

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**



**RULES AND REGULATIONS FOR DREDGING AND THE
MANAGEMENT OF DREDGED MATERIAL**

February 2003

Regulation # DEM-OWR-DR-02-03

AUTHORITY: These rules and regulations are promulgated pursuant to the Marine Infrastructure Maintenance Act of 1996, the Marine Waterways and Boating Facilities Act of 2001, R.I. General Laws Chapter 46-6.1 (1956), and are intended to be consistent with the Hazardous Waste Management Act, R.I. General Laws Chapter 23-19.1 (1956); the Fresh Water Wetlands Act, R.I. General Laws § 2-1-18 et seq. (1956); the Clean Air Act, R.I. General Laws Chapter 23-23 (1956); the Groundwater Protection Act, R.I. General Laws Chapter 46-13.1 (1956); the Water Pollution Act, R.I. General Laws Chapter 46-12 (1956); the Coastal Resources Management Council Act, R.I. General Laws Chapter 46-23 (1956); the federal Coastal Zone Management Act 16 U.S.C. § 1454 et seq.; the federal Water Pollution Control Act, 33 U.S.C. 1251 et seq. (a/k/a the federal Clean Water Act), in accordance with §42-35, and the Administrative Procedures of the R. I. General Laws of 1956, as amended.

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1. Purpose

In accordance with the Marine Waterways and Boating Facilities Act of 2001, RI General Laws Chapter 46-6.1 (1956), the purpose of these regulations is to:

- 1.1 Ensure that dredging in the marine environment and management of the associated dredged material is conducted in a manner which is protective of groundwater and surface water quality so as to ensure the continued viability and integrity of drinking water and fish and wildlife resources.
- 1.2 Balance the need to prevent environmental degradation with the need to prevent undue delay in the planning, permitting and implementation of dredging projects.
- 1.3 Enhance and streamline the permitting process by treating dredging and management of dredged material as a distinct class of activities to be regulated on the basis of the nature and characteristics of the material to be dredged.
- 1.4 Encourage the beneficial use of dredged material for brownfields redevelopment, beach nourishment, landscaping, habitat restoration and/or creation, construction projects, landfill cover and other useful purposes.
- 1.5 Identify and list upland sites suitable for beneficial use and/or disposal of dredged material, and establish criteria for identifying other suitable sites.
- 1.6 Establish standards and criteria governing the dewatering of dredged material for upland use or disposal.
- 1.7 Ensure timely and coordinated review of applications for dredging and/or management of dredged material, consistent with timeliness and procedures set forth in statute, including internal coordination within the Department and the issuance of a single regulatory decision by the Director, as well as external coordination with the Coastal Resources Management Council and with federal agencies to the extent they have to act on a proposed project.
- 1.8 Ensure that project planning and management of dredged materials follow the ranking of priorities as set forth in statute and listed below, taking into account the nature and characteristics of the dredged material, as well as reasonable cost:
 - 1.8.1 Beneficial use, including specifically beach nourishment and restoration and/or creation of habitat in the coastal zone;
 - 1.8.2 Beneficial use in upland areas;
 - 1.8.3 Disposal.

2. Authority

These rules and regulations are promulgated pursuant to the Marine Infrastructure Maintenance Act of 1996, the Marine Waterways and Boating Facilities Act of 2001, R.I. General Laws Chapter 46-6.1 (1956), and are intended to be consistent with the Hazardous Waste Management Act, R.I. General Laws Chapter 23-19.1 (1956); the Fresh Water Wetlands Act, R.I. General Laws § 2-1-18 et seq. (1956); the Clean Air Act, R.I. General Laws Chapter 23-23 (1956); the Groundwater Protection Act, R.I. General Laws Chapter 46-13.1 (1956); the Water Pollution Act, R.I. General Laws Chapter 46-12 (1956); the Coastal Resources Management Council Act, R.I. General Laws Chapter 46-23 (1956); the federal Coastal Zone Management Act 16 U.S.C. § 1454 et seq.; the federal Water Pollution Control Act, 33 U.S.C. 1251 et seq. (a/k/a the federal Clean Water Act), in accordance with §42-35, and the Administrative Procedures of the R. I. General Laws of 1956, as amended.

3. Application

The terms and provisions of these rules and regulations shall be liberally construed to permit the Department to effectuate the purposes of state law, goals and policies.

