



# Illinois Department of Natural Resources

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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 Gateway Regional Water Company (hereinafter referred to as GRWC) for the incidental take of the State-endangered Greater Prairie Chicken (*Tympanuchus cupido*), Loggerhead Shrike (*Lanius ludovicianus*), and Upland Sandpiper (*Bartramia longicauda*), and the State-threatened Eryngium Stem Borer (*Papaipema eryngii*) and Ornate Box Turtle (*Terrepe ornata*). The Illinois Department of Natural Resources (hereinafter referred to as Department) has determined that the taking is incidental to activities associated with the installation of three segments of water main extensions in Marion and Fayette Counties, Illinois. Segments 1 and 2 of the project area for which take authorization is sought lie within the Prairie Ridge – Marion County Illinois Natural Areas Inventory Site (INAI #0754). Segment 3 of the project area crosses Twelve Mile Prairie INAI #0991. The sites are included on the Illinois Natural Areas Inventory due to the presence of high quality natural communities and specific suitable habitat occupied by endangered and/or threatened species. Segment 2 lies nearly diagonal from the Prairie Ridge Land and Water Reserve at the Sullivan Road – Kinlou Road intersection. Segment 3 was rerouted across Sullivan Road to avoid impacts to Loy Prairie Land and Water Reserve. These sites have received the highest level of conservation protection by the Illinois Nature Preserves Commission.

### **Procedural History**

The Department received a Conservation Plan prepared by GRWC on September 5, 2017, as a request for authorization for the incidental take of Greater Prairie Chicken, Loggerhead Shrike, Upland Sandpiper, Eryngium Stem Borer, and Ornate Box Turtle. Additional information was requested by the Department on October 5, 2017; November 18, 2019; and February 26, 2020, to make the Conservation Plan complete as prescribed by Ill. Adm. Code 1080.10. Additional information was received by the Department on February 27, 2018; January 29, 2020; and May 26, 2020. The final conservation plan was approved by the Department on May 27, 2020. 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 to install water main extensions that will serve the City of Kinmundy and the Village of Farina with a safe and reliable source of potable water. The improvements include a master meter station and booster pump station that will be located on a one-acre site south of Kinmundy, which will not occur within potentially suitable habitat for species, and therefore is not the subject of this Authorization. This authorization contemplates installation of the following three (3) segments of water main:

**Section 1:** Marion County, Alma and Salem Townships, starting at Williams Road running south along Currie Road stopping before Tonti Road in Sections 25 and 26.

**Section 2:** Marion County, Kinmundy Township, starting at Kinlou Road running south along Highway 27 turning west on Armstrong Road stopping at the edge of Section 25.

**Section 3:** Fayette and Marion Counties, Meagham and Laclede Townships, starting at Highway 185 running south to County Road 2400, Sullivan Road, ending at Chestnut Street.

The water main, comprised of 8-inch to 10-inch PVC pipes, will be trenched in below grade with a minimum of 42 inches of cover. The maximum trench width is 24 inches. The construction will require a maximum 20-foot right-of-way near or within suitable habitat of the species. Road crossings and creeks will be directionally-bored. Some brush clearing will be required.

Take of Greater Prairie Chicken, Loggerhead Shrike, Upland Sandpiper, Ornate Box Turtle, and Eryngium Stem Borer could occur as a result of crushing or burying by project traffic or heavy machinery during construction, and/or dispersal from suitable habitat due to increased noise and/or vibration.

Total estimated area of impact within suitable species habitat is **1.78 acres**. The Department concurs that the take of Greater Prairie Chicken, Loggerhead Shrike, Upland Sandpiper, Eryngium Stem Borer, and Ornate Box Turtle that could result from the proposed project is not the purpose of GRWC'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 avoidance, minimization and mitigation measures were included in GRWC's conservation plan.

To meet the "maximum extent practicable" standard, additional minimization and/or mitigation measures may be required beyond those proposed by GRWC, based on the life history needs of the Greater Prairie Chicken, Loggerhead Shrike, Upland Sandpiper, Eryngium Stem Borer, and Ornate Box Turtle. **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.

