Illinois
Department of
Natural Resources
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Rod R. Blagojevich, Governor

November 13, 2007

Ms. Susan Dees
Illinois Department of Transportation
Bureau of Design and Environment
2300 South Dirksen Parkway
Springfield, Illinois 62764

RE: *Incidental Take Authorization - Conservation Plan Review*
IL 173 (FAP 303) - Chemung Street, McHenry County, Illinois
IDOT Job No. P-91-414-06

Dear Sue:

Pursuant to the Illinois Endangered Species Protection Act (520 ILCS 10/5.5) the Illinois Department of Transportation's (IDOT) authorization for the incidental take of the State threatened slippershell mussel (*Alasmidonta viridis*) and State threatened Blanding's turtle (*Emydoidea blandingii*) in McHenry County, Illinois (as described/shown in the conservation plan received by the Department on 3 April 2007) is hereby granted, subject to the terms and conditions described in the attached Authorization and Implementing Agreement. The Illinois Department of Natural Resources has determined that this authorized take is incidental to the removal and replacement of two (2) bridges of Illinois 173 (Chemung Street) over Piscasaw Creek and the Overflow, Piscasaw Creek crossing (FAP 303), in McHenry County, Illinois.

Please have an authorized IDOT Official(s) sign the last page of both copies of the Authorization and Implementing Agreement and return **both** copies to my the attention. Upon receipt, I will have the agreements signed and return one (1) fully executed copy to you for your official records. This authorization shall be effective once signed by the Department.

Thank you for your cooperation and assistance during the incidental take preparation and review process. Please do not hesitate to contact our office at (217)782-6384 with any questions or comments you may have regarding this authorization agreement.

Sincerely,

Joseph A. Kath
Terrestrial Endangered Species Project Manager
IDNR-Office of Resource Conservation

Enclosures

Authorization for Incidental Take and Implementing Agreement

Pursuant to the Illinois Endangered Species Protection Act (520 ILCS 10/5.5) the Illinois Department of Transportation's (IDOT) authorization for the incidental take of the State threatened slippershell mussel (*Alasmidonta viridis*) and State threatened Blanding's turtle (*Emydoidea blandingii*) in McHenry County, Illinois (as described/shown in the conservation plan received by the Department on 3 April 2007) is hereby granted, subject to the terms and conditions described in the attached Authorization and Implementing Agreement. The Illinois Department of Natural Resources has determined that this authorized take is incidental to the removal and replacement of two (2) bridges of Illinois 173 (Chemung Street) over Piscasaw Creek and the Overflow, Piscasaw Creek crossing (FAP 303), in McHenry County, Illinois.

Procedural History

IDOT and its consultant, CTE - Chicago, IL. (in conjunction with the Illinois Natural History Survey and the McHenry County Conservation District), prepared a conservation plan as described by the Illinois Endangered Species Protection Act (520 ILCS 10/5.5). That plan and IDOT's request for authorization for incidental take of slippershell mussels and Blanding's turtles were received by the Illinois Department of Natural Resources (Department) on 3 April 2007. Public notice of IDOT's request for authorization of incidental take of slippershell mussels and Blanding's turtles was published in the Edwardsville Intelligencer (Official State newspaper) and the Northwest Herald (Chicago Collar Counties) on May 31, 2007, as well as on June 7, 2007 and June 14, 2007. Public comments on IDOT's conservation plan were accepted by the Department until July 14, 2007. No comments were received by the public during the period of May 31, 2007 through July 14, 2007.

I. Slippershell Mussel

Compliance with the Endangered Species Protection Act

The Illinois Endangered Species Protection Act includes six (6) criteria which must be met for the authorization of incidental take of an endangered or threatened species. These criteria and the Department's determination for each criteria 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 project is for the reconstruction of the Piscasaw Creek Bridge (Old Structure No. 056-0028 / New Structure No. 056-0090) located in McHenry County, approximately 2.0 miles east of the Boone County Line, just outside of the corporate limits of the Village of Chemung. The bridge is located on Illinois Route 173 in the southeast quarter of Section 32 of T46N, R5E at latitude 42ÿ-24'-56" N, longitude 88ÿ-40'-30" W.

