ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Illinois Department of
Natural Resources

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

Pat Quinn, Governor
Marc Miller, 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 Allen Township Highway Department (hereinafter referred to as Allen Township) for the incidental take of the slippershell mussel (*Alasmidonta viridis*). The Illinois Department of Natural Resources (hereinafter referred to as Department) has determined that the taking is incidental to activities associated with improvements to the approach grades to the railroad crossing of East 30th Road (also known as LaSalle Road) in Allen Township with the Norfolk Southern Railroad.

Procedural History

The Department's consultation staff recommended that Allen Township prepare a conservation plan based on their consultant locating the State-threatened slippershell mussel during fish and macroinvertebrate surveys. The conservation plan was submitted by Lewis Yockey and Brown, Inc. on behalf of Allen Township on December 3, 2013. A revised conservation plan addressing discrepancies identified by the Department was received on January 9, 2014. The proposed public notice was received on February 13, 2014. The public notice period will be detailed under #6 of the Compliance section below.

Compliance with the Illinois Endangered Species Protection Act

The Act includes six criteria that must be satisfied for the authorization of incidental take of an endangered or threatened species. These criteria and the Department's determination for each are listed below.

1. The taking will not be the purpose of, but will only be incidental to, the carrying out of an otherwise lawful activity:

   The stated and apparent purpose of this proposed action is the improvement of approach grades to the railroad crossing of East 30th Road in Allen Township, LaSalle County, with the Norfolk Southern Railroad. Included in these improvements is the relocation of 1,016 feet of the channel of an unnamed intermittent tributary to Waupecan Creek. Take of the slippershell mussel could result from the filling of the existing channel of this unnamed tributary. The take of the slippershell mussel that could result from this project is not the purpose of Allen Township'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:

   The length of channel to be relocated has been limited to that necessary for the safety improvements to the roadway. The channel to be relocated measures 1,016 feet in length with **6,440 square feet of area (0.15 acre)** below the measured water surface. Project plans include the excavation of the substrate in the existing channel to a depth of 12 inches and placement of that material in a newly-excavated channel to assure that habitat similar to that in the existing channel is present in the new channel. Transfer of substrate materials will be limited to times during which water temperatures are above 40 degrees Fahrenheit in order to facilitate the establishment of mussels in the new channel.

   Allen Township will maintain a vegetated buffer along the newly-excavated channel in accordance with the LaSalle County Flood Damage Prevention Ordinance and floodplain restrictions contained in the Grundy County zoning ordinance. Allen Township will work with the LaSalle County Soil and Water Conservation District to make upstream landowners aware of the presence of rare species in this waterway and provide information about ways to protect the stream from contamination or other damage. An annual inspection of the channel will be performed and trash, debris and excessive accumulations of silt will be removed by Allen Township.

   Additional measures, based on the life history needs of the slippershell mussel, may be required under the Authorities section below.

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

   Allen Township is a public entity with taxing authority. Costs for maintenance of the new channel are expected to be very similar to the costs of maintaining the existing channel and are part of the ongoing maintenance budget of Allen Township.

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:

   The slippershell mussel is listed as a threatened species in Illinois because of its limited range in the State and threats to its habitat from siltation and contamination of streams. Historically, it has been found most often in small streams and the headwaters of rivers in northeast and east-central Illinois. It is a small mussel, seldom exceeding two inches in length.

   A fish and macroinvertebrate survey conducted by the Illinois Natural History Survey of a portion of the stream channel to be relocated for this project found one slippershell mussel in a survey area of approximately 300 square feet. If it is assumed

that slippershell mussels are present throughout the project area at a uniform density, the total population in the project area would be 21 individuals. Flow in the stream reach that will be affected by this project is intermittent, with no flow and drying of the stream bed during years of drought. This suggests that the population of slippershell mussels in this unnamed tributary to Waupecan Creek is ephemeral; with most if not all mussels eliminated in dry years.

It is likely that only a small number of slippershell mussels are present in the stream segment that will be affected by this project. The ephemeral nature of the stream makes it less-than-optimal habitat for the slippershell mussel or any other species of freshwater mussels. Waupecan Creek, to which this unnamed stream is a tributary, has not been surveyed in recent years, but is one likely source of the slippershell mussels that occur in the unnamed stream. Slippershell mussels could also be introduced to this unnamed stream as glochidia (the larval life-stage of the species) carried from other Illinois River tributaries by their host fishes. One Johnny darter (*Etheostoma nigrum*), known to serve as a host species to slippershell glochidia, was located at the project location.

