

IEPA Log No.: **C-0070-18**
CoE appl. #: **MVS-2018-363**

Public Notice Beginning Date: **June 21, 2018**
Public Notice Ending Date: **July 12, 2018**

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

Section 401 Water Quality Certification for Discharge of Dredged or Fill Material

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 – 1102 Eastport Plaza Drive,
Collinsville, IL 62234-6198

Discharge Location: Near Centralia in SW and NW 1/4 of Sections 10 and 15 resp. of Township 1-North, Range 10-West of the 3rd P.M. in Clinton County.

Name of Receiving Water: Crooked Creek and adjacent wetlands

Project Description: Proposed removal of three (3) existing waterway crossings including the IL 161 bridge over Crooked Creek and the installation of replacement crossings.

The Illinois Environmental Protection Agency (IEPA) has received an application for a Section 401 water quality certification to discharge dredged or fill material 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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The Illinois Department of Transportation (“Applicant”) has applied for a 401 Water Quality Certification for impacts associated with the proposed replacement of the IL Route 161 bridge over Crooked Creek, located 3.5 miles west of Centralia in Clinton County, Illinois. The project would span approximately 1.1 miles of IL Route 161. The existing structures include a 644 ft. long bridge, a double box culvert, and a single box culvert. The proposed project is necessary due to the public safety concerns caused by the physical condition of the bridge and flooding.

The scope of the proposed project includes replacing the structure carrying IL Route 161 over Crooked Creek; raising the roadway and structure profile approximately 3 ft. to increase flood protection; improving the intersections of IL Route 161 with Shattuc Road and Noltings Road; improving the shoulders along IL Route 161 within the project limits; and replacing the overflow structures both east and west of Crooked Creek. An additional 5,986 ft.² of impervious area (roadway area) would be added by this project and the new bridge would span 1,060 ft.

To ensure calculations for wetland mitigation were adequate, the Applicant provided estimates for the maximum amount of riprap needed to complete the project. Riprap placement may include up to 314 yd² at the west abutment; 365 yd² at the east abutment; 350 yd² at the end of the triple box culvert; 560 yd² at the end of the single box culvert; and potentially an additional 100 yd² at pier #4.

It is anticipated that during construction a temporary crossing would be installed using clean aggregate and pipe on the south side of the bridge. The Applicant would be required to remove this temporary structure at the completion of the project.

Approximately 395 trees would be cleared or impacted and then replaced at either a 1:1 or 3:1 ratio, as deemed appropriate by the Applicant’s tree removal policy. In addition, approximately 3.514 acres of wetlands would be either temporarily or permanently impacted and would be mitigated by purchasing 14.983 acres of credits at the Eckmann - Bischoff Wetland Compensation Site.

Information used in this review was obtained from the application materials including Antidegradation Assessment dated April 17, 2018 and subsequently updated Antidegradation Assessment and Natural Resources Review Renewal Memorandum received by the Agency on June 6, 2018.

Identification and Characterization of the Affected Water Body

Crooked Creek is a General Use Water with 0 cfs of flow during critical 7Q10 low-flow conditions. Crooked Creek, Waterbody Segment IL_OJ-07, is listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use with potential causes given as dissolved oxygen and phosphorus (total). Aesthetic quality use is fully

supported. Crooked Creek 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*, or given an integrity rating in that document. Crooked Creek is not subject to enhanced dissolved oxygen standards.

The impacted General Use unnamed tributaries of Crooked Creek (2) have 0 cfs of flow during critical 7Q10 low-flow conditions. The unnamed tributaries of Crooked Creek are not listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List, since they have not been assessed. The unnamed tributaries of Crooked Creek are 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*, or given an integrity ratings in that document. The unnamed tributaries of Crooked Creek are not subject to enhanced dissolved oxygen standards.

The proposed project would also impact eight wetland areas permanently or temporarily, including five wet meadow wetlands and three forested wetlands, for a total 3.514 acres. Each wetland is itemized in the table below. A mitigation plan has been proposed for impacted wetlands.

Site	Type of Wetland	Floristic Quality Index (FQI)	Mean C	Impact in Acres
1	Forested	29.4	3.7	1.62
3	Wet Meadow	12	4	0.238
4	Wet Meadow	5.8	2.6	0.39
5	Forested	21.8	3.6	0.05
6	Wet Meadow	11.9	3.3	0.11
7	Wet Meadow	21.1	3.3	0.374
8	Wet Meadow	18.7	3	0.724
9	Forested	19	3.8	0.008
Total				3.514

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses

A total of 60 ft. of Crooked Creek's stream length would be impacted by construction and equipment use. A normal and unavoidable result of these construction activities would be an increase of total suspended solids in Crooked Creek and its unnamed tributaries. Benthic habitat in the streams would be disturbed during construction, but impacts to aquatic life uses are not anticipated.

