

IEPA Log No.: **C-0074-20**
CoE appl. #: **LRC-2015-00792**

Public Notice Beginning Date: **July 16, 2020**
Public Notice Ending Date: **July 31, 2020**

Section 401 of the Federal Water Pollution Control Act
Amendments of 1972

Section 401 Water Quality Certification for Discharge of Dredged or Fill Material

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: Clyde McGregor and LeAnn Pope – 627 Sheridan Road, Winnetka, IL 60093

Discharge Location: Near Winnetka in Section 21 of Township 42-North, Range 13-East of the 3rd P.M. in Cook County.

Name of Receiving Water: Lake Michigan

Project Description: Proposed extension of an existing breakwater and installation of a steel and quarrystone groin.

The Illinois Environmental Protection Agency (IEPA) has received an application for a Section 401 water quality certification to discharge dredged or fill material 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 contact Francisco J. Herrera at email francisco.herrera@illinois.gov or phone no. 217/782-3362.

DRG:C-0074-20_401 PN and FS_16Jul20.docx

Fact Sheet for Antidegradation Assessment
For Clyde McGregor and LeAnn Pope
IEPA Log No. C-0074-20
COE Log No. LRC-2015-00792
Contact: Angie Sutton 217/558-2012
Public Notice Start Date: July 16, 2020

Clyde McGregor and LeAnn Pope (“Applicants”) have applied for a 401 Water Quality Certification for impacts associated with the construction of a steel and quarrystone groin and extension of an existing breakwater in Lake Michigan in Section 21, Range 13 East of Township 42 North, Cook County, Illinois. The project site is located at 627 Sheridan Road in Winnetka. The proposed project would allow for modification to an existing breakwater system by installing a new 100-foot-long steel groin on the north property line with a quarrystone revetment abutting the steel on the south side. The existing breakwater will be extended north approximately 40 feet to aid in the reduction of wave energy and retain sand during higher lake levels. The crest of the breakwater will be a continuation of the existing 584-foot crest. 1804 tons of clean sand will be placed within the project area. Additionally, steel access stairs to the north, and stone stairs to the south will be constructed to provide pedestrian access over the structure as well as four steel piles added to provide support to the existing beach access stairs. The existing revetment will be maintained by filling voids that have developed since the original construction. Currently, the project site is inaccessible to pedestrian use due to water levels. Sand deposits here are thin to non-existent as the nearshore lakebed continues to erode. Proposed structures are not expected to negatively impact the littoral system after sand fill is placed as they would not extend beyond existing structures to the north and south. Work will be completed via marine access using a barge to deliver a backhoe for land work to place materials. The project provides shoreline improvements by reducing erosion and retaining sand, and structures added provide aquatic habitat. Compensatory mitigation is proposed as enhancement by the installation of the proposed structures.

The Illinois Lake Michigan shoreline is considered to be sediment starved. Therefore, the proposed breakwater system extension would be filled with clean sand to renourish the eroding beach area. The structure improvements are intended to contain sand fill. This system will fulfill the design requirements of 20-year stormwave erosion protection.

Information used in this review was obtained from the application documents dated April 15, 2020, April 20, 2020, April 24, 2020 and June 2, 2020.

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. Winnetka Maple Beach, Waterbody Segment IL_QK-08, 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 for primary contact use with potential cause given as E-coli.

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 May 15, 2013 report "Shoreline Segments in Suburban Cook County, Illinois" as a Beach Protection Area and is therefore subject to this 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 are a normal and unavoidable result of the placement of a new steel and stone groin and breakwater extension. Fill material will consist of 440 cubic yards (CY) of clean quarried stone and 1440 CY of clean sand (anticipated quantity plus 20% overfill) that will be placed using a combination of marine and land-based access and is expected to fill 0.055 acres. Clay removed from the lakebed for installation of breakwater toe stone will be placed on the barge and removed from the site and disposed of properly.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in total suspended solids would be local and temporary, and existing aquatic life use in the shallow, nearshore zone will be temporarily be disturbed, but will recover over time. The proposed project will provide stabilization to the site in the form of sand retention, shoreline protection for the bluff and lakebed, and improve accessibility at this site. Proposed breakwater beach protection system modifications are expected to provide more diverse habitat for small fish and benthic invertebrates. The project will enhance the coastal environment simply by the installation. Quarrystone in the water as well as the sandy beach provide better habitat than the existing condition. Work will be completed via marine access using a barge to deliver a backhoe for land work to place materials.

Purpose and Social & Economic Benefits of the Proposed Activity.

Work completed in 2018 provides sufficient shore protection for the southern third of the property, but under current lake conditions, the norther two-thirds of the property is still vulnerable to stormwaves with no beach present lakeward of the existing revetment. The purpose of this project is to stabilize the site as well as reduce deepening of the lakebed caused by lakebed erosion. The proposed project will provide an improved shoreline protection system that will decrease erosion and protect the bluff and lakebed. Voids in the existing structures will be filled and stair placement will provide pedestrian access to the beach area. Sandy beaches play a role in keeping lakes clean by providing a filter for non-point source runoff, and making lakes safely accessible, as well as provide a useful transitional environment for flora and fauna.

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

The Applicant has provided the following alternatives:

Option 1 – Do Nothing:

This option would result in leaving the currently eroding shoreline in its existing state with the south portion protected and the north portion still vulnerable to stormwaves. This will allow erosion to the lakebed to continue, allowing larger stormwaves to affect the northern coastline section. Over time, the beaches along Illinois' North Shore coastline have continued to narrow due to being in a sand-starved system. The beach continues to narrow at this site and waves impact the existing revetment due to all-time high water levels. This option was not the chosen option.

Option 2 – Enhance the Revetment:

This option would provide enhancement to the quarrystone revetment. This would not allow for beach erosion protection as there would be less sand in the protection system. Additionally, erosion of the lakebed and eventual revetment toe destabilization would occur as a result of the continued lakebed erosion. This option was not chosen.

Option 3 – Design a Small Breakwater Protected Beach System 125 ft Offshore (Preferred Option):

The preferred option is to protect the property with a pocket beach breakwater system. Research of prototypes in the areas show that structures extending less than 125 feet offshore with a wide gap between structures do not dissipate enough wave energy to support a stable beach with fluctuating lake levels. Modifications to the existing system will include extending the existing breakwater 40 feet north and adding a 100-foot long steel groin with stone abutting the south side along the north property line. This plan will reduce the gap and cell width to hold sand in place and reduce wave energy. This option will stabilize sand on the north by reducing the cell width to the new groin which will retain mitigational sand and reduce wave area. This structure could function 30 years or more with proper maintenance.

Option 4 – Encapsulate the North Groin in Quarrystone:

This option is not feasible considering the north neighbor's preference of wanting sand on their property but no new structures. This would hold sand by softening the steel face of the groin but only a small amount and much smaller than the preferred option. Because the steel groin on the north is only 40 feet long, it would have minimal impact on the sand holding capacity to the system.

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

On June 2, 2020, the IDNR EcoCAT review was initiated for the project area. The review identified the following protected resources that may be in the vicinity of the project:

- Hubbard Woods Site INAI Site
- Banded Killifish (*fundulus diaphanous*)
- Marram Grass (*Ammophila breviligulata*)
- Sea Rocket (*Cakile edentula*)
- Seaside Spurge (*Chamaesyce polygonifolia*)

The Department has evaluated this information and has concluded that adverse effects are unlikely, therefore the consultation was terminated.

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 would 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 would benefit the property by retaining mitigational sand fill and preventing further lakebed erosion from stormwave activity. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.