

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 Spire STL Pipeline LLC (hereinafter referred to as Spire) for the incidental take of the Federally-endangered and State-endangered Indiana Bat (*Myotis sodalis*), Federally-threatened and State-threatened Northern Long-eared Bat (*Myotis septentrionalis*), and State-threatened Timber Rattlesnake (*Crotalus horridus*). The Illinois Department of Natural Resources (hereinafter referred to as Department) has determined that the taking is incidental to activities associated with 46 miles of 24-inch diameter steel natural gas pipeline installation and construction of a new regulating station. This pipeline installation and its aboveground facilities, temporary and permanent access roads, and staging areas will total approximately 690.1 acres in Jersey, Greene, and Scott Counties in Illinois. Take authorization is sought only for those portions of the project known to harbor the species, which encompasses **30.4 acres**. A portion of the project area for which take authorization is sought lies within the Principia Hill Prairies West Illinois Natural Areas Inventory Site (INAI #0962). The site is included on the Natural Areas Inventory due to the presence of a high quality natural community, specific suitable habitat occupied by endangered and/or threatened species, and the designation of an Illinois Nature Preserves Commission-recognized site (Principia Hill Prairies – West Natural Heritage Landmark).

Procedural History

The Department received a conservation plan prepared by Spire on November 16, 2017, as a request for authorization for the incidental take of Indiana Bat, Northern Long-eared Bat, and Timber Rattlesnake. Additional information was requested by the Department on December 15, 2017, to make the conservation plan complete as prescribed by Ill. Adm. Code 1080.10. Additional information was received by the Department on January 12, 2018. On February 9, 2018, the Department requested further information; which was received March 23, 2018. The conservation plan was held until the issuance of a Certificate of Public Convenience and Necessity by the Federal Energy Regulatory Commission on August 3, 2018. After additional minor revisions were performed to reflect the current status, a final conservation plan was approved by the Department on August 15, 2018. The public notice period will be detailed under #6 of the Compliance section below. Due to the inclusion of federally-listed species in the conservation plan, the State of Illinois is bound by a Section 6 Cooperative Agreement with the US Fish and Wildlife Service (USFWS) under the authority of the Endangered Species Act of 1973 (16 U.S.C. § 1531 et seq) and the Act, whereby the State shall not issue a permit authorizing take without prior issuance of a permit or formal decision otherwise by the USFWS. On October 26, 2017, the USFWS acknowledged by letter that any effects to the Northern Long-

long-eared Bat are consistent with the programmatic biological opinion for the final 4(d) rule dated January 5, 2016, therefore take of the species is not prohibited for the proposed action. On February 2, 2018, a Biological Opinion was issued related to the potential taking of the Indiana Bat concluding that the level of anticipated take is not likely to result in jeopardy of the species.

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 to install 46 miles of 24-inch diameter steel natural gas pipeline and a new regulating station in Jersey, Greene, and Scott Counties in Illinois primarily utilizing a 90-foot-wide temporary construction right-of-way and maintaining a 50-foot-wide permanent right-of-way. Spire proposes to clear all trees within the project area and cut vegetation in wetlands to ground level. Trenching will then occur with a track-mounted backhoe. The trench will typically be excavated at least 12 inches wider than the pipe diameter and deep enough to allow at least 5 feet of cover between the top of the pipe and the land surface, except in areas of consolidated rock where the minimum depth of cover will be 3 feet. In the area between Milepost 44.94 and Milepost 44.95 comprising dense rock formations (Limestone-Lacrescent Complex in Jersey County), low-charge blasting may occur to remove the rock. At and after installation, the pipeline will be padded with a minimum of 6 inches of clean backfill padding around all sides of the pipe. A padding bucket or other soil sifting device will be used to obtain suitable padding material from the subsoil. Previously excavated materials will then be pushed back into the trench with bladed equipment or backhoes. Total estimated area of impact within potential species habitat is **30.4 acres**.

Take of Indiana Bat and Northern Long-eared Bat could occur as a result of roosting or maternity tree removal and/or disruption of behavioral patterns due to harassment through noise and vibration. Take of Timber Rattlesnake could occur as a result of den disturbance, being crushed or smothered by construction activities, and/or disruption of behavioral patterns through noise and vibration. The take of Indiana Bat, Northern Long-eared Bat, and Timber Rattlesnake that could result from this project is not the purpose of Spire's activities but is incidental to the carrying out of an otherwise lawful activity.

