

## **APPENDIX B**

### **DREDGE TESTING FLOW CHART**



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**Agency:** Environmental Quality

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## Sediment Testing for Dredging Projects

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Permits are required for dredging lake or river bottoms pursuant to Part 325, Great Lakes Submerged Lands and Part 301, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. If the Land and Water Management Division (LWMD) is able to permit your dredging project, dredge material characterization is required by the Department of Environmental Quality (DEQ). Sediment testing results need to be submitted with a permit application to be evaluated as part of the proposed project.

Dredge material may generally be placed on-site with clean cover and a deed restriction without testing. On-site means an upland location adjacent and contiguous to the lake or stream where dredging occurs, and is under the same ownership. If you wish to dispose of the material on-site with clean cover and a deed restriction, the required Restrictive Covenant forms and instructions for completing these are available here for your use.

For dredge projects less than 1,000 cubic yards in volume, in areas that are not designated Areas of Concern or other areas of suspected or known contamination, sediment testing may be waived if you countersign the permit with a pollution liability statement. Countersignature of the liability statement makes you aware that by not testing the material, you could be accepting liability for contamination of upland properties. In this situation a restrictive covenant is not required.

For all other projects, if you plan to place dredge material upland, outside a licensed Type II landfill or a U.S. Army Corps of Engineers confined disposal facility (CDF), testing of the sediments will be required to determine if the dredge material is contaminated and considered a solid waste. The testing is required pursuant to Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), and its administrative rules. A flow chart outlines the projects requiring sediment testing.

If you have concerns related to where sediment testing may be required or disposal options, please contact:

- Mr. Chris Antieau, Land and Water Management Division (LWMD) at 517-373-3894.

If you believe that the bottom sediments are sand (95 percent or more of the particles remain on a No. 200 sieve), then conduct a sieve grain size analysis on a minimum of six representatively sampled sediment samples using U.S. Standard sieve numbers 10, 40, 100, and 200. Report the results for each of the discrete sample locations as a mass percentage of retained sediments. If the mass percentage retained on the No. 200 or larger screens is 95 percent or greater, no additional sediment testing may be required.

If the material is less than 95 percent sand, then according to Rule 118 the waste must be representatively sampled and tested for both total concentrations and leachable concentrations of contaminants (using the Toxicity Characteristic Leaching Procedure [TCLP] extraction or the Synthetic Precipitation Leaching Procedure [SPLP]). A minimum of six discrete samples collected to project depth and analyzed separately for the first 10,000 cubic yards, and one additional sample for each 10,000 cubic yards thereafter must be analyzed for the following parameters: 12 Metals (arsenic, barium, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, and zinc),

- Polychlorinated biphenyls (PCBs), and
- Polynuclear aromatic hydrocarbons (PNAs).

Sample locations must properly characterize the dredged sediments.

You may wish to complete the total analyses first as an initial screen. If you choose this approach, be aware that if the total concentration for a given parameter exceeds 20 times the Type B groundwater value or the Type A Default Background Criteria for metals, the leachate test will be required. Quality control and quality assurance data from the laboratory should be included with the analytical results. Tables containing the required method detection limits and review criteria are attached for your reference.

If you have technical questions related to the sediment testing requirements contained above, please contact:

- Mr. Duane Roskosky, Waste and Hazardous Materials Division (WHMD) at 517-335-4712.

A list of companies that test sediments is available for your use. This list not complete, and is not a recommendation by the Department of Environmental Quality. Additional testing companies may be found in your local phone book under Civil Engineers or Environmental Consultants.

