



# Illinois Department of Natural Resources

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Pat Quinn, Governor  
Marc Miller, Director

April 26, 2013

Mr. Walter Dittrich  
McHenry County Division of Transportation  
16111 Nelson Road  
Woodstock, Illinois 60098

**RE: County Line Bridge Replacement, McHenry County  
Endangered Species Consultation Program  
EcoCAT Review #1306165**

Dear Mr. Dittrich:

The Department received this proposed action for consultation in accordance with the *Illinois Endangered Species Protection Act* [520 ILCS 10/11], the *Illinois Natural Areas Preservation Act* [525 ILCS 30/17], and Title 17 *Illinois Administrative Code* Part 1075. The proposed action has been evaluated several times. However, new information has become available since the last review which has produced a different outcome than previously.

As indicated in the accompanying EcoCAT Report, the proposed action is in the vicinity of the **Kishwaukee River Illinois Natural Areas Inventory (INAI) Site** and several aquatic and semi-aquatic endangered and threatened species. Because the proposed action entails work in and disturbance of the main stream channel in the vicinity of the bridge, the proposed action is likely to adversely modify the INAI Site and essential habitat for these listed species. Moreover, the proposed action entails the possibility of prohibited taking of endangered species during construction.

The Kishwaukee River and its tributaries in this vicinity provide essential habitat for the state-listed **Slippershell Mussel**, *Alasmidonta viridis*; the state-listed **Spike Mussel**, *Elliptio dilatata*; the state-listed **Black Sandshell Mussel**, *Ligumia recta*; the state-listed **Iowa Darter**, *Etheostoma exile*; and the State-listed **Blanding's Turtle**, *Emydoidea blandingii*.

The Department notes that disturbance of the stream bed beneath and adjacent to the bridge will be of short duration, though significant-to-severe for that period. The Iowa Darter can be expected to avoid the area of disturbance, but that will not be possible for the less-mobile mussels which may be present in the zone of disturbance.

The Slippershell Mussel has been recently documented in both Rush Creek, which enters the Kishwaukee River 200 meters upstream of the County Line Road Bridge, and in Mosquito Creek, which enters the River downstream of the bridge. The host fish for the Slippershell is the Johnny Darter, a

species common throughout the Kishwaukee River watershed. Hence, the Slippershell may occur in any reach of permanent water in appropriate substrate, including the Kishwaukee River at the bridge.

The Spike Mussel has been recently documented in both Rush Creek and in Coon Creek, which enters the Kishwaukee downstream of the bridge. The host fishes of the Spike include the Largemouth Bass and the Gizzard Shad, both of which occur throughout the Kishwaukee River and its tributaries.

The Black Sandshell is now considered common in the Lower Kishwaukee, and has been documented as far up the River as two miles downstream of the County Line Bridge. While the primary host of the Black Sandshell is the Walleye, alternate hosts include the Largemouth Bass. There are no known barriers on the Kishwaukee mainstem which would prevent colonization of the vicinity of the County Line Bridge by this species.

*Recommendation #1: The Department recommends the County commission a mussel survey of the Kishwaukee River beneath the County Line Bridge and at least 100 meters upstream and downstream of areas expected to be disturbed by construction. While “hand-picking” is the preferred and most reliable method for a mussel survey, the depth of the River may require the use of snorkels or scuba gear; mussel rakes or crow-foot brails are less effective where substrates include large areas of cobble and gravel. Hand-picking by experienced personnel can be expected to locate approximately 50% of the mussels present in the survey area. Mussels identified during a scientific survey may not be translocated outside the project but must be replaced where found after identification. Results of the survey should be promptly provided to the IDNR for a determination whether an Incidental Take Authorization is appropriate. While a 100-meter distance above and below the point of planned disturbance is fairly standard, data on the distribution of the listed mussels elsewhere in the stream may be of great importance in seeking any subsequent authorization for translocation or destruction, so consideration may be given to a broader survey, although a decision to search a larger area may be withheld until results of the initial search are apparent.*

If listed mussels are present, at its discretion the Division of Transportation may initiate the process of seeking an Incidental Take Authorization from IDNR pursuant to Part 1080 of the Department's Administrative Rules, which will allow the mussels to be lawfully translocated or destroyed in situ. The Department understands that construction activities are planned for 2014. Because the Incidental Take Authorization process may require six months or more, prompt application may be important.