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

Proposed minimization and mitigation measures were included in Spire's conservation plan.

To meet the "maximum extent practicable" standard, additional minimization and/or mitigation measures may be required beyond those proposed by Spire, based on the life history needs of the Indiana Bat, Northern Long-eared Bat, and Timber Rattlesnake.

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:

Spire is solely responsible for funding of the project. Spire has adequate financial backing to support and implement the conservation plan, and costs will be incorporated into the overall project budget.

It is the Department's opinion that Spire'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:

Indiana Bat (*Myotis sodalis*)

Indiana Bat is a Federally-endangered and State-endangered species.

Habitat: Indiana Bat hibernates in the winter, primarily in caves and abandoned mines. The species prefers the coldest part of the cave, where they are found huddled in large clusters of 500-1000 bats. In the summer, preferred habitat for this nocturnal insectivore consists of wooded areas, often near streams. The species is typically found beneath the exfoliating bark of trees.

Distribution: Their overall range covers much of the eastern United States. Populations migrate as far south as Georgia and Alabama. They are found as far north as Michigan, Vermont, and New York. The species has disappeared from most of its former range in the northeastern United States.

Migration: The species is migratory, traveling up to 300 miles between winter and summer habitats. Migrants will leave hibernation sites in March and April. They return to hibernacula in August or September. Staging or swarming occurs in September and October at the mouths of caves.

Reproduction: Mating occurs from late August to early October, prior to hibernation. Females store sperm through the winter and ovulation takes place in

the spring. Females give birth to a single pup in June or July. Young can fly at 25-37 days.

Population: Indiana Bats hibernate in large groups, making them highly susceptible to White-nose Syndrome (confirmed in Illinois in 2013) during the winter months. The low reproductive rate of bats coupled with the vulnerability to disease afflicting the species at hibernacula is a cause of concern for potentially severe population level declines. Human disturbance in caves may disrupt hibernation, causing unnecessary burning of fat reserves that bats need to get through the winter. Removal of forested summer habitat may also lead to population decline.

Range in Illinois: Indiana Bats are extant (found in the last 10 years) in 42 of 102 Illinois counties. There are currently 91 extant Element Occurrence Records for Indiana Bats in the Illinois Natural Heritage Database. These records include both hibernacula and locations at which bats have been captured during surveys conducted during the summer breeding season. Data reflect the presence of Indiana bats at Illinois maternity colonies and/or day roosts as early as April 12 and as late as October 6. Locations are scattered across much of the southern ¾ of Illinois. While the range of Indiana bats in Illinois is broad, declines in the number of bats found at historic hibernacula indicate that the species remains in jeopardy.

Project Vicinity Data:

Seven (7) Indiana Bats were captured at five (5) of 23 sites during mist-net surveys conducted from May 15 - June 1, and June 13-19, 2017, within suitable habitat along the project alignment within Illinois. Five (5) of the Indiana Bats, including three (3) adult males and two (2) adult females (both pregnant) were radio-tagged and tracked for seven (7) days to 11 roosts. None of the roost trees were within the project alignment.

Incidental Take Authorizations:

The Department has six (6) pending or issued Incidental Take Authorizations for Indiana Bat. This is the first authorization to be granted for Indiana Bat in Jersey, Greene, and/or Scott Counties. There are two executed Incidental Take Authorizations for take of Indiana Bats near Spire's pipeline project, both for wind projects. Adam's Electric Cooperative (AEC) was granted an Incidental Take Authorization on August 11, 2010. The project comprised two (2) single turbines in Adams and Brown Counties, approximately 45 miles from Spire's project, effective until 2030. The other project, known as the Pike County Wind Power Project, also consists of a single turbine, approximately 22 miles from Spire's project. This project was granted an Incidental Take Authorization on February 28, 2014 and will remain in effect until 2034. The remaining four (4) authorizations were for electric transmission and commercial wind farms.

Northern Long-eared Bat (*Myotis septentrionalis*)

Northern Long-eared Bat is a Federally-threatened and State-threatened species.

