

IEPA Log No.: **C-0081-17**
CoE appl. #: **2018-443**
Coast Guard Public Notice #: **D8 DWB-884**

Public Notice Beginning Date: **October 26, 2018**
Public Notice Ending Date: **November 16, 2018**

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
Division of Water Pollution Control
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 – District 4, 401 Main Street
Peoria, IL 61602-1111

Discharge Location: Section 35, T9N, R8E of the 4th P.M. and Section 10, T26N, R4W of the 3rd P.M in
Peoria and Tazewell Counties within Peoria and East Peoria

Name of Receiving Water: Illinois River, Unnamed Tributaries to the Illinois River and Unnamed
Wetlands.

Project Description: Replacement of bridge carrying Eastbound US 150 over the Illinois River
(McClugage Bridge).

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 and U.S. Coast Guard. 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 Thaddeus Faught at 217/782-3362.

Fact Sheet for Antidegradation Assessment

Illinois Dept. of Transportation – Illinois River, tributaries & unnamed wetlands – Peoria and Tazewell Counties

IEPA Log No. C-0081-17

CoE Log No. 2018-443

Coast Guard Notice D8 DWB-884

Contact: Abby Brokaw 217/782-3362

October 26, 2018

The Illinois Department of Transportation (“Applicant”) has applied for a 401 Water Quality Certification for impacts associated with the removal and replacement of the existing US Route 150 (US 150) eastbound bridge over the Illinois River in Peoria, river mile 165.8, Peoria and Tazewell Counties, Illinois (Section 35, Township 9 North, Range 8 East and Section 10, Township 26 North, Range 4 West). The existing bridge is structurally deficient, functionally obsolete, unable to accommodate future transportation projects, and near the end of its expected service life.

Completed in 1948, the eastbound US 150 bridge has structurally deteriorated due to vehicular use, weather, and salt use. The most recent major rehabilitation took place from 1999 to 2000 and extended the bridge’s life for about 20 years. The bridge is approaching the end of its repairable life.

In cooperation with the Federal Highway Administration (FHWA), the Applicant is proposing to remove and replace the existing US 150 eastbound bridge over the Illinois River. The adjacent westbound structure (northern span), which was constructed in 1982, is not in need of improvement. Collectively, the system is called the “McClugage Bridge.” On the west side of McClugage Bridge in Peoria County is an interchange between Adams Street/IL 29 and US 150. On the east side is the IL 116, US 150, and US 24 interchange. US 150 serves as the Greater Peoria Area’s northern crossing of the Illinois River. The existing eastbound bridge has a roadway width of 24 feet and a total bridge deck width of 30 feet, which cannot accommodate wide or disabled vehicles, is insufficient for snow storage and does not meet the current IDOT design standards for the volume of bridge traffic.

The proposed improvement is a new tied arch bridge on an alignment south of and adjacent to the existing eastbound bridge. The cross section of the new bridge would consist of three 12-foot travel lanes, 10-foot shoulders on either side of the travel lanes, and a barrier wall separating vehicular traffic from the 14-foot multi-use path. The new bridge would connect into the western interchange and include the following improvements to the geometry and capacity of the interchange: longer deceleration lane and larger radius for US 150 eastbound to IL 29; larger radius for IL 29 southbound ramp to US 150 eastbound; and addition of third lane and standard entrance terminal for the IL 29 northbound ramp to US 150 eastbound. The new bridge would connect into the eastern interchange and include the following improvements: US 150 eastbound third lane would be dropped at the IL 116 southbound exit; the ramp at IL 116 southbound exit would be realigned and extended to enter IL 116 southbound as a standard entrance terminal; and a third lane (auxiliary) would be added to IL 116 southbound from the ramp terminal to south of the Marina Lane intersection. An existing culvert on a tributary to the Illinois River would be replaced with a concrete double box culvert on the realigned exit ramp. The navigation channel under the proposed bridge would meet navigational clearance requirements. Permanent and temporary fill impacts are anticipated in the Illinois River, an unnamed tributary of the Illinois River and three wetlands.

