



REPLY TO  
ATTENTION OF

## DEPARTMENT OF THE ARMY

BUFFALO DISTRICT, CORPS OF ENGINEERS  
1776 NIAGARA STREET  
BUFFALO, NEW YORK 14207-3199

December 22, 2014

Environmental Analysis Section

SUBJECT: Toledo Harbor, Lucas County, Ohio - Request for Section 401 Water Quality Certification for Scheduled 2015 Maintenance Dredging Operations

Mr. Craig W. Butler  
Director  
Ohio Environmental Protection Agency  
Division of Surface Water  
P.O. Box 1049  
Columbus, Ohio 43216-1049  
ATTN: Mr. Ric Queen

Dear Mr. Nally:

Enclosed is the Public Notice and Section 401 Water Quality Certification (WQC) application for our scheduled 2015 maintenance dredging operations at Toledo Harbor, Ohio (Enclosures 1 and 2). This project entails the maintenance dredging of authorized Federal navigation channels, and placement of the associated dredged material in the Harbor's existing, authorized open-lake area in Lake Erie. The Public Notice has been prepared in conformance with USACE regulation, "Practice and Procedure: Final Rule for Operation and Maintenance of Army Corps of Engineers Civil Works Projects involving the Discharge of Dredged Materials into Waters of the United States or Ocean Waters," 33 Code of Federal Regulations (CFR) 337.1.

The USACE - Buffalo District is requesting Ohio Environmental Protection Agency (OEPA) WQC for the scheduled 2014 maintenance dredging of Toledo Harbor, with the associated discharges of dredged material, or waiver thereof, under Section 401 of the Clean Water Act.

The following items are contained within this package:

- a. Enclosure 1 is the Section 404(a) Public Notice.
- b. Enclosure 2 is our Section 401 WQC application.

Please note that all National Environmental Policy Act (NEPA) documents (i.e., Environmental Impact Statements or Environmental Assessments) and Section 404(b)(1)

SUBJECT: Toledo Harbor, Lucas County, Ohio - Request for Section 401 Water Quality Certification for Scheduled 2015 Maintenance Dredging Operation

Evaluation(s) have been completed for this maintenance dredging project, and were previously furnished to your office.

An evaluation of Toledo Harbor Federal navigation channel sediments was completed and provided to OEPA in 2011. The evaluation reconfirmed that material in the lower end of the River Channel and Lake Approach Channel [River Mile 0.75 (Station 360+00) to the lakeward end of the channel] and the upper River Channel [River Mile 5 (Station 138+00) to the upstream limit of the channel (River Mile 6.75 / Station 33+36.61)] meets Federal guidelines for open-lake placement, and complies with applicable Ohio water quality standards.

Similar to last year's WQC application, Question 10 of the WQC application addresses water quality-related concerns included in a joint OEPA/Ohio Department of Natural Resources (ODNR) letter dated April 15, 2010. For example, OEPA and ODNR alleged that an excessive sediment/nutrient load (e.g., resulting from the placement of Toledo Harbor dredged material) to the Basin is likely causing negative impacts and possibly exacerbating HABs. However, this assumption is not supported by the weight of the scientific evidence. To address this concern, USACE sought an externally conducted study in 2013 to answer the question: "What is the Potential for Placement of Toledo Harbor Dredged Material in the Western Lake Erie Basin to Influence Harmful Algal Blooms?" A coordinated field sampling, laboratory testing and modeling program was initiated to monitor physical, chemical, and biological parameters before, during, and after sediment placement and assess the relative influence of sediment placement activities as an internal source of solids/nutrients. Extensive water quality monitoring conducted throughout the 2013 dredging operation indicated that the bulk of the placed sediment (and associated phosphorus content) immediately deposits on the lake bottom, with minimal interaction with the water column. Immediately after placement, only approximately 2.5 percent of the total amount of sediment placed remains in the water column as suspended solids. This small fraction of sediment and associated phosphorus that is released to the water column undergoes exponential decline within the placement area, returning to near background levels within an hour through settling and dispersion.

