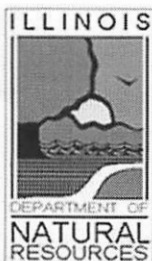


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Executed  
9/24/22



# Illinois Department of Natural Resources

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

JB Pritzker, Governor  
Colleen Callahan, 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 Moraine Sands Wind Power LLC (hereinafter referred to as Moraine Sands) for the incidental take of the State-threatened Illinois Chorus Frog (*Pseudacris illinoensis*). The Illinois Department of Natural Resources (hereinafter Department) has determined that this taking is incidental to the construction of the Moraine Sands Wind Farm, 1 mile southwest of Mason City, in Mason County, Illinois. The project footprint was designed using the recommended buffers to avoid Tomlin Timber Nature Preserve (INAI #0191) and Revis Spring Hill Prairie Nature Preserve (INAI #0195).

### **Procedural History**

A Conservation Plan prepared by Western EcoSystems Technology, Inc. (WEST), on behalf of Moraine Sands, was submitted to the Department on February 25, 2022. The Department requested additional information on March 8, and June 2, 2022, to make the Conservation Plan complete as prescribed by Ill. Adm. Code 1080.10. Additional information was received by the Department on May 18, and June 7, 2022. A conservation plan was approved by the Department on June 10, 2022. The public notice period and public comments will be detailed under #6 of the Compliance section below.

### **Compliance with the Illinois Endangered Species Protection Act**

The Act includes six criteria which 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 be only incidental to, the carrying out of an otherwise lawful activity:

The stated and apparent purpose of this proposed action is to construct a wind farm located in Mason County. The wind farm will encompass approximately 19,120 acres and consist of up to 49 wind turbines capable of generating 190 megawatts (MW) of energy annually. The project will affect portions of:

- Mason City Township (T20N, Range 5W) sections 30 and 31
- Salt Creek Township (T20N, Range 6W) sections 2-30, 36
- Pennsylvania Township (T21N, Range 6W) sections 31-34
- Sherman Township (T21N, Range 7W) Sections 35 and 36

- Crane Creek Township (T20N, range 7W) Sections 1, 2, 10, 12-16, and 21-24

The project includes installation of an electric substation, an operations and maintenance building, a meteorological tower, an aircraft detection lighting system towers, an electric switchyard, and ancillary facilities and equipment; the excavation of underground collection lines; and the development of associated access roads, turbine pads, and crane paths. Prior to the installation of wind-related infrastructure, existing county roadways will be improved and widened within the existing rights-of-way.

Completed turbine access roads will be 16-foot-wide. At each 4.5 MW turbine access road entrance, an additional temporary access area will be constructed to allow for wide-turning vehicles to bring turbine parts into the permanent turbine area. The width of these wedge-shaped areas will vary from 162-380 feet (ft.), depending on their location. These portions of the road will be cleared of vegetation and will be covered in an aggregate surface during construction. Moraine Sands anticipates approximately 500 combined loaded and unloaded component delivery trips per turbine site.

Permanent ground disturbance associated with the turbine pads and foundations will be 60 ft. in diameter and covered with four (4) inches of aggregate. Crane pads will consist of a 55 ft. x 100 ft. area at the base of each turbine pad. Turbine foundations will be constructed on site with small cranes. Underground electric collection lines will be trenched to a depth of five (5) ft. below grade. Crane paths will follow collection line routes to the extent possible to minimize soil compaction with ground disturbance up to 50-ft.-wide. Semi-trailer trucks, heavy machinery, and other equipment will be used to complete this project, which includes excavation, delivery of turbine components requiring truck transportation to and from the project site, and turbine assembly. Soil decompaction will occur after construction to allow agricultural practices to continue along crane paths and above collection lines in future years. Proposed activities may result in direct burial or crushing of and/or noise and vibration disturbance to feeding, breeding, and/or migratory dispersal of the Illinois Chorus Frog during project activities.

Total estimated area of permanent impact within species habitat for the immediately proposed actions is **6.57 acres**. Total estimated area of temporary impact within species habitat for the immediately proposed actions is **88.46 acres**. The Department concurs that the take of Illinois Chorus Frog that could result from the proposed project is not the purpose of Moraine Sands' activities but is incidental to the carrying out of an otherwise lawful activity.

2. The parties to the Conservation Plan will, to the maximum extent practicable, minimize and mitigate the impact caused by the taking:

Proposed avoidance, minimization and mitigation were included in Moraine Sands' Conservation Plan.

To meet the “maximum extent practicable” standard, additional minimization and/or mitigation measures may be required beyond those proposed by Moraine Sands, based on the life history needs of the Illinois Chorus Frog. **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.

