

IEPA Log No.: **C-0241-09**
CoE appl. #: **CEMVR-OD-P-2013-1025**

Public Notice Beginning Date: **October 11, 2013**
Public Notice Ending Date: **October 28, 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 – Clock Tower Building, Rock Island, Illinois 61204-2004

Discharge Location: Near Lockport in Section 27 of Township 36N, Range 10E of the 3rd P.M. in Will County.

Name of Receiving Water: Chicago Sanitary and Ship Canal

Project Description: Replacement of the deteriorated forebay wall and embankment to prevent further decline and failure of wall. Project includes two rock dikes and fill for a temporary road.

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 United States Army Corps of Engineers-Rock Island District (Applicant) is applying for a 401 water quality certification for impacts associated with a construction project at the Lockport Lock and Dam near Lockport, Illinois. The applicant is proposing to do work on the right descending bank of the Chicago Sanitary and Ship Canal (CSSC) between Illinois Waterway (IWW) RM 290.7 and 293.3. The project would replace the existing forebay wall and embankment between IWW RM 291.1 and 292.1 with a roller compacted concrete (RCC) wall. For implementation, the project would also require temporary construction staging areas and permanent disposal areas. The project will include the upstream and downstream secant pile cutoff walls, embankment excavation, construction of the RCC wall, existing canal wall demolition and excavation, construction of two new rock dikes along the CSSC, and a training wall near the powerhouse structure. The rock dikes will be constructed in the footprint of the existing wall and with a tapered slope extending riverward of the existing wall and will aid in maintaining similar flows towards the powerhouse structure. Throughout the project, a temporary road will extend into the floodway of the Des Plaines River along stations to provide construction access and to maintain access to the powerhouse for employees of the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC). All materials will be removed from the floodway at the end of the project.

Antidegradation assessment material was received from the applicant under a 401 Joint Application Form for Illinois, Lockport Pool Major Rehabilitation Stage IC: Forebay Wall, ACOE Permit CEMVR-OD-P-2013-1025, IEPA Log # C-0241-09, received August 28, 2013 from the United States Corps of Engineers-Rock Island District.

Identification and Characterization of the Affected Water Body.

The Des Plaines River has a 7Q10 flow of 153 cfs at this location and is a General Use water. The Des Plaines River, Waterbody Segment IL_G-11 is listed in the Illinois Integrated Water Quality Report and Section 305(b)/303(d) List 2012 as impaired for Aquatic Life: Aldrin, Aquatic Algae (non-pollutant), Arsenic, Chloride, Methoxychlor, Other flow regime alterations (non-pollutant), Dissolved Oxygen, pH, and Phosphorus (Total) are listed as the causes of this impairment and Fish Consumption use; Mercury and polychlorinated biphenyls are given as the cause of this impairment. The river is fully supporting Primary Contact Recreation and Secondary Contact. Aesthetic Quality has not been assessed. The river at this location is not an enhanced waterbody pursuant to the dissolved oxygen water quality standard. The river is not listed as biologically significant and has not been given an integrity rating in the 2008 Illinois Department of Natural Resources Publication Integrating Multiple Taxa in a Biological Stream Rating System.

The Chicago Sanitary and Ship Canal has a 7Q10 flow of 1315 cfs at this location and is a Secondary Contact and Indigenous Aquatic Life Use water. The canal has a Waterbody Segment IL_GI-02 designation and is listed in the Illinois Integrated Water Quality Report and Section

305(b)/303(d) List 2012 as impaired for Fish Consumption use; polychlorinated biphenyls is given as the cause of this impairment and impaired for Indigenous Aquatic Life; Iron, Oil and Grease, Dissolved Oxygen, and Phosphorus (Total) are given as the causes of this impairment. Secondary Contact was not assessed. The canal at this location is not an enhanced waterbody pursuant to the dissolved oxygen water quality standard. The canal is not listed as biologically significant and has not been given an integrity rating in the 2008 Illinois Department of Natural Resources Publication Integrating Multiple Taxa in a Biological Stream Rating System.

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

No pollutant load increases would occur from this project other than some increases in suspended solids near the location of the existing forebay demolition site, the new roller compacted concrete (RCC) wall, and the temporary access road. A total of 0.94 acres of wetland would be permanently impacted. Approximately 0.5 acres of this wetland is a forested palustrine system with deciduous trees. The other approximately 0.44 acres of wetland are in a palustrine system with emergent herbaceous vegetation.

Approximately 8,819 cubic yards of processed rock fill material from the excavated embankment would be placed in the Des Plaines River to be utilized as a temporary access road. The material would encroach a maximum of 40 feet for approximately 900 feet in length and will be removed after construction. Existing benthos directly beneath where the construction is proposed would temporarily be covered.

