

IEPA Log No.: **C-0651-13**
CoE appl. #: **2013-1405**

Public Notice Beginning Date: **December 10, 2014**
Public Notice Ending Date: **January 9, 2015**

Section 401 of the Federal Water Pollution Control Act
Amendments of 1972

Section 401 Water Quality Certification to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois Environmental Protection Agency
Bureau of Water
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-3362

Name and Address of Discharger: Illinois Department of Transportation, Division of Highways - District
3 – 700 East Norris Drive, Ottawa, IL 61350

Discharge Location: Near Spring Valley in SW 1/4 of Section 23 of Township 33N, Range 1W of the 3rd
P.M. in Bureau and Putnam County.

Name of Receiving Water: Illinois River

Project Description: Proposed removal and replacement of IL89 Bridge over Illinois River.

The Illinois Environmental Protection Agency (IEPA) has received an application for a Section 401 water quality certification to discharge into the waters of the state associated with a Section 404 permit application received by the U.S. Army Corps of Engineers. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice. The last day comments will be received will be on the Public Notice period ending date unless a commenter demonstrating the need for additional time requests an extension to this comment period and the request is granted by the IEPA. Interested persons are invited to submit written comments on the project to the IEPA at the above address. Commenters shall provide their names and addresses along with comments on the certification application. Commenters may include a request for public hearing. The certification and notice number(s) must appear on each comment page.

The attached Fact Sheet provides a description of the project and the antidegradation assessment.

The application, Public Notice/Fact Sheet, comments received, and other documents are available for inspection and may be copied at the IEPA at the address shown above between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the certification application, the IEPA may, at its discretion, hold a public hearing. Public notice will be given 30 days before any public hearing. If a Section 401 water quality certification is issued, response to relevant comments will be provided at the time of the certification. For further information, please call Darren Gove at 217/782-3362.

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Fact Sheet for Antidegradation Assessment
For Illinois Department of Transportation, Division of Highways - District 3
IEPA Log No. C-0651-13
COE Log No. 2013-1405
Contact: Diane Shasteen (217) 558-2012
Public Notice Start Date: December 10, 2014

Illinois Department of Transportation (IDOT) District 3 (“Applicant”) has applied for Section 401 water quality certification for impacts of approximately 690 linear feet of the Illinois River (Mile 71.4) including approximately 7,869 CY of in-stream excavations, and 19,828 CY of in-stream backfill. The proposed project will construct a new 7 pier bridge approximately 46 feet east of the existing Illinois Route 89 bridge located south of Spring Valley, Section 23, Township 33 North, Range 1 West. Upon completion of the new structure, the removal of the existing IL Route 89 Bridge will be completed in accordance with an approved removal plan from the United States Coast Guard. The existing bridge is listed on the IDOT’s Illinois Historic Bridge Inventory and has been determined to be eligible for listing on the National Register of Historic Places. Therefore, IDOT has collaborated with the Federal Highway Administration (FHWA) and the State Historic Preservation Officer (SHPO) in an effort to mitigate the project’s adverse effects on the historic property. The bridge was made available for donation to state, local, or responsible private entity and no parties expressed an interest to maintain the bridge’s historic integrity and assume all future legal and financial responsibility for the bridge. The current bridge has a deck width of less than 23 feet; current IDOT standards require a width of 40 feet. Recent vehicle crashes on the bridge have involved striking the bridge rails/guard rails. In IDOT’s opinion, the narrow width and lack of roadway shoulder for vehicles to recover or stop was a contributing factor in these crashes. IDOT classifies the historic bridge as structurally deficient and functionally and geometrically obsolete due to width disparity and the general condition of the bridge. Based on a 2012 inspection, the bridge was classified as ‘fracture-critical’, the superstructure was rated as ‘Poor condition-advanced deterioration’, and the deck was rated as ‘Intolerable-high priority for replacement’. ‘Fracture-critical’ refers to a bridge that does not contain redundant supporting elements and if one key support fails, the bridge would be in danger of collapse. The purpose of this project is to provide a reliable, safe transportation facility that meets current design standards. The proposed bridge will maintain IL Route 89 connectivity from Putnam to Bureau County, meet the needs of river traffic, and meet local and regional safety, emergency, and economic needs. The proposed project will also impact approximately 1.692 wetland acres permanently and approximately 0.756 wetland acres temporarily. These impacts will be mitigated with the purchase of 3.594 acres of wetland credit from IDOT’s Morris Wetland Bank. The chosen wetland bank is outside the project’s basin; therefore, mitigation for 1.632 acres will be at a 2.0:1 ratio and the 0.06 acre impact to Site 6, which contains the state and federally endangered *Boltonia decurrens* (Decurrent false aster), will be at a 5.5:1 ratio.

