



MEMBER

Western Lake Erie WATERKEEPER® Association

**Western Lake Erie has the warmest, shallowest waters with the most fish in the Great Lakes**

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February 22, 2010

Re. Toledo Harbor 401 Application  
Ohio EPA-DSW  
Attention: Permits Processing Unit  
PO Box 1049  
Columbus, Ohio 43216-1049

Sent via email: [ben.smith@epa.ohio.gov](mailto:ben.smith@epa.ohio.gov)

Dear Permit Reviewer:

I would like to thank Ohio EPA for extending the comment period on this important issue of open lake dumping and the adverse impacts on Lake Erie. The public concern for the practice of open lake dumping by the Army Corp is fueled by greener water and declining fish populations.

The Western Lake Erie Waterkeeper Association(WLEWA) serves the western Lake Erie watershed from the headwaters of the Maumee in Fort Wayne, Indiana east to Huron, Ohio/Point Pelee, Ontario. Western Lake Erie waters are the Great Lakes warmest, shallowest and fishiest. Lake Erie has more consumable fish than all the other Great Lakes combined. WLEWA members and friends advocate for healthy water and fish.

This proposed open lake dumping permit for 1.35 million cubic yards(assuming you will not grant the option most adverse to Lake Erie)permit is about lake Erie water and the economy. **Lake Erie:** provides drinking water for 11 million people; provides fish, a major food source for millions; provides waters for boating and recreation for millions as well as the habitat and environmental benefits derived from the 11<sup>th</sup> largest lake in the world. Lake Erie is the underlying economic engine for the upper third of Ohio. Lake Erie attracts fishermen and recreational tourists from all over the world creating and sustaining thousands of jobs. Water in and of itself creates jobs by making the water safe to drink and insuring that wastewater is treated to unharmed discharge limits. With all these economic impacts from water, water has no full time lobbyist to protect the waters and does not have the massive resources that corporations provide to protect their resources and profits. Rather water is left to all of us to defend also known as the Public Trust.

This permit request from the Army Corp seeks to dump 1.35 million cubic yards of sediments in the open lake annually. Ohio EPA, ODNR, the Toledo Lucas County Port Authority and City of

Toledo have repeatedly said open lake dumping is harmful to water quality and fish and there have been many agreements to end the practice but open lake dumping continues.

What has changed from twenty years ago when open lake dumping was supposed to end ? What has changed to require this permit to be rejected with storage requirements in the existing combined disposal facility(cdf)? Lake Erie is different today. Lake Erie is declining in water quality, too many nutrients, and declining in the numbers of fish.

**Open Lake Dumping when combined with these factors increases open lake dumping impacts:**

- Lake Erie water levels have fallen from the high levels in 1986 of 174.8 meters compared to 173.5 (International Great Lakes Datum 1983) and the current level estimated at 174.2 meters – this is nearly a 2’ drop in the water level of Lake Erie. Declining water levels mean less water is in Lake Erie. This decline in water quantity means that Lake Erie has less ability to process nutrients in the water compounding the problem of open lake dumping.
- **The amount of open lake dumping has doubled in the last five years over the previous eight years. – the increased dumping coincides with the years where there ahs been the most algae growth**
- Lake Erie gets greener by the year. In the last five years Lake Erie has experienced massive increases in algal growth. A new benthic algae, *lyngbya wollei*, is thriving in the Luna Pier, Allens Cove, Bolles Harbor areas of Michigan.
- The Maumee River and Maumee Bay are the most biologically productive waters in the Great Lakes. These waters also incur the most amount of sediments going into Lake Erie – largely documented to come from farm land. It is estimated that over 50% of the sediments entering Lake Erie come from the Maumee River. Given the heavy sediment load from farm land which result in sediments that are dredged and open lake disposed, there is resuspension of the nutrient rich dredged sediments which are open lake dumped compounding the problem of open lake dumping. Dr. Baker, Heidelberg, has studies that show it is dissolved reactive phosphorous that is the problem. This would seem to coincide with the practice and increase in open lake dumping.
- The western Lake Erie watershed which includes the Maumee, has many factory farms that are permitted to apply manure on frozen fields in the winter. Furthermore, the nutrient rich manure applied to fields often gets washed into the streams, the Maumee River and Bay and western Lake Erie. The manure runoff then becomes part of the dredged sediments.
- The Detroit Wastewater plant is the largest in North America and in 2009 deposited 20 billion gallons of untreated or partially treated sewage into Lake Erie. The circulation pattern for the outfall of the Detroit River often places the sewage in the open lake disposal area which can connect to the sediments and increase nutrient problems.