Overall, the project is for the removal and replacement of the existing structure over Piscasaw Creek. The bridge was constructed in 1929 at a width of 24 feet. In 1971 the bridge was widened to 42 feet. It has since deteriorated to the point where complete replacement is necessary. The existing bridge is a six span bridge containing five piers in the stream. The existing bridge is approximately 160 feet in length and 42 feet in width.

The new structure will be on the existing alignment and will be a three span bridge containing two piers. The new structure will be approximately 180 feet in length and 42.5 feet in width. The profile of the new bridge will be raised 2.5 feet and will provide a larger waterway opening, which will reduce the collection of debris and reduce scour. Riprap will be added to the embankment of Piscasaw Creek under the bridge. The bridge will be constructed in stages and temporary easements will be required from adjacent properties. Erosion and sediment control technologies will be used during construction. Construction is expected to last 1.5 years and is planned to begin in the summer of 2007.

In-stream work will be required for the removal of the five piers and construction of the two new piers. The five piers will not be completely removed but will instead be sawed off at the creek bottom, leaving the below grade portions of the piers in place. This will reduce the amount of subsurface disturbance and minimize impacts to water quality. The construction of the new piers will take place within floating cofferdams. It is anticipated that a temporary haul road will not be required for construction since floating cofferdams will be used to install the bridge piers.

At the same time that the Piscasaw Creek bridge is being replaced, the Piscasaw Creek Overflow Structure will also be replaced. The Overflow Structure is located approximately 875 feet west of the Piscasaw Creek, within the floodplain of that waterway. There is no suitable habitat for slippershell mussels in the vicinity of the Overflow Structure. This permit application is therefore for the Piscasaw Creek bridge only.

Piscasaw Creek from Little Beaver Creek to the Wisconsin state line is listed on the National Rivers Inventory. Its Outstanding Remarkable Values (ORVs) are its fish diversity and one of the region's few remaining undeveloped, fully functioning high order streams. As a fully functional high order stream, Piscasaw Creek and its adjacent areas have been designated as a High Functional Value Wetland by the McHenry County Illinois Advanced Identification Study (ADID). The stream has been designated as an Illinois Natural Area.

The property located within the road and bridge right-of-way is owned by the Illinois Department of Transportation (IDOT). The adjacent property is within Beck's Woods and is owned by the McHenry County Conservation District (MCCD). Overall, in the course of these construction activities, IDOT, acting through subconsultants [MCCD/INHS-Illinois Natural History Survey staff] will relocate <u>all</u> observed mussels (listed or non-listed species) disturbed by construction, hence a technical "taking" of these species. Such taking is not the purpose of the activities proposed by IDOT, but is incidental to the carrying out of a lawful activity.

The anticipated adverse effects include:
1) Slippershell mussels may be crushed or entombed by equipment or piers.
2) Permanent loss of habitat associated with bridge pier bases.
3) Short term water quality impacts due to erosion and sedimentation during construction work.
4) Potential degradation of habitat associated with runoff and salt spray from the bridge deck.

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

The conservation plan prepared by IDOT, in conjunction with CTE staff, INHS, and McHenry County Conservation District/MCCD personnel, and received by the Department on 3 April 2007 stated that freshwater mussel surveys, and subsequent relocations, would be conducted prior to initiation of bridge construction/repair and most likely during the spring/summer while water temperatures are at or above 50 degrees Fahrenheit. All mussels observed (listed or non-listed species) are to be relocated in order to minimize impacts. Mussel surveys will be conducted using standard survey techniques including searching by feel to methodically cover the area to be disturbed by the project (viewing boxes, wading in shallow water, SCUBA in deeper water-if applicable, although not likely with this project). All mussels found will be identified to species. Mussels will be relocated into areas of suitable habitat, in the same stream/river, preferably upstream of the construction site. Specifically, the transplant site will be close to the collection area and have similar to better water quality and substrate. MCCD staff have experience with Midwestern mussels. MCCD/IDOT staff will provide the Department with a report detailing the results of all mussel surveys and relocation efforts within 60 days of completing all surveys/relocations. In summary, mussel surveys and related relocations will occur only after Department authorization and prior to any construction activities.

