

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 Ameren Transmission Company of Illinois (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 the Department) has determined that the taking is incidental to activities associated with the construction of approximately 170.1 miles of 345 kV electric transmission lines in Morgan and Cass Counties, which are part of a larger construction project known as the Illinois Rivers Project.¹

Procedural History

The Department received a conservation plan prepared by AMEC Environment & Infrastructure, Inc. for Ameren on September 8, 2014, as a request for authorization for the incidental take of Illinois chorus frogs and regal fritillary butterflies. The Department requested additional information on October 6, 2014, to make the conservation plan complete as prescribed by 17 Ill. Adm. Code 1080. That additional information was received by the Department on February 23, 2015. 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 construction of three electric transmission lines as described at the bottom of this page. The total

¹ The portions of the Illinois Rivers Project that are the subjects of this incidental take authorization are three 345kV electric transmission lines. These are: the Austin-Meredosia Project, which will extend approximately 76.17 miles from a proposed substation south of Pawnee in Sangamon County to the Meredosia Energy Center near Meredosia in Morgan County; the Meredosia-Herleman Project which will extend approximately 46.28 miles from a proposed substation south of Quincy in Adams County to the Meredosia Energy Center, and; the Meredosia-Ipava Project, which will extend approximately 47.65 miles from a proposed substation south of Ipava in Fulton County to the Meredosia Energy Center. The project will be located in Adams, Cass, Fulton, Morgan, Pike, Sangamon, Schuyler and Scott counties.

construction corridor will be approximately 170.1 miles in length and will have a typical width of 150 feet. The three lines will cover approximately 3,100 acres. Most of each corridor is currently agricultural cropland or deciduous forest. Two of the project segments (Meredosia-Herleman and Meredosia-Ipava) will cross the Illinois River and all segments will cross smaller streams. No structures will be placed within the channel of any waterway. Ameren anticipates that the taking of Illinois chorus frogs or regal fritillary butterflies could occur as a result of ground disturbance (including the potential for trapping of animals in trenches or holes) and vegetative clearing, construction equipment and vehicle traffic during construction and maintenance activities, and the presence of transmission lines and structures. The take of Illinois chorus frogs and/or regal fritillary butterflies 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:

As provided in Ameren's conservation plan, the following minimization measures will be performed –

Illinois chorus frog minimization –

- a) For construction activities scheduled within the breeding season of Illinois chorus frogs, preconstruction call surveys will be performed for construction activities that are planned within 900 meters of known occupied habitat. Weekly monitoring will occur within the breeding season (February to May) within known occupied habitat for the purposes of evaluating potential disturbance. Surveys will document presence/absence and will determine locations and provide a baseline for post-construction surveys and/or trigger adaptive management.
- b) Temporary exclusion fencing will be placed along active haul/travel routes within 900 meters of known occupied habitat to prevent Illinois chorus frogs from entering the active construction areas during the breeding season (February – May). Inspections of the fencing will be conducted on a weekly basis to maintain an adequate functional barrier. Where appropriate and feasible, best management practices will also be implemented, such as crane mats and/or low ground pressure tires on heavy equipment, to spread the weight of equipment and minimize the potential for soil compaction and subsequent crushing of Illinois chorus frogs.
- c) Open excavations will be inspected daily within areas of suitable habitat. Any frogs found in those excavations will be removed and placed outside the project footprint in suitable habitat to avoid injury to those individuals.

Regal fritillary butterfly minimization –

- a) Preconstruction vegetation surveys will be conducted within potential habitat to identify baseline conditions including the identification of larval and adult food sources.
- b) If periodic monitoring identifies congregating regal fritillary butterflies, photographs and GPS locations shall be provided to the Department; and an appropriate work around measure shall be implemented to avoid impact.

General minimization –

- a) Outside the designated project rights-of-way, construction equipment and vehicle traffic will be limited to existing public roads or designated access roads to minimize potential adverse effects to sensitive habitats and listed species.
- b) The alignment of the transmission lines were designed to minimize potential impacts to ecologically-sensitive areas that may be used by the species.

Additional minimization and/or mitigation measures may be required beyond those proposed by Ameren above, based on the life history needs of the Illinois chorus frog or the regal fritillary butterfly. Further required measures are presented under the Authorities section below.

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

Ameren has provided that, as a large utility, it has adequate financial backing to support and implement all mitigation activities described in the conservation plan. The costs of mitigation activities will be incorporated into the overall project budget.

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 listed as a threatened species in Illinois because of 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 only 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 mid-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. The success of breeding varies greatly between years depending on precipitation patterns and the persistence of the breeding ponds.

