

IEPA Log No.: **C-0219-13**
CoE appl. #: **CEMVR-OD-P-2013-0794**

Public Notice Beginning Date: **July 25, 2014**
Public Notice Ending Date: **August 15, 2014**

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: City of Decatur – One Gary K. Anderson Plaza, Decatur, IL 62523-1196

Discharge Location: Decatur

Name of Receiving Water: Lake Decatur

Project Description: Proposed hydraulic dredging of 10.5 million cubic yards of sediment from within Lake Decatur basins 1, 2, 3, and 4 and the 14.4 MGD discharge of return water from the contained disposal area known as Oakley Basin with design capacity of 11.7 million cubic yards.

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 City of Decatur
IEPA Log No. C-0219-13
COE Log No. CEMVR-OD-P-2013-0794
Contact: Diane Shasteen (217) 558-2012
Public Notice Start Date: July 25, 2014

The City of Decatur (“Applicant”) has applied for a 401 Water Quality Certification for impacts associated with the proposed dredging of Lake Decatur. The project area is located in Macon County, originating in northeast Decatur, continuing southwest through the city, covering approximately 2,800 surface acres in size. The city recognizes 6 basins throughout the lake, starting with Basin 1 at the dam and proceeding upstream; herein known as Basins 1-6. Dredging is proposed for Basins 1-4 with an approximate surface area of 2,043 acres and located in portions of Sections 23, 24, 25, and 26, Township 16 North, Range 2 East and Sections 30 and 31, Township 16 North, Range 3 East. The existing sediment storage facility (SDF), previously used for Basin 5 and 6 dredging projects, has a surface area of approximately 523 acres and is located in portions of Sections 2, 3, and 4, Township 16 North, Range 3 East. Lake Decatur provides water for approximately 76,000 residents plus industrial entities including Archer Daniels Midland Company (ADM) and Tate & Lyle. Compared to similar populace areas, the Applicant provides larger quantities of water to its customers due to these industries, withdrawing an average flow of 36 MGD. The purpose of this project is to remove an estimated 10.5 million cubic yards of accumulated sediment from Basins 1-4 which will increase the holding capacity of the lake by approximately 2.11 billion gallons of water, adding an estimated 59 days of water supply. The sediment will be hydraulically transported by cutter head dredge and booster pumps to the eastern shore of Basin 5 then pumped east approximately 3,250 feet to the SDF. The SDF will be improved by elevating the earthen dikes by 10 feet to an elevation of 713.5 feet above mean sea level using material from inside the storage facility. The modified SDF will have 11.74 million cubic yards of storage capacity encompassing 385 interior surface acres.

Wetland areas have been identified on the U.S. Fish and Wildlife Service National Wetland Inventory Map in the upstream portions of the Sand and Big Creek Arms of Basin 1. These forested wetland areas must encompass a minimum 200 feet buffer from shoreline areas as a “no-dredge zone”. Additionally, no emergent wetlands will be dredged and dredging will be kept a minimum of 25 feet from the edge of shoreline areas. If the applicant determines that wetland impacts are unavoidable, additional information including a wetland delineation and mitigation for impacts would be required.

Additional benefits provided by the dredging will include eliminating sediment near the fresh water intake for the South Water Treatment plant increasing the water quality at the intake and from the Sand Creek and Big Creek arms making these areas accessible to boaters and fisherman. The proposed dredging will allow many home owners to use their boat docks without being dependent on lake levels. Improvement to fish habitat will promote additional recreation and business opportunities for the Applicant including regional and national fishing tournaments.

Information used in this review was obtained from the applicant in a document entitled, Preliminary Joint Application, City of Decatur, Basins 1, 2, 3, and 4 Dredging Lake Decatur

HLC Project #5111 dated May, 2013 and Operational Management and Measures Plan dated July 21, 2014.

Identification and Characterization of the Affected Water Body.

Lake Decatur (IL_REA) is listed as not supporting for Aquatic Life, Fish Consumption, and Aesthetic Quality uses according to the draft 2014 Illinois Integrated Water Quality Report and Section 303(d) List. The causes listed for impairment are Aquatic Algae (non-pollutant), Phosphorus (Total), and Total Suspended Solids (TSS) for Aquatic Life and Aesthetic Quality uses. Turbidity is also listed for Aquatic Life use and Chlordane, Mercury, and Polychlorinated biphenyls are causes listed for Fish Consumption use. Lake Decatur is listed as fully supporting Public and Food Processing Water Supplies. Primary Contact Recreational and Secondary Contact uses have not been assessed. Lake Decatur is given an integrity rating of “D” in the 2008 Illinois Department of Natural Resources Publication Integrating Multiple Taxa in a Biological Stream Rating System. Lake Decatur is not designated as an enhanced water pursuant to the dissolved oxygen water quality standard.

