

IEPA Log No.: **C-0475-16**

CoE appl. #: **n/a**

Public Notice Beginning Date: **December 12, 2017**

Public Notice Ending Date: **December 27, 2017**

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 – 231 South LaSalle Street, Suite
1500, Chicago, IL 60604

Discharge Location: Near Lyons in SE 1/4 of Section 1 of Township 38N, Range 12E of the 3rd P.M. in
Cook County.

Name of Receiving Water: Des Plaines River and connected wetlands

Project Description: Proposed repairs and improvements to an existing flood control levee along Des
Plaines River.

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.

DRG:C-0475-16_401 PN and FS_09Dec16.docx

Fact Sheet for Antidegradation Assessment
For U.S. Army Corps of Engineers
IEPA Log No. C-0475-16
COE Log No. n/a
Contact: Abby Brokaw 217/558-2012
Public Notice Start Date: December 12, 2017

U.S. Army Corps of Engineers, Chicago District (“Applicant”) has applied for a 401 Water Quality Certification for forested wetland impacts associated with the proposed Forest View levee enhancement project in Section 1, Township 38N, Range 12E, in Cook County, Illinois. The project site is accessed at 7250 47th Street, Lyons, IL 60534 and will affect the flood control levee located on the east bank of the Des Plaines River within the Cook County Forest Preserve in Lyons, IL. The project includes increasing the existing levee’s crest elevation; removal of trees and stumps along the levee and within a 15-foot buffer zone on both sides of the levee’s proposed slope toe; placement of compacted fill and installation of a gravel maintenance road; and installation of a steel sheetpile wall at a buried spillway location. The purpose of the project is to reduce the risk of Des Plaines River overbank flooding of the leveed communities that include residential structures, industrial development, and MWRDGC facilities. The Applicant will complete levee improvements using approximately 3,500 cubic yards of clay and topsoil which will impact approximately 0.45 acres of forested wetland.

Information used in this review was obtained from the applicant in the Joint Application Form for Illinois, additional documentation received on December 9, 2016 and supplemental information provided on December 4, 2017.

Identification and Characterization of the Affected Water Body.

The Des Plaines River has a 7Q10 flow of 133 cfs at this location and is a General Use water. The Des Plaines River, Waterbody Segment IL_G-39, is listed in the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for: aquatic life use with potential causes given as aldrin, arsenic, chloride, lindane, methoxychlor, pH, phosphorus (total), other flow regime alterations (non-pollutant) and dissolved oxygen; fish consumption use with potential causes given as PCBs and mercury; and primary contact recreation use with a potential cause given as fecal coliform. Aesthetic quality use is fully supported. The Des Plaines 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* and has been given an integrity rating of “C” within the project area. This segment of the Des Plaines River is not subject to enhanced dissolved oxygen standards.

The Forest View levee alignment runs through an approximately 120-acre forested wetland complex consisting of emergent and scrub/shrub wetland and open water. The forested wetland provides hydrologic functions for the Des Plaines River as well as habitat for species of insects, amphibians, reptiles and spawning habitat for a variety of fishes such as Northern Pike (*Seox luscious*), Longnose Gar (*Lepisosteus osseus*), Buffalo spp. (*Ictiobus* spp.) as well as several minnow species. These unnamed surface water bodies (no segment ID codes) are General Use water bodies which have 7-day 10-year recurring (7Q10) low flow equal to zero (0) cubic feet per second. In addition to the above, the floodplain habitat provides refuge, food, and nesting habitat for a wide variety of birds and several urban mammals. Vegetation was assessed at the

project site by delineations conducted by AECOM Technical Services, Inc. for MWRD in 2014 and 2015. Open water areas are dominated by giant reed (*Phragmites australis*) and reed canary grass (*Phalaris arundinacea*). Open water edges are dominated by weedy tree and shrub species such as Boxelder (*Acer negundo*), silver maple (*Acer saccharinum*), and buckthorn (*Rhamus cartartica*). The current floristic quality based upon the Floristic Quality Index (FQI) and the native coefficient of conservatism (mean C) averages are 8.1 and 2.3, respectively. An FQI below 19 and a native mean C below 3.0 are considered to be low quality with no natural area attributes, a ruderal habitat.