In Illinois, the Illinois chorus frog is found at scattered locations in central, southwest and extreme southern portions of the state. The range of the species is believed to be similar to historic 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 19 element occurrence records for the Illinois chorus frog that are classified as extant. Those populations are found in Alexander, Cass, Logan, Mason, Menard, Morgan, Scott and Tazewell Counties.

The Department has issued 16 previous authorizations for incidental take of Illinois chorus frogs. 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 at the construction site. Frogs can also be crushed by heavy machinery or trapped and buried in trenches. The fossorial habits of the species and their small size makes it difficult to determine if Illinois chorus frogs have been killed or injured by construction activities. Measures implemented to minimize or mitigate the take of Illinois chorus frogs in previous projects have included excavation of 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.

Using information from the Department and from surveys conducted by others, Ameren has delineated habitat suitable for Illinois chorus frogs within and near the proposed transmission line corridor. Ameren's conservation plan estimates that **0.26 acres of suitable habitat will be permanently lost where the monopole transmission towers are constructed and 26 acres of suitable**

habitat will be temporarily disturbed by access and staging activities. Most habitat effects are along the Meredosia-Ipava segment of the project.

The **regal fritillary butterfly** is listed as a threatened species in Illinois because of declining numbers and reduction of its range in the state. It has no formal federal conservation status. The species probably once occurred wherever prairie habitat was present in Illinois, but has suffered from the ongoing loss of that habitat to development and conversion to agriculture. Recent surveys have found regal fritillary butterflies in tallgrass prairies, wet meadows and other open habitats, often in sandy areas.

Regal fritillary butterflies depend on the presence of violets (*Viola* spp.) as a food source for their larval life stage and use many plants, including milkweeds (*Asclepias* spp.), native thistles (*Cirsium* spp.), coneflowers (*Echinacea* spp.), blazing stars (*Liatris* spp.) and wild bergamot (*Monarda fistulosa*) as nectar sources as adults. The species is univoltine (has only one generation per year). Eggs are laid in mid- to late summer and, upon hatching, the larvae immediately fall to the ground and enter diapause in the leaf litter. Larvae emerge to feed in the spring, go through a brief pupation in the summer and metamorphose to adults in June or July. This life cycle means that where regal fritillary butterflies occur, some life stage of the species is present throughout the year.

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 5 previous authorizations for incidental take of regal fritillary butterflies. Project types included wind power projects, a pipeline, road improvements, and capping of a closed landfill. 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.

Ameren investigated two habitat areas crossed by the proposed transmission lines where vegetation mapping indicates that potential presence of remnant native grassland communities that could include forb species known to be larval or adult food sources for regal fritillary butterflies. One of those sites was pasture or old field in which suitable food plants were not found. The other site, which is along the Meredosia-Ipava corridor, had many of the plant species known to provide food for adult regal fritillary butterflies. Project plans anticipate the placement of one monopole support structure within this site. **Permanent habitat loss would be limited to approximately 113 square feet.** Additional area disturbed by

construction activities will be re-vegetated with native species, including those that provide food for regal fritillary butterflies. Due to aerial movement, the species could occur throughout the project site during summer.

Based on the life history needs of each of the 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, and the conservation measures outlined herein, the Department has determined that the takings will not reduce the likelihood of survival or recovery of the State-threatened Illinois chorus frog and regal fritillary butterfly.

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 Ameren’s 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 (Taylorville) Breeze Courier (official state newspaper) on March 23, 2015, and in the Journal Courier (Jacksonville) on March 23, March 30, and April 6, 2015. The closing date for public comments was May 6, 2015. No comments were received from the public.

Due to concern expressed by the Department regarding recent records of the Illinois chorus frog in the project footprint in Cass County, and the mention within the original public notice of impacts to the species occurring in Morgan County, the applicant chose to amend the notice and republish. No changes to the Conservation Plan were necessary, as Cass County was presented as within the project footprint and the original maps clearly exhibited the species records. The second public notice was published in the (Taylorville) Breeze Courier (official state newspaper) on July 3, 2015, and in the Journal Courier (Jacksonville) on July 3, July 10, and July 17, 2015. The closing date for public comments was August 16. 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 Illinois chorus frogs and regal fritillary butterflies incidental to activities associated with the construction of approximately 170.1 miles of 345 kV electric transmission lines in Morgan and Cass Counties, which are part of a larger construction project known as the Illinois Rivers Project. The three transmission line

segments that are the subject of this authorization are described on Page 1 of this document. 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 regal fritillary butterfly 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 under Compliance condition #2 above:

1. This authorization is effective upon the signature of the Department and shall remain in effect for a period of **seven (7) 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 Illinois chorus frogs and/or regal fritillary butterflies beyond that which is incidental to activities associated with the construction of approximately 170.1 miles of 345 kV electric transmission lines in Morgan and Cass Counties, which are part of a larger construction project known as the Illinois Rivers Project.

