**Comment 5: Re-suspension of open lake disposal material.**

**Response 5:** The western basin of Lake Erie is naturally turbid due to the shallow depth of the basin and re-suspension of natural sediments occurs regularly due to wave action from winds and storm events. Once the dredged material is placed in the open lake disposal area, the material is subject to the same re-suspension forces as the natural sediment on the lake bottom. I have never heard the Western basin as being naturally turbid – I want to check with Reuter, Baker, and Hartig and get back to you. I have always been told that the sediments come from runoff – mostly agricultural – down the Maumee River, then onto Maumee Bay and Lake Erie.

But resuspending the sediments in the open lake creates more turbidity.. OEPA itself has stated that “the sheer volume of sediments placed into open waters impacts lake ecology by reducing water clarity for an extended time.” NWF Comments, p. 2 n.9. OEPA’s response does not dispute our comment that suspended sediment reduces phytoplankton and aquatic plant growth, abrades fish gills and destroys protective fish mucous. *See id*. at 6 n. 31.The suspended sediment thus adversely affects aquatic life, violating the narrative criterion requiring all surface waters to be “[f]ree from suspended solids or other substances that enter the waters as a result of human activity and . . . that will adversely affect aquatic life.” OAC 3745-1-04(A).In addition, this response fails to address the harm done to fish eggs, benthic organisms, and high quality substrate by sediment that settles out of the water column. *Id*. These impacts on the lake’s existing uses violate the antidegradation policy, which prohibits “degradation of water quality that results in . . . the . . . substantial impairment of existing uses.” OAC 3745-1-05(C)(1). Sampling data shows that the sediment dredged from the navigation channel (except for the sediment between River Mile 1 and River Mile 3) meets the open lake water quality disposal criteria in accordance with the *Great Lakes Dredged Material Testing and Evaluation Manual* (September 1998) and that these dredged sediments are toxicologically comparable to sediments already in the open lake reference area. The cited manual does not address concerns with fill material, which – according to the manual – is not usually a significant carrier of contaminants. *Manual*, p. 1. The evaluation and testing covered by the manual is focused on chemical contaminants. *Id*.

**Comment 19: The USACE cannot demonstrate that the discharge of dredged or fill material to Lake Erie, or any conditions on such discharge, will not prevent or interfere with the attainment or maintenance of the designated and existing uses of Lake Erie as exceptional warmwater aquatic life habitat, or water quality criteria. A certification can only be issued if it contains conditions that will assure compliance with Water Quality Standards.**

**Response 19:** For Ohio EPA to issue a Section 401 Water Quality Certification, the project must comply with Ohio Water Quality Standards. Included in these water quality standards is the antidegradation rule (OAC Rule 3745-1-05). The antidegradation rule includes additional application requirements and public participation procedures. Ohio’s antidegradation provisions are triggered by 401 Water Quality Certification applications. OAC 3745-1-05(B)(1)(c).

The antidegradation rule ensures that existing and designated uses of the water body are protected. It only allows lowering water quality consistent with protecting existing and designated uses of the water body when it is necessary to support important social and economic development. No. This statement conflates two separate aspects of the Ohio antidegradation rule. One part of the rule prohibits any degradation of water quality that results in the elimination or substantial impairment of existing uses, whether or not such degradation is necessary to support development. OAC 3745-1-05(C)(1). “Existing uses, . . . and the level of water quality necessary to protect existing uses, shall be maintained and protected. *Id*. This part of the rule essentially establishes a floor. A second part of the rule allows OEPA to approve a lowering of water quality “necessary to accommodate important social or economic development in the area in which the water body is located.” OAC 3745-1-05(C)(5). But this second part of the rule does not authorize OEPA to approve the degradation of water quality below the floor established by the first part of the rule. Simply put, the antidegradation rule establishes a procedure to determine that a discharge is necessary before authorizing it. The state’s antidegradation rule establishes procedures and requirements to ensure that the concepts outlined by the federal regulations are met.

As part of the review of the 401 Water Quality Certification application, Ohio EPA has reviewed the toxicity tests, biological tests (bioassays), and elutriate testing completed for the dredged material. Ohio EPA has evaluated the technical feasibility, cost effectiveness, and availability of the proposed options submitted as part of the antidegradation review and of other options for the material. Ohio EPA has taken into account the social and economic justification for the project and reviewed additional information provided by scientific studies / investigations completed in regard to the functions of the western basin of Lake Erie and scientific studies / investigations related to the direct impact of open lake disposal of dredged material.

Based on the review of the above information, the open lake disposal of dredged material from the Federal Navigation Channel of Toledo Harbor meets the Federal Guidelines specified in the USACE’s and USEPA’s *Great Lakes*

*Dredged Material Testing and Evaluation Manual* by demonstrating the similarity to the reference sediments in the harbor, showing the lack of significant, adverse biological impact as compared to similar sediments already in the lake by completing bioassays, and completing elutriate testing indicating compliance with water quality standards. This only goes to the issue of chemical contaminants. See above. In addition, the technical feasibility, cost-effectiveness, and availability, of other options for beneficial use and/or disposal were evaluated and determined not to be cost-effective or are unavailable at this time. This consideration is irrelevant to the question whether degradation results in substantial impairment of existing uses. In addition, The [sic] social and economic impacts comparing dredging of the Harbor to not dredging the harbor were evaluated and the impacts of the fill activities were weighed against the social and economic justification for the activity. Again, this is irrelevant to to the question whether degradation results in substantial impairment of existing uses.

Taking into account the complete review of the application Ohio EPA has conditioned the 401 Water Quality Certification with conditions in accordance with OAC Rule 3745-32-05(C) to ensure compliance with applicable laws and to ensure adequate protection of water quality. The upshot is that OEPA failed to apply the proper standards required by the antidegradation rule, because it failed to determine whether degradation will substantially impair existing uses, without regard to the necessity of accommodating development.