

IEPA Log No.: **C-0566-05**

CoE appl. #: **N/A**

Public Notice Beginning Date: **June 26, 2013**

Public Notice Ending Date: **July 17, 2013**

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
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, Rock Island District – Clock Tower Building, P.O. Box 2004, Rock Island, IL 61204-2004

Discharge Location: Near Galena in Upper Mississippi River between river miles 563 and 573 in Wabash County.

Name of Receiving Water: Upper Mississippi River

Project Description: Proposed mechanical dredging and discharge of sediment to facilitate habitat rehabilitation within Mississippi River backwater channels and lakes.

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. 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 applicant has applied for 401 water quality certification for aquatic habitat rehabilitation and enhancements within the backwater lake areas of Pool 12, located within Mississippi River Miles 563 to 573, in Jo Daviess County, Illinois. This project is located within the Upper Mississippi River National Wildlife and Fish Refuge. Following the construction of Lock and Dam 12 in 1939, sediments have been slowly accumulating within the backwater areas reducing depth and areas of quality habitat and blocking entrances to the backwater areas. Additionally, creation of the Pool altered the floodplain forest community resulting in a forest that is dominated by similar-aged cottonwood and silver maple trees. The project proposes to create off-channel deep-water areas to provide overwintering and year-round habitat for fish, maintain and increase depth diversity in backwaters, increase forest stands with hard mast-producing trees as a dominant or component species, and create areas within the pool with sufficient elevation to support regeneration of hard mast-producing trees. Habitat rehabilitation and enhancement activities will be conducted in the following four areas within the refuge: Sunfish Lake, Kehough Slough, Stone Lake, and Tippy Lake. The proposed activities include the mechanical excavation of approximately 63 acres of deep backwater channels to a depth of 8 feet below flat pool providing overwintering and year-round habitat for fish in the surrounding 6,942 acres. The excavated material would be used to construct land and aquatic berms to enhance topographic diversity. Three rock closure structures will be constructed as part of the project at Sunfish Lake, Kehough Slough and Stone Lake. Rock closure structures will be constructed to reduce overwintering water velocities while maintaining necessary levels of dissolved oxygen. The project also proposes to establish mast-producing trees on approximately 40 acres of land berms. Riprap may also be used to stabilize areas sensitive to erosion. Approximately 671,000 cubic yards of material will be mechanically dredged from the river bottom to provide the proposed deepwater habitat, this includes 240,000 cubic yards for Sunfish Lake, 165,000 cubic yards for Kehough Slough, 120,000 cubic yards for Tippy Lake, and 146,000 cubic yards for Stone Lake. The proposed channels will have a depth of 8 feet and a width of 60 feet with 3:1 slopes. The proposed depth will allow the channels to maintain suitable depths throughout the proposed 50-year project life. Most of the dredged material will be placed adjacent to the excavated channels and will be utilized to construct deflection berms and raised topography (terrestrial berms) to aid in the reduction of sedimentation within the channels. The mast tree establishment will occur on the terrestrial berms. These berms will be built up to an elevation above the two-year flood event for the associated lake. This elevation should mimic pre-impoundment ridges and promote natural regeneration of the forest in the future. Candidate species for planting include swamp white oak, bur oak, pin oak, shellbark hickory, and pecan. This project is proposed to be completed over a period four years in the following sequence: 1) Sunfish Lake, 2) Stone Lake, 3) Kehough Slough, and 4) Tippy Lake.

Identification and Characterization of the Affected Water Body.

The Mississippi River has a 7Q10 flow of 13,545 cfs at this location and is a General Use Water. The Mississippi River at this location is not given an integrity rating in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*. The Mississippi River, Waterbody Segment M-12, is listed on the draft 2012 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for fish consumption use. It is fully supportive of aquatic life and primary contact (swimming) uses. The potential causes of fish consumption impairment are PCBs and mercury. According to the IDNR WIRT system, the project is located within the Mississippi River Backwaters-Jo Daviess County INAI site. Additionally, the Higgins Eye Pearly Mussel may be located within the area. In a letter from Robert Schanzle dated August 4, 2003, IDNR stated that the project is

located within the Mississippi River Backwaters-Jo Daviess County INAI site and that a number of Illinois threatened or endangered species occur within this reach of the Mississippi River. However, it does not appear that any will be adversely impacted by dredging and placement operations at the identified locations.

Sunfish Lake, Kehough Slough, Tippy Lake, and Stone Lake are all General Use Waters. These lakes are not listed on the draft 2012 Illinois Integrated Water Quality Report and Section 303(d) List 303(d) List nor are they given an integrity rating in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*. These lakes are located within the Upper Mississippi River National Wildlife and Fish Refuge. The lakes are located at the following Mississippi River miles: Sunfish Lake – RM 564, Kehough Slough – RM 567.5, Tippy Lake – RM 571, and Stone Lake – RM 572. Within all of these areas approximately 29 acres of aquatic habitat and 47 acres of floodplain terrestrial habitat would be affected by construction of the deflection berms. An additional 78 acres of shallow water habitat will be deepened.

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 excavation and the placement of the dredged material. The benthic habitat to be dredged will be disturbed but should revert to its previous condition of aquatic life support soon after dredging. Elutriate analysis conducted by the Corps of Engineers indicated that acute water quality standard for zinc may be exceeded during the construction process as zinc is closely associated with fine-grained sediments.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids and zinc will be local and temporary. These increases will be limited to the construction of the proposed project. Utilization of mechanical dredging will help minimize the increase. Additionally, straw bales, silt curtains, and other means will be utilized as applicable to minimize any increases.

Purpose and Anticipated Benefits of the Proposed Activity.

The project proposes to create off-channel deep-water areas to provide overwintering and year-round habitat for fish, maintain and increase depth diversity in backwaters, increase forest stands with hard mast-producing trees as a dominant or component species, and create areas within the pool with sufficient elevation to support regeneration of hard mast-producing trees. These habitat rehabilitation and enhancement activities will improve the aquatic and terrestrial habitat of the Upper Mississippi River National Wildlife and Fish Refuge.

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

The proposed project activities will follow guidelines set forth by the Agency and USACE. The applicant has considered alternatives for the proposed project. These alternatives included variations on work at six sites within the refuge as well as alternative dredging methods. The analysis of the alternatives compared the environmental benefits and costs of each alternative. It was determined in the analysis that restoration of only four of the six sites was needed to address the habitat needs within Pool 12. The analysis also determined that the alternative dredging method of hydraulic dredging should be eliminated due to the potential for causing negative water quality impacts.

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

The U.S. Army Corps of Engineers, Rock Island District, issued a public review draft of the Upper Mississippi River System Environmental Management Program Definite Project Report with Integrated Environmental Assessment (R-19PR) in September 2005.

In a letter from Robert Schanzle dated October 17, 2005, IDNR Office of Realty and Environmental Planning has reviewed this project and has no objections to permit issuance.

In a letter from Stephanie Fitzsimons dated June 18, 2013, IDNR stated that an initial report submitted through the EcoCAT website indicated the potential presence of protected resources in the vicinity of the project location. Upon further review, IDNR concluded that adverse impacts to the protected resources are unlikely. Consultation is 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 the assessment was written. We tentatively find that the proposed activity would result in the attainment of water quality standards; that all existing uses of the Mississippi River would be maintained; 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 community by continuing recreational uses of the lake. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.