Habitat: Northern Long-eared Bat hibernates in the winter, primarily in caves and abandoned mines. The species prefers cold, humid areas. They are most likely to be found in cracks or crevices, rather than huddled in large groups. In the summer, preferred habitat for this nocturnal insectivore consists of large, contiguous forested areas. The species roosts in live and dead trees, and occasionally in human structures such as bridges and barns.

Distribution: They are distributed in patches in eastern and north-central United States and southern Canada. The overall summer and winter ranges are the same.

Migration: Northern Long-eared Bat is commonly a local migrant, only traveling up to 50 miles between winter and summer habitats.

Reproduction: Mating occurs in late summer or early fall, prior to hibernation. Females store sperm through the winter, though some females may mate again at spring emergence. Females give birth to a single pup between May and July, depending on the location (typically late June to early July in Illinois).

Population: Northern Long-eared Bat hibernates in caves where the fungus that causes White-nose Syndrome is found. The low reproductive rate of bats coupled with the vulnerability to disease afflicting the species at hibernacula is a cause of concern for potentially severe population level declines. Northern Long-eared Bat is sensitive to disturbance during hibernation, which causes bats to deplete their energy reserves. Habitat fragmentation of mature forest habitat is also a threat to bats.

Range in Illinois: Northern Long-eared Bat is extant in 41 of 102 Illinois counties. There are currently 81 extant Element Occurrence Records for Northern Long-eared Bat in the Illinois Natural Heritage Database. These occurrences include both summer locations of roost and/or maternity colonies and winter hibernacula. Data reflect the presence of Northern Long-eared Bat at Illinois maternity colonies and/or day roosts as early as April 16 and as late as October 3. Locations are scattered across the entire state.

Project Vicinity Data:

One (1) Northern Long-eared Bat was captured on May 16, 2017, at one (1) of 33 sites during mist-net surveys conducted from May 15 - June 1, and June 13-19, 2017, within suitable habitat along the project alignment. The adult female was not radio-tagged or tracked, therefore roost trees were not located.

Incidental Take Authorizations: The Department has two (2) pending or authorized Incidental Take Authorizations for Northern Long-eared Bats for commercial wind farms in northeastern Illinois. This is the first authorization to be granted for Northern Long-eared Bat in Jersey, Greene, and/or Scott Counties.

Timber Rattlesnake (*Crotalus horridus*)

Timber Rattlesnake is an Illinois state-threatened species.

Habitat: In the Midwest, Timber Rattlesnakes prefer high, dry ridges with forest interspersed with open areas. They especially like rock outcrops in thick woods.

Timber Rattlesnakes hibernate communally in the winter, with up to 200 individuals in a den. Hibernacula are found in crevices around rocky areas.

Distribution: The species overall range covers much of the Midwest and eastern United States. Populations are found as far south as Florida and Texas, and as far north as Minnesota.

Migration: Timber Rattlesnakes migrate seasonally between hibernacula and summer habitats. Individuals have been shown to migrate up to 7.2 kilometers (4.5 miles) from their hibernaculum. According the Natural Heritage Database, the species has been observed active from April throughout October.

Reproduction: Mating occurs in the summer, early or mid-July. Young are born August to early October. Females reach reproductive maturity at 7 to 9 years of age and reproduce every 2 to 5 years.

Population: With a lifespan of up to 30 years, Timber Rattlesnakes may experience a variety of threats. The species is at risk from habitat destruction, especially development near den locations. Shading from the growth of large trees decreases desirable basking at open, brushy areas around optimal denning locations. The encroachment of non-native invasive shrubs is also limiting preferred basking areas for required thermoregulation. Timber rattlesnake populations are threatened by poaching, road mortality, and disease.

Range in Illinois: They are found in suitable habitat regions of western and southern Illinois. Timber Rattlesnakes have been observed in the last ten (10) years in 12 of 102 Illinois counties; including Alexander, Gallatin, Greene, Hardin, Jackson, Jersey, JoDaviess, Monroe, Pope, Randolph, Saline, and Union Counties. There are currently 28 extant Element Occurrence Records for Timber Rattlesnakes in the Illinois Natural Heritage Database.

