

## EXECUTIVE SUMMARY

This Technical Manual has been prepared by the New Jersey Department of Environmental Protection Dredging Task Force in order to establish clear and comprehensive policies and procedures for reviewing proposed dredging activities, and the management of the dredged material. This document provides Departmental staff and project applicants with guidance and criteria for the required sampling, testing, and permitting of proposed dredging projects and various dredged material management/disposal/use alternatives. Dredged material can be considered a resource, and the Department strongly supports its use, wherever possible.

This Technical Manual has been developed in response to Governor Christine Whitman's Dredged Material Management Team and Departmental commitments included in the New York-New Jersey and Delaware Estuary Program Comprehensive Conservation and Management Plans. A March 1996 draft version of this document was subject to public review and comment; a companion Comment/Response Document (October 1997) has also been prepared by the Department. This Technical Manual has been developed in consideration of the comments received on the March 1996 draft document.

The regulatory review of permit applications for dredging operations and/or the management of dredged material will be coordinated by the Department's Land Use Regulation Program.

Chapter II of the Technical Manual includes a brief discussion of the authorities under which the Department will regulate dredging activities and the management/disposal/use of dredged material. It also includes a discussion of the permit review process and solid waste issues related to the regulation of dredged material.

Chapter III of the Technical Manual identifies the background information which must be submitted in support of all permit applications for dredging and dredged material management activities. For some project evaluation purposes, the tidal waters of New Jersey have been divided into three geographical regions; these are presented in Section III-B. Testing of dredged material for contaminants will not always be necessary; Testing Exclusions are discussed in Section III-C and Figure 2 is a schematic diagram of the required test procedures. In general, small dredging projects along the State's Atlantic Ocean coast, projects in which the dredged material is greater than 90% sand, and small projects in which the dredged material will be placed in a Subaqueous Disposal Pit will be excluded from extensive testing requirements. The development and implementation of sediment sampling plans and compositing schemes is discussed in Section III-D.

Section IV-B discusses the Department's program for managing and regulating dredging operations, including the use of Best Management Practices and the overland transport of dredged material. In most cases, dredging projects in New Jersey's navigable tidal waters will require a Waterfront Development Permit and a Water Quality Certificate (pursuant to Section 401 of the federal Water Pollution Control Act). Any discharge of dredged material will also require a permit from the U.S. Army Corps of Engineers pursuant to Section 404 of the federal Water Pollution Control Act. Dredging activities are also regulated by the federal government pursuant to Section 10 of the Rivers and Harbors Act of 1899. Federally-conducted, funded, or permitted activities, which have a direct impact on New Jersey's Coastal Zone, will require a federal consistency determination from the Department, pursuant to the Coastal Zone Management Act.

A variety of potential alternatives exist for the management, disposal, and/or use of dredged material. These include open water (including ocean) disposal sites, upland confined disposal facilities (CDFs), subaqueous disposal pits, and containment areas. Table 1 identifies the potential sediment testing and permitting requirements for these options.

Section IV-C of the Technical Manual discusses Open Water disposal alternatives. Disposal of dredged material in ocean waters is regulated by the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency. The Department will coordinate its review of proposed ocean disposal operations with these federal agencies. The Department's regulatory program for proposed reprofiling operations is also discussed in this section of the document.

Section IV-D discusses the design, construction, operation, closure, and permitting of upland confined disposal facilities (CDFs). Regulation of upland CDFs will be administered by the Department's Land Use Regulation Program, pursuant to the Waterfront Development Law and the State and federal Water Pollution Control Acts. In New Jersey's designated Coastal Zone, siting of a proposed upland CDF will be evaluated using the Rules on Coastal Zone Management. The Department will require the owner/operator of an upland CDF to submit an annual report to the Department, summarizing the past year's activities at the facility. In addition, Final (and Interim, if needed) Closure Plans must be developed and approved by the Department for each proposed upland CDF.

The major potential adverse environmental impacts associated with upland CDFs are surface and ground water contamination. Dredged material dewatering effluent returning to the same water body from which the material was originally dredged will require a Water Quality Certificate. A New Jersey Pollutant Discharge Elimination System (NJPDES) Discharge to Surface Water permit will be required for discharges from upland CDFs accepting material from single or multiple dredging sites located in a different surface water body. The NJPDES-Discharge to Ground Water permitting process for upland CDFs will consider the source and degree of contamination of the dredged material, as well as the use(s) and value(s) (i.e. classification) of the underlying aquifer. This process may include the following components: preliminary determination of leachate quality from dredged sediments, Ground Water Protection Plans, and a NJPDES-Discharge to Ground Water permit. A NJPDES-DGW permit will only be required where the maximum leachate quality of any contaminant is predicted to violate the

Ground Water Quality Criteria applicable to the underlying aquifer, thus potentially adversely impacting the designated use(s) and value(s) of the aquifer.

Potential impacts to the terrestrial ecosystem and public health resulting from the use of upland CDFs are also discussed in Section IV-D of the Technical Manual.

Section IV-E discusses the use of subaqueous disposal pits for contaminated dredged material. Use of such pits will be evaluated by the Land Use Regulation Program using the Rules on Coastal Zone Management. Designing a pit to be properly capped, and maintaining the integrity of the cap, is essential. Thus, long-term monitoring of the subaqueous disposal pit, its final cap, and the surrounding environment will be required.

Section IV-F of the Technical Manual discusses the construction and use of in-water/aquatic containment areas for dredged material. Permitting requirements are generally similar to those associated with upland CDFs.

Dredged material can be considered a resource, and the Department strongly supports its use, wherever possible, as opposed to exclusive reliance on disposal facilities. Potential use alternatives for dredged material are discussed in Chapter V. Potential uses include beach nourishment, structural and non-structural fill, habitat development, landfill cover, agricultural uses, and capping open water disposal sites. The suitability for dredged material for any of these uses will depend on its characteristics, particularly grain size and degree of contamination. Appendix E presents the Acceptable Use Determination (AUD) Process the Department will apply to authorize the use of dredged material. The AUD will be attached to the Waterfront Development permit issued for a particular dredging operation or a dredged material processing facility.

Appendix A of the manual discusses required sediment sampling methodologies, and Appendix B presents the associated analytical procedures and quality assurance/quality control measures. Appendix C contains the Department's Dredged Material Data Form.