

# **Managing Dredge Material**

## **REGULATION OF DREDGE MATERIAL**

Contaminated dredge material is considered to be a regulated solid waste under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. To view Part 115, navigate to *www.michigan.gov/deqwaste*, click on the 'Solid Waste' tab, and scroll down to 'Laws & Rules.'

In order to determine if the dredge material generated by your project is contaminated you can use testing or knowledge according to Part 115. Certain projects will have to test their dredge material in order to get a dredging permit. Contact the local district office to speak to the appropriate staff in the Water Resources Division to determine if testing is necessary.

### **TESTING DREDGE MATERIAL**

There are two ways to test dredge material. The first is to perform a particle size distribution and the second is to test for contaminants. You can find the DEQ testing procedure at *www.michigan.gov/jointpermit*, click on 'Dredge Projects' under 'Support Material.'

## WHAT DO THE RESULTS MEAN?

Dredge material that has less than 10%, on average, passing the #200 sieve is considered to be uncontaminated (except for projects located on the Saginaw or Tittabawassee River) and can be disposed into a licensed landfill, a Corps of Engineers Confined Disposal Facility or it can be placed upland with no restriction. If you perform contaminant testing answer the questions on the next page.



Dredge, Lake Michigan

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#### Are all the results less than or equal to the criteria listed below? (all results in mg/kg)

Arsenic — 5.8	Acenaphthylene — 1,600	Fluorene — 270,000
Cadmium — 1.2	Anthracene — 230,000	Indeno(1,2,3-cd)pyrene — 20
Copper — 32	Benzo(a)anthracene — 20	2-methylnaphthalene — 81,000
Lead — 21	Benzo(k)fluoranthene — 200	Naphthalene — 160,000
Mercury – 0.13	Benzo(g,h,i)perylene — 2,500	Phenanthrene – 16,000
Selenium — 0.41	Chyrsene – 20,000	Pyrene — 290,000
Zinc — 47	Dibenzo(a,h)anthracene – 2	PCBs-1
Acenaphthene — 41,000	Fluoranthene – 460,000	

If you answered yes then your dredge material is uncontaminated and can be disposed into a licensed landfill, a Corps of Engineers Confined Disposal Facility or it can be placed upland with no restriction.

If one or more of your sample results are over the criteria listed on the previous page please contact your local district office and ask to talk to someone from the Waste Management and Radiological Protection Division. They will be able to help you perform a statistical evaluation of your sample results. A 95% upper confidence level calculation (UCL) will need to be done.

Is the UCL less than the criteria from the table above? If the answer is yes, then the dredge material is uncontaminated and can be disposed into a licensed landfill, a Corps of Engineers Confined Disposal Facility or it can be placed upland with no restriction. If the answer is no, then the dredge material is contaminated.

### MANAGEMENT OF CONTAMINATED DREDGE MATERIAL

There are numerous options for managing contaminated dredge material. The dredge material can be disposed into a licensed landfill, a Corps of Engineers Confined Disposal Facility or it can be placed upland, on-site with clean cover and deed restriction. An exemption from requiring contaminated sediments to be disposed into a licensed landfill can be found at *www.michigan.gov/deqwaste* by clicking the 'Solid Waste' tab, followed by 'Exemption and Guidance' then 'Dredge Material Exemption.' The deed restriction is filed on the property and notifies future potential owners of the property that contaminated dredge material has been disposed on the property. The deed restriction can be found at *www.michigan.gov/jointpermit*. Navigate to 'Dredge Projects' under 'Support Material.' Then click 'Sediment Testing for Dredging Projects' on the following page.

Questions related to testing and management of dredge material should be directed to the local district office of the Waste Management and Radiological Protection Division. A directory of the district offices can be found at *www.michigan.gov/deq*, by navigating to the 'Locations' tab in the upper right corner.

## Michigan Department of Environmental Quality

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