In conjunction with the integrated multi-use path across the River, new trailheads would be provided on each side of the River. On the west side, the multi-use path would continue parallel to southbound IL 29, terminating with a trailhead near the intersection of IL 29 and Eureka Street. On the east side of the River, the multi-use path would continue parallel to southbound IL 116, terminating with a trailhead off Fairlane Drive.

Construction methods and removal of the existing bridge would be determined by the selected contractor; however, typical practices would be anticipated. Dredging may be required with an anticipated maximum depth of no more than eight feet of sediment for a total 114,100 cubic yards over an 11.2 acre area for bridge

construction and an additional 114,100 cubic yards over 6.3 acres of the River for demolition. The dredge material would be mechanically removed from the River and placement site would be determined by the contractor including on-site as embankment fill on the Tazewell County side and as beneficial re-use in upland locations. Placement of dredged material in a waterway or wetland is not proposed and best management practices (BMPs) are proposed to prevent erosion of the materials.

The project would start construction in the summer of 2019 and is expected to be completed in the spring of 2023. The existing structure would remain open during construction and would be removed upon completion of the new structure.

Identification and Characterization of the Affected Water Body

Two waterways are within the project area: the Illinois River and an unnamed drainage tributary of the Illinois River. The Illinois River is a General Use Water with 3000 cfs of flow during critical 7Q10 low-flow conditions. The Illinois River, Waterbody Segment IL_D-30, is listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for fish consumption use with potential causes given as mercury and polychlorinated biphenyls; and public and food processing water supplies use with a potential cause given as total dissolved solids. Aquatic life, primary contact, secondary contact and aesthetic quality uses are fully supported. 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* or given an integrity rating in that document. The Illinois River is not subject to enhanced dissolved oxygen standards. The open waterbody section of the Illinois River at McClugage Bridge is also known as Peoria Lake.

A TMDL was completed August 9, 2012, for this section of the Illinois River for fecal coliform, manganese and total dissolved solids. Primary sources are attributed to either NPDES permitted sources or other nonpoint sources from the watershed. The TMDL report identifies groundwater and natural soil conditions as likely sources of manganese and stormwater and wastewater as likely sources of total dissolved solids.

The General Use unnamed tributary of the Illinois River is an intermittent stream that has 0 cfs of flow during critical 7Q10 low-flow conditions. The unnamed tributary of the Illinois River is not listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List, since they have not been assessed. The unnamed tributary of 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* or given an integrity rating in that document. The unnamed tributary of the Illinois River is not subject to enhanced dissolved oxygen standards.

The proposed project would permanently impact 0.85 acres of the Illinois River and 0.02 acres of the unnamed tributary of the Illinois River due to embankment fill, pier placement, and culvert construction. An additional 8.44 acres of the Illinois River may be temporarily impacted if a causeway is used for construction and demolition.

A wetland survey was conducted for the project study area on August 13th and 14th, 2014, and identified 11 wetlands consisting of marsh, seep, wet shrubland, wet meadow, floodplain forest, wetland pond and vegetated bar habitat. The wetland seep community located on the southeast side of US 150/US 24/IL 116 interchange is considered a high-quality wetland community, as reflected by its FQI value of 28.8. This wetland community would not be impacted by the project. All other wetlands identified were considered lower vegetative quality communities (less than 20 FQI).

Site	Type of Wetland	Floristic Quality Index (FQI)	Total Site Area (Acres)
1	Marsh	6.8	0.03
2	Seep	1.03	1.03
3	Wet shrubland	10.7	undetermined
4	Marsh	15.0	0.40
5	Marsh	4.1	0.04
6	Wet meadow	6.0	0.25
7	Floodplain forest	15.3	>5.10
8	Wetland pond	14.5	>1.54
9	Floodplain Forest	5.3	0.02
11	Floodplain Forest	7.3	>0.83
13	Vegetated bar	10.3	0.34

The proposed project would impact three of the 11 wetlands identified in the project area (sites 7, 8 and 11). A total of 0.54 acres would be permanently impacted due to embankment fill and pier placement and a total of 0.21 acres may be temporarily impacted if a causeway is used for construction.