- **After a cold 2008-2009 winter when much of Lake Erie froze and a cooler than average summer, the amount of algae was more than ever. The amount of algae in the area of the Lake Erie Islands seemed to be as much or more than the algae in Maumee Bay.** Prior to the increases in open lake dumping, there was more algae in Maumee Bay than east of the bay.

Fishermen and boaters state that there are sediment plumes emitting from the open lake dumping and the disposal area. The shallow nature of the western Lake Erie waters and the strong winds can kick up 5'-10' waves which stir up the disposed sediments. Winds in west Erie have been known to blow so hard as to nearly empty the Maumee River and flood Buffalo –decreasing water levels by as much as 5'. These massive fluctuating water levels stir the bottom of Maumee Bay and western Lake Erie as well as the sediments deposited in 20' of water over 1000 acres.

City of Toledo and OSU studies show that about 25% of the open lake disposed sediments are resuspended in the lake causing massive increases in turbidity. Studies by University of Toledo Tom Bridgeman and Ohio Sea Grant show that bad algae likes turbidity and encourages its growth. Therefore open lake dumping is a contributing factor to algae growth.

The increased turbidity causes increased treatment costs for the Toledo drinking water which draws water in an intake about 8 miles from the disposal site. Increased costs are also being experienced by the City of Oregon who also has a drinking water intake in the area.

Luna Pier, Michigan is an estimated four miles from the open lake disposal area and is battling massive algae buildup on its shores which require excavation for the beach to be usable.

**The temperatures in the Summer of 2010 are unknown but if 2009 is any indication, the greening of Lake Erie will be worse than ever. Open Lake Dumping is one contributing algal source. Government needs to allow temporary storage of the dredged sediments in Facility 3 until an expedited fish island is constructed.**

After all of the years of many governmental agencies opposing open lake dumping, it is surprising that the Army Corp has not been required to conduct an environmental impact statement(EIS) that focuses on aquatic life and nutrient resuspension. Should open lake dumping continue, an EIS should be required. Open lake dumping cannot be relegated to a simple Environmental Assessment and Finding of No Significant Impact with the substantive impacts of open lake dumping documented.

Another problem in western Lake Erie is declining fish populations. The OSU Sea Grant Director, Jeff Reutter states, “High concentrations of suspended sediment can abrade damaging fish gills and destroys the protective mucous covering the eyes, increasing risk of infection and disease. **As sediment settles out of the water column fish eggs, benthic organisms and high quality bottom substrate can be destroyed.** Walleye numbers in Lake Erie have fallen from over 80 million five years ago to less than 20 million projected in 2010.

OEPA estimates that if 1.25 million cubic yards of dredge material are open lake dumped, the amount of phosphorous will rise by 1200 tons(the maximum phosphorous load set by the IJC for Lake Erie is 11,000 cubic yards), 620 pounds of mercury, 2.5 tons of cadmium, and 312 tons of ammonia – significant increases to an already stressed Lake Erie.

### **Conclusion**

There is a silver lining to solving the problem of open lake dumping and helping the declining fish populations. Build a Fish Island with sediments adjacent to the Toledo lighthouse with wetlands and reefs. Create a ‘fish haven’ from the nutrient rich sediments that will grow native plants and enhance habitat. It is estimated that Lake Erie has lost 80% of its wetlands and marshes. The fish island of sediments would return critical habitat in a Great Lakes Area of Concern. Rather than continuing to struggle and debate 20 more years while Lake Erie struggles, design a fish island. Get public input on the design. Have ODNR and US Fish and Wildlife design the fish island to restore the habitat and use the sediments. Make this a Great Lakes and national project that broadcast’s the Toledo Lighthouse, Walleye and Birds. Let this become a great innovative project in great waters – the warmest, shallowest , fishiest in the Great Lakes.

Always happy to discuss any of these comments or ways to address the issue of open lake dumping that helps the port and the waters.

Sincerely,

Sandy Bihn

Executive Director/Waterkeeper