

Fact Sheet for Antidegradation Assessment
For Metropolitan Water Reclamation District of Greater Chicago
IEPA Log No. C-0149-13
COE Log No. LRC-2011-627
Contact: Eric Runkel (217) 558-2012
Public Notice Start Date: June 19, 2014

The Metropolitan Water Reclamation District of Greater Chicago (“applicant”) has applied for Section 401 water quality certification for a flood damage reduction project of a portion of Tinley Creek in Cook County. The applicant proposes to modify 1,610 linear feet of Tinley Creek between Central Avenue and Cal Sag Road/127th Street. The proposed project will include stabilizing both banks to protect structures from active and potential erosion. Remove and replace three pedestrian bridges over Tinley Creek. Construct a series of in-stream j-hood, cross vanes, and pools within the project area to enhance aquatic habitat. Remove and replace storm sewers, outfalls, and utilities throughout the project reach.

Antidegradation assessment materials were received from the applicant under a March 22, 2013 cover, Joint Application Form for Illinois, Metropolitan Water Reclamation District Greater Chicago (MWRDGC), ACOE Permit # LRC-2011-627, IEPA Log # C-0149-13., received April 2, 2013 from Catherine O’Connor, Director of Engineering, MWRDGC, Chicago, Illinois. Modified documents and re-design plans in response to annotations from the ACOE and Illinois EPA were received on April 04, 2014.

Identification and Characterization of the Affected Water Body.

Tinley Creek is an General Use waterbody with a 0 cfs 7Q10 flow. The Waterbody segment is IL_HF-01 and the segment is listed in the Illinois Integrated Water Quality Report and Section 303(d) List 2012 as impaired for Aquatic use; cause unknown, fish passage barrier (non-pollutant) and other flow regime alterations (non-pollutant) are given as the causes of this impairment. The segment is fully supporting Aesthetic Quality use. Fish Consumption, Primary Contact Recreation and Secondary Contact have not been assessed. The segment is not listed as biologically significant in the 2008 Illinois Department of Natural Resources publication Integrating Multiple Taxa in a Biological Stream Rating System nor has it been given an integrity rating. The segment is not considered enhanced in regards to the dissolved oxygen water quality standard.

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

The project will permanently affect 1.17 acres of Waters of the United States (WOUS) to Tinley Creek and the adjacent pond, below the ordinary high water mark (OHWM). The proposed construction activities will temporarily affect up to 0.62 acre of WOUS. No wetlands were identified in the project area. The pollutant load increases that would occur from this project include possible increases in suspended solids locally along the shoreline from demolition of existing rubble and debris. Newly constructed gabion baskets, bridge footings and the placement of riprap would increase suspended solids. Existing benthos directly beneath where the new construction 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 newly constructed channel is being built to enhance riffle flow through the addition of six j-hook vanes, three cross vanes and nine pools. Aquatic habitat will not be impaired because the velocity of the new channel will allow for passage of fish throughout the corridor. Biodegradable erosion control fabric and silt fencing would be implemented to minimize the temporary turbidity impacts with the proposed activity. Native plants are proposed for use in replacing existing trees and shrubs for shoreline protection. Construction is scheduled to occur during low water levels. Fish and other free-swimming organisms will tend to avoid the construction area; the area will be used again by those fishes soon after construction ends.

Purpose and Social & Economic Benefits of the Proposed Activity.

The project purpose and need is to reduce flood damages for 173 homes and businesses within the Village of Crestwood, as well as protect an adjacent commercial building and critical public infrastructure from damage due to active streambank erosion.

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. Multiple hydrologic models were developed to evaluate rainfall events for 2,-5,-10,-25,-50,-100,-and 500-year recurrence interval events. A no action plan was evaluated and concluded that continued deterioration of the shoreline would eventually lead to further erosion and potential flooding of the surrounding neighborhood. Other alternatives evaluated include construction of a 96-inch channel diversion under Central Avenue to Calumet-Sag Channel, creating a weir/impoundment in the nearby forest preserve to reduce downstream flows or repair 1,400-foot embankment along east side of Tinley Creek downstream of Central Avenue. None of these alternatives completely addressed or were suitable for all potential flooding conditions.

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

An Eco-CAT endangered species consultation with Illinois Department of Natural Resources was submitted by CH2M Hill. In an electronic response dated May 7, 2014, IDNR stated that the project area had no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Natural Preserves, or registered Land and Water Resources in the vicinity 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 impacted 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 enhance the erosion control and flooding protection. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.