel survey was done five years later. The survey showed that sheepnose mussels were still present in the project area and that there had been recent reproduction of the species. The second authorization, issued to Exelon in 2010, was for installation of a multi-port diffuser in the Kankakee River to discharge cooling water from the Braidwood Nuclear Power Station. No sheepnose mussels were found during the post-construction mussel survey. An additional request for authorization of incidental take of sheepnose mussels related to construction of a railroad bridge over the Kankakee River is currently under review by the Department.

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The **butterfly** is listed as a threatened species in Illinois because of its reduced range and abundance in the state. Though still found at locations along the length of the Mississippi River bordering Illinois and a few other locations, the species has apparently been extirpated from other rivers where it previously occurred. Rivers in which the butterfly

once occurred include the Kaskaskia, Illinois, and Wabash. It is a species of large rivers, where it most often is found in sand or gravel substrates at a depth of 1-2 meters or more. The species has no formal federal conservation status.

The Illinois Natural Heritage Database includes 35 element occurrence records for the butterfly that are classified as extant populations. Those occurrences are in the Mississippi, Ohio, and Rock Rivers.

The Department has issued three previous authorizations for the incidental take of butterfly mussels. All were for dredging projects on the Mississippi River. Minimization and mitigation measures on these projects included reduction of the project footprint, relocation of mussels prior to dredging, and post-project surveys to determine the fate of relocated mussels and to detect recolonization of the dredged area by mussels. Post-construction surveys completed to date show the continued presence of butterfly mussels in project areas.

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The **black sandshell** is listed as a threatened species in Illinois because of its reduced distribution and abundance relative to historic records. The species now occurs in only about 25% of the counties in which it was formerly found. Favored habitat is riffles and raceways with sand or gravel substrate. The decline of the species is believed to be related to siltation and pollution as well as the mining of sand and gravel from rivers. The species has no formal federal conservation status.

The Illinois Natural Heritage Database includes 92 element occurrence records for the black sandshell that are classified as extant populations. Many of the occurrences are in the Mississippi River, with additional records from the Vermilion, Rock, Kishwaukee, Kankakee, and other rivers.

The Department has issued 17 previous authorizations for the incidental take of black sandshells. Project types included bridge repair/replacement, dredging of barge/boat channels, pipeline installation or removal, dam removal, and placement of rock and/or rip rap for navigation improvements. Typical minimization/mitigation measures included reduction of the project footprint, relocation of mussels before the initiation of construction, and post-project surveys to assess the status of mussels at the project sites and in relocation areas. Post-project surveys completed to date show the continued presence of black sandshells in and near project sites.

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Pollution, water-quality degradation, habitat destruction, and infestations by non-native zebra mussels, along with other chronic low-level stressors (such as extreme thermal events), are the principal reasons noted for mussel decline.

Exelon anticipates no direct take of adult Higgins eye pearlymussel, sheepnose mussel, butterfly, and black sandshell to result from the proposed **alternate thermal standard**. Mussel beds downstream of the QCS experience periods of thermal stress during the

summer, however the effects may now be further compounded by Exelon's alternate thermal standard. Research supports the existence of lethal thermal tolerances for mussels at all life stages. Temperature is also believed to be closely correlated to mussel reproduction. Take, in the form of stress, may occur causing reduced recruitment of juvenile mussels during extreme temperature events. Exelon estimates that this effect may occur once every five years and that any take will not exceed natural fluctuations of the population as can be readily detected by customary monitoring methods. Take will be monitored by an ongoing mussel monitoring program that began in 2004.

Take as a result of **maintenance dredging** is not anticipated because previous surveys in the area to be dredged found no mussel bed. However, it is possible that an individual Higgins eye pearlymussel, sheepnose mussel, butterfly, and/or black sandshell will move into the proposed dredging area or drop from a host fish within the dredging area before dredging begins.

**Removal of the Edison Pier** is not likely to cause the take of Higgins eye pearlymussel, sheepnose mussel, butterfly, and black sandshell. Surveys in the vicinity of the pier found no endangered or threatened species of freshwater mussels. It is possible, however, that individual mussels will be introduced to the area around the pier as described above for the dredging component of this project.

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The Department has concluded that the taking proposed herein will not reduce the likelihood of survival or recovery of the Higgins eye pearlymussel, sheepnose mussel, butterfly, or black sandshell 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. This conclusion is based on the following considerations:

Based on extensive information that Exelon has collected about mussel populations in the vicinity of the QCS, the estimated take in Exelon's conservation plan appears to be reasonable. Historically, the listed mussel species have been found in small numbers within the footprint of Exelon's proposed activities, but no large concentration of any of the species has been located. The levels of take estimated by Exelon will not measurably reduce the population of any of the mussel species in the vicinity of the QCS.

If any of Exelon's proposed activities result in take greater than that estimated in the Habitat Conservation Plan, the monitoring that will be conducted by Exelon should detect that take. If unexpected levels of take are detected, Exelon has committed to adaptive management practices to reduce take.

The propagation and inoculation of fish as hosts for the glochidia of Higgins eye pearlymussel and other mussel species has been shown to be an effective means of producing viable young mussels for augmentation of local populations. The number of mussels that are likely to be produced by Exelon's efforts should exceed the number of mussels potentially taken by Exelon's activities.



Although habitat conditions may be altered temporarily, Exelon's activities should not reduce the extent of currently available habitat for any of the mussel species included in this authorization.

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 Exelon indicates Exelon's 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 Exelon's request for authorization of incidental take was published in the Breeze Courier (official State newspaper) and The Clinton Herald (Iowa) on April 1, 2015. The local newspaper inadvertently posted only once; when the statutory requirement is three postings no less than 14 days apart. Therefore, the applicant republished in the Breeze Courier on May 20, 2015; and in The Clinton Herald on May 20, and 27, 2015; and on June 3, 2015. The deadline for public comment was July 3, 2015. No comments were received by the Department.