Project Vicinity Data:

The Natural Heritage Database reflects no less than 60 individuals of the species have been observed since 2015 within the Principia Hill Prairies West and East Natural Heritage Landmarks of Jersey County. Four (4) active den locations have been confirmed between approximately 77 feet and 2,000 feet northwest and southeast of the project alignment. Preliminary scientific data from these locations support ingress to dens commencing at approximate air temperature of 50° Fahrenheit. Local data also supports high site fidelity to individuals' denning locations and home ranges. Researchers caution that mid-winter egress from dens may be triggered by warm temperatures.

Incidental Take Authorizations: The Department has two pending or issued Incidental Take Authorizations for Timber Rattlesnake. This is the second authorization to be granted for Timber Rattlesnake in Jersey County and the first for Greene and Scott Counties. The Jersey County take authorization was executed to the City of Grafton for water and sanitary system improvements and expired in 2011. No evidence of presence or take of Timber Rattlesnake was reported for that project.

Based on the amount and the linear configuration of habitat impacted by this project, the number of known occurrences of the endangered and threatened

species in Illinois, an assessment of the potential effect of this project on the listed species in the project footprint, the conservation measures included in this authorization for incidental take, and the understanding that vulnerability and recovery information on the species remains limited; the Department has concluded that the taking proposed herein will not reduce the likelihood of survival or recovery of Indiana Bat, Northern Long-eared Bat, and Timber Rattlesnake 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:

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 Spire 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 Spire's request for authorization of incidental take was published in the *Breeze-Courier* (official state newspaper) on August 20, 2018, and in the *Jacksonville Journal-Courier* and the *Alton Telegraph* on August 20, 27, and September 4, 2018. A copy of the conservation plan was deposited at the Winchester Public Library, the Carrollton Public Library, and the Jerseyville Public Library, where it was available for public review. The deadline for public comment was October 4, 2018. No comments were received from the public.

Authorization

It is the determination of the Department that the measures proposed in the conservation plan and herein that will be implemented by Spire will adequately minimize and mitigate the anticipated taking of Indiana Bat, Northern Long-eared Bat, and Timber Rattlesnake incidental to activities associated with this natural gas pipeline installation in Jersey, Greene, and Scott Counties in Illinois. Further, the Department has concluded that the take authorized herein will not reduce the likelihood of survival or recovery of the Indiana Bat, Northern Long-eared Bat, and Timber Rattlesnake 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. Additional listed species may inhabit the project area, **this agreement does not authorize take of any species except the Indiana Bat, Northern Long-eared Bat, and Timber Rattlesnake.**

All terms and conditions included in the aforementioned conservation plan submitted by Spire 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 Spire in the conservation plan:

1. This authorization is effective upon the signature of the Department and shall remain in effect for a period of **ten (10) 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 Spire has failed to comply with any of these terms and conditions or has been responsible for the taking of the Indiana Bat, Northern Long-eared Bat, and/or Timber Rattlesnake beyond that which is incidental to activities associated with the natural gas pipeline installation in Jersey, Greene, and Scott Counties in Illinois.

2. The effective period of this authorization may be altered by mutual written agreement between Spire 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 or 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. **For the purposes of this authorization, a net increase of no more than one (1) additional acre of vegetation clearing within suitable habitat shall not be considered a substantive change.**

3. This authorization may only be transferred upon approval and written authorization by the Department.
4. No part of this agreement to take listed species shall authorize Spire to enter onto or conduct activities on property for which Spire does not otherwise possess a valid right of entry, such as a right of entry pursuant to a voluntary easement or a Judicial Order granting possession in an eminent domain proceeding. It is understood by the Department that on August 3, 2018, the Federal Energy Regulatory Commission approved a Certificate of Public Convenience and Necessity for the Spire STL Pipeline.
5. Notification to all on-site personnel shall be provided on the sensitive biological resources in the area, the identification of the listed species, 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. **Spire shall submit a copy of the education materials to the Department.**
6. The Department reserves the right of entry by its staff or representatives to inspect species, potential habitat, and species management practices. Spire's health and safety protocol shall be strictly adhered to.
7. Biological consultants employed by Spire shall be qualified in working with these species and 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, and an IDNR Endangered Species Permit as authorized under 17 Illinois Administrative Code 1070. Notification of Indiana Bat, Northern Long-eared-Bat, and/or Timber Rattlesnake locations shall be provided to the Department within 48 hours accompanied by photographs, map, GPS coordinates, and additional data requested under #11.d. below. If mortality has occurred, the carcass shall be retained in a plastic bag, labeled, and frozen.

