

**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:

Wednesday, August 21, 2024

Public Notice Ending Date:

Wednesday, September 4, 2024

Agency Log No.: C-0181-22

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

Name and Address of Discharger: United States Army Corps of Engineers, Travis J. Schepker - 100 Arsenal Street, St. Louis, MO 63118

Discharge Location: In Statewide/Regional in Jersey County. Additional project location information includes the following: All counties in Illinois bordering lower Mississippi River through Pike County and including counties bordering the lower Illinois River through Brown and Cass Counties, Statewide/Regional, IL Statewide/Regional

Name of Receiving Water: Upper Mississippi River, Illinois River, and Kaskaskia River (between Mississippi River confluence and Kaskaskia Lock & Dam)

Project Name/Description: Mississippi River Maintenance Dredging - Maintenance dredging within the navigation channel of the Upper Mississippi River (RM: 0 – 300) and Illinois River (0-80) is the primary focus of the proposed project. Maintenance dredging involves the periodic removal of naturally recurring deposited bottom sediments such as gravel, sand, silt, and clays in existing navigation channels. Dredged materials will be discharged into predefined placement areas within the Mississippi River. A combination of hydraulic dustpan dredge, hydraulic cutterhead dredge, and mechanical dredging will be used to accomplish districts dredging mission.

Annual dredge production is highly variable and dependent on regional weather. The average annual dredge production on the Mississippi River between 2017 – 2021 was 4,248,061 cubic yards. During that same period, annual average dredge production was 257,000 cubic yards for the Illinois River and 124,000 cubic yards for the Kaskaskia River. In general, sediments dredged from the Kaskaskia River are placed in an upland disposal facility.

Construction Schedule: Beginning Aug 2022 and ending Dec 2028

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 must 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 hearing requests and comments that pertain to Clean Water Act Section 401 authority will be considered. This authority provides consideration of whether the permit or license would be consistent with Sections 301, 302, 303, 306, or 307 of the CWA, as well as “any other appropriate requirement of State [or tribal] law”. Requests for additional comment period must provide a demonstration of need. The final day of comment acceptance will be on the Public Notice Ending date shown above, 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-0181-22-08212024-PublicNoticeAndFactSheet.pdf

The United States Corps of Engineers (applicant) has applied for 401 water quality certification for maintenance dredging of the navigational channel on the Mississippi River from River Mile (RM) 0 to 300, the Illinois River from River Mile 0-80, and the Kaskaskia River from River Mile 0-1. The affected reaches of the rivers are located in the following counties: Brown, Pike, Calhoun, Jersey, Madison, St. Clair, Monroe, Randolph, Jackson, Union, and Alexander. The Mississippi River reach extends from just below Lock and Dam No. 22 to the confluence with the Ohio River and will include the lower 1 RM of the Kaskaskia River between the confluence of the Mississippi River and the Kaskaskia Lock and Dam, and the Illinois River reach extends from its confluence with the Mississippi River and LaGrange Locks and Dam.

The United States Army Corps of Engineers Saint Louis District (CEMVS) is authorized by Congress to maintain a navigation channel with a minimum depth of nine feet for river miles (RM) 0-300 of the Upper Mississippi River, RM 0 – 80 of the Illinois River, and the lower 1 RM of the Kaskaskia River (between Mississippi River confluence and Kaskaskia Lock & Dam). For nearly a century, this authorization has been fulfilled by lock and dam projects, river training structures, and dredging. This ongoing effort is required to facilitate commercial navigation by providing safe, reliable, highly cost-effective, and environmentally sustainable waterborne transportation systems.

Maintenance dredging within the navigation channel of the Upper Mississippi River (RM: 0 – 300) and Illinois River (0-80) is the primary focus of the proposed project. Maintenance dredging involves the periodic removal of naturally recurring deposited bottom sediments such as gravel, sand, silt, and clays in existing navigation channels. Dredged materials will be discharged into predefined placement areas within the Mississippi River. A combination of hydraulic dustpan dredge, hydraulic cutterhead dredge, and mechanical dredging will be used to accomplish districts dredging mission.

Annual dredge production is highly variable and dependent on regional weather. The average annual dredge production on the Mississippi River between 2017 – 2021 was 4,248,061 cubic yards. During that same period, annual average dredge production was 257,000 cubic yards for the Illinois River and 124,000 cubic yards for the Kaskaskia River. In general, sediments dredged from the Kaskaskia River are placed in an upland disposal facility.

Dredging along the rivers is necessary in order to maintain the 9-foot navigational channel. Dredged material may be removed by either hydraulic methods or mechanical methods. Most sediments in the river navigation channel are sandy. Due to the large sediment load carried by the waterway and continually changing flows, specific dredging locations and quantities to be dredged vary from year to year. Potential dredge material placement sites would include shoreline placement, floodplain placement, beneficial use site, or upland or contained placement as well as open water disposal. Placement areas consistent with previous dredging projects. Prior to the dredging and placement of any dredged material, representatives of the Corps of Engineers, U.S. Fish and Wildlife Service, Illinois EPA, Illinois Department of Natural Resources, Missouri Department of Conservation, and Missouri Department of Natural Resources will be notified in order to comment on any potential impacts and provide any necessary coordination. This is an on-going and continuous project for routine dredging of the Mississippi, Illinois and Kaskaskia Rivers by the applicant. The previous permit was issued under Illinois EPA #C-0330-05.

