

IEPA Log No.: **C-0028-18**
CoE appl. #: **Regulating Works Project**

Public Notice Beginning Date: **April 26, 2019**
Public Notice Ending Date: **May 17, 2019**

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: U.S. Army Corps of Engineers – 1222 Spruce Street, St. Louis, MO
63103

Discharge Location: Approximately 1.5 west of Rockwood in Randolph County.

Name of Receiving Water: Mississippi River

Project Description: Proposed construction of river training structures such as stone dikes and multiple round-point structures to minimize the need for navigational dredging.

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 contact Darren Gove at email darren.gove@illinois.gov or phone no. 217/782-3362.

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Fact Sheet for Antidegradation Assessment
For U.S. Army Corps of Engineers
IEPA Log No. C-0028-18
COE Log No. Regulating Works Project
Contact: Abby Brokaw 217/558-2012
Public Notice Start Date: April 26, 2019

The U.S. Army Corps of Engineers (“Applicant”) has applied for a 401 Water Quality Certification for impacts associated with the construction of river training structures in the Mississippi River navigation channel between River Miles (RM) 104.0 and 101.5 in Randolph County, Illinois. The project site is approximately 1.5 miles west of Rockwood, Illinois, and 5 miles southeast of Chester, Illinois.

Frequent dredging has been required to maintain a safe and sufficient navigation channel within the proposed project area. From 2000 to 2015, approximately 5.8 million cubic yards of material was dredged between UMR 104.0 and 101.5 at a cost of approximately \$12.7 million. The reach between RM 104.0 and 102.5 contains a river bend where sediment deposits along the right descending bank (RDB) sandbar, which causes encroachment on the navigation channel. Dredging is required along the aforementioned reach and the crossing from RM 102.5 to 101.5 to maintain sufficient navigation channel depth.

The Applicant conducted a study of the flow and sediment transport response conditions of the Middle Mississippi River from RM 104.0 and 101.5 between December 2015 and November 2016. The model study provided a recommended course of action based on the effectiveness of various river engineering measures aimed at reducing or eliminating repetitive channel maintenance dredging. Based on the results of the model study, the Applicant concluded that construction of river training structures, as proposed in this project, provide a sustainable alternative to dredging. Specifically, the proposed project involves degrading existing trail dikes, construction of new traditional dike, and construction of a new multiple round-point structure.

The project is expected to begin in 2019. Information used in this review was obtained from the Joint Application Form and “Executive Summary” dated January 2017.

Identification and Characterization of the Affected Water Body

The proposed project impacts the Mississippi River, a General Use Water, at a point where 47,600 cfs of flow exists upstream during critical 7Q10 low-flow conditions. The Mississippi 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 Mississippi River, Waterbody Segment IL_I-84, 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 primary contact use with a potential cause given as fecal coliform. This segment of the Mississippi River is not subject to enhanced dissolved oxygen standards.

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses

The pollutant load increases include possible increases in total suspended solids. This increase, a normal and unavoidable result of the proposed activities, may occur at the point of construction activity. Benthic habitat will also be disturbed in the area of construction but impacts to aquatic life uses of this area are not anticipated.

Fate and Effect of Parameters Proposed for Increased Loading

The increase in suspended solids will be local and temporary. Although the benthic habitat will be disturbed by the construction activities, it is anticipated to recover and improve over time.

Purpose and Social & Economic Benefits of the Proposed Activity

The Applicant is required to maintain authorized channel dimensions on the Mississippi River in support of commercial navigation. The aforementioned study model found that construction of the proposed river training structures are reasonable and necessary to provide sustainable, less costly navigation maintenance in the project area.

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

Multiple models were analyzed for the proposed project site and all were evaluated by state and federal resource partners to ensure the least environmentally damaging and practicable alternative was selected. Several of the analyzed alternatives would have encouraged the navigation channel to flow closer to the RDB by use of the river's energy. These alternatives would prevent or reduce problem sandbar encroachment on the navigation channel from the RDB side of the river. However, the aforementioned alternatives were shown to be less effective than the four alternatives (22, 24, 25, and 26) that focused on using the existing river trends and reworking existing structures. Of these alternatives (22, 24, 25, and 26), it was determined that Alternative 25 would be the most effective at improving navigation channel dimensions and reducing or eliminating the need for repetitive channel maintenance dredging.

During the alternative development process, resource partners expressed concern about flow impacts into Rockwood Chute and along the sandbar adjacent to Rockwood Island. Alternative 25 was adjusted to avoid and/or minimize these impacts. Flow visualization test results indicated no significant impacts to the flows entering Rockwood Chute or to the sandbar along the river side of Rockwood Island.

More specifically, Alternative 25 allows the navigation channel to follow a path closer to the left descending bank (LDB), which requires removing 425 feet of the riverward portion of Dike 103.1 L that projects further into the navigation channel than other structures immediately upstream and downstream and reshapes the dike trails through the bend. The new structures include a 200-foot structure along the LDB at the upstream end of the reach, and two 700-foot rootless multiple round-point structures (MRS) at RM 102.3 and 102.0. These two MRS structures were shown to reduce the need for future dredging at the channel crossing at RM 102.5 – 101.5.

The construction of the proposed project will follow conditions set forth by the Agency. The least intrusive alternative would be to not complete the project. This is not an acceptable alternative given the need to maintain authorized channel dimensions for commercial navigation.

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

On March 14, 2018, an IDNR EcoCAT consultation was initiated for the proposed project and found that the Illinois Natural Heritage Database contains no record of State-listed or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location. The consultation was immediately 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 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 maintain authorized channel dimensions on the Mississippi River in support of commercial navigation. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.