This project is being funded by the Rural Development Water Loan & Grant program, which provides funding for clean and reliable drinking water in rural areas. There are adequate funds to carry out all aspects of the Conservation 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 are a part, or the habitat essential to the species' existence in Illinois:

**Greater Prairie Chicken** (*Tympanuchus cupido*) is an Illinois State-endangered bird species.

**Habitat:** Greater Prairie Chicken prefers native tall-grass prairie, with oak woodland interspersed.

**Distribution:** Greater Prairie Chicken are extant in the Great Plains region of the United States but had a much wider historical range. Populations are found from the Canada-U.S. border in Minnesota and North Dakota to the Mexico-U.S. border in Texas. They range from Colorado east to Illinois and Wisconsin.

**Reproduction:** Greater Prairie Chickens are non-migratory, but territorial. The breeding/nesting season begins in early April and extends into late July. Males gather for a courtship display (lek) and have no further parental role. Females incubate 10-12 eggs for 23 days in a nest that is scraped into the soil with light vegetation lining.

**Population:** Greater Prairie Chicken is at risk from habitat loss and degradation of available fragments.

**Range in Illinois:** Greater Prairie Chickens are found in 2 of 102 counties in Illinois, Jasper and Marion. There are currently 4 extant Element Occurrence Records for Greater Prairie Chicken in the Illinois Natural Heritage Database.

**Incidental Take Authorizations:** This is the first ITA issued for Greater Prairie Chicken in Illinois.

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**Loggerhead Shrike** (*Lanius ludovicianus*) is an Illinois State-endangered bird species.

**Habitat:** The Loggerhead Shrike lies in grasslands, prairies, farmland, and other open areas where it can access prey. They prefer areas with interspersed trees, shrubs, hedgerows. Adults can be seen perching on twigs or powerlines. Prey are impaled on twigs, thorns, or between branches of trees and shrubs.

**Distribution:** Loggerhead Shrike have historically had a widespread distribution across the Lower 48 States and into Canada but appear to be extirpated from the Northeast states.

**Reproduction:** Nests are built 2.5-4 feet above the ground in dense, often thorny, shrubs or trees, when available. In Illinois, most nests are found in tree lines containing Osage orange, honey locust, and Eastern red cedar. There are 5-6 eggs

per clutch, with 1-2 broods per year. Egg laying occurs from late March to mid-April, lasting until early June.

**Population:** Loggerhead Shrike are declining because of urbanization, vehicular collisions, habitat destruction including high-quality wintering habitat, livestock grazing, and/or pesticide use. The exact cause of decline is not well understood, because there is suitable habitat in Minnesota, Wisconsin, and Michigan that is not occupied.

**Range in Illinois:** Loggerhead Shrikes have been observed in 10 of 102 Illinois counties: Carroll, Clay, Edwards, Jasper, JoDaviess, Marion, Perry, Richland, Wayne, and Will. There are currently 14 extant Element Occurrence Records for Loggerhead Shrikes in the Illinois Natural Heritage Database.

**Incidental Take Authorizations:** This is the fourth ITA issued for Loggerhead Shrikes. The previous ITAs have been for pipeline maintenance, and wind farm construction. This is the first ITA for Marion and Fayette Counties.

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**Upland Sandpiper** (*Bartramia longicauda*) is an Illinois State-endangered bird species.

**Habitat:** The Upland Sandpipers live in grasslands exclusively. The preferred grassland has level topography with a minimum amount of taller vegetation at the edges, especially Kentucky bluegrass (*Poa pratensis*) and other shorter grass species. Additionally, crop fields that have a similar structure to grasslands may be used.

**Distribution:** Upland Sandpipers are widespread in the United States and are found in 48 of the 50 states.

**Reproduction:** Upland Sandpipers arrive in Illinois in mid-April, nests are built in early May, and eggs are laid in mid-May through June. Nests are constructed on the ground in dense grass. There are 4 eggs per clutch, with one brood per year. Fall migration begins as early as July, with Illinois populations leaving in September to winter in Argentina and Uruguay.

**Population:** Upland Sandpiper are at risk from over hunting, habitat loss due to urbanization, farming practices including grazing animals trampling nests, natural forest succession, pesticide use, and predation. In their wintering grounds, habitat has been converted to agriculture.

**Range in Illinois:** Upland Sandpipers have been observed in 13 of 102 counties in Illinois. There are currently 15 extant Element Occurrence Records for Upland Sandpipers in the Illinois Natural Heritage Database.