The property and habitats of the area in question are under public ownership. The surrounding property is located within Beck's Woods, which is owned and managed by MCCD. The public ownership of this property protects the area against any potential secondary impacts due to urban development.

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

In an official correspondence to the Department dated 3 April 2007, IDOT verified that adequate funding exists to support and implement all (mitigation) activities described in the official Conservation Plan (for Slippershell mussel and Blanding's turtle). This correspondence states that the FAP 303 project is authorized by the Illinois Department of Transportation, which receives its funding from the Illinois General Assembly and the Federal Government in carrying out its programs. IDOT has committed to budget and authorize adequate funding to provide for project construction activities and implementation of all mitigation activities (via MCCD/INHS staff) required and described in the official conservation plan.

4. Based on the best available scientific data, the Department has determined that the taking will not reduce the likelihood of the survival or recovery of the endangered species or threatened species in the wild in Illinois, the biotic community of which the species is a part, or the habitat essential to the species' existence in Illinois:

Slippershell mussels have historically been found in Piscasaw Creek. A relic shell was found in 1991 one-half mile north of Chemung at Maxon Road; both a dead individual (1995) and a live individual (1996) were found three miles southwest of Chemung at Streit Road. In 1995, Mr. Ed Collins of the MCCD sampled the creek at Illinois Route 173. Mr. Collins found a single live individual slippershell mussel at the bridge. A slippershell was found in Piscasaw Creek May 6, 1997 by Brad Woodson (personal communication, Susan Dees of IDOT). Habitat for the slippershell is sand, mud, or fine gravel (Cummings & Mayer, 1992), which is exactly the type of substrate present at the Illinois Route 173 bridge.

Sampling for mussels in the immediate vicinity of the Piscasaw Creek bridge was conducted on September 19, 2006 by the Illinois Natural History Survey (INHS). INHS personnel examined a reach of the Creek approximately 150 meters upstream to approximately 150 meters downstream of the bridge. The stream averaged five meters in width, with depths ranging from 0.1 to one meter. The substrate was predominantly sand and gravel with small areas of cobble; the water was exceptionally clear. Both banks were lined with trees and the surrounding land was forested. Freshwater mussels were searched for by hand through the area. The survey for mussels yielded seven species, including a relict shell of the slippershell. None of the other species collected are listed as threatened or endangered. Given the condition of the slippershell shell and the occurrence of this species at nearby sites, it is assumed that the species is still extant at the Piscasaw Creek bridge. Although no live slippershell was found during the survey, it was found at this location in 1995 and the habitat for this species is present at the site.

Reconstruction of the Piscasaw Creek Bridge (Old Structure No. 056-0028 / New Structure No. 056-0090) located in McHenry County will not reduce the likelihood of the survival of state-listed threatened or endangered mussels in Illinois. For the purposes of biological comparison, it should be noted that the freshwater mussel fauna of the Fox River and its tributaries in Illinois and Wisconsin were surveyed by Department staff during the summers of 1997-2001. A total of 3,585 live individuals comprised of 23 species were collected from 96 sampling stations. Of this total, 31 slippershell mussels (*Alasmidonta viridis*) were collected.

In North America, the slippershell mussel (*Alasmidonta viridis*) is known from the upper Mississippi, Ohio, Cumberland, and Tennessee river drainages and lower and middle sections of the St. Lawrence. In Illinois, it is known from the Sangamon, Kankakee, Vermilion, and Little Vermilion river systems. This mussel inhabits small to medium sized streams where it is usually found buried in sandy substrates in shallow water. Unfortunately, the slippershell now has a restricted distribution in Illinois, and its numbers have been reduced most likely as a result of increased siltation and channelization in small to medium sized streams throughout the state. Any live animals that are overlooked during the relocation effort could be at risk of injury or death as a result of construction activities. The relocation of <u>all</u> mussels encountered will make it unlikely that

a significant number of individuals will be exposed to threats related to the reconstruction of the Piscasaw Creek Bridge (Old Structure No. 056-0028 / New Structure No. 056-0090) located in McHenry County, Illinois.

