Illinois Environmental Protection Agency

Bureau of Water, Permit Section

(IEPA)

1021 North Grand Avenue East, Post Office Box 19276, Springfield, Illinois 62794-9276, 217/782-3362

The IEPA has issued a Public Notice of a request for a Clean Water Act Section 401 water quality certification that would allow the issuance of a federal permit for the discharge of pollutants to waters of the State.

Public Notice Beginning Date:	**Public Notice Ending Date:**
Wednesday, June 30, 2021	Wednesday, July 14, 2021

Agency Log No.:C-0096-21

Federal Permit Information: This civil works project is under the jurisdiction of Louisville District, Regulatory Branch U.S. Army Corps of Engineers

Name and Address of Discharger: U.S. Army Corps of Engineers, Linda Murphy - 600 Dr. Martin Luther King Place, Louisville, KY 40202

Discharge Location: In Section 30 of Township 8-South and Range 11-East of the East 3rd Principal Meridian in Gallatin County. Additional project location information includes the following: Approximately Ohio River RM (river mile) 848, just below confluence of the Wabash River, near Shawneetown, IL 62867

Name of Receiving Water: Ohio River

Project Description: Proposed river training structures consisting of four dikes on the Illinois shoreline and three dikes on Wabash Island, KY.

Construction Schedule: Beginning Aug 2021 and ending to be determined

The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice. Interested persons are invited to submit written comments on the project to the IEPA at the above address. Commenters shall provide their name and address along with comments on the certification request. The IEPA Log number must appear on each comment page. Commenters may include a request for public hearing. Only comments that pertain to Clean Water Act Section 401 authority as defined under 40 CFR part 121.3 will be considered. Part 121.3 defines the "scope of a Clean Water Act section 401 certification is limited to assuring that a discharge from a Federally licensed or permitted activity will comply with water quality requirements". Requests for additional comment period must provide a demonstration of need. The last day that comments will be received will be on the Public Notice period ending date unless the IEPA grants an extended notice period.

The attached Fact Sheet provides a detailed description of the project and the findings of the IEPA's antidegradation assessment.

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 see the contact information below.

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Post Document. No. C-0096-21-06302021-PublicNoticeAndFactSheet.pdf

Antidegradation Assessment Review for a 401 Water Quality Certification for Dike Construction in the Ohio River
IEPA Log No. C-0096-21
Gallatin County
Contact: Angie Sutton 217-782-9864

U.S. Army Corp of Engineers ("Applicant") has applied for a 401 Water Quality Certification for impacts associated with dike construction in the Ohio River just downstream of the confluence of the Wabash River in Section 30, Township 8 South, Range 11 East. The project site is located 10 miles East of Shawneetown between river miles 847.8 and 849.5. Approximately 58,650 Cubic Yards (CY) of fill will be used to construct 7 dikes, of which 3 dikes and 3 side bank armoring locations occur on the Kentucky side of the Ohio River. The project will create flow diversion that is intended to alleviate the need for maintenance dredging, which has increased dramatically over the years. The increase in sediment deposits has caused shoaling, which creates a threat to navigation in the area. As a result of constructing the proposed dikes, the river flow velocity will increase, sediment will be directed downstream, and scouring will be promoted within the navigational channel decreasing the frequency of dredging and promoting navigational safety. Approximately 9,200 CY of accumulated sediment will be excavated from the footprint of the Illinois side dikes 1-4 prior to placement of the fill. Dredge deposits will be placed between dikes 4 and 5, along approximately 3,000 linear feet (LF) of shoreline where dredged material is already placed from the maintenance dredging program. Excavated materials that are moved onshore during construction of the out of water sections of the structures will be used in the construction of these sections. Materials excavated during the keying in and armoring phase will not be moved beyond the immediate area for individual dike locations. Additionally, out of water excavated materials will not be deposited in the area designated for dredge spoils and no materials from the Kentucky shoreline will be moved to the Illinois side. Best Management Practices (BMPs) will be employed to minimize potential impacts to aquatic environments. 6.3 acres of wetland exist on the project site with possible impacts to 3.7 acres of wetlands as a result of the dike construction. No mitigation is proposed for this project as the overall project will decrease the need for dredging and the associated water quality impacts, and because the quarrystone structures will provide habitat diversity for aquatic species.

Information used in this review was obtained from the application documents dated December 18, 2020, April 2021, April 23, 2021, and May 25, 2021.