8. Spire shall notify the Department's Endangered Species Program by email correspondence of construction commencement and completion of pipeline installation and construction within the action area for this authorization. A **project status report** shall be submitted to the Department within **90 days** of project completion summarizing the implementation or status of minimization, mitigation, and restoration measures and evaluating the effectiveness of those measures and shall include a project photo log. The report shall also include a map and GPS coordinates 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.
9. 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). Discovery of a Timber Rattlesnake within the action area **halts all work within 100 feet until relocation has occurred.**
10. Spire shall conduct, or cause to be conducted, the following pre-construction, construction, or post-construction efforts:
 - a. Photographs of habitat areas shall be taken prior to beginning construction to document a baseline of habitat conditions.
 - b. Tree clearing *during construction* shall **not** occur between May 1 and September 30 to avoid non-volant bat pups in maternity roost trees and to avoid mating and gestation period of Timber Rattlesnake.
 - c. Areas outside of the project alignment shall not be cleared or altered.
 - d. Work in riparian areas and wetlands shall be avoided wherever practicable.
 - e. Vegetation in wetlands shall be cut to ground level, leaving root systems intact, whenever feasible.
 - f. Topsoil shall be segregated during earth disturbance activities in the project area.
 - g. Erosion and sediment control measures shall be implemented in all areas. Disturbance of vegetation shall be minimized to prevent erosion and sedimentation.
 - h. Erosion and sediment control measures shall be monitored daily to ensure effectiveness. All disturbed areas shall be reseeded promptly minimizing the time that bare soil is exposed.
 - i. Noxious weeds and invasive exotic plants shall be controlled. All vehicles, equipment and materials shall be inspected and cleaned of any visible vegetation and/or soil prior to entering or leaving project areas of known infestations to

minimize the spread of noxious and/or invasive exotic plants, including those plants covered under the Illinois Noxious Weed Law (505 ILCS 100/) and the Illinois Exotic Weed Act (525 ILCS 10/). All best management practices identified in the Spire Noxious Weeds/Invasive Plant Species Control and Mitigation Plan dated January 2018 shall be followed.

- j. Within Timber Rattlesnake habitat, obstructive barriers will isolate snakes from entering the project work locations from April 1 to October 31, including roads. Exclusionary fencing shall be buried no less than 6 (six) inches, monitored daily, and repaired if found to be inferior. Environmental Inspectors shall be enlisted to inspect all active construction workspaces, including roads, for the presence of individuals ahead of equipment movement and earthwork.
 - k. Within Timber Rattlesnake habitat, open trenches and equipment shall be inspected each morning prior to work. Education materials compelled under #5 above shall address Spire's response if/when the species is found.
 - l. **If construction remains ongoing between April 1 and October 31 of any year, in addition to incidental monitoring by an Environmental Inspector and in lieu of visual encounter monitoring, Spire shall provide fifty (50) VHF radio-tags, ten (10) radio-receivers, and ten (10) antennas to the Department (cost not to exceed \$30,000) to be utilized for radio-tracking of Timber Rattlesnake individuals emerging from dens in near proximity to the pipeline right-of-way and road. Due to the ineffectiveness of visual encounter surveys, the propensity for this cryptic species to remain hidden rather than flee, and the uncertainty of take within this known foraging area; radio-tagging snakes will ensure that if a tagged individual is within the active construction footprint they will be located, moved, and tracked to minimize take. The results of this radio tracking will be made publicly available upon the completion of construction. Spire will work with the Department to provide appropriate funding to the Department prior to the radio-tracking event.**
 - m. Post-construction routine vegetation maintenance, mowing, or tree clearing shall not take place April 15 to October 31 in Timber Rattlesnake habitat and shall not take place April 15 to August 1 in other areas.
11. Spire shall conduct, or cause to be conducted, the following post-construction monitoring measures for **Indiana Bat and Northern Long-eared Bat** in the project area during the maternity season of **Year 2** and **Year 7** after completion of construction:
- a. Thorough mist net surveys following the protocols used in the 2017 survey.
 - b. Radio-tracking shall occur on Indiana Bats and Northern Long-eared Bats to locate active maternity roost trees, conduct emergence counts, and monitor dispersal on the landscape.
 - c. Active maternity roost trees found in the 2017 survey and follow-up surveys shall be located and monitored in the subsequent years' survey.
 - d. **A report of all bat species captured (highlighting any Indiana Bat and/or Northern Long-eared Bat captures) including, but not limited to, date and weather conditions, the survey methodology utilized, a description of habitat, number of individuals located, age and sex of individuals located,**