As stated in the April 1996 Technical Report (working draft) titled - "Measures to minimize harm to *Lampsilis higginsi* [federally endangered Higgins Eye mussel] caused by passage of commercial navigation vessels in the upper Mississippi River" [prepared by the U.S. Army Corps of Engineers-Waterways Experiment Station]: Relocation is one of several methods that can be used to protect freshwater mussels. Relocation can be used to recolonize areas where previous populations were extirpated, to remove mussels from proposed construction sites, to boost numbers of endangered species, or to protect against high densities of the zebra mussel *(Dreissena polymorpha).* The survival of relocated mussels is closely linked to habitat quality.

Relocation sites should have the same conditions of substratum type and stability, and water velocity as the original habitat. Research from the federally endangered Higgins Eye mussel *(Lampsilis higginsi)* recovery team, under the guidance of the United States Fish and Wildlife Service, has determined that minimal mortality (<12%) and high recovery rate (>88%) were shown when aerial exposure of mussels was less than four (4) hours and when relocations were conducted in spring or autumn when air (12-18 C) and water temperature (15-23 C) were moderate.

As per standard IDOT construction guidelines, construction personnel associated with the FAP 303 project will implement sediment control and construction management measures to minimize the extent and duration of project related disturbance to Piscasaw Creek and any potential for direct/indirect impacts on mussels and/or mussel habitat. These measures may include the use of coffer dams, silt fencing, or other sediment control measures to limit downstream sedimentation during construction.

Overall, this project will have minimal impact on the surrounding ecosystem. The piers will result in the removal of 0.266 acre of habitat; this small amount is not expected to cause an effect because sufficient habitat is located adjacent to the bridge. Additionally, all mussels will be relocated prior to the beginning of any construction work. It is therefore anticipated that no take will occur. No haul road or temporary fill adjacent to the bridge will be required because the construction will occur within floating cofferdams. Temporary, short term water quality impacts will be minimized through the use of cofferdams and super silt fencing. No new long term ecosystem impacts will result because it is the replacement of an existing bridge and existing conditions will be maintained.

5. Any measures required under Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.40(b)], will be performed:

Additional measures are listed below under "Authorization(s)" [Slippershell and Blanding's turtle]. This authorization is, by definition, subject to those terms and conditions and official IDOT signature(s) on this authorization 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:

IDOT and its consultant, CTE - Chicago, IL., (in conjunction with the Illinois Natural History Survey and the McHenry County Conservation District) prepared a conservation plan as described by the Illinois Endangered Species Protection Act (520 ILCS 10/5.5). That plan and IDOT's request for authorization for incidental take of slippershell mussels and Blanding's turtles were received by the Illinois Department of Natural Resources (Department) on 3 April 2007. Public notice of IDOT's request for authorization of incidental take of slippershell mussels and Blanding's turtles was published in the Edwardsville Intelligencer (Official State newspaper) and the Northwest Herald (Chicago Collar Counties) on May 31, 2007, as well as on June 7, 2007 and June 14, 2007. Public comments on IDOT's conservation plan were accepted by the Department until July 14, 2007. No comments were received by the public during the period of May 31, 2007 through July 14, 2007.

Authorization

It is the determination of the Department that the measures to be implemented by IDOT, MCCD, and the INHS will adequately minimize and mitigate for the anticipated taking (relocation) of a small number of slippershell mussels due to the reconstruction of the Piscasaw Creek Bridge (Old Structure No. 056-0028 /New Structure No. 056-0090) located in McHenry County, Illinois. Further, it is our opinion that the take (relocation) authorized herein would not diminish the likelihood of the survival 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.

Pursuant to Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.40(b)], this authorization is issued subject to the following additional terms and conditions:

1. This authorization is effective upon signature of the Department and shall remain in effect for a period of six (6) years after IDOT approval of the project punch list (otherwise referred to as the "project completion date") for the proposed bridge repair/replacement, unless terminated pursuant to Section 5.5. of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.80].

