

IEPA Log No.: **C-0214-14**
CoE appl. #: **2013-743**

Public Notice Beginning Date: **August 15, 2014**
Public Notice Ending Date: **September 5, 2014**

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: U.S. Army Corps of Engineers, St. Louis District, 1222 Spruce Street, St. Louis, Missouri 63103-2833

Discharge Location: Along the Mississippi River between river miles 30.8-30.7 and 34.2-34.1 in Alexander County.

Name of Receiving Water: Mississippi River

Project Description: Weir construction.

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 an application received from 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 Thaddeus Faught at 217/782-3362.

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Fact Sheet for Antidegradation Assessment

U.S. Army Corps of Engineers, St. Louis District – Mississippi River – Alexander County

IEPA Log No. C-0214-14

CoE Log# 2013-743

Contact: Brian Koch (217) 558-2012

August 15, 2014

The U.S. Army Corps of Engineers, St. Louis District (“Applicant”) has applied for a 401 water quality certification for permanent fill activities associated with the installation of bendway weirs between River Miles (RMs) 34.2-34.1 and 30.8-30.7 of the Mississippi River. The project purpose is to reduce sedimentation and provide a safe and dependable navigation channel without the use of dredging. Dredging has been required in the Dogtooth Bend reach nearly every year since 2001 at an average cost of over \$1 million/year. The proposed structures include two 600 foot bendway weirs at RMs 34.2-34.1 along the left descending bank (LDB) and two 160 foot bendway weirs at RMs 30.8-30.7 along the right descending bank (RDB). The proposed weir construction is a supplement to a previous 401 water quality certification (C-0682-13) which authorized fill impacts in these areas over a smaller footprint. The weirs were originally intended to be constructed at 20 feet below the low water reference plane. However, recent surveys showed that this elevation may not allow for an adequate cross section to ensure structure stability and effectiveness. Therefore, the Applicant is now proposing to raise the weirs to be consistent with other weirs in the Dogtooth Bend Phase 5 project at 15 feet below the low water reference plane. The revised plans require the permanent fill of an additional 22,700 feet² of benthic habitat using ‘A’ stone. All work would be performed from floating platforms without the use of bank line access.

Identification and Characterization of the Affected Water Body.

The Mississippi River (Segment I-84) is a General Use water with a 7Q10 flow of 48,740 cfs at the project location. It is listed in the draft 2014 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for primary contact recreation (cause = fecal coliform) and fish consumption (causes = mercury and polychlorinated biphenyls). The river at this location is an enhanced waterbody pursuant to the dissolved oxygen water quality standard. Using the 2008 Illinois Department of Natural Resources publication *Integrating Multiple Taxa in a Biological Stream Rating System*, the Mississippi River at this location is not listed as a biologically significant stream and has not been given an integrity rating.

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 suspended solids during construction, but this is expected to be minimal given the quality and grading of stone to be used. Aquatic life use of the existing benthic habitat would be permanently removed by fill activities. However, the increased surface area provided by new structures would provide increased habitat for fish and invertebrates, as well as shelter from stream flow during critical periods.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids would be local and temporary. The new habitat provided by the bendway weirs would more than offset the loss of existing habitat to be permanently filled.

Purpose and Social & Economic Benefits of the Proposed Activity.

The purpose of the proposed project is to reduce dredging by installing bendway weirs to reduce sedimentation. Completion of the project would maintain the navigational channel in this reach and benefit recreational and commercial users.

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

Alternatives were assessed by the Applicant during project planning for the entire Dogtooth Bend study reach (RM 34.5-27). The Applicant utilized their Hydraulic Sediment Response model with the objective of identifying the most effective and economical plan to reduce or eliminate sedimentation at the project location. Alternatives were assessed using the following criteria: the alternative should reduce or eliminate sedimentation from RMs 34.5-27.2, should maintain the navigation channel requirements of at least 9 foot of depth and 300 foot of width at low water, and should avoid and minimize negative impacts to environmental features within the reach. Eighty-three structure configurations were analyzed and had varying degrees of efficiency at maintaining safe and dependable depths and alignment. After many discussions with stakeholders (Missouri Department of Conservation, United States Fish and Wildlife Service, Illinois Department of Natural Resources, and River Industry Action Committee) the Applicant selected Alternative 75 as the proposed project plan. Alternative 75 showed reduction in sedimentation while avoiding impacts to Bumgard Island and its side channel.

The construction of the proposed project would follow guidelines set forth by the Agency and USACE. The least intrusive alternative would be to not construct the bendway weirs. This is not acceptable given that in the absence of the proposed bendway weirs the channel must be maintained with repeated dredging activities. Dredging is more intrusive, comes at a greater cost, and requires blocking of portions of the river for extended periods. The cost of the bendway weirs would allow for natural sediment transport and would minimize the amount of dredging required for channel maintenance.

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

The IDNR EcoCAT system was consulted on May 5, 2014. The Illinois Natural Heritage Database identified the following protected resources as potentially being in the vicinity of the project location: Bumgard Island INAI Site, Illinois Chorus Frog, and Shrimp Crayfish. IDNR has evaluated this information and concluded that adverse effects are unlikely. Consultation was terminated on May 5, 2014.

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 river would be maintained or mitigated; 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 provide social and economic benefits to the public by maintaining a navigational channel for recreational and commercial use. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.