**Incidental Take Authorizations:** This is the fifth ITA issued for Upland Sandpiper. The previous ITAs have been for pipeline maintenance, and wind farm construction. This is the first ITA for Marion and Fayette Counties.

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**Eryngium Stem Borer** (*Papaipema eryngii*) is an Illinois State-threatened insect species.

**Habitat:** The Eryngium Stem Borer is a moth that lives in mesic and wet-mesic prairies. It is dependent upon the presence of rattlesnake master (*Eryngium yuccifolium*), its host plant. A population of 100-1,000 rattlesnake master plants is needed for the species to persist at a site.

**Distribution:** Eryngium Stem Borer has a Central United States distribution in Iowa, Missouri, Kansas, Oklahoma, Arkansas, Missouri, Illinois, Indiana, Kentucky, and North Carolina. However, within these states, populations localized to prairies with a large population of its host plant.

**Reproduction:** Eggs are laid within the duff of the rattlesnake master plant in the fall. Larvae emerge in late May and bore into the rattlesnake master plant near the ground and migrate lower in the plant. The larvae live in the rattlesnake master roots until August, when they pupate either in the plant or the soil. Adults emerge in mid-September, and are on wing through early October. The adult moths are nocturnal, and do not serve as pollinators for rattlesnake master. Additionally, adults have not been observed feeding, likely they survive on nutrients consumed prior to pupation.

**Population:** Eryngium Stem Borers are dependent upon prairies with rattlesnake master, habitat destruction is a major threat. Larvae overwinter in duff. Prescribed burns in prairies may also directly kill individuals.

**Range in Illinois:** Eryngium Stem Borers have been observed in 8 of 102 Illinois counties: Cook, Effingham, Fayette, Grundy, Jasper, Livingston, Marion, and Will. There are currently 12 extant Element Occurrence Records for Eryngium Stem Borers in the Illinois Natural Heritage Database.

**Incidental Take Authorizations:** This is the second ITA issued for Eryngium Stem Borer. The previous ITA was for high speed railroad construction in Livingston County.

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**Ornate Box Turtle (*Terrapene ornata*)** is an Illinois State-threatened turtle species.

**Habitat:** Ornate Box Turtles inhabit prairie grassland, pastures, fields, sandhills, and open woodland areas. They are terrestrial but occasionally enter slow, shallow streams. For shelter, Ornate Box Turtles burrow into soil or use burrows made by other species. They hibernate through winter in burrows 0.5-1.8 meters in depth.

**Distribution:** Their overall range covers most of the central United States. Ornate Box Turtles can be found from southeastern Wyoming to Wisconsin and Indiana, and south to Arizona and Louisiana.

**Reproduction:** Mating occurs in the spring or late summer. Nesting occurs between May and August. Females lay 1-2 clutches of 1-8 eggs each year. Eggs hatch in 9-12 weeks. Males are sexually mature in 8-9 years, females in 10-11 years.

**Population:** Ornate Box Turtles are at risk from increased urbanization and increased agriculture.

**Range in Illinois:** They are found throughout much of Illinois. Ornate Box Turtles have been observed in 30 of 102 Illinois counties. There are currently 55 extant Element Occurrence Records for Ornate Box Turtles in the Illinois Natural Heritage Database.

**Incidental Take Authorizations:** The Department has six previously issued or pending Incidental Take Authorizations for Ornate Box Turtles. Three of the previously issued or pending Incidental Take Authorizations are in Madison and Morgan Counties. These were for water line extension, carbon sequestering, and commercial development projects.

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Based on the amount of habitat impacted by this project, the number of known occurrences of the Greater Prairie Chicken, Loggerhead Shrike, Upland Sandpiper, Eryngium Stem Borer, and Ornate Box Turtle 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 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 these 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 GRWC 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 GRWC's request for authorization of incidental take was published in the *Breeze Courier* (official state newspaper) on May 29, 2020. The notice was also published in the *Centralia Morning Sentinel* on May 29, June 5, and June 12, 2020. A notice of the location where the hard copy of the Conservation Plan could be reviewed was posted at the Evan Public Library and the Bryan-Bennett Public Library. The deadline for public comment was July 13, 2020. Comment was received from the public. The applicant provided analysis to the Department meeting the requirements of Ill. Adm. Code 1080.30.