These rules and regulations apply to all aspects of dredging proposed in marine waters of the State of Rhode Island, and govern the issuance of all Department approvals required under state law and delegated federal law, including determinations relating to the protection of water quality, wetlands and fish and wildlife; and, to the extent applicable, the management of solid or hazardous waste. If the project involves a significant alteration to freshwater wetlands, then Section 9.3.4 applies.

These rules and regulations shall be implemented in accordance with a written protocol, adopted jointly by the Department and the Council for purposes of further coordinating and streamlining the interagency review of applications. The Department and the Council may update the protocol from time to time for said purposes, and shall provide a copy of the most recent version with their application materials.

4. Definitions

For the purposes of these regulations, the following terms shall have the following meanings:

- 4.1 Applicant - The person, firm, partnership, corporation, public utility, government agency and/or any other organization or association seeking a determination, permit, or decision from the Department through prescribed application procedures. The applicant must be the owner of the property or easement which is the subject of the application, or must be the government agency or entity with power of condemnation over such property or easement.
- 4.2 Beneficial Use - The use of dredged material in an environmentally protective manner for some productive purpose included, but not limited to Brownfields redevelopment,

beach nourishment, landscaping and grading, landfill cover, coastal habitat restoration and/or creation, or construction.

- 4.3 Coastal Zone - The coastal waters of the state and adjacent land and other areas that are under the regulatory jurisdiction of the Coastal Resources Management Council pursuant to R.I. General Laws Chapter 46-23 (1956) or the federal Coastal Zone Management Act, 16 U.S.C. § 1454 et seq.
- 4.4 CRMC or Council - The Rhode Island Coastal Resources Management Council.
- 4.5 Department - The Rhode Island Department of Environmental Management.
- 4.6 Director - The Director of the Rhode Island Department of Environmental Management.
- 4.7 Dewatering - The process of removing excess marine water from dredged material prior to upland disposal or beneficial use.
- 4.8 Disposal - The relocation and/or placement of dredged material, other than for an approved beneficial use or managed at an approved rehandling facility, at any location for more than ninety (90) days after dewatering is completed, unless an alternative time frame is approved under Section 11.1.7 of these regulations.
- 4.9 Disposal Site or Location - A precise and approved geographic area within which dredged material is permitted to be disposed.
- 4.10 Dredged Material - Material excavated from the marine waters of the state, including rock, gravel, sand, clay, silt, mud, organic material, and material discarded by humans.
- 4.11 Dredge Window - That portion of the year when marine fisheries resources are least susceptible to significant adverse impacts related to dredging activity or in-water disposal.
- 4.12 Dredging - The excavation of sediments from beneath surface waters by mechanical or hydraulic means.
- 4.13 Habitat - Specific type of place within an ecosystem occupied by an organism, population, or community that contains both living and nonliving components with specific biological, chemical, and physical characteristics including the basic life requirements of food, water and cover or shelter.
- 4.14 Maintenance Dredging - Dredging an area within state waters to restore channels and basins to dimensions that support and maintain existing levels of use.
- 4.15 Person - Any individual, group of individuals, firm, corporation, association, partnership or private or public entity, including a district, county, city, town, or other

governmental unit or agent thereof, and in the case of a corporation, any individual having active and general supervision of the properties of such corporation.

- 4.16 Rehandling Facility - A facility operated for the purpose of storing and distributing dredged material for off-site disposal or beneficial use.
- 4.17 Site - A specific location and all contiguous land, structures, appurtenances and improvements associated with that location.
- 4.18 Site Operator - The person who is responsible for the operation of activities at a beneficial use, dewatering, or disposal site for dredged materials.
- 4.19 Site Owner - The person who owns all or a part of a beneficial use, dewatering, or disposal site for dredged materials.
- 4.20 Upland Areas - All areas of the state that are not in the coastal zone.
- 4.21 USACE - The United States Army Corps of Engineers, its agents or representatives.