2. Prior to demolition/repair of the existing bridge and construction/repair of the new FAP 303 Piscasaw Creek bridge, IDOT/MCCD shall conduct, or cause to be conducted, a thorough survey of the reach of the creek that will be directly affected by construction activities and shall relocate any and all (listed and/or non-listed species) freshwater mussels found within the area that will be directly affected by the bridge replacement to suitable habitat preferably upstream of the project site. Handling of mussels shall be in compliance with any and all conditions and/or protocols included in the state and/or federal authorizations for this work. Relocated mussels shall be identified to species and enumerated. A report on the species and numbers of mussels relocated and the location(s) at which they were released shall be provided to the Department within 60 days of completion of the relocation.

3. IDOT/MCCD shall conduct, or cause to be conducted, a thorough survey of both the construction area (within existing right-of-way) and the mussel relocation site(s) for freshwater mussels in the second (2nd) and fifth (5th) year following completion of bridge construction. "Completion" shall be defined as the date the bridge is officially open for public use. For example, if the FAP 303 bridge is completed in 2008, these surveys shall be conducted in 2010 and 2013. Freshwater mussels located within the construction right-of-way and relocation site(s) shall be identified to species and enumerated and the length of each mussel shall be measured to the nearest millimeter. Handling of mussels shall be in compliance with any and all conditions and/or protocols included in the state and/or federal authorizations for this work. A report on the species, numbers, and sizes of mussels found shall be provided to the Department within 60 days of the completion of each survey. Each report shall also include a qualitative evaluation of the habitat for freshwater mussels being provided by the construction right-of-way area and the relocation site(s) and the manner in which that habitat has changed since the previous survey.

4. All mussels encountered within the State of Illinois during this project shall be subject to the general U.S. Fish and Wildlife Service handling protocol for determining presence/absence of species as found in "Section H" of the attached Federal Fish and Wildlife document.

5. Wetland mitigation and conservation measures shall be implemented by the MCCD. MCCD will conduct wetland restoration within the Piscasaw Creek watershed. Note that the proposed site is former agricultural land allowed to go fallow, contains former hydric soils and is located along the Piscasaw Creek. The proposed restoration of wetlands along the Creek should provide a benefit to the threatened mussel species in the stream and the existing trout fishery through silt reduction. MCCD is committed to restoring a larger portion of the site than necessary for IDOT mitigation purposes (12 acres total) through the use of its own in-house resources and funds. The project will therefore have a much larger impact from a wetland and water quality perspective than that required by U.S. Army Corps of Engineers permitting.

6. During construction, the piers shall be installed using floating cofferdams. The use of cofferdams will minimize any sedimentation that enters the water, thereby reducing water quality impacts and potential impacts to mussels. Additionally, super silt fencing shall be used adjacent to the road work. Super silt fencing consists of chain link fencing with silt fencing attached; the chain link fencing adds stability to the silt fencing. This use of super silt fencing will also reduce the amount of siltation that enters Piscasaw Creek.

7. IDOT's Erosion and Sediment Control, Landscape Design Criteria Manual shall be used for this project. This Manual utilizes the latest techniques in sediment and erosion control design and implementation.

II. Blanding's turtle

Compliance with the Endangered Species Protection Act

The Illinois Endangered Species Protection Act includes six (6) criteria which must be met for the authorization of incidental take of an endangered or threatened species. These criteria and the Department's determination for each criteria 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 project is for the reconstruction of the Piscasaw Creek Bridge (Old Structure No. 056-0028 / New Structure No. 056-0090) located in McHenry County, approximately 2.0 miles east of the Boone County Line, just outside of the corporate limits of the Village of Chemung. The bridge is located on Illinois Route 173 in the southeast quarter of Section 32 of T46N, R5E at latitude 42ÿ-24'-56" N, longitude 88ÿ-40'-30" W.

The potential for take (of Blanding's turtles) would come from activities associated with the construction of a new overflow structure over the Piscasaw Creek floodplain. These activities consist of the removal of two bridge piers, the placement of one bridge pier, the temporary installation of a floating cofferdam from which the work will occur, and embankment work.