### **Authorization**

It is the determination of the Department that the measures that will be implemented by GRWC will adequately minimize and mitigate the anticipated taking of Greater Prairie Chicken, Loggerhead Shrike, Upland Sandpiper, Eryngium Stem Borer, and Ornate Box Turtle associated with the construction of a water main extension in Marion and Fayette Counties, 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 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 GRWC 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 GRWC 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 GRWC has failed to comply with any of these terms and conditions or has been responsible for the taking of the Greater Prairie Chicken, Loggerhead Shrike, Upland Sandpiper, Eryngium Stem Borer, and Ornate Box Turtle, beyond that which is incidental to activities associated with the water line construction in Marion and Fayette Counties, Illinois.

2. The effective period of this authorization may be altered by mutual written agreement between GRWC 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 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.

3. This authorization may only be transferred upon approval and written authorization by the Department.
4. Notification to all on-site personnel shall be provided on the sensitive biological resources in the area; the identification of Greater Prairie Chicken, Loggerhead Shrike, Upland Sandpiper, Eryngium Stem Borer, and Ornate Box Turtle; 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; the importance of avoiding take of the species; and response protocol if individuals are found, including the chain of response personnel. **GRWC 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 species, potential habitat and species management practices.
6. Biological consultants employed by GRWC 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, 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. Gloves shall always be worn when handling any species and properly disinfected or discarded between individuals.
7. GRWC shall notify the Department's Endangered Species Program by email correspondence of construction commencement and completion of the water line construction in Marion and Fayette Counties. 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 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.

8. 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).
9. GRWC shall conduct, or cause to be conducted, the following pre-construction, construction, or post-construction efforts:
  - a. Perform work from September to March to avoid breeding season of all affected species.
  - b. Trenches shall be backfilled the same day. In the case of unforeseen circumstances, any open trench shall be covered for the night and inspected the next morning before construction activities resume.
  - c. Equipment shall remain within the 20-foot-wide right-of-way when work is occurring within suitable species habitat.
  - d. Adaptive management -
    - i. If a Greater Prairie Chicken or Upland Sandpiper is seen within 20 feet of the construction area, work shall halt until the individual(s) have left the area of their own accord.
    - ii. If an Ornate Box Turtle is encountered during construction, work shall halt until a permitted authorized personnel has documented the individual's location.
      - A. With clean gloves, the monitor shall relocate the Ornate Box Turtle to nearby suitable habitat, in shade and away from the area of risk.
      - B. If an Ornate Box Turtle is found to be injured from the construction activity, it shall be transported to the nearest wildlife rehabilitation facility for evaluation and treatment.
    - iii. If populations of more than 50-100 rattlesnake master plants are encountered, construction activities shall avoid that area.
  - e. Post-construction, all disturbed areas shall be restored using the Illinois Department of Transportation's Class 2 Roadside Mixture 7.
10. GRWC shall conduct, or cause to be conducted, post-construction visual encounter surveys for Greater Prairie Chicken, Loggerhead Shrike, Upland Sandpiper, Eryngium Stem Borer, and Ornate Box Turtle during the species active period and in the vicinity of the water line extension in **Year 1** following construction completion.

**A report including, but not limited to, the survey methodology utilized for each species, area covered and time duration, a description and map of each habitat surveyed, the number of individuals located, the estimated life stage of each individual encountered (juvenile/adult, larva/adult) if possible, and a map of the species locations shall be provided to the Department within 90 days of survey completion.**

11. Mitigation to the maximum extent practicable is required by the Act. GRWC shall submit mitigation to the Illinois Department of Natural Resources - Illinois Wildlife Preservation



Fund in the amount of **\$8,900 within 90 days of execution of this agreement**. The mitigation will be earmarked to bring conservation benefit to the Greater Prairie Chicken, Loggerhead Shrike, Upland Sandpiper, Eryngium Stem Borer, and Ornate Box Turtle. 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 and impact analysis relevant to the project site's proposed conceptual design elements available at the time of review.

12. 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.ITAcoordinator@illinois.gov](mailto: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.

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

14. The execution of this agreement does not waive or excuse the responsibilities of GRWC 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 Gateway Regional Water Company:*

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

  
Mr. Keith Ritter  
Board Chairman

Nov. 23, 2020

Date

11-19-2020

Date