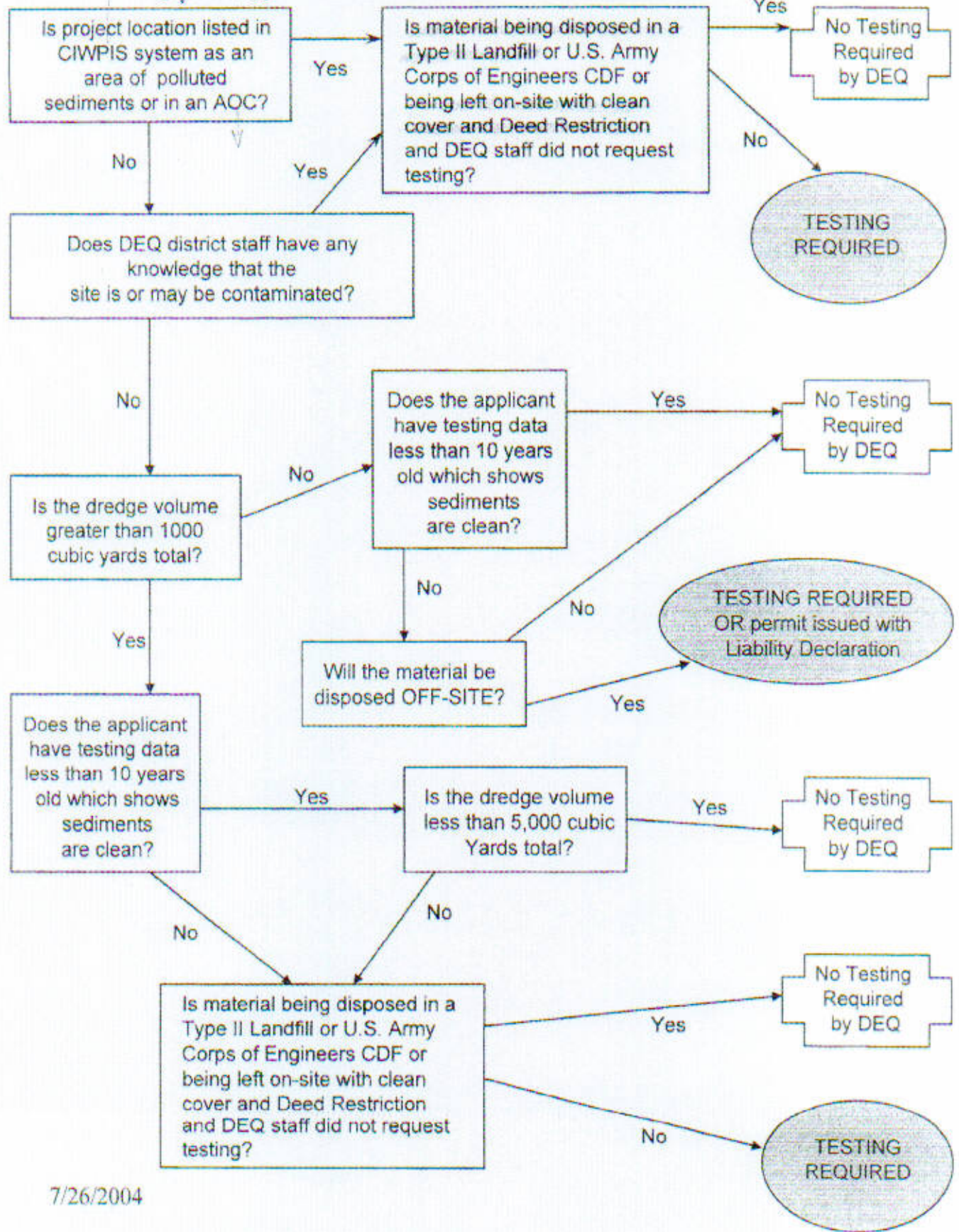
Data may be submitted with the permit application, or submitted to the LWMD field staff person requesting the testing data directly. Please reference the DEQ file number when submitting data.

If you have questions regarding your permit, contact the appropriate district. A map showing the DEQ's LWMD district offices and their telephone numbers is enclosed.

Coastal + Inland  
Water Permit Info.  
Systems

4-12-06  
B. Hagan

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