

IEPA Log No.: **C-0413-12**
CoE appl. #: **N/A**

Public Notice Beginning Date: **July 25, 2013**
Public Notice Ending Date: **August 15, 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
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, Chicago District, 231 S. LaSalle Street, Suite 1500, Chicago, Illinois 60604 and Chicago Department of Transportation, 30 North LaSalle Street, Suite 400, Chicago, IL 60602 and Chicago Park District, 541 North Fairbanks, Chicago, IL 60611

Discharge Location: Section 28, T40N, R14E of the 3rd P.M. in Cook County within Chicago

Name of Receiving Water: Lake Michigan

Project Description: Construction of the Fullerton Theater on the Lake.

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 Thaddeus Faught at 217/782-3362.

Fact Sheet for Antidegradation Assessment

U.S. Army Corps of Engineers – Chicago District, Chicago Department of Transportation and Chicago Park District – Lake Michigan – Cook County

IEPA Log No. C-0413-12

CoE Log# Not available

Contact: Brian Koch at 217-558-2012

July 25, 2013

The Applicant has applied for 401 water quality certification for construction of the Fullerton Theater on the Lake project, located in Chicago, Section 28, Township 40 North, Range 14 East, in Cook County, Illinois. The project is a portion of the federally authorized Chicago Shoreline Storm Damage Reduction Project. The shoreline stabilization project would replace the existing failed revetment with a steel and concrete revetment to manage wake attack. The new structure would be constructed on the lake side of the existing failing structure, and the north half of the new revetment would encapsulate the existing revetment. The southern end of the new revetment would encapsulate the existing dilapidated pier located 750 feet south of Fullerton Parkway. The 1,700 feet of new revetment would be comprised of a stepped concrete promenade fronted with a steel sheet pile wall tied back with steel batter piles. Crushed stone or other clean fill would be used as a bedding layer and an additional 16,500 cubic yards of armor stone would be placed adjacent to the toe of the new revetment for wave protection. Additionally, the project would include filling a portion of the lake and converting this location to a park. This portion of the lake is not currently accessible for public use due to the submerged sheet pile wall that was originally placed to support a beach which never materialized. Construction of the revetment and park would result in a total of 6.6 acres of permanent fill within Lake Michigan. Approximately 90,000 cubic yards of fill below the Ordinary High Water Mark would be required. Much of the fill (up to 70,000 cubic yards) to be used for the park construction would consist of sand beneficially reused from a borrow area at the North Avenue Beach. The top layer of fill for the park would consist of clean fill.

Identification and Characterization of the Affected Water Body.

Lake Michigan (Segment QLM-01) is a large oligotrophic lake subject to the Lake Michigan Basin water quality standards of 35 Ill. Adm. Code 302 Subpart E. It is listed on the draft 2012 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for fish consumption (causes = polychlorinated biphenyls and mercury).

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

The construction activities would cause a temporary increase in suspended solids and habitat would be disturbed in the vicinity of the construction area. However, the project would provide shoreline stabilization by minimizing wave scouring and erosion from storm events. Over time, a net reduction of suspended solids loadings into the lake may occur. Benthic habitat would be permanently filled on the landward side of the revetment and would remove aquatic life uses. However, armor stone placed on the lake side of the revetment would provide new habitat for aquatic life.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids would be local and temporary. Benthic habitat would be permanently filled on the landward side of the revetment and would remove aquatic life uses. However, no threatened or endangered species are believed to inhabit this location and any aquatic life displaced from the beach cell would recolonize in adjacent locations. The existing beach cell was originally constructed as a connecting channel to the South Lagoon and was converted to a beach cell during the late 1930's but has not held any appreciable amount of beach sand. Given the current inability of this beach cell to retain sand and provide recreational opportunities for the public, the proposed fill and creation of additional parkland would be of greater value than the aquatic life uses it currently provides.

Purpose and Social & Economic Benefits of the Proposed Activity.

The project would benefit the public by providing shoreline protection along Lake Michigan and providing a recreational area for public use.

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

The Applicant considered three alternatives in regards to the solutions needed at the Fullerton site. A list of these alternatives is provided below.

No Action Alternative: This alternative was assessed but was ruled out due to a number of reasons. The existing revetment is in an advanced state of deterioration and failure along the project location. Portions are fenced off from public access, and other sections have large voids and have signs of progressing deterioration. Flood protection along the project location has significantly compromised and is a threat to upland areas. Without any action, portions of adjacent park land would be lost into the lake and the erosion process would continue and potentially impact U.S. Highway 41. Additionally, uncurbed deterioration of the existing revetment has the potential to alter drift patterns along the shoreline and negatively impact beach cells to the south.

Repair Revetment Structures Without Filling the Failed Beach Cell and Constructing the Park: This alternative was assessed but was ruled out due to need for additional flood control for upland areas. The proposed lake fill south of Fullerton in the failed beach cell is necessary to provide sufficient full flood protection to the adjacent park and roadways. The existing revetment is less than 100 feet from Lake Shore Drive and is subject to increased wave attack. Without the failed beach cell being filled, a sufficient buffer would not be available to manage flows that overtop the revetment structure.

Park Expansion and Revetment Replacement (The Proposed Plan): Under this alternative, the deteriorating revetments would be replaced with steel sheet pile and stepped concrete and a 6.6 acre parkland would be created on the landward side. The parkland would provide a buffer from wave action and prevent flooding of the Fullerton Parkway-Lake Shore Drive intersection. The parkland would also serve as a buffer to protect the historic Theater-on-the-Lake from future

coastal erosion. The Applicant has selected this alternative given that it satisfies flood control requirement for this project while minimizing environmental impacts and providing additional public parkland. The least intrusive alternative would be to not carry out the proposed activity. This is not a practicable alternative given the progressive deterioration of the existing revetment structure.

Construction of the proposed project would follow guidelines set forth by the Agency. The Applicant's proposed plan was selected after performing an optimization analysis which considered the shape, geometry, and elevation of the revetment structure at the edge of the park; the extent of filling; and controlling the amount of wave overtopping flows that need to be managed to accomplish flood control and shoreline erosion control. The proposed shoreline position of the revetment and landward fill provides the minimum amount of fill while still satisfying the flood control requirements for the project. Several other revetment shapes and concepts were considered such as the inclusion of a parapet wall, cellular sheet pile structures, precast elements, king pile of HZ wall systems, articulated concrete steps, and use of concrete gravity structures instead of cast in place concrete. None of these options were determined to reduce the amount of overtopping flows or the amount and extent of lake fill, and some of these options were infeasible from a cost or structural perspective. Alternative fill sources were considered by the Applicant in order to reduce environmental impacts and project cost. Presently, the Applicant intends to use clean borrow sand from the North Avenue Beach area and may also utilize clean tunnel rock from underground projects in the City of Chicago if available during construction. Utilization of local fill would reduce the amount of fill transported by roadway, thereby minimizing vehicular pollution and traffic congestion associated with the project. Use of borrow sand from the North Avenue Beach area would result in approximately 5000 fewer truckloads of fill that would be required to traverse through the City.

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

The IDNR EcoCAT system was consulted on April 05, 2013. It was immediately determined that protected resources, the peregrine falcon (*Falco peregrinus*), black-crowned night heron (*Nycticorax nycticorax*), and mudpuppy (*Necturus maculosus*), may be in the vicinity of the project location. The department evaluated this information and concluded that adverse effects are unlikely. Consultation was terminated in the April 17, 2013 letter from IDNR.

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 Lake Michigan 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 by providing shoreline protection along Lake Michigan and providing a recreational area for public use. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.