reproductive status of individuals located, identification of any additional species, a map of the species locations and movements, a photo of each individual captured, the status and occupancy of previously documented maternity roost trees, and the location and occupancy of newly documented maternity roost trees shall be provided to the Department by December 31 of the year in which the monitoring event occurred.

12. Spire shall conduct, or cause to be conducted, the following post-construction monitoring measures for **Timber Rattlesnake** in the project area during Year 2 and Year 7 after completion of construction:

- a. To determine whether resident Timber Rattlesnakes have adapted after project completion, a radio-tagging effort at emergence as provided above under #10.1. shall be performed by the Department.
- b. In lieu of post-construction tracking and reporting by the applicant, Spire shall provide fifty (50) VHF radio-tags, ten (10) radio-receivers, and ten (10) antennas to the Department (cost not to exceed \$30,000) in Year 2 and (cost not to exceed \$20,000) in Year 7 to be utilized for radio-tracking of Timber Rattlesnake individuals emerging from dens in near proximity to the pipeline right-of-way and road. Radio-receivers and antennas shall only be provided once during the duration of this authorization, whether as a part of minimization above (10.1.) or the post-construction requirements of this section. If radio-receivers and antennas are provided as part of minimization (10.1), Spire will only need to provide the fifty (50) VHF radio-tags (cost not to exceed \$20,000) in Year 2 (and the requirements will remain the same for Year 7 as outlined above). Spire will work with the Department to provide appropriate funding to the Department prior to the radio-tracking events in Year 2 and Year 7.

13. Spire shall conduct, or cause to be conducted, the following post-construction monitoring measures for revegetation in the project area:

- a. Wetland areas shall be monitored annually following construction completion until revegetation is successful.
- b. Upland areas shall be monitored during growing season in Year 1 and Year 2 following restoration or until revegetation is successful.
- c. A report including, but not limited to, a description of habitat, any problem areas, and any corrective actions shall be provided to the Department by December 31 of the year in which the monitoring event occurred until such efforts are considered successful.

14. Mitigation to the maximum extent practicable is required by the Act. Mitigation requirements for this authorization are calculated as follows:

- a. Spire shall provide funding in the amount of **\$513,200** to The Conservation Fund, for the management and recovery of Indiana Bat, Northern Long-eared Bat, and Timber Rattlesnake.
- b. Evidence of the donation shall be provided to the Department **within 90 days of execution of this agreement**. 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, real estate values, and impact analysis 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

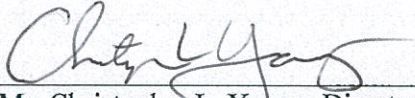
The Department's Endangered Species Program shall provide all reports required under this agreement to the Illinois Endangered Species Protection Board and to the Department's Natural Heritage Database.

Copies of any reports, updates, modifications or other project documentation required by the USFWS Biological Opinion issued on February 2, 2018, shall be provided concurrently to the Department. Likewise, all reports under this authorization shall be provided to the USFWS.

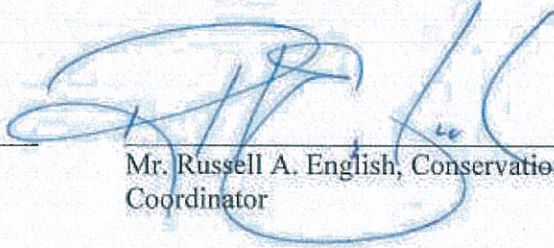
16. The Spire official identified below is authorized to execute this agreement. Execution by Spire indicates acceptance of all terms and conditions described in this authorization.
17. The execution of this agreement does not waive or excuse the responsibilities of Spire to comply with other Federal, 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:

For Spire STL Pipeline, LLC:



Mr. Christopher L. Young, Director
Office of Resource Conservation



Mr. Russell A. English, Conservation Plan
Coordinator

12/12/18

Date

12/10/2018

Date