5. General Provisions

- 5.1 No person shall perform dredging, dewatering, handling, disposal, or make beneficial use of dredged material without prior written approval from the Director, except as provided for in Section 12.
- 5.2 Dredging, dewatering, handling, disposal, or beneficial use of dredged material, whether licensed or unlicensed, shall not cause pollution of the waters of the United States or the State of Rhode Island so as to violate the Water Pollution Act, 1956 R.I. General Laws., Chapter 46-12 (1956), the Groundwater Protection Act, R.I. General Laws Chapter 46-13.1 (1956), the Fresh Water Wetlands Act, R.I. General Laws § 2-1-18 et seq. (1956), or Sections 402 and 404 of the Clean Water Act, 33 U.S.C. 1251 et seq.; or cause air pollution, including objectionable odors and fugitive dust, so as to violate the Clean Air Act, R.I. General Laws Chapter 23-23 (1956) or the federal Clean Air Act, 42 U.S.C. § 7401 et seq., and any regulations promulgated under these authorities.
- 5.3 In accordance with 40 CFR Section 230.10, the in-water disposal of dredged material is prohibited unless:
 - 5.3.1 There is no practicable alternative to the proposed disposal that would have less adverse impact on the aquatic ecosystem, and that would not itself have significant adverse environmental consequences. A practicable alternative is defined as one that is “available and capable of being done after taking into consideration cost, existing technology and logistics in light of the overall project purposes;”

- 5.3.2 The disposal will not cause or contribute to violations of applicable water quality standards;
 - 5.3.3 The disposal will not cause or contribute to significant degradation of waters of the state; or
 - 5.3.4 Appropriate and practicable steps to minimize the potential adverse impacts of the disposal on the aquatic environment have been taken.
- 5.4 Upland dewatering, disposal or beneficial use of dredged material is prohibited in the following areas, unless the dredged material meets the criteria listed in Section 9.2.3 or unless the dewatering, disposal or beneficial use location is within 200 feet of mean high water:
- 5.4.1 Areas where groundwater is classified as GAA, as defined in the DEM Rules and Regulations for Groundwater Quality;
 - 5.4.2 Areas where groundwater is classified as GA, as defined in the DEM Rules and Regulations for Groundwater Quality and where public water is not available; and
 - 5.4.3 The watershed of a drinking water reservoir or any Wellhead Protection Area.

6. Pre-Application Process

- 6.1 Before submitting an application for permission to dredge, applicants are strongly encouraged to take advantage of pre-application opportunities to consult with the Department, the Council and any other agencies with jurisdiction. The purpose of pre-application consultations is to provide applicants with guidance and assistance in preparing a complete application, including the results of an approved sampling plan, so that the application can be reviewed and acted on in accordance with the timelines set forth in statute.
- 6.2 To initiate a pre-application consultation, applicants should provide notice of a preliminary proposal to dredge to the Council. Upon receipt of such notification the Council will schedule a joint CRMC-Department pre-application meeting with the applicant. The Department shall designate a single point of contact for purposes of this and all subsequent meetings on the proposal. This point of contact will usually be a member of the Office of Technical and Customer Assistance (OTCA). Depending on the specifics and status of the application, representatives of several Department programs will be asked to participate, including in particular:
- Office of Water Resources
 - Office of Air Resources

- Office of Waste Management
 - Division of Fish and Wildlife
- 6.3 Following the initial pre-application meeting, the Department's single point of contact may schedule additional pre-application meetings with the applicant to review specific regulatory requirements and their applicability to specific aspects of the proposal.
- 6.4 Review and Approval of Sediment Sampling Plan. Applicants are encouraged to use the pre-application process to develop and secure Department approval of the Sediment Sampling Plan required in Section 7. Approval is required before implementation of the plan. Sampling results are required as part of an application. Applicants should submit, at least 7 days prior to a pre-application meeting, a proposed Sediment Sampling Plan, in accordance with Sections 7.2.1, 7.2.2 and 7.2.3. Applicants may also obtain guidance and approval for initial assessments, pollutant transport analyses or background studies that may be needed as a follow-up to sediment sampling, in accordance with Sections 7 or 9.2.
- 6.5 Review of Impacts on Fisheries, Wetlands and Other Aquatic Resources. Applicants are encouraged to use the pre-application process once the dredged material has been characterized and the disposal or beneficial use location has been identified. The process will allow the applicant to consult with the Department about existing information and the need for new information regarding aquatic resources, potential impacts from proposed activities, and means to avoid or minimize such impacts, for example through modifications to design, methodology or timing, in accordance with the provisions of Sections 8 - 11. Applicants may also obtain a determination whether the project has potential to significantly alter freshwater wetlands so as to trigger requirements for additional documentation under Section 9.3.