Identification and Characterization of the Affected Water Body.

The Ohio River has 13,950 cfs of flow during critical 7Q10 low-flow conditions and is classified as General Use Water. The Ohio 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. Waterbody Segment IL_A-848-849 is listed on the 2018 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for fish consumption with potential causes given as dioxin (including 2,3,7,8-TCDD), mercury and polychlorinated biphenyls (PCBs); primary contact recreation with a potential cause given as fecal coliform. Aquatic life use is fully supported.

The 6.3 acres of wetlands within the project area have been classified as freshwater emergent wetland and freshwater forested scrub wetland, and a riverine wetland habitat as referenced on the National Wetland Inventory map (Figure 3) included as part of the 404(b)(1) Evaluation dated May 2021. It was estimated that 3.7 acres of wetlands will potentially be impacted by the project. Field reconnaissance conducted at the site June 10, 2020 found the areas to be only seasonally inundated and of marginal ecological significance. It was also determined that due to the slope, river velocity, and frequency of flooding and

scour occurring in the area, vegetated areas that could be considered riverine habitat area are either absent in the area of direct impact or occur outside of the work area.

A mussel survey was conducted in September 2019 which surveyed a 1,580 square meter area that included 9 dike transects. Three live mussels were documented (all in the footprint of one dike), including 2 federally endangered *Potamilus capax.* Based on these findings, plans for two proposed dikes including the footprint containing mussels, were removed from consideration for construction. Seven of the nine dikes are proposed for construction.

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

The pollutant load increases that would occur from this project include some possible increases in total suspended solids. These increases are a normal and unavoidable result of excavation and placement of fill material for construction of the 7 dikes. Excavated material (approximately 9,200 CY) consists of medium to coarse grained alluvial sand, interbedded and layered fine sand, silt, and clay, and will be deposited onshore nearby in an area currently used by an existing dredge program. Material removed by excavation of the dike footprints are derived from outflow of the Wabash River and/or are part of the normal Ohio River sediment load. An estimated 33,514 CY of rip rap consisting of graded stone A or MVD Class B or C or "Baby A" stone will be placed for the construction of the four dike structures in the Illinois shoreline (58,650 CY for the seven dikes). Bank armoring stone #205 will be used for keying in dike structures and bank protection.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in total suspended solids would be local and temporary. Excavated materials that are moved onshore during construction of the out of water sections of the structures will be used in the construction of these sections. Materials excavated during the keying in and armoring phase will not be moved beyond the immediate area for individual dike locations. Although the existing benthic habitat would be permanently removed by the dredging activities, it is anticipated to recover and improve over time once construction is complete. The dikes are expected to create a stabilizing effect on the surrounding environment and benefit much of the fauna over the long-term. Additionally, the production of slack zones between dikes is expected to provide favorable habitat for benthic invertebrates and fish communities. Construction of the in-water portions of the dikes will occur from work and material barges which will be moved to the site by towboat. Barges will be fleeted in the area in the vicinity of the work location and spudded to the river bottom. A land-based excavator will be loaded from a work barge to the shoreline where all work for keying in the dikes will be accomplished from the shore side. Dikes will be keyed into the bank in orientations that will cause the flow of the river to be less likely to erode the bank connection. Best Management Practices used for construction will include the following:

- Perform equipment maintenance away from streams, water bodies, and ditch lines whenever possible. Fuel storage shall be contained/maintained in an area where leakage and spilling into the river will be avoided.
- Perform any needed maintenance to the crane and excavator prior to arriving at the work site.
- Ensure that crane and excavator have no oil or hydraulic leaks that will spill or wash off in the river water during construction.
- Operate the towboat at as low of RPMs as practicable when approaching and leaving the work site to prevent bottom scouring.
- Avoid dropping or spilling excess construction material into the river.
- Minimize the area to be disturbed
- Implement sediment and erosion control measures to limit instream impacts.

The project will benefit the area overall by eliminating the need for maintenance dredging.

Purpose and Social & Economic Benefits of the Proposed Activity.

The proposed project will divert flow in a way that promotes scour and alleviates the ongoing need for maintenance dredging of ongoing natural deposition of river substrates occurring downstream of the mouth of the Wabash River. The USACE maintains a 9 foot deep navigation channel in the Ohio River for continued barge transport of goods and services. This maintenance has been carried out by routine dredging which has increased in frequency over the years. The project will provide a safe navigation channel by eliminating the ongoing threat of shoaling and erosion in the project area.