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses

Discharge of fill material into the Illinois River, the unnamed tributary of the Illinois River and the three wetlands is necessary to construct the piers for the new bridge, approach roadway embankment, temporary construction causeway (optional), and exit ramp culvert. Borrow material to be used would be reviewed by IDOT to meet certain material requirements for use as fill on roadway projects. Fill materials for proposed causeway would likely be aggregate.

A total of 3,026 linear feet of the Illinois River and an unnamed tributary of the Illinois River would be impacted by permanent fill, temporary fill, construction activities and equipment use. Permanent and temporary impacts are outlined in the table below. A normal and unavoidable result of construction activities would be an increase of total suspended solids in the Illinois River and the unnamed tributary. Benthic habitat in the streams would be disturbed during construction but impacts to aquatic life use are not anticipated.

Waterbody	Impact Type	Proposed Work	Linear Feet of Impact	Impacted Area (acres)	Cubic Yards of Fill
Illinois River	Permanent	Embankment Fill	112	0.27	861
	Permanent	Pier Placement	216	0.58	8,415
	Temporary	Causeway Fill*	2,350	6.81	82,700
	Temporary	Cofferdams	288	1.63	19,240
UT of Illinois River	Permanent	Culvert Placement	60	0.02	33
Totals					
Permanent Impacts			388	0.87	9,309
Temporary Impacts			2,638	8.44	101,940
Waterway Totals			3,026	9.31	111,249

Permanent impacts to the Illinois River are from the construction of the embankment for the eastbound roadway and multi-use path tie-in on the east side of the River and placement of 22 bridge piers for the new bridge. The 23 existing bridge piers would be removed as part of the existing bridge demolition and amounts to approximately 1,990 cubic yards of material over a total of 0.16 acre beneath the OHWM. The unnamed tributary to the Illinois River would be permanently impacted from the installation of a double concrete box culvert on a realigned exit ramp alignment west (downstream) of the existing ramp culvert. The existing culvert would be removed, which would restore approximately 80 linear feet and 0.03 acre of stream channel to the tributary. The maximum amount of causeway construction fill impacts have been included in the table above.

The project would impact three of the 11 wetlands identified in the project study area, totaling 0.75 acres. Permanent and temporary impacts are outlined in the table below.

Site ID	Wetland Type	Impact Type	Proposed Work	Impacted Area (acres)	Cubic Yards of Fill
7	Floodplain forest	Permanent	Embankment Fill	0.34	16,180
		Temporary	Causeway Fill	0.05	79
8	Wetland pond	Permanent	Embankment Fill	0.19	9,042
		Temporary	Causeway Fill	0.03	48
11	Floodplain forest	Permanent	Pier Placement	0.01	20
		Temporary	Causeway Fill	0.13	205
Totals					
Permanent Impacts				0.54	25,242
Temporary Impacts				0.21	332
Wetland Totals				0.75	25,574

The floodplain forest wetland site 7 and wetland pond site 8 would be permanently impacted from the placement of fill material needed to create the embankment for the eastbound roadway and multi-use path tie-in on the east side of the River. Placement of two new bridge piers on the west side of the River would permanently impact floodplain forest wetland site 11. Sites 7, 8 and 11 would be impacted temporarily by the construction of a possible causeway for contractor access to the River during bridge construction.

Project construction would be required to comply with a project specific Storm Water Pollution Prevention Plan (SWPPP) requiring the use of IDOT standard BMPs that generally consist of silt fence, inlet filters, inlet and pipe protection, temporary seeding and ditch checks. BMPs for bridge construction in the River would include the use of floating silt curtains to protect the water column from excessive turbidity.

Fate and Effect of Parameters Proposed for Increased Loading

The increase of suspended solids in the impacted streams 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 23 existing bridge piers would be removed to below the riverbed to create habitat and offset the impacts from the 22 bridge piers to be constructed. Permanent adverse effects to the Illinois River are not expected as a result of the project and no additional stream mitigation is proposed.

The table below shows the Applicant's calculations for compensatory mitigation of the permanent impacts to the site's wetlands. The wetland mitigation credits for this project would be purchased from the LaGrange Wetland Mitigation Bank in Brown County, Illinois. Sites 7, 8, and 11 would be mitigated at a ratio of 2:1 for a total of 2.26 credits purchased (1.13 acres impacted).

