

IEPA Log No.: **C-0052-16**  
CoE appl. #: **LRC-2015-792**

Public Notice Beginning Date: **March 8, 2017**  
Public Notice Ending Date: **March 29, 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:** Joseph and Janet Nolan and Clyde McGregor – 619 and 627  
Sheridan Road, Winnetka, IL 60093

**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 quarystone breakwater and revetment shoreline protection project.

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 Joseph and Janet Nolan and Clyde McGregor  
IEPA Log No. C-0052-16  
COE Log No. LRC-2015-792  
Contact: Scott Twait 217/558-2012  
Public Notice Start Date: March 8, 2017

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Joseph Nolan and Clyde McGregor (“Applicants”) have applied for a 401 Water Quality Certification for impacts associated with the construction of a new quarrystone breakwater and quarrystone revetment shoreline protection project along the Lake Michigan shoreline in Section 21, Township 42 North, Range 13 East, Cook County, Illinois. The project site is located at 619 and 627 Sheridan Road in Winnetka. The proposed breakwater would encapsulate an existing steel groin and extend a total 125’ lakeward as measured from the toe of the bluff. The breakwater would have a crest elevation of 588’ landward tapering to 584’ at the lakeward end. At the lakeward end of the shore perpendicular breakwater would be an approximately 120 ft. long shore parallel quarrystone breakwater extending nearly 60 ft north and south of the main breakwater.

At the shoreline, a quarry stone revetment would be connected to the shore perpendicular breakwater and existing revetment and would be placed southward along the shoreline until reaching the Applicant’s southern property line. This segment of revetment is located entirely above the ordinary high water mark (OHWM), which is the Corps’ jurisdictional boundary, and therefore does not result in a discharge of fill in waters of the U.S. The total fill for this project is 0.13 acres, which is the acreage of quarrystone located below the OHWM for the construction of the breakwater. The project also includes the construction of a stair way in the proposed breakwater to allow for pedestrian access along the shoreline.

The Illinois Lake Michigan shoreline is considered to be sediment starved. Therefore, the proposed breakwater protected beach would be pre-filled with 2,620 tons of clean sand, which includes the 20% overfill required by the Corps and the IDNR. This would be done in an effort to pre-fill the beach cells with sand that would otherwise be trapped by the breakwaters and removed from the littoral system. Mitigation is proposed for this project as total fill in waters of the U.S. (0.13 acres) for the construction of the breakwaters requires mitigation. The Applicants propose to construct a prototype aquatic habitat structure within the overall shoreline protection project. The habitat will consist of modular concrete reef structures and random placed 1-5 ton armor stones.

Information used in this review was obtained from the applications for 619 and 627 Sheridan Road dated October 5, 2015 and October 6, 2015, respectively, additional information regarding TMDL compliance dated May 18, 2016 and the document entitled, Mitigation Plan for Loss of Aquatic Habitat in Lake Michigan Hybrid Reef Breakwater Habitat dated February 13, 2017.

### **Identification and Characterization of the Affected Water Body.**

The Applicant proposes to construct a quarrystone breakwater and quarrystone revetment along Lake Michigan. Lake Michigan has a 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 of the quarrystone breakwater and quarrystone revetment along Lake Michigan will fill 0.13 acres of Lake Michigan lakebed. Because the area size of fill exceeds the Corps of Engineers threshold of 0.1 acres, mitigation is required to compensate for permanent losses to waters of the U.S. According to Lake Michigan beach bacteria TMDL bacteria may be harbored at higher levels within embayment structures designed to catch and retain littoral sand. The small pocket beach such as the one that is proposed at 619 Sheridan Road may exhibit similar characteristics due to its general orientation with respect to lake currents.

### **Fate and Effect of Parameters Proposed for Increased Loading.**

The increase in suspended solids, from the construction of the quarrystone breakwater and quarrystone revetment and pre-mitigational sand, will be local and temporary. As mitigation for the 0.13 acres of lakebed fill, the Applicants propose to construct in-kind aquatic habitat. The proposed hybrid reef habitat will consist of four modular concrete reef structures integrated into the lakeward slope of the shore parallel breakwater. The structures are anticipated to provide enhanced habitat and access to the limestone boulders in the core of the breakwater. Supplemental information provided by the Applicants 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.

### **Purpose and Social & Economic Benefits of the Proposed Activity.**

The purpose of the proposed quarrystone breakwater is to establish a more stable layer of sand to reduce lakebed downcutting. The purpose of the revetment is to protect the bluff from the

erosive forces of waves. Lakebed downcutting and shoreline erosion could ultimately reduce the stability of the bluff.

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

The Applicants evaluated enhancing the revetment and encapsulating the steel groin in quarrystone. Neither of these options will prevent erosion as well as the proposed option.

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

On March 25, 2016, Illinois DNR issued letters for both 619 and 627 Sheridan Road properties indicating that the natural resource review provided by EcoCAT identified protected resources that may be in vicinity of the proposed project. The Department concluded that after further evaluation, adverse effects are unlikely.

**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; 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.