The anticipated (Blanding's turtle) adverse effects include:
1) Blanding's turtles may be crushed or entombed by equipment or vehicles.
2) Permanent loss of habitat associated with bridge pier base.
3) Short term disturbances due to increased noise and activities during construction.
4) Potential degradation of habitat associated with surface runoff and salt spray from the bridge deck.

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

Blanding's turtles in Chain of Lakes State Park in northeastern Illinois are primarily carnivorous and ingest snails and aquatic insects (Rowe 1992). The Blanding's turtle occurs in scattered colonies. The current range of Blanding's turtle in Illinois is primarily the northern half of the state, with populations following the Illinois River southward (Phillips 1999). They have recently been documented in Carroll, Cook, Grundy, Henderson, Henry, Jasper (Olson and Louis 1999), Kane, Kankakee, Lake, LaSalle, Lee, McHenry, McClean, Will and Whiteside counties (Dreslik and Phillips 1998).

The INHS performed a turtle survey in September 2006. The INHS and/or MCCD will relocate all turtles found within the project area immediately preceding the start-up of construction. MCCD will respond to calls from the contractor regarding the presence of turtles within the construction zone. The MCCD is committed to the proposed restoration of approximately 12 acres of wetlands along Piscasaw Creek. This is intended to provide overall ecosystem benefits and to the Blanding's turtle habitat in the stream and the existing trout fishery through silt reduction.

IDOT will provide a turtle education program to the contractors prior to construction. IDOT is also responsible for all biological clearance coordination and recommendations related to the project.

The property and habitats of the area in question are under public ownership. The surrounding property is located within Beck's Woods, which is owned and managed by MCCD. The public ownership of this property protects the area against any potential secondary impacts due to urban development.

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

In an official correspondence to the Department dated 3 April 2007, IDOT verified that adequate funding exists to support and implement all (mitigation) activities described in the official Conservation Plan. This correspondence states that the FAP 303 project is authorized by the Illinois Department of Transportation, which receives its funding from the Illinois General Assembly and the Federal Government in carrying out its programs. IDOT has committed to budget and authorize adequate funding to provide for project construction activities and implementation of all mitigation activities (via MCCD/INHS staff) required and described in the official conservation plan.

4. Based on the best available scientific data, the Department has determined that the taking will not reduce the likelihood of the survival or recovery of the endangered species or threatened species in the wild in Illinois, the biotic community of which the species is a part, or the habitat essential to the species' existence in Illinois:

The limits of construction include an area of 1.10 acres. The proposed limits of construction represent the minimum area necessary in which to work and construct the new crossing over the Piscasaw Creek overflow. The footprint of the project has been minimized by increasing or tightening the slope of the highway embankment from 4:1 to 3:1.

The project sponsor estimates 0-1 Blanding's turtles could be taken as a result of replacing the Piscasaw Creek overflow bridge.

Approximately 0.172 acres within the limits of construction for the Piscasaw Creek Overflow Structure consist of wetlands, some of which contains habitat suitable for the Blanding's turtle. Temporary impacts to wetlands equal 0.088 acres. Permanent impacts equal 0.084 acres and these are caused by the placement of bridge piers and highway embankment in wetland habitats.

The measures discussed above will reduce the amount of habitat that is affected to a minimal amount. Permanent loss of habitat is restricted to the area of the pier footing and highway embankment. Overall, the current range of Blanding's turtle in Illinois is primarily the northern half of the state, with populations following the Illinois River southward (Phillips 1999). They have recently been documented in Carroll, Cook, Grundy, Henderson, Henry, Jasper (Olson and Louis 1999), Kane, Kankakee, Lake, LaSalle, Lee, McHenry, McClean, Will and Whiteside counties (Dreslik and Phillips 2006). The wetland restoration of agricultural property committed to by MCCD

should provide more than adequate conservation measures to facilitate the continued existence of the Blanding's turtle. Therefore, it is unlikely that the temporary and permanent corridor impacts to the wetland habitats will jeopardize the continued existence of the species in Illinois.