The Illinois Natural Heritage Database includes 82 element occurrence records for the slippershell mussel. Grundy County contains one element occurrence record ranging from 2-5 individuals found. LaSalle County contains four element occurrence records ranging from 1-75 individuals found. Slippershells are found in 23 of 102 Illinois counties. According to the Department's data, slippershells are inhabiting silt, sand, gravel, and cobble substrates with some notations of abundant vegetation and algae. Statewide, the Department has issued 13 previous Incidental Take Authorizations (ITA) for slippershells, one of those was on the Grundy County and Kendall County line in 2013. Ten of the 13 ITAs issued were for small footprint Illinois Department of Transportation bridge projects.

Based on the life history needs of the species, the nature of the habitat provided by the stream segment to be directly affected by this project, the number of known occurrences of the slippershell mussel in Illinois, an assessment of the potential effect of this project on individual mussels in the project footprint, and the conservation measures included in this authorization for incidental take, the Department has concluded that the taking proposed herein will not reduce the likelihood of survival or recovery of the slippershell mussel 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.

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 Allen Township indicates the Township's 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 Allen Township's request for authorization of incidental take was published in the Breeze-Courier (official state newspaper) on February 25, March 4, and March 11, 2014, and in the Morris Daily Herald on February 25, 2014. The deadline for public comment was April 10, 2014. No comments were received from the public.

Authorization

It is the determination of the Department that the measures that will be implemented by Allen Township will adequately minimize and mitigate the anticipated taking of slippershell mussels incidental to the realignment of a portion of an unnamed tributary to Waupecan Creek in LaSalle County, Illinois. Further, the Department has concluded that the take authorized herein will not reduce the likelihood of survival or recovery of the slippershell mussel 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 Allen Township 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 avoidance, minimization, and mitigation measures proposed by the applicant under #2 in the Compliance section above:

1. This authorization is effective upon the signature of the Department and shall remain in effect for a period of eight (8) 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 Allen Township has failed to comply with any of these terms and conditions or has been responsible for the taking of slippershell mussels beyond that which is incidental to the realignment of a portion of an unnamed tributary to Waupecan Creek in LaSalle County, Illinois.

2. The effective period of this authorization may be altered by mutual written agreement between Allen Township 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 impacted, will require that a new conservation plan be submitted to the Department to initiate the review and public notice process as required by the Act.

3. This authorization is non-transferable.

4. Allen Township shall notify the Department upon commencement of the project.

5. Allen Township shall conduct, or cause to be conducted, a thorough search for freshwater mussels in the entire reach of stream that will be filled during this project. This search shall be conducted no more than 60 days prior to project initiation. All freshwater mussels found shall be identified to species and enumerated. Those conducting the search must be qualified at accurate identification of freshwater mussels and hold a current IDNR Endangered and Threatened Species Permit. All freshwater mussels found during this search shall be relocated to qualitatively similar habitat in Waupecan Creek. A report including, but not limited to the species and numbers of mussels relocated and maps of the area searched and the relocation site shall be provided to the Department within 60 days of completion of the relocation effort.

   Documentation, including maps, shall be submitted to:

   Jenny Skufca, Endangered Species Project Manager
   Illinois Department of Natural Resources
   One Natural Resources Way
   Springfield, IL 62702
   (217)557-8243
   jenny.skufca@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 Illinois Natural Heritage Database.

6. Based on Allen Township's estimate of impacted potential slippershell habitat, 0.525 acre of mussel habitat shall be created, restored, or acquired as described below.

   The Department agrees to a 3.5:1 ratio for determining mitigation of suitable habitat impacted in the Allen Township project due to the ephemeral hydrologic conditions in the roadside ditch and limited project area of habitat suitability [6,440 square feet (0.15 acre) x 3.5 = 0.525 acre].

   Allen Township agrees to restore both sides of a 6,640-foot length of the unnamed tributary from its confluence with Waupecan Creek and along East 30th Road as shown on the map attached to this agreement. The width of the areas to be improved will be from the normal water level to the top of the bank. This width varies but will

be a minimum of 5' on each side of the creek for an area of 1.52 acres(6640' x 10' /43560). The restored area will exceed the habitat mitigation requirement of 0.525 acre. Additionally, rip rap or concrete block dams shall be constructed to provide low flow reservoirs, decrease stream channel erosion by slowing velocity, and increase dissolved oxygen content.

All proposed stream mitigation habitat shall include a buffer planted in native Illinois vegetation. A species list of native vegetation to be planted shall be provided to the Department. Non-native, invasive species control shall occur within habitat areas for the duration of the authorization.

7. All personnel working in the vicinity of the project shall receive educational materials including identification information, protected status of the species, and protocol in place for when the species is encountered, living or dead. A copy of the educational flyer shall be provided to the Department. The Department shall be informed of any sighting of any State-listed species and provided location information within 48 hours of such sighting.