*Recommendation #2: If a causeway across the river channel is employed, it should contain several culverts which will maintain flow in the areas just downstream of the causeway. A solid causeway without culverts will alter currents downstream for a significant distance. Mussels are filter feeders which are sensitive to sedimentation and siltation. A solid causeway will create eddies which will scour some areas of the streambed and deposit new bars of sand and gravel elsewhere, affecting any mussels in those locations. These effects may extend several miles downstream as a new thalweg is established. The same eddies will also alter the distribution of plankton and oxygen in the water column, and may also alter water temperatures. The behavior of fish hosts, required for mussel reproduction, will also be affected, which could diminish recruitment for the entire mussel community in the affected reaches. When the solid causeway is removed, the stream will revert to its original flow patterns, causing additional extended disturbance to habitats downstream. Placing culverts in the causeway will minimize these adverse effects to the Kishwaukee River INAI Site.*

The Iowa Darter is likely present throughout the Kishwaukee River watershed, but spawning generally occurs in smaller creeks and tributaries. Once construction begins, the Iowa Darter can be expected to avoid the construction area until the channel has stabilized following construction. In the Department's opinion, the Darter is unlikely to be adversely affected if standard sedimentation controls are employed.

An ox-bow slough is present on both sides of County Line Road north of the main channel of the Kishwaukee River. The Blanding's Turtle, while listed as endangered, can be fairly common in McHenry County, and has often been observed to use stream channels to travel from one activity area to another. This species has been documented within a mile of the County Line Road Bridge, and the ox-bow slough offers excellent off-channel habitat for this semi-aquatic species.

The Blanding's Turtle is noted for its tendency to travel some distance from the water when nesting. While demonstrating high fidelity for nesting grounds used previously, a number of cases have come to light in McHenry County where female Blanding's Turtles have taken advantage of construction sites to excavate nests in temporary stockpiles of sand and gravel.

Care should be exercised when selecting a construction staging area for the bridge replacement project. A staging area north of the main channel will be near the ox-bow and may prove very attractive to gravid turtles nearby, but a staging area south of the channel will not be free of the risk of possible turtle nesting.

*Recommendation #3: The selected staging area should be isolated from adjacent terrestrial habitat by a carefully installed silt fence around the staging area perimeter. Such a fence may be required in any case for purposes of NPDES compliance, but is usually sufficient to prevent the entrance of turtles moving overland. Members of the construction crews should also be briefed on the appearance of the Blanding's Turtle and instructed to report any turtles they observe along the road or within construction limits.*

Consultation on the part of the Department is closed, unless the McHenry County Division of Transportation desires additional information or advice related to this proposal. In accordance with 17 Ill. Adm. Code 1075.40(h), the Division must notify the Department of its decision regarding these recommendations, whether it will:

- Proceed with the action as originally proposed;
- Require the action to be modified per Department recommendations (please specify which measures if not all will be required); or
- Forgo the action.

This consultation is valid for two years unless new information becomes available which was not previously considered; or the proposed action is substantially modified; or additional species, essential habitats, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above-listed conditions develop, a new consultation is necessary.

The natural resource review primarily reflects the information existing in the Illinois Natural Heritage Database at the time of this consultation, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments.

If additional protected resources are encountered during the project's implementation, the applicant must comply with the applicable statutes and regulations. Also, note that closing consultation does not imply IDNR's authorization or endorsement of the proposed action. Please contact me if you have questions regarding this review.

Sincerely,

A handwritten signature in black ink that reads "Keith M. Shank". The signature is written in a cursive style with a large, stylized "K" and "S".

Keith M. Shank  
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cc: Lailah Reich, Huff & Huff, Inc.  
David Block, TranSystems, Inc.