Antidegradation assessment materials were received from the Applicant under a cover, Joint Application Form for Illinois, Mississippi River Maintenance Dredging, St Louis District, ACOE Permit # Not Available, IEPA Log # C-0181-22, received August 2, 2022, from Travis Schepker, United States Army

Corps of Engineers (USACE). Supplemental information was received from the applicant on August 2, 2022, and was included in the application form on file.

Identification and Characterization of the Affected Water Body.

The Mississippi River from River Mile 0 to 300 is a General Use Water. At River Mile 300, located in Calhoun County, the 7Q10 flow is approximately 16,510 cfs. At River Mile 0, located in Alexander County, the 7Q10 flow is approximately 49,200 cfs. The Mississippi River between these river mile markers is not listed as biologically significant in the 2008 Illinois Department of Natural Resources publication Integrating Multiple Taxa in a Biological Stream Rating System nor been given an integrity rating. The Mississippi River reach for this project are comprised of six segments listed as Waterbody Segments IL_K-21, IL_J-05, IL_J-02, IL_J, IL_J-36, and IL_I-84. The reach is enhanced in regard to the dissolved oxygen water quality standard for part of IL_K-21 (River Mile Marker 300.0 to Carroll Island), part of IL_J-05 (from East Alton to Hartford), all of IL_J-02 (from Granite City to Brooklyn), all of IL_J (from Fairmont to south of Cahokia), part of IL_J-36 (Columbia to north of Valmeyer) and part of IL_I-84 (south of Thebes to the confluence with the Ohio River).

The Illinois River from River Mile 0 to 80 is a General Use Water. At River Mile 80, located in Cass and Brown Counties, the 7Q10 flow is approximately 3685 cfs. At River Mile 0, located in Jersey and Calhoun Counties, the 7Q10 flow is approximately 3800 cfs. The Illinois River between these river mile markers is not listed as biologically significant in the 2008 Illinois Department of Natural Resources publication Integrating Multiple Taxa in a Biological Stream Rating System nor been given an integrity rating. The Illinois River reach for this project are comprised of two segments listed as Waterbody Segments IL_D-01 and IL_D-32. The reach is not subject to enhanced dissolved oxygen standards.

The Kaskaskia River from River Mile 0 to 1 is a General Use Water. At River Mile 1, located in Randolph County, the 7Q10 flow is approximately 96. At River Mile 0, located in Randolph County, the 7Q10 flow is approximately 98. The Kaskaskia River between these river mile markers is not listed as biologically significant in the 2008 Illinois Department of Natural Resources publication Integrating Multiple Taxa in a Biological Stream Rating System nor been given an integrity rating. The Kaskaskia River reach for this project is comprised of one segment listed as Waterbody Segment IL_O-30. The reach is not subject to enhanced dissolved oxygen standards.

All waterbody segments are found on the 2020/2022 Illinois 303(d) List.

The Mississippi River, Waterbody Segment, IL_K-21, is listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for fish consumption use with potential causes given as aldrin, dieldrin, endrin, heptachlor, mercury, mirex, polychlorinated biphenyls, and toxaphene, and primary contact use with a potential cause given as fecal coliform. Aesthetic quality and aquatic life use is fully supported.

The Mississippi River, Waterbody Segment, IL_J-05, is listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for fish consumption use with potential causes given as aldrin, dieldrin, endrin, heptachlor, mercury, mirex, polychlorinated biphenyls, and toxaphene. Aesthetic quality, aquatic life, primary contact and public and food processing water supply uses are fully supported.

The Mississippi River, Waterbody Segment, IL_J-02, is listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for fish consumption use with potential causes given as aldrin, dieldrin, endrin, heptachlor, mercury, mirex, polychlorinated biphenyls, and toxaphene. Aquatic life, primary contact and public and food processing water supply uses are fully supported.

The Mississippi River, Waterbody Segment, IL_J, is listed on the 2020/2022 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. Aquatic life and food processing water supply uses are fully supported.

The Mississippi River, Waterbody Segment, IL_J-36, is listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for Aquatic Life use with a potential cause given as pH, fish consumption use with potential causes given as aldrin, dieldrin, endrin, heptachlor, mercury, mirex, polychlorinated biphenyls, and toxaphene, and primary contact use with a potential cause given as fecal coliform. Aesthetic quality use is fully supported.

The Mississippi River, Waterbody Segment, IL_I-84, is listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for fish consumption use with potential causes given as aldrin, dieldrin, endrin, heptachlor, mercury, mirex, polychlorinated biphenyls, and toxaphene, and primary contact use with a potential cause given as fecal coliform. Aesthetic quality, aquatic life, and public and food processing water supply uses are fully supported.

The Illinois River, Waterbody Segment, IL_D-01, is listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for fish consumption use with potential causes given as aldrin, dieldrin, endrin, heptachlor, mercury, mirex, polychlorinated biphenyls, and toxaphene. Aesthetic quality, aquatic life, and primary contact uses are fully supported.