Moraine Sands commits to funding all aspects of the Conservation Plan, including species monitoring and mitigation. Moraine Sands shall provide the Department with a letter certifying a monitoring contract has been executed with a firm qualified to conduct monitoring in accordance with the approved monitoring plan

The Department accepts this provision as assurance that adequate funding will be available to carry out the terms of the Conservation Plan.

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.

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**Illinois Chorus Frog (*Pseudacris illinoensis*)** is an Illinois state-threatened amphibian species.

**Habitat:** The Illinois Chorus Frog is found in areas of sandy soil. The frogs spend most of the year buried 4-8 inches below the surface, emerging in February or March only to move to ephemeral ponds where they mate and lay their eggs. The species may intermittently burrow during the day in breeding season. They locally migrate to underground burrows in June.

**Distribution:** The current range of the species is similar to its historic range, but the abundance of the species within that range has diminished. Illinois Chorus Frogs also occur in parts of Missouri and Arkansas.

**Reproduction:** Illinois Chorus Frogs will emerge from their burrows and migrate up to 0.9 kilometers to ponds. Males will call to attract females. They will mate and lay eggs in several clusters of 10-40 eggs. Clutches of 400-700 eggs in total are attached to the underside of submerged vegetation. The species’ life span is typically 2-3 years.

**Population:** Illinois Chorus Frogs are declining due to habitat loss caused by the draining of breeding sites for development, chisel-plow cultivation, and road mortality during migration to and from breeding sites.

**Range in Illinois:** Illinois Chorus Frogs are found at scattered locations in central, southwest, and extreme southern portions of Illinois. They have been observed in 10 of 102 counties, including Alexander, Cass, Madison, Mason,

Morgan, Menard, Scott, Pulaski, Pike, and Tazewell Counties. There are currently 58 extant (within last 10 years) Element Occurrence Records for Illinois Chorus Frog in the Illinois Natural Heritage Database.

**Incidental Take Authorizations:** The Department has 27 previously issued or pending Incidental Take Authorizations for Illinois Chorus Frog. This is the third authorization to be granted for the potential take of Illinois Chorus Frog in Mason County. Past projects include road improvements and pipeline maintenance.

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Based on the amount of habitat impacted by this project, the number of known occurrences of Illinois Chorus Frogs in Illinois, an assessment of the potential effect of this project on individual species in the project footprint, the conservation methods included in this authorization for take and the conservation plan, 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 this project will not reduce the likelihood of survival or recovery of the 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.

5. Any measures required under Section 5.5(b)(6) of the Act will be performed.

Additional measures are listed below under "Authorization." This authorization is, by definition, subject to those terms and conditions and the signature of a representative from Moraine Sands indicates their commitment to performing those measures.

6. The public has received notice of the application and has had the opportunity to comment before the Department made any decision regarding the application.

Public notice of Moraine Sand's request for authorization of incidental take was published in the *Breeze Courier* (official state newspaper) on June 14, 2022. The notice was also published in the *Banner Times* on June 14, 21, and 28, and July 5, 2022. A copy of the Conservation Plan was deposited for review at the Mason City Public Library. The deadline for public comment was August 4, 2022. No public comment documents were received.

### **Authorization**

It is the determination of the Department that the measures to be implemented by Moraine Sands will adequately minimize and mitigate the anticipated taking of Illinois Chorus Frogs associated with the construction of the Moraine Sands Wind Power Project in Mason County, Illinois. Further, the Department has concluded that the taking authorized herein will not reduce the likelihood of survival or recovery of the 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.

All terms and conditions included in the aforementioned Conservation Plan submitted by Moraine Sands 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 Moraine Sands 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 Moraine Sands has failed to comply with any of these terms and conditions or has been responsible for the taking of Illinois Chorus Frog beyond that which is incidental to the construction of the Moraine Sands Wind Power Project in Mason County, Illinois.

2. The effective period of this authorization may be altered by mutual written agreement between Moraine Sands and the Department. The Illinois Endangered Species Protection Board shall be notified of such alteration.

Any substantive changes, including but not limited to a substantive increase in the proposed take levels or acreage of impacts to Illinois Chorus Frog habitat, or a change in the State-listed species which could potentially be affected, will require that a new Conservation Plan be submitted to the Department to initiate the review and public notice process as required by the Act. Changes to the project footprint, along with associated recalculations of impacts to habitat and associated mitigation ratios, shall be submitted to the Department via EcoCAT for review. If impacts are increased, further coordination with the Department will then occur to determine whether the current Conservation Plan and associated review is adequate, or if the increase in impacts is substantive enough to require additional review and potential modifications to the Conservation Plan. Determinations of what amount of change in impact acreage will be considered "substantive" will be made by the Department on a case by case basis, but will consider issues such as overall numbers and percent increases in acreage, whether the increase is in permanent or temporary impacts, and what distance from ponds the increase is occurring in (an increase in temporary impacts 800 m from a breeding pond would likely not be considered as potentially substantive as a corresponding increase in permanent impacts 200 m from a pond, for instance).