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 (TSS). Stormwater runoff from the levee improvement construction activities and the proposed fill activities near or within surface water bodies will cause increases of TSS and turbidity. These increases are a normal and unavoidable result of earthen embankment levee construction and will be short-term and temporary. The improvements to the 4,200-foot long Lyons levee will result in total permanent impacts to approximately 0.45 acres of forested wetlands along the levee's alignment. The project will permanently remove the existing aquatic habitat uses from impacted wetland areas and convert it to levee embankment and levee maintenance buffer zones. Fill activities within jurisdictional waters include expansion of the levee's footprint along a portion of the levee that had originally been designed as a spillway and the fill associated with removal of tree and vegetation root and organic material within a levee maintenance buffer zone. The levee maintenance buffer zone would extend approximately 15 feet out from the toe of the levee's embankment on each side of the levee. The fills would be compacted clays and a 6-inch topsoil cap to fill voids left from vegetative stripping and root-ball removal. Fills associated with lateral expansion of the levee toe would occur to accommodate the maximum slope (3h:1v) where the levee's crest would be raised or widened to feature a 10-foot wide gravel maintenance road. Clay fill materials will be clean and from off-site commercial sources.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids resulting from stormwater runoff and from construction activity within wetlands will be local and temporary. Both temporary and permanent erosion control measures will be implemented to minimize erosion and sedimentation to receiving waters. Temporary BMPs include use of silt fencing and for disturbed areas that will not be seeded and stabilized for two weeks or more erosion blankets will be utilized. Additionally, construction entrances will be stabilized to limit soil disturbance at the ingress/egress from the site. The permanent loss of 0.45 acres of low quality forested wetland will be mitigated through purchase of 1.35 acres of wetland mitigation banking credits at an approved wetland mitigation bank.

Purpose and Social & Economic Benefits of the Proposed Activity.

Flood risk in the community is associated with overbank flooding from Des Plaines River. The area at risk of flooding includes homes, businesses, and roadways. There are approximately 800

homes in the leveed area and businesses include large industrial facilities used for storing fuels, a Commonwealth Edison power substation, and wastewater treatment facilities associated with the MWRDGC Stickney Water Reclamation Plant. Additionally, there are critical facilities in the leveed area: Forest View Police and Fire Stations, Home Elementary School, Edison School, and the Stickney Fire Department. Flooding at these critical facilities would impact the ability of the communities to respond to emergencies. The Des Plaines River last overtopped the Lyons Levee in April 2013 resulting in widespread flooding in Forest View. Flooding from the Des Plaines River in this area may contribute to combined sewer discharge to the Chicago waterway.

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

Four alternative flood risk management plans were identified to avoid and minimize environmental impact:

Alternative 1 – Levee repair and Improvement (Earthen Berm): This Alternative would complete repairs as necessary to bring the existing levee into compliance with current USACE design standards. Repairs and upgrades would include the removal of trees and stumps, placement of compacted clay fill, the installation of steel sheet-pile wall at the buried spillway location, the installation of a gravel maintenance road along the levee crest and two turn-about areas for safety. Tree and root-ball removal in wetland areas would be limited to where roots extend into or beneath the levee, otherwise trees will be cut flush with the ground and herbicide applied.

Alternative 2 – Set-back Levee: The existing levee would be abandoned and a new setback levee would be constructed along Harlem Avenue, at the edge of the Forest Preserve. This new levee would be located on higher ground resulting in a smaller structural height. However, costs associated with fill material would greatly increase for the new structure. Construction of this alternative may also impact other forested wetland resources in the required alignment.

Alternative 3 – Levee Repair and Improvement: The levee repairs described in Alternative 1 would be implemented along with the construction of a diversion channel near the downstream end of the levee. A fuse plug spillway would be incorporated into the south end of the levee, south of the railroad crossings. When flood waters reached the crest of the fuse plug spillway the spillway would erode, diverting floodwater flow into the Chicago Sanitary and Ship Canal. River stages upstream of the diversion would drop, reducing the overtopping risk. Although this plan would reduce the flood risk it would also increase risks associated with the transfer of Asian Carp between the CSSC and the Des Plaines River and Lake Michigan.

Alternative 4 – Non-structural: This alternative includes dry floodproofing or elevating structure at risk in the floodplain based on the projected flood depths and characteristics of individual structures. Not all structures would receive treatment under this plan therefore many would still be at risk.

The Applicant's proposed plan (Alternative 1) includes environmental impacts that are unavoidable. The plan requires that compensation for the 0.45 acres of forested wetlands that are

lost with the purchase of wetland mitigation banking credits at a 3:1 ratio. A cost-benefit analysis determined on-site, in-kind mitigation to be the less beneficial option. The proposed plan includes purchase of 1.35 acres of wetland mitigation banking credit from an approved wetland mitigation bank.

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

An Ecological Compliance Assessment Tool (EcoCAT) endangered species consultation submitted on July 26, 2017 to the Illinois Department of Natural Resources resulted in immediate consultation termination. The consultation termination indicated that the Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location.

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 will 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 will benefit the communities at risk of flooding by providing a levee system that meets flood protection standards. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.