



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 Ameren Corporation (hereinafter referred to as Ameren) for incidental take of Illinois chorus frog (*Pseudacris illinoensis*) and regal fritillary butterfly (*Speyeria idalia*). The Illinois Department of Natural Resources (hereinafter referred to as Department) has determined that the taking is incidental to activities associated with the closure of the ash ponds at the Meredosia Energy Center located on the left descending bank of the Illinois River at 800 South Washington Street in Meredosia, Morgan County.

Procedural History

The Department received a conservation plan prepared by Amec Foster Wheeler Environment and Infrastructure, Inc., for Ameren on February 9, 2016, as a request for authorization for the incidental take of Illinois chorus frog and regal fritillary butterfly. The Department requested additional information to make the conservation plan complete as prescribed by 17 Ill. Adm. Code 1080. Additional information was received by the Department on March 18 and May 6, 2016. A revised and approved public notice was received on May 9, 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 closure of the remaining two coal ash ponds (Bottom Ash Pond and Fly Ash Pond) at the Meredosia Energy Center in Morgan County, in accordance with Illinois Pollution Control Board and U.S. Environmental Protection Agency regulations regarding coal ash ponds. A general description of these construction activities includes the removal of an estimated 300,000 cubic yards of material from the Bottom Ash Pond, the placement of the material into the Fly Ash Pond, the removal of utility infrastructure associated with Bottom Ash Pond, the backfilling of Bottom Ash Pond with approximately 160,000 cubic yards of clean soil, grading and

stabilization of the soil, the raising of the northern berm of Bottom Ash Pond an additional three feet to support a truck turnaround, the placement of approximately 38,000 cubic yards of material from the Coal Pile Storage area into Fly Ash Pond, the covering of Fly Ash Pond with a synthetic high density polyethylene liner and clean soil, the removal of ash in the Eastern Waste Area adjacent to the Fly Ash Pond, and the filling of the Eastern Waste Area with clean soil. The total project area encompasses 35.7 acres. **No suitable habitat for either species is known at the proposed project sites.** Ameren anticipates that potential taking of Illinois chorus frog and regal fritillary could occur as a result of ground disturbance, vegetative clearing, and construction equipment and vehicle traffic during construction and maintenance activities. The take of Illinois chorus frog and regal fritillary that could result from these activities is not the purpose of Ameren's project, 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 Ameren's conservation plan.

To meet the "maximum extent practicable" standard, additional minimization and/or mitigation measures may be required beyond those proposed by Ameren, based on the life history needs of the Illinois chorus frog and the regal fritillary. **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:

Ameren states that it can ensure all funding needed to support and implement the Conservation Plan. As a large utility, Ameren has adequate financial backing to support and implement all minimization and mitigation activities described. The cost of minimization and mitigation activities will be incorporated into the overall project budget. No specific financial instruments such as bonds, certificates of insurance, or escrow accounts will be required to implement the Conservation Plan.

It is the Department's opinion that Ameren'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:

The **Illinois chorus frog** is an Illinois State-threatened species, due to its limited range and threats to its habitat such as conversion to agricultural uses and development. The species has no formal federal conservation status, but the status of the Illinois chorus frog is currently under review by the U.S. Fish and Wildlife Service.

Illinois chorus frogs are found in areas of sandy soil. The frogs spend most of the year buried in the ground, emerging only to move to ponds where they mate and lay their eggs during February and March. Like other frogs, Illinois chorus frogs go through development as tadpoles and then metamorphose into young frogs by late May to late June. The young frogs have been shown to migrate up to 0.9 km (2,953 feet) from breeding ponds to burrowing sites. They are able to move short distances and feed while buried. The fossorial habits of the Illinois chorus frog make surveys of their populations difficult except during the breeding season when they are vocalizing at their breeding ponds. The success of breeding varies greatly between years depending on precipitation patterns and the persistence of the breeding ponds, as well as the potential detrimental introduction of fish to the ponds.

The Illinois chorus frog is found at scattered locations in central, southwest, and extreme southern portions of Illinois. The current range of the species is believed to be similar to its pre-settlement times, but the abundance of the species within that range has diminished. Illinois chorus frogs also occur in parts of Missouri and Arkansas. The Illinois Natural Heritage Database includes 18 element occurrence records for the Illinois chorus frog that are classified as extant. Those populations are found in Alexander, Cass, Logan, Madison, Mason, Menard, Morgan, Scott, and Tazewell Counties.

The Department has issued 22 pending or previously issued authorizations for incidental take of Illinois chorus frogs, four of which were located in Morgan County. Project types included pipelines, electric transmission lines, dredged material placement, road construction, a wind farm, and a water treatment plant. For most projects, the primary threat of take is digging up Illinois chorus frogs that are within the soil or crushing through soil compaction at construction sites. Frogs can also be crushed by heavy machinery or vehicles on travel corridors during migration or trapped and buried in trenches. Measures implemented to minimize or mitigate the take of Illinois chorus frogs in previous projects have included excavation of new breeding ponds, limitation of the area affected by construction, use of silt fences to exclude frogs from construction areas during their breeding season movement to ponds, inspection of trenches to detect entrapment of frogs, and avoidance of disturbance to breeding ponds. Some recipients of authorization for incidental take of Illinois chorus frogs have provided financial support for management of the species and/or research to enhance the conservation of the species.