7. Characterizing Material to be Dredged

- 7.1 An application for permission to dredge must include adequate characterization of the material to be dredged, in accordance with the specific provisions set forth in these regulations and any guidance provided by the Department with the application form(s). The Department may waive a specific requirement to the extent the Department finds the requirement is not applicable or the information requested is either not necessary or already available to determine compliance.
- 7.2 The Sediment Sampling Plan must provide the following information:
- 7.2.1 A site plan of the area to be dredged, including topography and bathymetry;
 - 7.2.2 The proposed depth of dredging;
 - 7.2.3 The location of all proposed sample collection points, which must be representative of the material(s) to be dredged. Sampling points must include,

but not be limited to, areas impacted by past spill events or otherwise known or suspected to contain contamination, and areas near outfalls, fueling docks or pumps;

- 7.2.4 Proposed testing parameters and protocols in accordance with Section 7.3; and
 - 7.2.5 Proposed sampling procedures and sample handling protocols conducted in accordance with Section 7.6.
- 7.3 Analysis of dredged material proposed for upland disposal or beneficial use. At a minimum, the material must be tested analytically for the following parameters:
- 7.3.1 Grain Size Analysis (including percent moisture);
 - 7.3.2 Polychlorinated Biphenyls (PCBs);
 - 7.3.3 Total Petroleum Hydrocarbons (TPH);
 - 7.3.4 Total Metals Analysis for arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc; and
 - 7.3.5 Semi-Volatile Organic Compounds (SVOCs).
- 7.4 Depending on the characteristics and proposed location for upland disposal or beneficial use, dredged material may have to be tested analytically for the following parameters:
- 7.4.1 Leachability: Analysis of samples, using the Toxicity Characteristic Leaching Procedure (TCLP), test Method 1311, or the Synthetic Precipitation Leaching Procedure (SPLP), test Method 1312, in "Test Methods for Evaluating Solid Waste" EPA Publication SW-846 shall be required to determine compliance with GA Leachability Criteria. Determinations as to whether a material meets the definition of hazardous waste by the characteristic of toxicity must be based on results from the TCLP test;
 - 7.4.2 Chloride sampling (mg/kg dry material) will be required after dewatering of the dredged material is completed under the following conditions:
 - 7.4.2.1 Where there is a point of groundwater use within 1750 feet of the disposal or beneficial use location, or
 - 7.4.2.2 Where there is a point of groundwater use within 400 feet of the disposal or beneficial use location, when that location is within 200 feet of mean high water.

- 7.4.3 Waiver of Testing Requirements: Except where the dredged material is proposed to be used for beach nourishment, the Department may waive the requirement that sediments be tested for contaminants if it determines that the probability of such contamination being present is low based on the absence of suspected sources and documentation that the material being dredged is at least 90% sand with a grain size greater than 0.0625 mm, as determined in accordance with Section 7.3.1. Sampling for chlorides will not be required for material proposed to be used for beach nourishment.
- 7.5 For in-water disposal of dredged material, the following guidance documents, developed by the USEPA and USACE, shall be used jointly by ACE and the applicant to develop a sampling plan:
- 7.5.1 Evaluation of Dredged Material Proposed for Ocean Disposal - Testing Manual (February 1991; also known as the Green Book);
- 7.5.2 Guidance for Performing Tests on Dredged Material Proposed for Ocean Disposal (Regional Implementation Manual); and
- 7.5.3 Evaluation of Dredged Material Proposed for Discharge in Water of the U.S. - Testing Manual (February 1998; also known as the Inland Testing Manual).
- 7.6 Sampling Procedures
- 7.6.1 Core samples must be taken to the proposed depth of dredging including any overdraft, depending on the dredging methodology anticipated.
- 7.6.2 Each core shall be described. Grain size analysis shall be required for each core. A core may be homogenized unless there are distinct strata in grain size and composition, which are at least 2 feet in depth. The Department shall be notified of any cores that show grain size stratification prior to homogenizing. For cores that show grain size stratification, each strata with a depth of 2 feet or greater must be tested for grain size, Total Organic Carbon and percentage moisture.
- 7.6.3 Separate core samples may be composited when the grain size and likelihood of contamination is uniform based on depositional characteristics, spill history, and location of outfalls. Approval must be obtained prior to compositing the samples.
- 7.6.4 Samples must be collected and managed to meet the method requirements for handling, preservation and storage outlined in the documents as noted above in Section 7.5.
- 7.7 Approval of the Sampling Plan: Once the Department has reviewed the sampling plan and accepted it, the Department will issue a written approval of the sampling plan.

Upon receipt of approval, the applicant may go forward with implementation. For in-water disposal, this evaluation will be conducted in coordination with the Council and the USACE.

