

Fact Sheet for Antidegradation Assessment  
For Andrew and Amy Bluhm  
IEPA Log No. C-0365-11  
COE Log No. LRC-2011-527  
Contact: Mark Books; 217/785-6937  
Public Notice Start Date: November 9, 2011

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Andrew and Amy Bluhm (“Applicant”) has applied for 401 water quality certification for repair work along the Lake Michigan shoreline. The work involves construction of a previously permitted (during 2003) breakwater structure, which will extend approximately 125 feet east from shore into the Lake. This north breakwater structure was not built in 2003 because the Applicant acquired the adjacent north vacant property and wishes now to install their north breakwater structure on their new north property line. This new north breakwater will consist of an open pier (concrete pier on steel piles - 10’ O. C.) extending from the bluffs toe east to a breakwater constructed of about 400 tons of quarystone with about 42 feet of steel sheetpile on the west face (towards the shoreline). The new breakwater will be closer to shore than the one the Applicant built on the south property line. There will be a minimal gap of 100 feet between the new breakwater edge and the existing south breakwater edge. The project is located in Cook County, Section 16, Township 42 North, Range 13 East. The address is 703 Sheridan Road, Winnetka. The purpose of the repair work is to help break storm wave energy and provide scour protection. As part of the proposed project the Applicant will also place 1,680 tons of clean sand onto the existing beach, as beach nourishment, as required by IDNR. The site lies within a fully engineered section of urban lakeshore that is typically protected with quarystone breakwaters, revetments, seawalls, and steel sheetpile groins, as well as large municipal breakwaters to support public beaches.

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

Lake Michigan is a large oligatrophic lake subject to the Lake Michigan Basin water quality standards of 35 Ill. Adm. Code 302 Subpart E. The open waters are listed in the Illinois Integrated Water Quality Report and Section 303(d) List – 2010 as impaired for fish consumption with a cause given as PCBs and mercury. The open waters of Lake Michigan are fully supportive of aquatic life, primary contact (swimming), secondary contact (recreation), and public water supply use.

According the IDNR WIRT System Seaside Spurge and Sea Rocket were identified as threatened or endangered species residing within the project site.

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

The construction activities will cause a temporary increase in suspended solids. Habitat will be disturbed in the vicinity of the construction area. All sand placed onto the beach will be clean and from inland quarries.

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

The increase in suspended solids will be local and temporary. The benthic habitat disturbed by the construction activities is anticipated to recover to pre-construction conditions over time.

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

This project will provide shoreline protection. The Applicant has stated the following;

“The original shore protection design with two headlands (groins) was only partially installed, as the owner purchased the adjacent property to the north after having submitted the original permit application. As only the groin on the south end of the system was built, the system does not function as designed and does not retain sand to provide a sustainable coastal system.”

The Applicant has provided pictures which show severe erosion and scarping of the beach since the south only groin was constructed.

“By constructing the proposed quarystone breakwater, the shore protection system should reach an equilibrium that retains a sandy beach during average to high lake levels thereby helping to protect the property landward of the beach.”

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

The construction of the proposed project will follow guidelines set forth by the Agency and USACE. Erosion control measures need to be implemented to prevent additional impacts. It is anticipated that the materials and machinery will be delivered to the site via barge on Lake Michigan.

The least intrusive alternative would be to not complete the project. This is not an acceptable alternative given that this is a useful project and will minimize the excessive scouring and erosion from storm events and thus reduce suspended solids load into the lake.

The Applicant also looked at building an entirely quarystone breakwater instead of the option chosen. While this option is feasible it would have a bigger impact/footprint on the Lake bottom benthic habitat.

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

In a letter from Tracy Evans dated August 1, 2011, IDNR stated that an initial report submitted through the EcoCAT website indicated the potential presence of protected resources in the vicinity of the project location. The letter further states that the IDNR has evaluated this information and concluded that adverse impacts to the protected resources are unlikely; therefore, consultation is 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 the assessment 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 a stabilized shoreline along Lake Michigan and reducing suspended solids discharges into the lake. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.