Information used in this review was obtained from the applicant in a document entitled, Section 106/ Section 4(F) Documentation of Adverse Effect, IDOT Region2/ District 3, Counties: Bureau and Putnam, dated March 2014 and the Joint Application Form dated September 2013.

Identification and Characterization of the Affected Water Body.

The Illinois River (IL_D-16), a direct tributary to the Mississippi River, is a General Use Water with an estimated 3,528 cfs 7Q10 flow, at this location. According to the draft 2014 Illinois Integrated Water Quality Report and Section 303(d) List, the Illinois River has been assessed by Illinois EPA and is listed as fully supporting Aquatic Life, Primary Contact Recreational, and Secondary Contact uses and not supporting Fish Consumption use. Causes for Fish Consumption impairment are Mercury and Polychlorinated biphenyls. Aesthetic Quality use has not been assessed. The Illinois River is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System* nor is it given an integrity rating in that document. The Illinois River, at this location, is not designated as an enhanced water pursuant to the dissolved oxygen water quality standard.

The Illinois Natural History Survey (INHS) investigated 11 sites (Sites 1-6, 8-12) in the project area; all sites met wetland criteria. Portions of five wetlands (4, 6, 9, 10, and 12) will be impacted by the project. Permanent impacts will be associated with 1.692 acres and temporary impacts will occur on 0.756 acres. Wetland types impacted by the construction include wet meadow (Site 6, FQI 9.8), wet shrub (Site 12, FQI 5.7) and forested (Site 4, FQI 7.8; Site 9, FQI 5.1; Site 10, FQI 9.2). Based on FQI scores, all wetlands are considered poor quality and impacts range in size from 0.007 acres in Site 9 to 1.109 acres in Site 10. A state and federally endangered species, *Boltonia decurrens*, is present in Site 6. Approximately 0.060 acres of this site will be permanently impacted by an embankment. The area disturbed by construction will be disked to minimize compaction and reseeded with a non-aggressive, non-permanent cover such as annual ryegrass or spring oats. *Boltonia decurrens* covers approximately 14.04 acres east of the construction site; therefore, there is a large seed source for regeneration of the species adjacent to the impacted project area. The USFWS has concurred that if these post-construction procedures are followed *Boltonia decurrens* should not be adversely affected. Impacts to these wetlands are unavoidable and will be mitigated at a ratio of 2:1 for Sites 4, 9, 10, and 12 (1.632 total impacted acres) and a ratio of 5.5:1 for Site 6 (0.060 acres) with the purchase of 3.594 acres of wetland credit from the Morris Wetland Bank in Grundy County.

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.

The pollutant load increases that would occur during this project include possible increases in suspended solids. An erosion and sediment control plan will be designed to minimize sedimentation effects to water resources during construction in accordance with Chapter 59, Section 8 of IDOT's Bureau of Design and Environment (BDE) Manual. Cofferdams, causeways consisting of clean coarse aggregates, and/or barges to serve as work platforms will be utilized as temporary stream works to facilitate the removal and replacement of the bridge. The stream channel will be cleared of all temporary stream works upon completion of the project. Staging areas located away from drainage and surface waters will be designated for equipment wash down, repair, and maintenance. Silt fences will be placed in all wetland areas to protect the remaining portions of these areas not being disturbed by construction.