Site	Acres of Impact	Ratio	Calculated Mitigation
7	0.75	2:1	1.5 acres
8	0.1	2:1	0.2 acres
11	0.28	2:1	0.56 acres
Total	1.13	2:1	2.26 acres

Temporary impacts to the streams and wetlands outlined in the above tables would be restored following construction of the bridge.

Purpose and Social & Economic Benefits of the Proposed Activity

Although structural integrity and functional adequacy are the primary needs of the project, other benefits to the public include improved interchange operations, maintenance of navigational clearances for barge and other traffic, and providing pedestrian and bicycle accommodations.

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

Design Alternatives: The alternatives considered for this project included: no build; rehabilitation; existing roadway alignment (closed during construction); existing roadway alignment (staged construction); and northern roadway alignment. These alternatives do not meet the purpose and need of the project, accommodate a structurally sound transportation system, provide adequate traffic flow during construction, allow for efficient construction staging, meet current and future design standards, minimize environmental impacts or provide a safe crossing of the Illinois River for the public. Two additional alternatives were identified, a dual deck bridge structure and a new crossing at the old Upper Free Bridge alignment but were not considered reasonable alternatives because they require abandoning the westbound structure, reconfiguring areas outside the existing interchanges, and impacting several natural and socio-economic resources. The southern roadway alignment, the preferred alternative, best meets the purpose and need while minimizing impacts to site wetlands, especially those of higher quality and allows traffic to remain on the existing eastbound bridge during construction.

Construction Methods: Bridge construction methods would be determined by the selected contractor, but typical construction practices are anticipated, including the use of cofferdams for construction of the bridge piers by cranes on causeways or barges. The superstructure of the bridge would likely be built using the same cranes with the entire navigation span being lifted into place as a unit. The causeway, if constructed, would be removed to pre-construction contours following completion of the new bridge. Best management practices during construction and permanent erosion control methods would be utilized. Maximum dredging depth is anticipated to be no greater than eight feet of river sediment.

Existing Bridge Removal: Removal of the existing bridge has not yet been determined but would likely be deconstruction of the bridge in pieces using equipment to remove concrete and steel selectively or explosive demolition of the existing steel structure after concrete components have been removed. Either method would remove the existing 23 piers at least two feet below existing streambed, except the piers adjacent to the navigation channel which would be removed to 12 feet below normal pool elevation or two feet below existing streambed, whichever is lower. A temporary causeway and/or dredging may be required to complete this work.

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 of the existing eastbound bridge. The proposed project would follow conditions set forth by the Agency and USACE.

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

The Applicant initiated an IDNR EcoCAT consultation, Project #1609389, and protected resources were identified in the vicinity of the project. A letter from IDNR on April 18, 2016, concluded that strict adherence to best management practices for erosion and sedimentation control should be used to minimize the possibility of any adverse impacts to the listed species in the Illinois River and that adverse effects are unlikely. The consultation was terminated and remained valid for two years. Since the project was not implemented within two years of the date of the letter, a new consultation was needed. The Applicant initiated a new consultation, Project #1904023, with IDNR. IDNR terminated consultation on October 18, 2018 with the same conclusion as their April 18, 2016 letter recommending strict adherence to best management practices for erosion and sedimentation control.

The project is included in the Tri-County Regional Planning Commission's 2040 Envision Heart of Illinois Long Range Transportation Plan (adopted March 4, 2015) and is currently programmed in the IDOT Multi-Year Transportation Improvement Program (2018-2021).

The Illinois State Archeological Survey conducted a study of the project area that resulted in the identification of no archaeological sites. However, the potential for buried archaeological resources still exists because access was restricted to several areas. Therefore, additional investigation would begin once project plans are refined and access to those areas is secured.

The existing eastbound bridge is eligible for listing on the National Register of Historic Places and is afforded protection under Section 4(f) of the USDOT Act of 1966. An MOA executed on April 4, 2017, between IDOT, FHWA and SHPO stipulates the installation of commemorative, interpretive displays of both the existing McClugage Bridge and the previously removed Upper Free Bridge to mitigate for the project's adverse effect on the historic structure. The final locations and interpretive content of these memorials would be coordinated with the SHPO.

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.