The receiving stream, an unnamed tributary (no Segment Code) to Lake Decatur has not been assessed by Illinois EPA. The receiving stream empties into Lake Decatur’s Faries Park basin approximately one half mile south of the Reas Bridge Road on the lake’s left descending bank. The receiving stream 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. The USGS Illinois Streamstats basin characteristics program gives a watershed size of 0.04 square miles for the unnamed tributary. According to the Illinois State Water Survey, the unnamed tributary is likely to be a 7Q1.1 zero flow stream. In this region of Illinois, 7Q1.1 zero flow streams are streams with a watershed area of 3 square miles or less. These streams will exhibit no flow for at least a continuous seven day period nine out of ten years. Aquatic life communities in these headwater streams are tolerant of the effects of drying. Depending on the rainfall received before biological surveys, either a very limited aquatic life community, or no community at all would be found. Given this flow regime, no additional biological characterization is required.

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, total phosphorus and ammonia nitrogen. These increases, a normal and unavoidable result of dredging, may occur in the lake at the point of dredge activity. Additionally, any discharge from the dredge containment site will need to be permitted and meet the effluent and water quality standards of 35 Ill. Adm. Code Parts 304 and 302. Limits based on effluent standards will be included for TSS and pH. Limits based on WQS will be included for phosphorus; effluent from the SDF must meet a monthly average of 1.0 mg/L. Daily maximum, month average, and weekly average ammonia limits must be met in the effluent as well.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids and ammonia nitrogen concentration will be local and temporary and are estimated to meet water quality standards within two to three days of settling in the SDF. While concentrations of these substances will temporarily increase at the point of SDF discharge, overall concentrations will be lowered in the lake as a whole due to the removal of sediment. The applicant will implement the dredging consistent with the Operational Management and Measures Plan (OMMP) submitted on July 21, 2014. This plan provides assurances that pollutant discharges will meet permit limitations and/or water quality standards. The project is expected to be completed within 6 years of the starting date and will start with the removal of sediment from Basin 1.

Purpose and Social & Economic Benefits of the Proposed Activity.

Lake Decatur provides water for approximately 76,000 residents plus an industrial sector including ADM and Tate & Lyle, withdrawing an average flow of 36 MGD. The purpose of this project is to remove sediment from Basins 1-4 which will increase the holding capacity of the lake by approximately 2.11 billion gallons of water, adding an estimated 59 days of water supply. In addition to increasing public water supply capacity, the project will improve habitat for aquatic life and increase recreational activities.

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

The dredging of Lake Decatur will follow conditions set forth by the Agency and USACE. The least intrusive alternative would be to not dredge the lake. This is not an acceptable alternative given the need for a sustainable water supply for the City of Decatur. Drought condition in 2011 and 2012 caused the lake to fall roughly 4.5' below summer pool and forced the City to place water restrictions on businesses and homeowners to preserve water in the lake and meet water demand requirements. Dredging portions of Basins 1-4 will increase the water capacity of the lake and provide an additional 59 days of water supply. The Applicant will reuse the SDF created in 1991 for the dredging of Basin 5. The original plan for this storage site was to be returned to agricultural use when dredging operations were completed; however it was selected again as the most feasible alternative when Basin 6 was dredged in 2003. The alternative sediment storage site selection process for this project concluded that the modification (existing perimeter dikes to be raised 10' to an elevation of 713.50') and reuse of the site is the most feasible alternative.

Setback areas agreed upon for the U.S. Fish and Wildlife designated forested wetland areas in the upstream portions of the Sand Creek and Big Creek Arms of Basin 1 include a 200 foot minimum "no-dredge zone" buffer. Additionally, no emergent wetlands will be dredged and dredging will be kept a minimum of 25 feet from the edge of shoreline areas.

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

An EcoCAT endangered species consultation submitted on February 25, 2013 to the Illinois Department of Natural Resources resulted in the identification of two protected areas, Bois Du Sangamon INAI site and Bois Du Sangamon Nature Preserve. The City of Decatur received a letter dated November 13, 2013 from the ACOE requesting a response to an IDNR letter dated November 6, 2013 in regards to implementing soil erosion and sedimentation control measures to prevent impacts to the preserve. A response letter dated November 22, 2013 was provided by Chastain & Associates, LLC, consulting engineers for the project, addressing concerns of impacts to the site. The EcoCAT endangered species consultation was resubmitted on April 15, 2014 resulting in the identification of the above mentioned protected areas. IDNR has evaluated the EcoCAT information, set forth provisions for the protection of these natural areas, and terminated consultation for IDNR Project #1410332 on April 15, 2014.

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 401 Water Quality Certification was written. We tentatively find that the proposed activity will 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 will benefit the community at large by providing a sustainable water resource for the residents and businesses of the City of Decatur. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.