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 butterfly, 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. Ameren shall notify the Department's Endangered Species Program of construction commencement and completion of the transmission line project. 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.
7. Ameren shall conduct, or cause to be conducted, the following pre-construction or during-construction efforts:
 - Where land grading is necessary, all measures of erosion control shall be implemented in areas of topography or near waterways. An appropriate native seed mix shall be used to stabilize the area.
 - In travel ways, matting shall be utilized to reduce compaction in soft or wet areas. When and where appropriate, low ground pressure tires shall be utilized.
 - Pre-construction call surveys shall be performed by qualified contractors to establish baseline conditions prior to construction activities scheduled within the breeding season and within known occupied habitat. On all Illinois chorus frog surveys, data sheets shall reflect date, location, time, air temperature, humidity, wind speed, moon visibility, precipitation, number of minutes at each listening post, other noise, and water presence/absence.
 - During breeding season of the Illinois chorus frog (February to May), call surveys shall be performed weekly by qualified contractors to document presence/absence. Temporary exclusion fencing shall be installed and inspected. All trenches shall be inspected daily, and any frogs found shall be relocated to suitable habitat pre-approved by the Department.
 - Pre-construction vegetation surveys shall be conducted by qualified contractors within potential regal fritillary butterfly habitat to identify baseline habitat conditions including the identification of larval and adult food sources. Periodic monitoring for the regal fritillary butterfly shall occur and impact to any congregations shall be avoided.
8. Ameren shall conduct, or cause to be conducted, post-construction surveys including:
 - 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.
 - 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.

9. Following construction completion, Ameren shall restore all temporary travel areas and work areas, per the Conservation Plan. All non-agricultural lands shall be planted in appropriate native species. Adult and larval food sources for the regal fritillary butterfly shall be planted within appropriate areas of the right-of-way. If plantings are unsuccessful, supplementation shall occur. Ameren shall provide a report to the Department with mapping of vegetated areas and species lists.
10. Mitigation to the maximum extent practicable is required by the Act. Mitigation requirements for this authorization are calculated as follows:
 - the applicant's estimate of permanent installation impact to suitable habitat acreage of Illinois chorus frog and regal fritillary butterfly (0.26 acres - monopole structures),
 - multiplied by the Department's standard mitigation ratio of 5.5:1 equaling **1.43 mitigation acres.**
 - plus the applicant's estimate of access and staging acreage within suitable habitat (26 acres), multiplied by a ratio of 2.5:1 (this ratio was allowable in this instance for a regulated Illinois utility for non-groundbreaking surficial impacts to acreage),
 - access and staging acreage is multiplied by an occupancy rate for the Illinois chorus frog of 0.5725 applied only to the non-groundbreaking acreage (this number is derived by averaging four naïve occupancy rates calculated by Bradley Cosentino, Monitoring plan to detect trends in occupancy of Illinois chorus frogs, prepared for the Illinois Department of Natural Resources, 2014) equaling **37.21 mitigation acres.**
 - The sum of 1.43 and 37.21 is **38.64 total mitigation acres.**

Ameren shall choose either to perform habitat creation, restoration, acquisition, protection, or species research to the benefit of the ICF; OR to apply an in-lieu compensatory mitigation payment based on an estimated applicable land value in the affected county of \$1,683.00 per acre. **The total conservation benefit value or in-lieu compensatory mitigation due to the Department for this project is \$65,032.00.** 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.

11. Ameren shall submit reports on all surveys within 60 days of survey completion.
12. All reports and other documentation required by this authorization shall be submitted to:

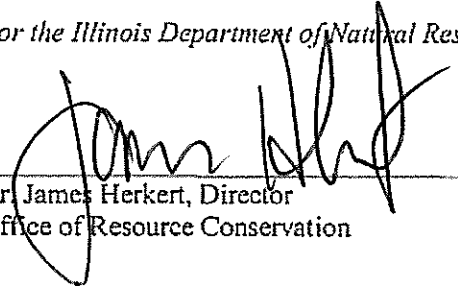
Illinois Department of Natural Resources
Endangered Species Program
Incidental Take Authorization Coordinator
One Natural Resources Way
Springfield, IL 62702-1271

(217)557-8243
DNR.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 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

Date

10-1-15

For Ameren Transmission Company of Illinois:



Steven C. Whitworth, Senior Director
Environmental Policy and Analysis

Printed Name and Title

Date

9/22/2015