3. This authorization may only be transferred upon approval and written authorization by the Department.

4. Notification to all on-site personnel, **including component transport companies and drivers**, shall be provided on the sensitive biological resources in the area; the identification of Illinois Chorus Frog; regulations protecting the species; where the species might be found; avoidance areas; travel restrictions for equipment; how to report sightings or incidents that may involve take; the importance of avoiding take of the species; and response protocol if individuals are found, including the chain of response personnel. **Moraine Sands shall submit a copy of the education materials to the Department.**
5. The Department reserves the right of entry by its staff or representatives to inspect potential habitat and species management practices.
6. All equipment that remains on site in the project area shall be clean of soil and non-native, invasive plant seeds before arrival.
7. Biological consultants employed by Moraine Sands shall hold the necessary permits for work with non-listed and listed species; these include an Illinois Department of Natural Resources (IDNR) Scientific Collection Permit as authorized under 17 Illinois Administrative Code 520, a Herptile Scientific Permit as authorized under 17 Illinois Administrative Code 885, and an IDNR Endangered Species Permit as authorized under 17 Illinois Administrative Code 1070.
8. In addition to the proposed monitoring associated with public and access road improvements, at locations within 300 meters (m) of known breeding ponds, if active construction or component delivery is occurring between February 1 and April 30, a Biological Monitor shall perform weekly roadway mortality monitoring routes established along project roads. Observations shall coincide with early spring moisture weather events when possible. Mortality location information (date, photograph, map, and GPS coordinates) and estimates shall be included in the Project Status Report under #9 below. The Department encourages notification anytime the Biological Monitor becomes aware of substantial frog crossings on public roads.
9. Illinois Chorus Frogs may disperse across roadways in large concentrations after warm rains in February and March, notification of congregations of individuals crossing roads at any time during the performance of the construction shall be reported to the Incidental Take Authorization Coordinator by email correspondence as soon as possible, but no later than 48 hours of sighting, with location information.
10. Any discoveries of additional State-listed species beyond those identified in this agreement **halts work** and shall be reported to the Department within 48 hours accompanied by location information (photograph, map, and GPS coordinates).
11. Moraine Sands shall notify the Department's Endangered Species Program by email correspondence of construction completion of the wind project. A **project status report** shall be submitted to the Department within **90 days** following completion summarizing the implementation of minimization, mitigation, and restoration

measures and evaluating the effectiveness or status of those measures and shall include a project photo log. The report shall also include a map, GPS coordinates, and photograph of any listed species found within the project footprint, description of any injuries or mortalities, and the disposition of any individuals that were injured or killed.

12. Moraine Sands shall conduct, or cause to be conducted, the following pre-construction, construction, or post-construction efforts:
  - a. Access roads and underground collection lines shall follow the most direct route to limit ground disturbance. A deviation shall occur for a known breeding pond, or request from project participants.
  - b. All excavation will be performed in a manner to preserve topsoil, defined as the "A" horizon, or the darkest color soil in the uppermost soil layers. Topsoil will be stored near the excavation site in such a manner to avoid intermixing it with subsoil materials. During backfilling, stockpiled subsoil will be placed into the excavation site before replacing topsoil.
  - c. Between February 1 and April 30:
    - i. Locations within 300 m of known breeding ponds, all measures of erosion control shall be implemented and regularly monitored for effectiveness by a qualified Biological Monitor.
    - ii. All excavated trenches left unfilled overnight within 300 m of known breeding ponds shall be covered to avoid trapping Illinois Chorus Frogs or other wildlife. For all other trenches within 900 m of known breeding ponds, a board will be placed as a ramp, and a Biological Monitor shall inspect those trenches left open each morning prior to resuming construction work for the presence of individuals.
    - iii. Between February 1-June 30, construction will cease at sunset to avoid road mortality when Illinois Chorus Frogs are dispersing. If extenuating circumstances arise that would require isolated night work, Moraine Sands will coordinate with the IDNR ITA Coordinator for further guidance with no less than 48 hours' notice.
  - d. Herbicide, pesticide, or fertilizer chemical applications shall not occur within 48 hours of a rain event.
  - e. No road improvements will occur within 300 ft. of known breeding ponds.
  - f. Impacts to Illinois Chorus Frog breeding ponds will be avoided.
  - g. Short distance relocations of Illinois Chorus Frog individuals to similar habitat may be performed by a permitted Biological Monitor when risk is imminent.
  - h. Construction equipment and vehicle traffic shall be limited to existing public roads, designated access roads, or the bounds of temporary and permanent disturbance associated with collection lines, crane paths, and other proposed construction areas of the project to reduce disturbance. This includes any staging or overnight parking of equipment.
  - i. Upon completion of construction, areas temporarily disturbed by the project as a result of construction activities shall be returned to pre-construction conditions. Disturbed areas outside of agricultural fields will be reseeded with