8. Allen Township shall conduct, or cause to be conducted, a fish survey in the relocated portion of the affected stream in **year three** following completion of the improvements to the approach grades to the railroad crossing of East 30th Road in Allen Township with the Norfolk Southern Railroad. For example, if the improvement project is completed in 2014, this survey shall be conducted in 2017 when water levels and temperatures allow. A report including, but not limited to the species and numbers of fish found and a map of species locations shall be provided to the Department within 60 days of completion of the search. The newly created habitat may not yet harbor mussel species, but evidence that a diverse fishery has returned would support that habitat is again present.

9. The Department reserves the right of entry to inspect potential habitat and species management practices with 24-hour notice to Allen Township.

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

11. The execution of this agreement does not waive or excuse the responsibilities of Allen Township 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

Dr. James Herkert, Director
Office of Resource Conservation

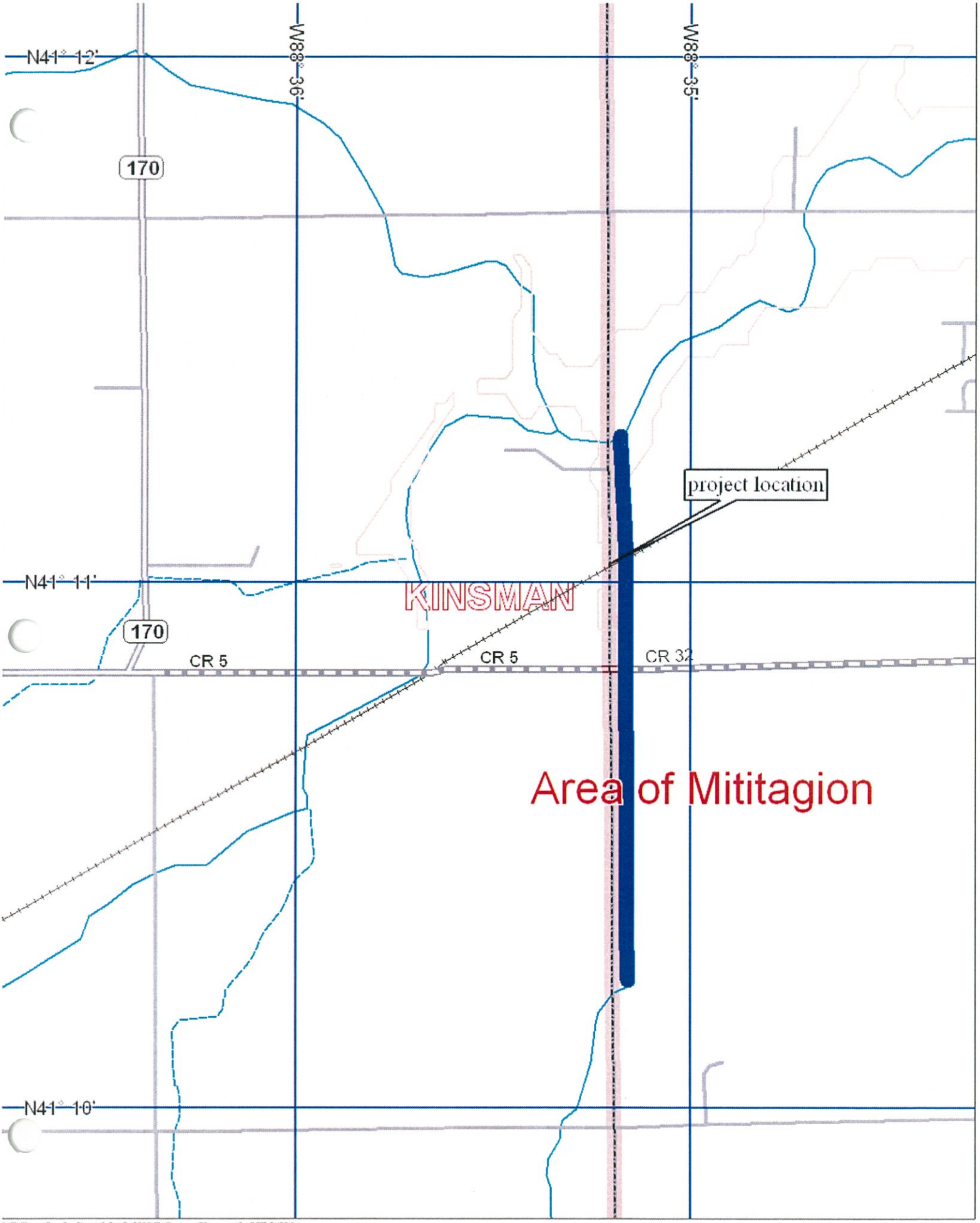
8-13-14
Date Signed

For Allen Township

Bill Bergeson, Roadway Commissioner

Road Commissioner
Please print name and official title

8-3-14
Date Signed



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096

500 ft Scale: 1 : 17,600 Detail: 12-5 Datum: WGS84