5. Any measures required under Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.40(b)], will be performed:

Additional measures are listed below under "Final Authorization." This authorization is, by definition, subject to those terms and conditions and official IDOT signature(s) on this authorization 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:

IDOT and its consultant, CTE - Chicago, IL., (in conjunction with the Illinois Natural History Survey and the McHenry County Conservation District) prepared a conservation plan as described by the Illinois Endangered Species Protection Act (520 ILCS 10/5.5). That plan and IDOT's request for authorization for incidental take of slippershell mussels and Blanding's turtles were received by the Illinois Department of Natural Resources (Department) on 3 April 2007. Public notice of IDOT's request for authorization of incidental take of slippershell mussels and Blanding's turtles was published in the Edwardsville Intelligencer (Official State newspaper) and the Northwest Herald (Chicago Collar Counties) on May 31, 2007, as well as on June 7, 2007 and June 14, 2007. Public comments on IDOT's conservation plan were accepted by the Department until July 14, 2007. No comments were received by the public during the period of May 31, 2007 through July 14, 2007.

Final Authorization

It is the determination of the Department that the measures to be implemented by IDOT, MCCD, and the INHS will adequately minimize and mitigate for the anticipated taking (relocation/mortality) of a small number of Blanding's turtles due to the reconstruction of the Piscasaw Creek Bridge (Old Structure No. 056-0028 /New Structure No. 056-0090) located in McHenry County, Illinois. Further, it is our opinion that the take (relocation) authorized herein would not diminish the likelihood of the survival of the Blanding's turtle 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.

Pursuant to Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.40(b)], this authorization is issued subject to the following additional terms and conditions:

1. This authorization is effective upon signature of the Department and shall remain in effect for a period of six (6) years after IDOT approval of the project punch list (otherwise referred to as the "project completion date") for the proposed bridge repair/replacement, unless terminated pursuant to Section 5.5. of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.80].

2. The following Pre-construction Methods shall be Incorporated:
A) The IDOT will include in the contract plans and specifications a reference to the Blanding's turtle incidental take authorization and the commitments contained therein. The conservation plan will be attached to the contract special provisions. The IDOT will also include in the contract plans a full-size plan drawing depicting the project area, ROW (temporary and permanent), location of super silt fencing, Blanding's turtle habitat, wetland locations, areas of temporary and permanent wetland impacts.

B) IDOT District One (1) will notify the Bureau of Design and Environment (BDE) and IDNR ten (10) business days in advance of the scheduled start date of the project. The INHS or MCCD will survey the limits of construction prior to work and relocate any turtles that are found to outside the limits of construction. Immediately following the turtle survey, the limits of construction will be fenced. The fencing will function to keep turtles from entering into, and construction equipment from exiting out of, the limits of construction.

Following the turtle survey, super silt fencing will be installed adjacent to the road work at the limits of construction. Super silt fencing consists of chain link fencing with silt fencing attached; the chain link fencing adds stability to the silt fencing. This use of super silt fencing will reduce the amount of siltation that enters Piscasaw Creek and its adjacent floodplain, thereby reducing water quality impacts.

The super silt fencing will also serve to establish and delineate no intrusion areas. No intrusion signs will be posted on the super silt fencing to identify areas outside of the work zone where intrusion by equipment or personnel is prohibited. This will prevent equipment or personnel from accidentally impacting additional Blanding's turtle habitat. Additionally, the super silt fencing will inhibit movement of Blanding's turtles (and other wildlife) from entering into the construction zone.

C) IDOT District One will schedule a pre-construction meeting and will notify the BDE and IDNR seven (7) days in advance of the scheduled meeting. The pre-construction meeting will include Blanding's turtle awareness training. Pre-construction awareness training will be provided for all contractors. The contractors and their employees will be made aware of the possibility that these turtles may be present. Picture(s) of the Blanding's turtle will be provided to workers so they can be informed of the particular turtle in need of protections. The purpose of the no intrusion signs and the importance of keeping personnel and equipment outside of the no intrusion areas will be explained. All personnel will be advised that no turtles may be killed or collected from the project area. A phone number will be provided with contact information if a turtle is found in the project area.