Due to the total land area affected by the construction, an IEPA General Permit for stormwater discharges from construction site activities (NPDES Permit No. ILR10) or an individual NPDES may be required. Increases in heavy metals such as iron (steel highway structures), nickel (diesel fuel, asphalt paving), and zinc (motor oil, grease) in stormwater runoff during construction may also occur. Best management practices will be implemented to effectively drain and treat stormwater runoff during construction. No adverse effects are expected to the river or wetland community due to stormwater runoff.

Aquatic life uses in the portion of the river that will be disturbed during construction may be negatively impacted, but in time, they will recover and support approximately the same community structure as is now found in the existing channel. Due to the size of the river, impacts to aquatic communities should be negligible.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids, along with any increases in heavy metals, will be local and temporary. Erosion control measures will be utilized to minimize any increase in these disturbances and prevent further impacts to the river and the wetlands near the newly constructed bridge. The Applicant will purchase 3.594 acres of wetland credit from the Morris Wetland Bank in Grundy County, the result of 2.0:1 and 5.5:1 mitigation ratios applied to 1.632 and 0.060 acres, respectively.

Purpose and Social & Economic Benefits of the Proposed Activity.

The proposed bridge project will replace the structurally deficient and functionally obsolete IL Route 89 Bridge over the Illinois River south of Spring Valley. Upon completion of the project, IL Route 89 Bridge (#078-0047) will be reliable, safe, and meet current design standards. The bridge will maintain connectivity between Bureau and Putnam Counties, meet the need of current and future river navigation, and the safety, emergency, and economic needs of the region.

Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.

Due to the fact that the current IL Route 89 Bridge is listed as a Historic Bridge, the FWHA Programmatic 4(f) required IDOT to evaluate the following alternatives:

1. Do Nothing
2. Build a new structure at a different location without affecting the historic integrity of the old bridge.
 - A.) East Alignment
 - B.) West Alignment
 - C.) Dual Bridge – One Way Couplet
3. Rehabilitate the historic bridge without affecting the historic integrity of the bridge
4. Build a new bridge on the existing alignment and remove existing historic bridge

5. Build a new bridge on new location – east alignment and remove existing historic bridge

A total of seven alternatives were evaluated by IDOT and listed below. A public hearing was held on January 15, 2013 in Spring Valley to obtain public opinion on the proposed project alternatives.

Alternative 1: Do Nothing

- Maintains existing historical bridge with no major repairs or improvements
- Deteriorating condition of the bridge superstructure (truss) would lead to posting weight limits
- Truss would eventually have to be replaced even with periodic maintenance or the bridge would have to be closed
- IL Route 89 Bridge links areas south of the river to the only local hospital located in Spring Valley (no hospital in Putnam County)
- Nearest alternative bridge is located in Peru, requiring approximately a 10.8 mile detour
- Detour would lead to significant delays for emergency services for residents of Putnam County and for emergency personnel residing south of the river required to respond to an emergency at the local hospital
- Does not meet the purpose and need of the project to provide a safe and reliable transportation link across the Illinois River that meets current design policy

Alternative 2A: Build a new structure at a different location without affecting the historic integrity of the old bridge – East Alignment

- Construct replacement bridge approximately 46 feet (centerline to centerline) east of the existing bridge
- 46' offset minimum to allow the new bridge to be constructed alongside the existing bridge and keep the existing bridge open to traffic
- Spring Valley Boat Club access road impacts; portion of road to be relocated to the east
- *Boltonia decurrens* impacted due to access road relocation
- Historic bridge made available for donation; no parties expressed interest to accept responsibility for the bridge

