



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 Mr. Darren Smith (hereinafter referred to as Mr. Smith) for the incidental take of the State-endangered Blanding's turtle (*Emydoidea blandingii*) and the State-threatened Iowa darter (*Etheostoma exile*). The Illinois Department of Natural Resources (hereinafter referred to as Department) has determined that the taking is incidental to activities associated with dredging in the Kishwaukee River. This dredging shall occur in a 5280-linear-feet x 14.6-feet-wide (1.78 acres) area of the Kishwaukee River in the southeast part of Door Township in Section 22, from Lucas Road north to Doty Road, south of Woodstock in McHenry County, Illinois.

Procedural History

The Department received a conservation plan prepared by Mr. Smith on July 5, 2017, as a request for authorization for the incidental take of Blanding's turtle and Iowa darter. Additional information was requested by the Department on July 20, 2017 to make the conservation plan complete as prescribed by Ill. Adm. Code 1080.10. Additional information was received by the Department on August 18, 23, 29, and September 5, 2017. The final conservation plan was approved by the Department on September 11, 2017. 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 dredge one mile of the Kishwaukee River due to the need to remove silt to restore the drainage of farmland by improving the function of field tiles in McHenry County, Illinois. Mr. Smith proposes to stage the mechanical dredge equipment along the creek bank and to place only the dredging bucket in the river. The dredge equipment consists of a track hoe with a 54" bucket. The spoils will be spread less than 2" deep in designated locations as provided in the Conservation Plan and approved by the respective landowners and regulatory agencies. The spoils will be loaded into scraper pans and hauled to the designated areas by tractors where they will be

spread, allowed to dry, and chisel plowed into farm land. The dredge will not be continuous from commencement point to endpoint, but rather in segments along agricultural lands where landowner permission has been secured avoiding impacts to interspersed wetlands and a natural gas pipeline. The total estimated area of potential habitat impacted by this project is 1.78 acres.

Take of Blanding's turtle and Iowa darter could occur as a result of dispersal due to increased noise and vibration and/or indirect or direct impact from the dredging action. Blanding's turtles are further threatened by compaction or crushing due to the use of heavy machinery along the banks, as Blanding's will bury themselves in the mud to hibernate for the winter (late fall into early spring). The take of Blanding's turtle and Iowa darter that could result from this project is not the purpose of Mr. Smith'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 Mr. Smith's conservation plan.

To meet the "maximum extent practicable" standard, additional minimization and/or mitigation measures may be required beyond those proposed by Mr. Smith, based on the life history needs of the Blanding's turtle and Iowa darter.

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:

Mr. Smith farms all of the land on either side of the proposed dredge areas of the river. He will perform the work and provide the funding for the project as well as the mitigation.

It is the Department's opinion that Mr. Smith's stated commitment to funding the 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 **Blanding's turtle** is an Illinois State-endangered semi-aquatic turtle species. They can be found in water bodies such as creeks, marshes, and ponds that are

adjacent to sandy upland areas. They spend most of their time in water, though they are known to sometimes leave the water to travel between ponds and for females to lay eggs. Blanding's turtles enter a period of dormancy during the winter, during which they remain buried in the muddy bottoms of deep marshes, backwater pools, and streams.

Blanding's turtles are long-lived, not reaching sexual maturity until 14-20 years old. Mating occurs in April or early May, and nesting takes place from early June to early July. Eggs are typically laid in well-drained, sandy soil in a sunny upland area, and females may travel up to a mile over land to their nesting location. Clutch sizes vary, ranging from 10-26 eggs per nest, and females only lay one clutch of eggs per year. Since nests are typically far from water, hatchlings must travel long distances after emerging from their nest, subjecting them to increased threat of predation, road mortality, and desiccation.

The decline of Blanding's turtle populations can be largely attributed to habitat loss and degradation. With high levels of egg and juvenile mortality and low reproductive potential, Blanding's turtle populations have had difficulty recovering. There are several captive breeding programs for this species in Illinois attempting efforts to supplement the wild populations.