a roadway seed mix, Illinois Department of Transportation's Class 2 Roadside Mixture 7, rather than installing sod, to avoid entombing burrowed Illinois Chorus Frogs.

13. Moraine Sands shall conduct, or cause to be conducted, the following post-construction monitoring efforts:
  - a. Moraine Sands will fund post-construction calling surveys for Illinois Chorus Frogs targeting all ponds within 0.3 miles of construction (i.e. where landowner permission is granted, and/or where ponds are within 100 ft. of public roads) for two (2) consecutive years post-construction. If rainfall is substantially lower than average, Moraine Sands will confer with the Department about postponing surveys to a year with better conditions to evaluate the presence of the Illinois Chorus Frog. If dry conditions preclude Illinois Chorus Frog breeding/calling in Year 1 and/or Year 2, the surveys shall be conducted in Year 3 after construction. If dry conditions persist into Year 2, then surveys could occur in Years 3 and 4.
  - b. Illinois Chorus Frog call surveys shall be performed during early spring for 2 years after construction. Nighttime audible call surveys shall be performed by qualified contractors at least 30 minutes after sunset, and end by midnight, during active breeding season (late February to late March, generally, but calls in local areas may only last approximately two weeks). Surveys shall be conducted when the temperature is above 32° F and wind speed is below 18 miles/hour with a lack of heavy rainfall. Listening posts shall be targeted at as provided above in (a.).
  - c. *Illinois Chorus Frog survey data sheets shall reflect date, location, time, air temperature, humidity, wind speed, moon visibility, precipitation, number of minutes at each listening post (no less than fifteen minutes), number of cars that passed, other human-caused noise, water presence/absence, and a notation of whether the call emanates from within the wind project boundary or outside (note direction). Mapping of all ephemeral wet areas potentially utilized by Illinois Chorus Frogs in the survey area shall be provided to the Department with notations on depth of water and presence/absence of emergent vegetation and tadpoles, if accessible.*
  - d. **Reports on the Illinois Chorus Frog surveys shall be submitted to the Department's Incidental Take Authorization Coordinator within 90 days of each field survey season.**
14. Mitigation to the maximum extent practicable is required by the Act. Mitigation requirements for this authorization are as follows:
  - a. Moraine Sands shall mitigate for potential take of the State-threatened Illinois Chorus Frog by providing funding to The Conservation Fund. The mitigation shall be used to offset unavoidable impacts resulting from the project through the implementation of projects bringing conservation benefit to the Illinois Chorus Frog. Conservation benefit to the species may include activities associated with scientific resources management, such as research and census;



and habitat acquisition, protection, restoration, and maintenance; or any combination thereof.

- b. Moraine Sands shall provide \$140,878 in total mitigation costs for potential impacts to the Illinois Chorus Frog.
- c. Payment shall occur **within 90 days of execution of this agreement.**
- d. Moraine Sands shall provide the Department with evidence of the transaction and reporting on the use of the funds.
- e. Mitigation payments are nonrefundable, including events of revocation or termination.

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

15. All reports, notifications, and other project documentation shall be submitted to:


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

(217)557-8243  
DNR.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.

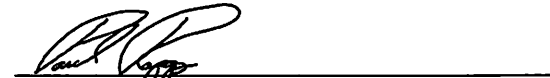
16. The Moraine Sands official identified below is authorized to execute this agreement. Execution by Moraine Sands indicates acceptance of all terms and conditions described in this authorization.
17. The execution of this agreement does not waive or excuse the responsibilities of Moraine Sands to comply 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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Mr. Christopher L. Young, Director  
Office of Resource Conservation

9/29/22  
\_\_\_\_\_  
Date

*For the Moraine Sands Wind Power LLC:*

  
\_\_\_\_\_  
Mr. Paul Rapp, Chief Operating Officer  
Cordelio Power

September 22, 2022  
\_\_\_\_\_  
Date