A total of 3.514 acres of wetlands would be permanently or temporarily impacted (refer to table below).

Site	Type of Wetland	Floristic Quality	Mean C	Type of Impact	Impact in Acres	Mitigation Ratio	Calculated Acres of
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		Index (FQI)					Mitigation
1	Forested	29.4	3.7	Temporary	1.62	5.5	8.91
3	Wet Meadow	12	4	Permanent	0.238	5.5	1.307
4	Wet Meadow	5.8	2.6	Permanent	0.39	2	0.78
5	Forested	21.8	3.6	Permanent	0.05	5.5	0.275
6	Wet Meadow	11.9	3.3	Permanent	0.11	2	0.22
7	Wet Meadow	21.1	3.3	Permanent	0.374	5.5	2.058
8	Wet Meadow	18.7	3	Permanent	0.724	2	1.42
9	Forested	19	3.8	Permanent	0.008	1.5	0.012
Total					3.514		14.983

Erosion and sediment control BMPs would be implemented in accordance with local, state and federal regulations to minimize the surface water impacts during construction. With proper implementation of BMPs and compliance with the NPDES construction permit, short-term construction-related water quality impacts should be avoided or minimized. Additional winter operation BMPs would be utilized at this site.

Fate and Effect of Parameters Proposed for Increased Loading

The increase in suspended solids would be local and temporary and although the benthic habitat would be disturbed in the receiving streams, it is anticipated to recover and improve over time.

The Applicant plans to compensatory mitigate for the permanent and temporary impacts to wetlands. The wetland mitigation credits for this project would be located at the Eckmann-Bischoff Wetland Compensation Site in Madison County, Illinois. Sites 1, 3, 5, and 7 require a mitigation ratio of 5.5:1 because the high FQI and/or Mean C ratings of the sites. Sites 4, 6 and 8 require a mitigation ratio of 2:1 because the mitigation credits are purchased outside of the impacted basin. The impacts to site 9 would be mitigated at a 1.5:1 ratio, because trees would be replanted on site. A total of 14.983 acres of wetland mitigation credits would be purchased for this project.

The temporary impacts at Site 1 are a result of the easement needed for equipment. Although the wetland site is likely to recover after construction, the Applicant has decided to purchase mitigation credits for construction impacts and associated tree removal, as shown in the table above.

Purpose and Social & Economic Benefits of the Proposed Activity

The replacement of the structure over Crooked Creek, the overflow structures east and west of Crooked Creek, and intersections with Shattuc and Noltings roads would reduce travel risks caused by the current deteriorated condition of the existing structures and insufficient flood protection.

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

Construction Alternatives: Alternatives for project construction include using the existing alignment, constructing a temporary bypass adjacent to the existing alignment, or permanently shifting the alignment adjacent to the existing alignment. Realigning the roadway and constructing a temporary bypass for stage construction increased overall impacts to wetlands. Therefore, it was determined that this project would remain in the current alignment and a detour route would be established when the bridge and roadway are closed for construction.

Design Alternatives: The design alternatives for this project include replacing the bridge over Crooked Creek with no guardrails; installing guardrails the entire length of the project; constructing 4:1 and 2:1 slopes with guardrails from Shattuc Road to Noltings Road; or adding retaining walls to minimize the footprint of the project. The slope and guardrail combination alternative was selected for minimizing impacts to site wetlands, especially those of higher quality and improving safety for drivers.

The least intrusive alternative would be to not complete the project. This is not an acceptable alternative given public safety issues associated with structural degradation and flooding occurrences. The proposed project would follow conditions set forth by the Agency.

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

The Applicant met with the St. Louis USACE on June 14, 2017, to discuss design alternatives and impacts to site wetlands. The USACE indicated that the Applicant is minimizing and/or avoiding wetland impacts where possible and were agreeable to the selected construction and design alternatives.

The Applicant coordinated with the USFWS concerning the endangered Indiana bat (*Myotis sodalis*) and the threatened Northern long-eared bat (*Myotis septentrionalis*). In a letter dated November 2, 2017, the USFWS concluded that the project is not likely to adversely affect the two species.

Per inter-agency agreement, no coordination is required with IDNR for review of State-listed threatened or endangered species or impacts to state-listed natural area inventory sites or preserves. The Applicant's assessment found no record of additional State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project. Therefore, consultation under Part 1075 was terminated.

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 this assessment was written. We tentatively find that the proposed activity would 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 would benefit regional transportation and public safety. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.