The RCC wall would be constructed behind the existing forebay wall, which would be removed after the RCC wall is in place. 26,320 cubic yards of rock would be placed into the CSSC along the RCC wall and sloped to a stable grade. Two new rock dikes would be constructed in the CSSC, extending approximately to the location of the existing wall and would be sloped to a stable grade using rock riprap. An impermeable layer of clay material would be placed along the western side of the newly constructed RCC wall structure.

Approximately 45,000 cubic yards of excess material would be hauled by truck to three designated disposal sites located north of the proposed project. This material will be placed on property owned or lease by the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC). The trucks would travel on existing asphalt and gravel roads and the material will be graded and blended into the existing contour. No wetlands were determined to be affected in the disposal area.

Fate and Effect of Parameters Proposed for Increased Loading.

Aquatic communities at least as diverse as currently inhabit the river will return upon construction completion. Sediment and soil erosion control plans will be utilized during construction. Silt fencing and straw bales will be properly located to minimize runoff to surface waters and wetland areas. Silt curtains will be used to reduce impacts to the CSSC areas of construction.

The new construction will utilize as much material as possible by recycling the existing forebay wall and embankment. In the event that new clay borrow or rock riprap is needed, the Corps would conduct appropriated analyses of any potential effects to threatened and endangered species and cultural resources. The proposed project would cover the existing forebay footprint and no CSSC water would be lost.

The proposed project will result in unavoidable wetland impacts of 0.94 acres. Wetland impacts will be mitigated by purchasing credits from an approved mitigation bank with the same 8-digit HUC unit or the Des Plaines River watershed. The Corps will mitigate for the 0.44 acres of emergent herbaceous wetland impacts at a 1.5 to 1 ratio. The Corps originally proposed to mitigate the forested wetland impacts at a 1.5 to 1 ratio. If no forested wetland credits are available within the 8-digit HUC unit, the Corps proposed to mitigate for the 0.5 acres of forested wetlands at a 2 to 1 ratio for out-of-kind mitigation. The Illinois EPA and U.S. EPA recommended a ratio of 2.5 to 1 for forested wetlands. The Corps agreed and memorialized through a Record of Environmental Consideration (REC) that the forested wetland mitigation would be changed to a 2.5 to 1 ratio.

No adverse impacts to the river would occur for this activity as all water quality standards are expected to be met.

Purpose and Social & Economic Benefits of the Proposed Activity.

Navigation will be enhanced by the creating a secure forebay wall on the CSSC, which will provide greater safety for waterway transportation. Failure of the forebay wall would be catastrophic to the downstream lock and dam and potentially affect the adjacent Des Plaines River.

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

No Action

With no action the forebay wall and embankment would continue to deteriorate, which would potentially lead to failure of the wall and loss of pool in the Lockport pool.

Engineered Riprap

This alternative would include excavation of the embankment behind the existing forebay wall. Rock riprap would be placed along the backside of the wall and sloped to a stable grade. As this alternative does nothing to replace the forebay wall, the potential failure of the wall would not be eliminated.

Panel Wall

This alternative would include installation of pre-cast concrete panels into a bedrock trench in front of the existing forebay canal wall, with each panel anchored to a continuous concrete structure behind the panels. This alternative would encroach into the CSSC reducing the width. A pre-cast panel wall would have less of a design life and would have a greater risk of section failure during construction than the RCC wall. The foundation and construction conditions for the pane wall would be unknown when complete.

Roller Compacted Concrete (RCC) wall

This alternative would replace the existing forebay wall and embankment with a RCC wall. This alternative would provide an entirely new retaining structure, have the longest design life of all alternatives, and has the least risk of wall failure during construction. The RCC wall alternative would provide a known foundation and construction conditions when completed.

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

The IDNR EcoCAT system was consulted on September 27, 2013. It was determined that further consultation was required to delineate potential threatened or endangered species or protected natural areas in the vicinity of the project. Consultation was extended for 30 days by IDNR to determine if any sensitive species or protected areas may be impacted. However, the Corps has done an extensive biological assessment of the area for United States Fish and Wildlife Services (USFWS) and found no outstanding issues which may delay the project.

The site is also listed as Significant under Criteria A and C of 36 CFR Part 60 as a landmark for Natural Registry of Historic Places (NRHP) and the Illinois Historic Preservation Agency (IHPA) identified a potential “adverse effect” may occur due to construction at the site. The Corps, MWRDGC and IHPA came to terms under a 2012 Memorandum of Agreement (MOA) to restore the exterior of the Tower House of the CSSC Controlling Works located at IWW RM 293.3 as part of the project and that all work done between IWW RM 290 and 293.3 would be completed pursuant to Section 800.3 of the Advisory Council on Historic Preservation (ACHP). Therefore based on the MOA, the proposed construction was determined to have “no adverse effect” to the CSSC Historic District.

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 antidegradation review summary was written. We tentatively find that the proposed activity would result in the attainment of water quality standards; that all existing uses of the receiving streams 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 at large through enhanced navigation

by creating a safer forebay at the lock. Comments received during the 401 certification public notice period will be evaluated before a final decision is made by the Agency.