The Illinois River, Waterbody Segment, IL_D-32, is listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for fish consumption use with potential causes given as aldrin, dieldrin, endrin, heptachlor, mercury, mirex, polychlorinated biphenyls, and toxaphene, and aquatic life use with a potential cause given as dissolved oxygen. Aesthetic quality and primary contact uses are fully supported.

The Kaskaskia River, Waterbody Segment, IL_O-30, is listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use with potential causes given as total phosphorus, sedimentation/siltation, and total suspended solids (TSS), fish consumption use with potential causes given as aldrin, dieldrin, endrin, heptachlor, mercury, mirex, and toxaphene, and public and food processing water supply use with potential causes given as atrazine. Aesthetic quality use is fully supported.

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

Pollutant load increases that would occur from this project include some increases in suspended solids during the dredging and placement of the spoil material. The benthic habitat to be dredged will be disturbed but should revert to its previous condition of aquatic life support soon after dredging.

Dredged materials are discharged into predefined placement areas within the Mississippi River. Over 90% of the material dredged by CEMVS is classified as sand and gravel. This is evident for material dredged from the main channels of the Mississippi and Illinois Rivers. Silts and clays can be prevalent within the upper and lower approaches to locks and dam's due to the lack of flow caused by impoundments.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids will be local and temporary. Placement areas will be the same (or very similar) to past dredging projects. This is a perpetual project for the Corps and will be considered “on-going” for future antidegradation assessments, unless conditions significantly change.

Dredge material management and disposal are guided by EPA-823-B-98-004: Evaluation of Dredged Material Proposed for Discharge Into Waters of the United States-Testing Manual and Missouri CSR 20-7.031: MODNR Clean Water Commission Water Quality.

Specific actions include sediment collection and analysis of bed material prior to a dredging event. A grain size analysis is performed to determine the percentage of gravel (>2.0mm), sand (0.05 – 2mm), and fine (<0.05mm) material. When greater than 20% of a sediment sample is classified as fine material, then sediments are further analyzed for 1.) Bulk Material Analysis: Lead, Zinc, Mercury, Polychlorobiphenyls and any other contaminants listed in Missouri 303d and 2.) Elutriate Analysis: TSS, VSS, Ammonia, lead, zinc, and other contaminants listed in Illinois 303d.

Dredge monitoring is implemented when laboratory analysis indicates potential impacts to water quality. Dredge monitoring will help ensure that no water quality standards are exceeded outside of allowed mixing. If standards are consistently exceeded, then dredge operations are instructed to alleviate impacts through actions which may include placement of material into an upland disposal facility, decrease consecutive hours of discharge, decrease production, switch from hydraulic to mechanical dredging, and/or introduce flocculates to dredge spoils.

With exception to emergencies, dredging occurs outside of fish spawning season (April 1 - June 15).

Purpose and Anticipated Benefits of the Proposed Activity.

This project is necessary in order to maintain the 9-foot navigation channel on the Mississippi, Illinois, and Kaskaskia Rivers. This will maintain the commercial and recreational uses of the river system.

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

The project will follow guidelines set forth by the Agency. Prior to the discharge of any dredged material, the U.S. Fish and Wildlife Service, Illinois EPA, Illinois Department of Natural Resources, Missouri Department of Conservation, and Missouri Department of Natural Resources shall be informed of the proposed dredging activity. Dredging shall occur in historic dredging locations. The historic dredging locations include reaches of the river(s) in which dredging has occurred in the past five years. If additional reaches are necessary, they need to be reviewed individually. Historic dredge placements sites, used within the last five years, may be utilized. Any new or additional dredge spoil placement sites will need to be reviewed individually. The least intrusive alternative would be to not allow dredging. However, this is not an acceptable alternative given that this is a useful project and will maintain commercial and recreational uses of the river system.

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

In April 1998, Region 3 of the U.S. Fish and Wildlife Service (FWS) and Mississippi Valley Division (MVD) of the U.S. Army Corps of Engineers entered into formal Section 7 consultation under the Endangered Species Act (ESA). The consultation covered the continuation of operation and maintenance activities on the Upper Mississippi River Nine Foot Navigation

Channel. Direct effects addressed within the consultation were navigation channel dredging, dike and revetment maintenance, water level management, and management of Corps lands. Navigation traffic indirect effects, recreation indirect effects, and cumulative effects were also addressed.

Formal consultation was concluded in August 2000, when the MVD Commander sent a letter to the Director of Region 3 FWS setting forth an implementation plan for the Corps project that would accommodate the findings of the FWS's Biological Opinion. Since 2000, the St. Louis District has undertaken many habitats restoration and research initiatives in accordance with the findings of the Biological Opinion.

Agency Conclusion.

This assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (Antidegradation standard). We find that the proposed activity, utilizing historic dredging locations and placement sites, will result in the attainment of water quality standards. 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. This activity will benefit the community at large by maintaining commercial and recreational uses of the river system. The proposed activity is therefore compliant with the Antidegradation standard.