The **regal fritillary** is an Illinois State-threatened brush-foot butterfly species. It has experienced a decline in numbers and a reduction in its range within the state, largely due to loss of its preferred prairie habitat to development and agriculture. Regal fritillaries are associated with tallgrass prairies, wet meadows, and other open habitats, often in sandy areas.

As adults, regal fritillaries use many plant species as nectar sources, including milkweeds, native thistles, coneflowers, blazing stars, and wild bergamot. Regal fritillary caterpillars, however, specifically depend on violet species as a food source. Mating occurs in late June and early July, after which females enter a 6-8 week period of reproductive diapause during which time their ovaries remain undeveloped. Oogenesis takes place in August and the eggs are fertilized. Regal fritillaries lay 1000-2000 eggs at a time in late summer. The species is univoltine, meaning that they have a single generation per year. Upon hatching in late September or early October, larvae immediately fall to the ground and enter diapause in the leaf litter and remain in this state for the duration of winter. In the spring, the larvae emerge to feed before going through a brief pupation in late May, metamorphosing to adults in June or July. It is believed that the timing of the regal fritillary's life cycle is closely tied to the seasonal development of violet species, their larval food plant.

The Illinois Natural Heritage Database includes 19 element occurrence records for regal fritillary butterflies that are classified as extant. Those populations are found at scattered locations in Bureau, Carroll, Cass, Iroquois, Jo Daviess, Kankakee, LaSalle, Lee, Mason, McDonough, Menard, Morgan, Ogle, Scott, Tazewell, and Whiteside counties. Many of these populations are small and isolated, making them vulnerable to population collapse.

The Department has issued 7 previous Incidental Take Authorizations for regal fritillary. This is the fourth authorization for regal fritillary in Morgan County. Previous projects have included wind power projects, a pipeline, road improvements, the capping of a closed landfill, and an electrical transmission project. Measures implemented to reduce effects on regal fritillary butterflies included reduction of the project footprint and planting of appropriate larval food plants and adult nectar-source plants.

Based on the life history needs of both species, the number of known element occurrence records in the State, an assessment of the potential impact to individuals that make up the element occurrences in the project footprint, the conservation measures outlined herein, 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 the project will not reduce the likelihood of survival or recovery of the Illinois chorus frog or the regal

fritillary 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 Ameren indicates an acceptance of and 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 Ameren's request for authorization of incidental take was published in the *Jacksonville Journal Courier* and the *Breeze Courier* (official state newspaper) on May 13, 2016. The notice was also published in the *Jacksonville Journal Courier* on May 20 and 27, 2016. The closing date for public comments was June 27, 2016. No comments were received from the public.

Authorization

It is the determination of the Department that the measures to be implemented by Ameren will adequately minimize and mitigate the anticipated taking of the Illinois chorus frog and the regal fritillary incidental to activities associated with the closure of the ash ponds at the Meredosia Energy Center in Morgan County. The covered area that is the subject of this authorization is described on Page 1. Further, the Department has concluded that the take authorized herein will not reduce the likelihood of survival or recovery of the Illinois chorus frog or the regal fritillary 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 Ameren to the Department are incorporated into this agreement by reference and 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 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 Ameren has failed to comply with any of these terms and conditions or has been responsible for the taking of the Illinois

chorus frog or the regal fritillary beyond that which is incidental to activities associated with the closure of the ash ponds at the Meredosia Energy Center in Morgan County.

2. The effective period of this authorization may be altered by mutual written agreement between Ameren 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. On-site personnel shall be educated on the sensitive biological resources in the area, the identification of Illinois chorus frog and regal fritillary, 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. Ameren shall submit a copy of the education materials to the Department.
5. The Department reserves the right of entry to inspect potential habitat and species management practices.
6. Biological consultants employed by Ameren shall hold the necessary permits for work with non-listed and listed species; these include an Illinois Department of Natural Resources Scientific Collection Permit and an Illinois Department of Natural Resources Endangered Species Permit.
7. Ameren shall notify the Department's Endangered Species Program of construction commencement and completion of the Meredosia Energy Center coal ash pond closures. 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. Ameren shall conduct, or cause to be conducted, the following pre-construction or construction efforts:
 - a. All measures of erosion control shall be implemented and monitored for effectiveness.
 - b. Prior to earth-moving, temporary silt fencing shall be installed along active haul/travel routes and active construction areas within 900 meters of known

Illinois chorus frog habitat to prevent the species during the breeding season (February to June), and inspected daily.