Blanding's turtles are most often found in northern Illinois and sporadically found throughout the central part of the state. They have been found in 19 of 102 counties. There are 89 extant Element Occurrence Records for Blanding's turtles in the Illinois Natural Heritage Database. The Department has 20 previous Incidental Take Authorizations pending or executed for Blanding's turtles. Nine authorizations have been granted for the potential take of Blanding's turtles in McHenry County. Previous projects included residential or commercial developments, highway and bridge construction, wind energy facilities, the construction of an athletic field, and the construction and maintenance of electrical lines. Minimization efforts include, but are not limited to, installation of exclusionary fencing, keeping equipment and debris out of the water, and conducting activities during the inactive season (November-March). Mitigation actions required in previous authorizations included habitat restoration and management, the construction of artificial nesting berms, the placement of critical habitat into conservation easements, and monetary support of future Blanding's turtle research and habitat restoration.

The **Iowa darter** is a State-threatened fish species in northern Illinois. It is a small fish, about 3 inches long. It is found in clear, sluggish water with vegetation present. The species is found in creeks, rivers, glacial lakes, ponds, and marshes. They prefer substrates of sand and organic debris. Iowa darter spend most of their time in deep lake waters and pools, but will move to shallow water to spawn. They are a diurnal species and often found around vegetation. Iowa darters are known to feed on planktonic organisms when they are juveniles and immature aquatic insects when they are adults.

Iowa darter spawn between April and July. Females mate with several males throughout the breeding season. The average clutch size is 250 eggs which hatch in 18-26 days. Females will lay eggs in shallow water and eggs are laid on submerged roots, debris, or gravel. Juvenile Iowa darter reach sexual maturity at one year. They typically live for three years.

Iowa darter populations have declined due to habitat degradation, declining water quality, and draining of wetlands. They are intolerant of pollution, especially if the pollution harms aquatic vegetation which are necessary for them to survive. In Illinois, Iowa darters have been found in glacial lakes, quarries, and rivers in northern Illinois. Iowa darters have been found in 9 of 102 Illinois counties, including Boone, Cook, DuPage, Kane, Kendall, Lake, McHenry, Will, and Winnebago. There have been 3 previously issued or pending incidental take authorizations for the Iowa darter in the State of Illinois. This is the third authorization for potential take of Iowa darter to be issued in McHenry County. Previous projects include vegetation management in a lake and bridge construction. Minimization efforts include, but are not limited to, reducing the project area, avoiding shallow areas preferred by the species, and avoiding the spawning season (April-July). Mitigation actions required in previous authorizations included habitat restoration and management and monetary support of Iowa darter research.

Based on the amount 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 Blanding's turtle or Iowa darter 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 Mr. Smith 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 Mr. Smith's request for authorization of incidental take was published in the *Breeze Courier* (official state newspaper) on September 14, 2017, and in the *Northwest Herald* on September 14, 21, and 28, 2017. A copy of the

conservation plan was deposited at the Woodstock Public Library, where it was available for public review. The deadline for public comment was October 28, 2017. No comments were received from the public.

Authorization

It is the determination of the Department that the measures that will be implemented by Mr. Smith will adequately minimize and mitigate the anticipated taking of Blanding's turtle and Iowa darter incidental to activities associated with dredging on the Kishwaukee River in McHenry County, Illinois. Further, the Department has concluded that the take authorized herein will not reduce the likelihood of survival or recovery of the Blanding's turtle and Iowa darter 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 Mr. Smith 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 Mr. Smith 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 Mr. Smith has failed to comply with any of these terms and conditions or has been responsible for the taking of the Blanding's turtle or Iowa darter beyond that which is incidental to activities associated with the dredging on the Kishwaukee River in McHenry County, Illinois.

2. The effective period of this authorization may be altered by mutual written agreement between Mr. Smith 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. The Department reserves the right of entry by its staff or representatives to inspect species, potential habitat, and species management practices. Permission to access and conduct species surveys within the permit action area is granted to the Department and the McHenry County Conservation District for the duration of this authorization.
5. Biological consultants employed by Mr. Smith 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.
6. Mr. Smith shall notify the Department's Endangered Species Program by email correspondence of construction commencement and completion of the dredge on the Kishwaukee River. 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.
7. All on-site personnel shall be educated on the sensitive biological resources in the area, the identification of 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. **Mr. Smith shall submit a copy of the education materials to the Department.**
8. Any discoveries of additional State-listed species beyond those identified in this agreement shall be reported to the Department within 48 hours accompanied by location information (photograph, map, and GPS coordinates).
9. Mr. Smith shall conduct, or cause to be conducted, the following pre-construction or construction efforts:
 - a. All equipment shall be kept on the creek bank. Only the dredge bucket shall be placed in the water.
 - b. Dredging shall not start until November.
 - c. Impact to wetlands shall be avoided.
 - d. All dredging shall be completed by the end of March. Species research in northern Illinois has documented individuals emerging in April dependent upon soil and air temperatures.
 - e. If a Blanding's turtle is found in the construction area, work shall halt in the area and continue elsewhere in the project footprint. **Notification to the Department and the McHenry County Conservation District shall occur immediately to determine whether relocation of the individual is warranted.**

