IEPA Log No.: **C-0026-16**
CoE appl. #: **LRC-2012-343**

Public Notice Beginning Date: **November 30, 2016**
Public Notice Ending Date: **December 30, 2016**

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: Michael Hara – 285 N. Deere Park Drive E., Highland Park

Discharge Location: Near Winnetka in NE 1/4 Section 21 of Township 42N, Range 13E of the 3rd P.M. in Cook County.

Name of Receiving Water: Lake Michigan

Project Description: Proposed shore protection project that includes two bay beach cells held by quarrystone breakwaters.

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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Fact Sheet for Antidegradation Assessment
For Michael Hara
IEPA Log No. C-0026-16
COE Log No. LRC-2012-343
Contact: Bob Mosher 217/558-2012
Public Notice Start Date: November 30, 2016

The applicant is proposing to construct a breakwater protected beach and other associated activities along Lake Michigan located at 411 and 391 Sheridan Road in Winnetka. This project has been proposed as part of a larger project (see also C-0238-15 Muneer Satter - Breakwater – Protected Beach Lake Michigan), but has been divided into two projects for permitting purposes.

The property currently contains a number of structures that would be modified or removed. North of the site at 419 Sheridan Road, a permit is under review to replace the existing steel groin with a quarry stone breakwater. A second steel groin is located along the property line between 411 and 391 Sheridan Road with a breakwater extending southward from the groin. This breakwater is proposed to be removed. The 391 property also contains concrete modular structures and stone near the boat ramp that will be reconstructed. The existing breakwater extending north from the steel groin on the south end of the property will be modified. Finally, the existing revetment at the 391 property would be maintained.

The proposed work would create two beach cells, one each at 391 and 411 Sheridan Road. The north beach cell at 411 Sheridan Road would be created by constructing a breakwater spur, extending south, from the proposed breakwater at 419 Sheridan Road. A new central breakwater would be constructed at the end of the central groin to close the north cell. In the south cell, this central breakwater would replace the breakwater being removed and will be located further lakeward of the existing structure. The existing southernmost breakwater, extending north from the southernmost steel groin at 391 Sheridan Road, would be maintained and shortened to enclose the south cell.

In addition to the creation of the two beach cells described above, the existing revetment in the southern cell would be maintained as necessary. This revetment is located entirely above the ordinary high water mark (OHWM) of 581.5 Great Lakes Datum (GLD). The Corps regulates work occurring lakeward of the OHWM; therefore, the revetment maintenance work is not subject to Corps' regulations. Stone protection is also proposed around the base of the existing boat ramp to prevent scour. The proposal also includes a request for 10 consecutive years of sand nourishment for the entire project area. Please note that the proposed revetment in the north cell has been removed. Annual sand nourishment (up to 1000 tons annually) for 10 years is proposed to protect the existing stone wall and patio.

Pedestrian access along the shoreline at 411 Sheridan Road would be accommodated through the construction of stairs as part of the project in the breakwater under review at 419 Sheridan Road. Pedestrian access is not proposed elsewhere in the project area as these areas will not be modified by the proposed work.

Identification and Characterization of the Affected Water Body.

Lake Michigan has 0 cfs of flow during critical 7Q10 low-flow conditions. Lake Michigan is classified as a Lake Michigan Basin Use Water. Lake Michigan 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*, nor is it given an integrity rating in that document. Lake Michigan, Waterbody Segment, QLM-01, is listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for fish consumption use with potential causes given as mercury and polychlorinated biphenyls and aesthetic quality use with potential cause given as phosphorus. Aquatic life, public and food processing water supply, primary recreational contact, and secondary contact uses are fully supported. A Total Maximum Daily Load (TMDL) Report has been prepared and approved by the USEPA for 51 beaches along Illinois' Lake Michigan shoreline to address Primary Contact Use Recreation impairments due to excess bacteria. The proposed activity occurs within an area identified by the report "Shoreline Segments in Suburban Cook County, Illinois" May 15, 2013 as a Beach Protection Area subject to that TMDL.

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. These increases, a normal and unavoidable result of the placement of the quarrystone breakwater, may occur in the lake at the point of construction activity. Benthic habitat will also be disturbed in the vicinity of the construction area. The construction and modification of the existing steel groin and quarrystone breakwater will fill 0.096 acres. No mitigation is proposed for this project as total impact to waters of the U.S. totals 0.096 acres (area of quarried stone for breakwaters) and this is less than the threshold of 0.1 acres requiring mitigation. The impacts of the Satter project will be 0.14 acres with total impacts of 0.236 acres. The completed project will have 0.42 acres of mitigation resulting in a 1.77:1 mitigation ratio. Supplemental information provided by the applicant regarding strategies to reduce E. coli loading as a result of beach modification indicate that the project will comply with the TMDL's water quality concentration limit load allocation of 126 cfu/100ml. Project improvements may contribute to an overall reduction of E. coli loading from the particular segment of Lake Michigan shoreline impacted by this project.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids, from the construction of the quarrystone breakwater, will be local and temporary. No mitigation is proposed for this project as total impact to waters of the U.S. totals 0.096 acres (area of quarried stone for breakwaters) and this is less than the threshold of 0.1 acres requiring mitigation. Although the benthic habitat will be disturbed by the construction activities, it is anticipated to recover and improve over time due to the placement of sand over the downcut clay substrates. The proposed pocket beach created with clean sand fill will feature greater slope and a smaller swash zone. Additional improvements include a buffer strip, dune plantings and beach grooming. These improvements are expected to improve the water quality impairments related to excess bacteria as well as meet the TMDL's goals.

Purpose and Social & Economic Benefits of the Proposed Activity.

The purpose of the proposed breakwater protected beach cells is to establish a more stable layer of sand to reduce downcutting of the clay lakebed. The purpose of the proposed sand

nourishment is to help maintain sand lost during storm events. Erosion of the clay lakebed, if not prevented, could result in additional beach erosion and undermine the existing shoreline structures.

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

In addition to the proposed plan, two alternative plans were provided in the application. One alterative includes the removal of the existing breakwater extending south off of the central groin, the concrete modular structures, and the stone near the existing boat ramp. All other structures would remain. The proposed work would include encapsulation of the central groin in stone. This alternative was dismissed by the applicant because it would not address lakebed erosion and the gap between the breakwaters would be too large to protect the shoreline.

A second alterative includes removal of the concrete modular structures and the stone near the existing boat ramp. The existing breakwater extending off of the existing central groin would remain and a new breakwater would extend north from the central groin. The existing southern breakwater would also remain. This alternative was dismissed by the applicant because it does not adequately address lakebed erosion nor protect the structures west of the beach.

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

On May 23, 2016, the IDNR EcoCAT web-based tool was used and indicated that there were no endangered/threatened species present in the vicinity of the discharge. The IDNR EcoCAT web-based tool terminated the consultation.

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 draft permit was written. We tentatively find that the proposed activity will result in the attainment of water quality standards and TMDL load allocations; that all existing uses of the receiving stream will 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 will benefit the community at large by providing erosion control to the Lake Michigan shoreline. Comments received during the NPDES permit public notice period will be evaluated before a final decision is made by the Agency.