### **Authorization**

It is the determination of the Department that the measures to be implemented by Exelon will adequately minimize and mitigate the anticipated taking of Higgins eye pearl mussel, sheepsnose mussel, butterfly, and black sandshell incidental to activities associated with the ongoing operation of Exelon's Quad Cities Nuclear Power Station (QCS) at Cordova in Rock Island County, Illinois. The activities at QCS which may result in the incidental taking of these species include implementation of an alternate thermal standard, periodic dredging in front of the intake forebay, and removal of Edison Pier. Further, the Department has concluded that the take authorized herein will not reduce the likelihood of survival or recovery of the Higgins eye pearl mussel, sheepsnose mussel, butterfly, or black sandshell 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 Exelon 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 the applicant under Compliance condition #2 above:

1. This authorization is effective upon the signature of the Department and shall remain in effect through **August 15, 2034**, 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 Exelon has failed to comply with any of these terms and conditions or has been responsible for the taking of Higgins eye pearlymussel, sheepnose mussel, butterfly, or black sandshell beyond that which is incidental to the described activities associated with the ongoing operation of Exelon's Quad Cities Nuclear Power Station (QCS) at Cordova in Rock Island County, Illinois.

2. The effective period of this authorization may be altered by mutual written agreement between Exelon 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 Illinois endangered or threatened 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. The Department reserves the right of entry to inspect potential habitat and species management practices.
5. This agreement shall supersede, thereby deeming null and void, the previous Incidental Take Authorization (IDNR ITA#24) to Exelon executed on March 28, 2005, for the potential take of butterfly during the proposed dredging of accumulated sediment at the intake forebay. The proposed action is now covered under this agreement.
6. Exelon shall notify and provide plans to the Department's Endangered Species Program at the commencement of dredging in the forebay area and/or removal of Edison Pier.

7. **Monitoring:**  
Exelon will conduct implementation monitoring, effectiveness monitoring and validation monitoring throughout the life of their incidental take authorization. Implementation monitoring is designed to determine whether the specified actions or criteria are being met. Effectiveness monitoring is used to determine if the design and execution of the conservation measures are achieving the goals and objectives of the conservation plan. Validation monitoring is used to determine whether data and assumptions for predicting outcomes and effects are correct. Validation monitoring is long-term and will be accomplished through formal research and effectiveness monitoring projects. Detailed monitoring plans are included in the Habitat Conservation Plan prepared by Exelon and are incorporated herein by reference.

Monitoring shall include the following:

- Survivability monitoring of relocated and reintroduced mussels,
- Temperature study monitoring,
- Mussel bed monitoring,
- Long-term fish monitoring.

8. New locations of any State-listed species shall be provided to the Department within 48 hours of discovery.

9. Mitigation:

Exelon shall perform mitigation measures outlined above under #2 of the Compliance section of the agreement. These measures include:

- Fish propagation for glochidial inoculation and release,
- Augmentation/reintroduction site parameter research and development,
- Development of onsite mussel propagation technology,
- Support for thermal testing program research and development.

Detailed mitigation plans are included in the Habitat Conservation Plan prepared by Exelon and are incorporated herein by reference.

10. Reporting:

Exelon will file an **annual report by March 31 of each year** that provides the results of implementation, effectiveness and compliance monitoring. That report will include information on 1) number and type of covered activities completed for the calendar year; 2) minimization and mitigation implemented (frequency and type); 3) presumptive take; 4) calculations of the amount that Exelon must either contribute to the mitigation fund or provide in mitigation; 5) temperature monitoring report; 6) summary of the status of Habitat Conservation Plan and conservation plan biological goals and objectives; 7) documentation of compliance with the previous year's compensation requirements; 8) process for convening periodic meetings of Exelon and natural resource agencies. Exelon, the U.S. Fish and Wildlife Service, the Department and other stakeholders will meet as needed to address and issues with implementation of the minimization and mitigation measures; whether implementation can be streamlined; whether the avoidance, minimization and mitigation measures have been effective; whether adaptive management thresholds have been triggered; and any other conservation plan-related concerns.

11. All reports, correspondence, and other documentation related to this authorization shall be submitted to:

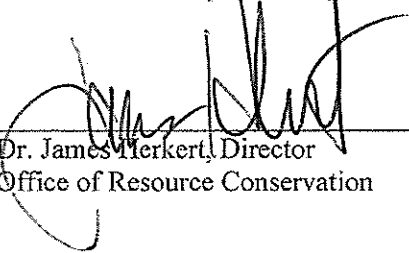
Illinois Department of Natural Resources  
Office of Resource Conservation  
Endangered Species Program – Incidental Take Authorization Coordinator  
One Natural Resources Way  
Springfield, IL 62702-1271

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

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

12. The Exelon official identified below is authorized to execute this agreement. Execution by Exelon indicates acceptance of all terms and conditions described in this authorization.
  
13. The execution of this agreement does not waive or excuse the responsibilities of Exelon 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:*

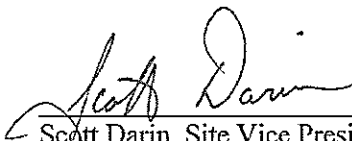


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Dr. James Merkert, Director  
Office of Resource Conservation

11-20-15  
Date

*For Exelon Generation Company, LLC:*



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Scott Darin, Site Vice President  
Quad Cities Nuclear Power Station

SCOTT DARIN SITE VICE PRESIDENT  
Printed name and title

11/16/15  
Date