- f. No stock piling of spoils shall occur. They shall be spread evenly ($\leq 2''$). Spoils shall be tilled into soil when conditions allow.
10. Mr. Smith shall conduct, or cause to be conducted, a thorough survey of Blanding's turtle **during Year 2** following construction completion and during suitable sampling conditions. **A report including, but not limited to, the survey methodology utilized, the number of target individuals located, the estimated age and size of each individual sampled, a map of the species locations, and other species encountered shall be provided to the Department within 90 days of survey completion.**
11. Mr. Smith shall conduct, or cause to be conducted, a thorough survey of Iowa darter **during Year 2** following construction completion and during suitable sampling conditions. **A report including, but not limited to, the survey methodology utilized, the number of target individuals located, the estimated age or size of each individual sampled, an indication as to whether recruitment is evident, a map of the species locations, and other species encountered shall be provided to the Department within 90 days of survey completion.**
12. The salvage of non-listed aquatic life is hereby authorized by the Department with signature of this agreement per the Illinois Fish and Aquatic Life Code (515 ILCS 5/1-150).
13. Mitigation to the maximum extent practicable is required by the Act. Mitigation requirements for this authorization are as follows:
- Mr. Smith shall plant ≥ 7.5 acres of Field Border which meets Natural Resource Conservation Service (NRCS) Illinois Conservation Practice Standard 386, no less than 30-foot-wide on each side of the creek in areas that have been dredged. The Field Border shall be permanently designated plantings to treat runoff and improve water quality conditions in the Kishwaukee River and shall not be part of the adjacent cropland's rotation. The borders shall contain a native pollinator mix of Pure Live Seed grass and forb species adapted to the soil, climate, and farm chemicals used in the adjacent cropland. The Pheasants Forever IL Mix #03 – Wet Pollinator Seed Mix or equivalent mix is recommended. Undesirable weed species shall be controlled especially State-designated noxious weeds. Mr. Smith shall fully implement the Field Border project, which is valued at an estimated **\$6,375.**
 - An email confirming the completion of this mitigation project, including a copy of proof of purchase of seed, seed application rate, and species list, shall be provided to the Department **within 90 days after installation.**
 - Mr. Smith shall provide an informational letter to each of the landowners describing the permanently designated Field Border plantings, the mitigation obligation related to the take authorization, and the water quality benefits to the species. A copy of the letter shall be provided to the Department with the email confirmation described under (b.) above.

- d. An assessment of the performance of the Field Borders along the Kishwaukee River, shall be conducted by the local NRCS or other qualified agency during Year 3 following Field Border installation and shall be arranged by the applicant. **An email report compiled by NRCS or other qualified agency including, but not limited to, the duration and extent of the observation and the performance criteria utilized including an assessment of effectiveness of the Field Borders shall be provided by the applicant to the Department within 90 days of survey completion.**

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

14. 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

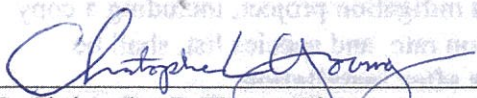
The Department's Endangered Species Program shall provide all reports required under this agreement to the Illinois Endangered Species Protection Board and to the Department's Natural Heritage Database.

15. Mr. Smith is authorized to execute this agreement. Execution by Mr. Smith indicates acceptance of all terms and conditions described in this authorization.

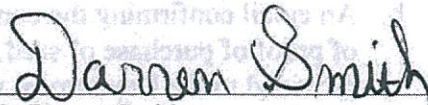
16. The execution of this agreement does not waive or excuse the responsibilities of Mr. Smith to comply with other Federal, State, or local regulations, including but not limited to obtaining any required permits for the execution of this project.

For the Illinois Department of Natural Resources:

As Project Applicant:



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



Mr. Darren Smith

Date Signed

12/7/17

Date Signed

12-5-17