Assessed across the entire dredging season, open-lake placement contributions of total phosphorus and soluble reactive phosphorus represented only a fraction of one percent of the total annual phosphorus loading to western Lake Erie in 2013. These releases are insufficient to stimulate any additional significant growth of algae or significantly impact water quality in the Basin. Once deposited to the lake bottom, any phosphorus release from the placed sediment would be the same or less than the surrounding lake sediments and would not represent any additional contribution to the aquatic ecosystem. Additionally, sediment from the placement area resuspend at the same rate as other areas of similar depth in the Basin. As the deposited sediment does not erode at a high or accelerated rate, sediment has accumulated within the placement area as a mound over several years of placement activities. The size of this mound is controlled primarily by consolidation of the placed sediment and underlying lake bottom. The overall

SUBJECT: Toledo Harbor, Lucas County, Ohio - Request for Section 401 Water Quality Certification for Scheduled 2015 Maintenance Dredging Operation

conclusion of the 2013 study is that the open-lake placement of dredged sediment from Toledo Harbor does not contribute to the development of HABs in the Basin. A copy of the final study can be downloaded at:

<http://www.lrb.usace.army.mil/Portals/45/docs/PublicReview/R-WLEB-Final-Report.pdf>

In the April 15, 2010 letter, OEPA and ODNR were concerned that the placement of Toledo Harbor dredged material into the Basin continues despite the dedication of large-scale governmental resources to prevent soil and nutrients from entering and negatively impacting the affected waterways. In our opinion, this is an inaccurate comparison. Because soil and nutrients are external loading sources to the Basin, the relocation of Toledo Harbor dredged material as an internal loading activity does not contravene these abatement efforts. As you know, the USACE has been involved (via several forums, including the Toledo Harbor Dredging Task Force) in the examination of alternatives that productively utilize Toledo Harbor dredged material through the creation of habitat areas for the benefit of fish and wildlife. Several studies evaluating the cost and feasibility of these alternatives have been performed by USACE and members of the Task Force, including the Ohio Lake Erie Commission and the Toledo-Lucas County Port Authority. At this time, there does not appear to be a willing non-Federal partner to advance any of the identified alternatives to construction.

We propose to place Toledo Harbor dredged material in the southwest half of the existing open-lake placement area because water depths in the northeast half have become prohibitively shallow for placement. Dredged material placement was originally restricted to the northeast half due to previous local concerns that suspended solids (SS) during placement migrated toward and potentially impacted the quality of water at the city of Toledo potable water intake (PWI). We believe the potential for this to occur to be very low, apart from any spatial restrictions on placement within the two square mile open-lake area. Nevertheless, we are currently performing water quality-related modeling to verify that the placement of dredged material in the southwest half of this area does not significantly impact the quality of water at this and other nearby PWIs.

A copy of the Public Notice was sent to U.S. Fish and Wildlife Service (Ecological Services, Columbus, Ohio) and ODNR (Division of Wildlife, Ohio Biodiversity Database, Columbus, Ohio) on December 22, 2014 to coordinate comments with respect to Threatened and Endangered species, including the presence or absence of Critical Habitat. Further, we e-mailed these two entities on December 22, 2014 to request their comments in this regard with copy furnished to OEPA.

While we understand that it is OEPA and ODNR policy to eliminate the placement of Toledo Harbor dredged material in the Basin, the beneficial use of the typical volume of sediments annually dredged will require viable options that provide extraordinary capacity and require non-Federal funds for implementation. Please note that, like any other Federal

SUBJECT: Toledo Harbor, Lucas County, Ohio - Request for Section 401 Water Quality Certification for Scheduled 2015 Maintenance Dredging Operation

navigation project, the Federal cost of dredging and dredged material placement for Toledo Harbor must be kept to the minimum of what sound science indicates is environmentally acceptable. Future funding allocated toward the USACE maintenance of Toledo, as well as other Great Lakes and coastal harbors, must first be economically justified based on economic considerations at the national level. Each harbor must then compete for funding, which presently is unlikely to increase given current demands on the Federal budget. To remain viable, Toledo Harbor must be cost competitive with comparable harbors, in terms of both private sector shipping costs for carriers and Federal costs for maintenance of the Federal navigation project.

Please advise us on the completeness of the WQC application by January 9, 2015 and we ask that you schedule the Public Hearing for this application at your earliest possible convenience, and no later than February 15, 2015. It is critical that WQC is received by April 15, 2014 in order to accept contract bids on schedule.

Questions pertaining to this matter should be directed to Mr. Jay Miller at (716) 879-4394, by writing to the following address: U.S. Army Corps of Engineers, 1776 Niagara Street, Buffalo, New York, 14207-3199, or by e-mail at: James.Miller@usace.army.mil.

Sincerely,

Martin P. Wargo, PWS  
Supervisory Biologist  
Environmental Analysis Section

Enclosures