



Reference for Coastal/Tidal Dredging

Dredging and the Disposal of Dredged Material

Applicants must discuss with LWRD staff any proposed dredging and disposal activities prior to sediment testing in order to determine the specific testing requirements.

A. Dredging

Complete the Dredging Consultation Form and submit it, along with the required Phase I, Sediment Testing information, to LWRD staff.

Ecological Testing - For new dredging proposed in locations with unique habitat concerns, ecological testing may be required. LWRD staff will notify the applicant if this situation applies to their project.

Parameters for ecological testing shall include:

- a map of subtidal and intertidal habitats;
- a map of sampling locations;
- a characterization of the organisms that are living on or in the sediments to be dredged in addition to adjacent areas (this generally involves a quantitative assessment of the numbers and types of organisms living in or on the sediments and their association with particular types of sediments such as sand, mud or silt);
- an evaluation of the potential impacts to the aquatic habitats and their associated organisms and the likelihood of recolonization or such habitats given the projected changes, if any, in sediment character and water depths;
- surveys to be conducted in the fall; and
- a plan for five (5) and ten (10) year post dredging benthic surveys to document organism recovery rates.

B. Disposal of Dredged Material

The two most common methods of dredged material disposal are at either a designated open water disposal site located in Long Island Sound or on the upland. The specific information requirements for these two disposal alternatives are presented below:

1. Disposal of dredged materials at a designated open water disposal site in Long Island Sound

The information needed to support a dredging project proposing to dispose of dredged material at a designated disposal site in Long Island Sound varies depending upon a number of factors. These include the prior history of dredging, the adequacy of available information to characterize the existing quality of the sediments, the degree of contamination of the sediments, and the types of pollutants that may be present in the dredged material.

LWRD staff will use the information provided in Phase I of the Dredging Consultation Form to determine the sediment testing requirements for each project. A bulk sediment test is generally required with sediment cores to project depth. Cores are reviewed for any visually apparent stratification. The cored material is then either completely homogenized and sampled or samples are taken from the identified strata. The samples are then tested for physical characteristics, a suite of metals, and organic compounds.

If the test results show that the sediment has high levels of unsuitable sediment, supplemental testing to evaluate the biological effects of the sediments may be required. The capping of unsuitable sediment may be an option.

If it is determined that the sediment is suitable for the proposed disposal location, provide the equipment type and capacity in the *Project Information* section of the LWRD application.

2. Disposal of Dredged Material on Uplands

Contact LWRD staff to determine the type of testing required for upland disposal. In general, bulk sediment testing will be required as described above. Special tests of the sediment, such as elutriate testing to determine release rates for contaminants of concern and/or Toxicity Characteristic Leaching Procedure testing, may be required for dewatering of materials.

If it is determined that the sediment is suitable for the proposed upland disposal location(s), provide a report with the following information:

- a. method of proposed dredging (specify hydraulic or mechanical and the type of equipment to be used);
- b. a vicinity map showing the location(s) of the disposal sites(s) – if the material is to be handled at or transferred to more than one site, indicate the location of each disposal site;
- c. evaluation of the impacts of the proposed disposal upon ground and surface water quality;
- d. groundwater classification of the proposed disposal site(s);
- e. location of any Aquifer Protection Areas, refer to [maps](#):
(https://www.ct.gov/deep/cwp/view.asp?a=2685&q=322248&deepNav_GID=1654)
- f. identification of the municipal zoning classification of the proposed disposal site(s);
- g. a description of how the dredged sediments will be contained, dewatered and stabilized;
- h. calculations supporting the size and design of the containment facility;
- i. identification of the erosion and sediment control techniques to minimize sedimentation and erosion from the discharge and stabilization of the containment facility. Include monitoring and maintenance; and,
- j. a water quality monitoring plan for the (effluent) discharge from the containment facility.

Also, the project plans must include plan views and cross-sections of the dredge sediment containment facility. Include any outfall locations.