Alternative 2B: Build a new structure at a different location without affecting the historic integrity of the old bridge – West Alignment

- Construct replacement bridge approximately 46 feet (centerline to centerline) west of the existing bridge
- 46' offset minimum to allow the new bridge to be constructed alongside the existing bridge and keep the existing bridge open to traffic
- Barto Boat Landing, a publically owned boat launch that meets the definition of a 4(f) resource (public land, recreational use) impacted
- Barto Boat Landing is one of the locations on the Cabela's Masters Walleye Circuit, which attracts anglers from throughout the country
- *Boltonia decurrens* colonies impacted

- Historic bridge made available for donation; no parties expressed interest to accept responsibility for the bridge

Alternative 2C: Build a new structure at a different location without affecting the historic integrity of the old bridge – Dual bridge (one way couplet)

- Construct a new bridge either east or west of existing bridge to accommodate one-way traffic
- Existing bridge rehabilitated to accommodate one-way traffic (opposite direction)
- Smaller footprint for new structure
- Existing bridge would require extensive rehabilitation, concrete piers would not be replaced so continued deterioration would reduce life span and offer no protection against barge traffic collisions
- Historic integrity would be compromised

Alternative 3: Rehabilitate the historic bridge without affecting the historic integrity of the bridge

- Does not address the geometric and functional deficiencies of the bridge
- Not practical to widen the existing truss-type bridge- cost prohibitive and shorter life-span
- Undesirable to retain a ‘fracture-critical’ bridge due to safety reasons
- Existing piers do not meet current collision standards
- Rehabilitation would require bridge closure-an unacceptable option to the emergency responders and residents of Spring Valley and surrounding areas

Alternative 4: Build a new bridge on the existing alignment and remove the existing historic bridge

- Requires closure of current IL 89 Bridge in order to demolish bridge and construct a replacement bridge in the same location
- Unacceptable option to the emergency responders and residents of Spring Valley and surrounding areas

Alternative 5: Preferred Option: Build a new bridge on new location and remove the existing historic bridge

- Similar to Alternative 2A except existing bridge would be removed
- Avoids impacts to Barto’s Landing, a section 4(f) resource
- Favored by local officials and residents of Spring Valley and the surrounding area

No parties expressed interest in maintaining and accepting responsibility for the current IL Route 89 Bridge; therefore, Alternative 5 has been chosen as the best alternative. This alternative provides the least amount of impacts to the natural or human environments and has the support of the local community and its leaders. It allows the current IL Route 89 Bridge to remain open during construction of the new bridge, which is vital to the emergency services of the area. Only the no build alternative would result in no environmental impacts or discharges to the river. This

option is not viable due to the structural condition and the lack of functionality of the existing bridge.

Conclusion:

The construction of the proposed project will follow conditions set forth by the Agency and USACE. The completion of the bridge project is the most cost effective, viable means for replacing the existing obsolete IL Route 89 Bridge. Best management practices (BMPs) will be implemented prior to, during, and post-construction, staging areas for equipment wash down, repair, and maintenance will be designated, and structural BMPs for stormwater runoff will be implemented. Wetland mitigation of 3.594 acres of wetland credit from the Morris Wetland Bank has been proposed for the permanent loss of 1.692 acres of low quality wetlands.

Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities

The Biological Resource Review Memorandum (dated December 13, 2012) coordinated survey results with IDNR. Upon review, IDNR concurred with the results and findings that wetlands would be impacted, along with colonies of the state and federally endangered *Boltonia decurrens*. IDNR specified that IDOT must coordinate *Boltonia decurrens* mitigation (at a ratio of 5.5:1) with the USFWS. Consultation with IDNR was closed on December 17, 2012.

Agency Conclusion.

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time the draft 401 Water Quality Certification was written. We tentatively find that the proposed activity will result in the attainment of water quality standards; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity will benefit the community at large by replacing the structurally deficient and functionally obsolete IL Route 89 Bridge. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.