3. The following Construction Methods shall be Incorporated:
A) Highway embankments with 3:1 slopes will be constructed. This measure will minimize the footprint of the embankment and the take of suitable Blanding's turtle habitat.

B) INHS or MCCD shall periodically inspect perimeter fencing for holes and report gaps or holes to the Resident Engineer for repair.

C) During construction, any Blanding's turtles that are located within the project vicinity may avoid the area because of the noise associated with construction activity.

D) Turtles that are found by construction staff will be reported to the Resident Engineer. Turtles will be removed and placed outside the limits of construction by either the INHS or MCCD. MCCD, with IDOT or INHS providing additional support as needed, will respond to calls from the Resident Engineer to determine if the turtle in question is a Blanding's turtle.

E) Super silt fencing will be used adjacent to the roadway work around the limits of construction. Super silt fencing will reduce the amount of siltation that enters Piscasaw Creek and its adjacent floodplain.

F) Wetland mitigation and conservation measures are also to be implemented by the MCCD. MCCD will conduct wetland restoration within the Piscasaw Creek watershed. The proposed site is former agricultural land allowed to go fallow, contains former hydric soils and is located along the Piscasaw Creek. The proposed restoration of wetlands along the Creek will provide a benefit to Blanding's turtle (amphibian/reptile) habitat in the stream and the existing trout fishery through silt reduction. MCCD is committed to restoring a larger portion of the site than necessary for IDOT mitigation purposes (12 acres total) through the use of its own in-house resources and funds. IDOT is funding part of the site restoration with its required wetland mitigation funding. The project will therefore have a much larger impact from a wetland and water quality perspective than that required by U.S. Army Corps of Engineers permitting.

4. The following Construction Methods shall be Incorporated:
A) Areas of temporary impacts, including wetlands and uplands, will be re-vegetated using native plants species.

B) INHS or MCCD will survey for live and dead turtles within the limits of construction and report to the BDE their findings.

5. Wetland mitigation and conservation measures shall be implemented by the MCCD. MCCD will conduct wetland restoration within the Piscasaw Creek watershed. Note that the proposed site is former agricultural land allowed to go fallow, contains former hydric soils and is located along the Piscasaw Creek. The proposed restoration of wetlands along the Creek should provide a benefit to many aquatic based species through silt reduction. MCCD is committed to restoring a larger portion of the site than necessary for IDOT mitigation purposes (12 acres total) through the use of its own in-house resources and funds. The project will therefore have a much larger impact from a wetland and water quality perspective than that required by U.S. Army Corps of Engineers permitting.

6. During construction, the piers shall be installed using floating cofferdams. The use of cofferdams will minimize any sedimentation that enters the water, thereby reducing water quality impacts and potential impacts to aquatic species, including reptiles and mollusks. Additionally, super silt fencing shall be used adjacent to the road work. Super silt fencing consists of chain link fencing with silt fencing attached; the chain link fencing adds stability to the silt fencing. This use of super silt fencing will also reduce the amount of siltation that enters Piscasaw Creek.

7. IDOT's Erosion and Sediment Control, Landscape Design Criteria Manual shall be used for this project. This Manual utilizes the latest techniques in sediment and erosion control design and implementation.

8. The effective period of this authorization may be altered by mutual agreement between IDOT and the Department.

9. This authorization may be revoked pursuant to Section 5.5 of the Act if the Department finds that IDOT/MCCD/INHS has failed to comply with any of these terms and conditions or has been responsible for the take of any slippershell mussels and/or Blanding's turtles beyond that which is incidental to the reconstruction of the Piscasaw Creek Bridge (Old Structure No. 056-0028 / New Structure No. 056-0090) located in McHenry County, Illinois.

10. The IDOT official identified on the last page of this document is authorized to execute this agreement. Execution by IDOT indicates acceptance of all terms and conditions described in this document.

For the IL. Department of Natural Resources

Mike Conlin

Mike Conlin, Acting Director
Office of Resource Conservation

1.2.08

Date Signed

For the IL. Department of Transportation

Signature

Diane Oker

Regional Engineer Deputy Director

Please print name and official title

12-17-07

Date Signed