- c. Crane mats and/or low ground pressure tires shall be used in work areas where appropriate to minimize rutting and soil compaction.
 - d. Construction equipment and vehicle traffic shall be limited to existing public roads or designated access roads.
 - e. Front grills of trucks shall be inspected for regal fritillary butterflies at the end of every work day from June 1 – August 31, and hits shall be reported to the Department as per Authorization requirement #7 above.
 - f. Sensitive areas disturbed by earth-moving shall be stabilized with an appropriate native seed mixture in order to restore vegetative cover and reduce potential for erosion.
 - g. Disturbed and reseeded areas should be periodically mowed to help control the growth of woody species. Mowing shall occur in late summer only to avoid Illinois chorus frog breeding and/or migrating and potential impact to regal fritillary larvae.
 - h. Trenches and excavations dug as a result of this project shall be covered at the end of each work day. Before starting work each day, trenches and excavations shall be routinely inspected to ensure no frogs have fallen in and become trapped.
 - i. All borrow material shall be generated from sources outside of known Illinois chorus frog and regal fritillary habitat areas.
 - j. Observations of migrating congregations of Illinois chorus frogs and/or regal fritillary butterflies within travel corridors and work areas during breeding season shall be reported to the Department and impact to congregations during migration shall be avoided. **If any Illinois chorus frogs and/or regal fritillaries are found in any condition in the project area during any phase of construction, Ameren representatives shall call the local District Heritage Biologist at 217-653-2236 for retrieval and potential relocation to suitable habitat.**
9. **Within 60 days of construction completion**, Ameren shall provide the Department with a project status report summarizing the implementation of minimization, mitigation, and restoration measures and evaluating the effectiveness of those measures. If any Illinois chorus frogs or regal fritillaries were encountered during the project, this report shall also include a map of where the species were found, a description of any injuries or mortalities, and the disposition of any individuals that were injured or killed.
10. Ameren shall combine Illinois chorus frog and regal fritillary butterfly post-construction monitoring efforts for this project with those outlined in Incidental Take Authorization #124 for the Ameren Illinois Rivers Project in Morgan and Cass Counties, executed October 1, 2015. According to the Illinois Rivers Project authorization, Ameren shall conduct, or cause to be conducted, the following post-construction surveys:

- a. Annual call monitoring for Illinois chorus frogs by a qualified contractor during any three of the five years following construction (including no more than one year of drought data) in areas of potentially suitable habitat.
 - b. Habitat-based annual monitoring by a qualified contractor for the regal fritillary butterfly shall occur during the first three years following construction (or concurrent with the three years of frog surveying) to confirm the existence of appropriate native larval and adult food sources.
 - c. **A report detailing survey methods and results shall be submitted to the Department within 60 days of survey completion. Separate copies of the reports shall be submitted for both this authorization and the Illinois Rivers Project Authorization.**
11. Mitigation to the maximum extent practicable is required by the Act. Ameren shall apply an in-lieu compensatory mitigation payment based on an estimated cost of habitat creation and restoration at the project site. **The total conservation benefit value or in-lieu compensatory mitigation due to the Department for this project is \$25,000.00.** Mitigation settlement dollars paid to the Department are placed in the Illinois Wildlife Preservation Fund and earmarked for the conservation benefit of the State-listed species potentially impacted. Mitigation payments are non-refundable, including in events of revocation or termination.

Mitigation valuations are based on the Department's best current understanding of the species life history needs, real estate values, and impact analysis relevant to the site's proposed conceptual design elements available at the time of review.

12. Ameren shall provide the Department with annual reports summarizing the activities of the previous year and activities scheduled for the upcoming year for the duration of this authorization. Reports shall include a summary of activities completed during the reporting year, documentation of listed species found (dates, locations, photographs, and GPS coordinates), management measures implemented, a description of minimization and mitigation activities, and a description of anticipated activities that will be carried out during the upcoming year. **The annual report for the previous calendar year is due to the Department by March 1st.**
13. All reports and other documentation required by this authorization shall be submitted to:

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

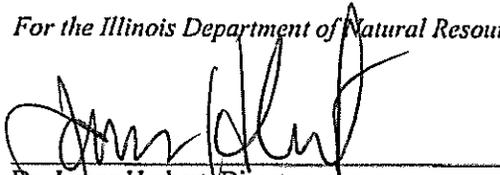
(217)557-8243

DNR.ITAcoordinator@illinois.gov

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

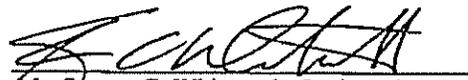
14. The Ameren official identified below is authorized to execute this agreement. Execution by Ameren indicates acceptance of all terms and conditions described by this authorization.

For the Illinois Department of Natural Resources:



Dr. James Herkert, Director
Office of Resource Conservation

For Ameren Corporation:



Mr. Steven C. Whitworth, Senior Director
Environmental Policy and Analysis

STEVEN C. WHITWORTH
Printed Name and Title

Date

9/8/14

Date

9/8/2016