Fact Sheet for Antidegradation Assessment
For Leo Birov
IEPA Log No. C-0005-13
COE Log No. LRC-2013-00235
Contact: Eric Runkel (217) 558-2012
Public Notice Start Date: August 23, 2013

The homeowner at 1741 Harding Road, Northfield, Illinois ("applicant") has applied for Section 401 water quality certification for a shoreline protection system on property the applicant owns at 199 Sheridan Road, Winnetka, Illinois on Lake Michigan. The Applicant proposes to construct a shore protection system consisting of a shore perpendicular steel sheet pile groin with an attached parallel quarrystone breakwater and the reconstruction of the existing shore parallel quarrystone revetment. The proposed steel sheet pile groin will be located along the applicant's south property line. It is estimated that less than 0.05 acres of waters will be filled.

Antidegradation assessment materials were received from the applicant under a March 25, 2013 cover, Joint Application Form for Illinois, U.S. Army Corps of Engineers, Chicago District, ACOE Permit # LRC-2013-235, IEPA Log # C-0005-13, March 20, 2013, Northfield, IL.

Identification and Characterization of the Affected Water Body.

The receiving waters are located entirely within Lake Michigan basin. Waterbody Segment IL_QLM-01 is listed in the Illinois Integrated Water Quality Report and Section 303(d) List 2012 as impaired for fish consumption use; Mercury and polychlorinated biphenyls are given as the causes of this impairment. The list shows the lake fully supporting Aquatic Life, Public and Food Processing Water Supplies, Primary Contact Recreation, Secondary Contact and Aesthetic Quality. The lake shoreline covers 196 square miles.

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

A total of 0.05 acres of Lake Michigan bottom will be eliminated by the placement of a breakwater approximately 95 yards lakeward. The pollutant load increases that would occur from this project include possible increases in suspended solids locally along the shoreline from demolishment of existing rubble, placement of new revetment material and the placing of approximately 1,314 tons of clean sand along the shoreline. Existing benthos directly beneath where the breakwater is proposed to be placed would temporarily be covered. Fish eggs and larvae may be smothered by the proposed construction activity.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids will be local and temporary. The construction of the breakwater will allow natural lacustrine processes to occur while preventing further erosion of beach. The breakwater will also encourage benthic invertebrate assemblage through enhancement of littoral hydraulics, with the potential to increase species richness. The construction activities of the breakwater will occur during non-reproductive or rearing seasons of aquatic life. The proposal includes placing approximately 1,314 tons of clean sand along the shoreline.

Purpose and Social & Economic Benefits of the Proposed Activity.

The local community will benefit from this project as aesthetic value increase from the restoration of a staircase at the shoreline.

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

The construction of the proposed project will follow conditions set forth by the Agency and USACE. A no-action alternative was assessed and concluded that no-action would allow continued destabilization of the existing revetment by undermining the structure toe. This alternative was not carried through. An enhancement of the current revetment only was assessed. This option does provide protection for the existing seawall, however it would do nothing to stop destabilization of the structure toe. This option was eliminated. Constructing a larger beach protection system was also assessed. This option was eliminated from consideration because it is not financially feasible for the property owner and it not necessary in providing long-term protection from stormwaves. The preferred proposed option will enhance the existing revetment, protect the shoreline from potential future storm damage, decrease the footprint of lost Lake Michigan bottom through a smaller breakwater and allow access via a new staircase.

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

The applicant submitted an EcoCAT request for a threatened and endangered species assessment to IDNR on August 21, 2013. IDNR replied on August 21, 2013 that the project was not likely to adversely impact protected resources and that 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 antidegradation review summary 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 waters 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 allow better access to the newly created shoreline. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.