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

Alternatives developed for this project included a "No Action" alternative which considers continuing operations per the current USACE maintenance dredging program, and the Proposed Action alternative which outlines construction of the dikes as described in the current construction plans. Providing these alternatives as the only two is appropriate because it has been determined that no other reasonable alternatives exist to evaluate. No other technically viable alternatives, at a feasible cost available to resolve the problem have been identified by numerical hydrodynamic modeling scenarios. The current design of 3 dikes on Wabash Island, and 4 dikes on the Illinois shore with sloping crest from top of bank to elevation of 312 feet next to the navigation channel, was shown to produce the most desirable results. This design was proven to best prevent shoaling at and just downstream of the mouth of the Wabash River and protect the outer bend of the Illinois shore from further erosion while creating a better navigational sailing line.

The Applicant has provided the following alternatives:

No Action:
Under the No Action Alternative, USACE would not complete the proposed projects. Development and management of the project area would continue as it currently exists and would result in the same environmental consequences. Adverse effects of sediment deposition, bank erosion and the threat to navigation and commerce would continue. Bank stabilization benefits and flow regime changes would not occur, and rapid response to resolve emergencies as allowed for in the current Water Quality Certification would be conducted on a case-by-case basis. Due to response delays associated with case-by-case action, this would not be an effective strategy to deal with ongoing short- and long-term threats to navigation in the area. This alternative is not preferred and therefore, not chosen.

Proposed Action-Approval and Construction of the Wabash Dikes:
Under the Proposed Action Alternative, the Wabash Dike project would be approved and implemented using the current design and scope. This alternative would reduce localized bank erosion and sediment deposition and reduce or eliminate the ongoing threat to navigation and commerce in the project area caused by shoaling. The need for dredging in the project area would also be reduced and as a result, eliminate potential effects on the surrounding environment associated with dredging events. After construction of the dikes is completed there will be no operation, maintenance, repair, replacement, and rehabilitation required. There is no expectation that removal of sediment buildup will between the dikes will be required. This action is the preferred alternative.

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

An EcoCAT endangered species consultation was submitted on May 13, 2021, Project #2113690. Illinois Department of Natural Resources letter dated May 25, 2021 states that the project was subjected to **r**eview as part of the NEPA process and that the Department has no concerns with this project at this time.

The project was reviewed for federally listed species, and the USFWS IPaC resource listed 17 species know to occur in this section of the Ohio River or near the vicinity of the project area.

Endangered mussel species potentially affected by the project include the following:

- Spectaclecase *(Cumberlandia monodonta)*
- Fanshell *(Cyprogenia stegaria)*
- Purple cat's paw *(Epioblasma obliquata obliquata)*
- Northern rifflesheII *(Epioblasma torulosa rangiana)*
- Ring pink *(Obovaria retusa)*
- Orangefoot pimpleback *(Plethobasus cooperianus)*
- Sheepnose *(Plethobasus cyphyus)*
- Clubshell *(Pleurobema clava)*
- Rough pigtoe *(Pleurobema plenum)*
- Fat pocketbook *(Potamilus capax)*

Threatened mussel species potentially affected include the following:

- Rabbitsfoot *(Theliderma cylindrica)*

The above-listed mussel species may have been historically present in the area but are not expected to be present within the proposed project area.

Endangered mammals potentially affected by the project include the following:

- Indiana bat *(Myotis sodalis)*
- Gray bat *(Myotis grisescens)*
- Norther long-eared bat *(Myotis septentrionalis)*

Other federally endangered species within range of the project include the bird species, the interior least tern *(Sterna antillarum)*, a federally endangered plant, Short's bladderpod *(Physaria globosa)* and the rusty patched bumble bee *(Bombus affinis)*.

It was determined that no critical habitat has been designated in this area for the federally listed species.

The Illinois State Historic Preservation Office (SHPO) issued a letter dated December 18, 2020 which states that the office has reviewed documentation provided for the project. The SHPO noted that the project as proposed will have no adverse effect on sites 11G20, 160 and 161 listed on or eligible for listing on the National Register of Historic Places. The SHPO recommends Site 11G161 be monitored during construction of Dike 5 to ensure no disturbance per the proposed plans.

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 the Ohio River by diverting flow in a way that promotes scour and alleviates the ongoing need for maintenance dredging. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.