- 7.8 Modification of the Sampling Plan - The applicant may only modify the sampling plan with prior approval from the Department.
- 7.9 Recognition of Results - Once the results of the sampling have been received, the applicant may request a meeting with the Department to help the applicant identify potential disposal locations and discuss refinements of the project design. If a meeting is requested pursuant to this section, the Department will notify the Council of this meeting and work with the Council to provide coordinated, multi-agency input into the project design. Following the meeting, the Department will provide written acknowledgement of the results of the sampling and a determination as to what disposal options are available to the applicant based on the results provided.

8. Application for Dredging and the Management of Dredged Material

- 8.1 An application for permission to dredge in the marine waters of the state and/or to dewater, dispose or make beneficial use of dredged material shall be submitted to both the Department and the Council on forms prescribed and provided by the agencies. The Department will accept applications that have been made part of a submittal to the Council, provided such part complies with all requirements set forth in these regulations and in the form(s) prescribed by the Department.
- 8.2 To be accepted as complete, an application must include, or address, at a minimum, all of the following:
 - 8.2.1 Site plan(s), including all applicable requirements as identified in Appendix A;
 - 8.2.2 Results of the sampling conducted pursuant to the Sediment Sampling Plan, as approved by the Department in accordance with Section 7;
 - 8.2.3 A description of the dredging process, including the proposed dredging method and an estimate of the length of time necessary to complete the dredging project;
 - 8.2.4 Type of dredging equipment to be used;
 - 8.2.5 Stamped calculations performed by a Professional Engineer with experience with dredge projects, verifying the estimated volume of dredged material;
 - 8.2.6 Cross sectional plans of the area to be dredged. Plans must show the existing and proposed contours of the dredging area;

- 8.2.7 A narrative description of aquatic resources in the area to be dredged such as shellfish beds, eel grass beds, spawning areas and migratory pathways for finfish, and other aquatic resources;
- 8.2.8 The proposed starting and completion dates for the dredging project. Depending on the size, location and complexity of the project, the Department may require the submission of an evaluation of the impacts to fishery resources including migratory and spawning behavior and habitat, and the presence of early life stages of particular sensitivity. Dredging projects proposed outside the standard dredge window may require the submission of additional resource information;
- 8.2.9 The method of transport to the disposal or beneficial use area and a description of handling techniques (i.e. stockpiling, dewatering);
- 8.2.10 Consistency of the proposed project with the beneficial use and disposal priorities for dredged material management established in the R.I General Laws, Chapter 46-6.1-2 and with the dredging plan adopted by the Council pursuant to Section 46-6.1-5;
- 8.2.11 Location(s) of dredged material dewatering, handling, disposal or beneficial use site(s);
- 8.2.12 Other specific information required by Sections 9, 10 and 11, to the extent applicable.

9. Upland Disposal and Beneficial Use of Dredged Materials

- 9.1 Applications that propose upland disposal, beneficial use and beach nourishment must include, at a minimum, the following information:
 - 9.1.1 Site plan(s), including all applicable requirements as identified in Appendix A;
 - 9.1.2 Except in the case of beach nourishment or where the dredged material meets the criteria in Section 9.2.3, documentation of uses and classifications of groundwater and surface water at or around the disposal location, including:
 - 9.1.2.1 Verification that the dredged material disposal or beneficial use location is not within any area prohibited in Section 5.4;
 - 9.1.2.2 Location of points of groundwater use within 1750 feet of the disposal or beneficial use location, or, if disposal or beneficial use is proposed within 200 feet of mean high water, points of groundwater use within 400 feet of the disposal or beneficial use location;

- 9.1.3 Stamped calculations performed by a Professional Engineer with experience dredge material handling, verifying the disposal or beneficial use location capacity and the dewatering area capacity;
- 9.1.4 If the applicant is not the owner of the proposed dewatering, disposal or beneficial use location(s), documentation of the owner’s permission indicating the estimated volume of dredged material to be dewatered, disposed or beneficially used on his or her property.

9.2 Criteria for Sites Proposed for the Upland Disposal or Beneficial Use of Dredged Materials:

9.2.1 Except in the case of beach nourishment or of creation or restoration of salt marsh, all dredged material proposed to be beneficially used or disposed on land must first be dewatered at a location approved in accordance with Section 11.

9.2.2 Dredged material proposed to be used for beach nourishment must not exceed the following criteria:

9.2.2.1	% Silt/Clay	10 percent
9.2.2.2	% Moisture	25 percent
9.2.2.3	Total Petroleum Hydrocarbons (TPH)	ND
9.2.2.4	Total Polychlorinated Biphenyls (PCB).....	ND
9.2.2.5	Arsenic (As)	1.7 mg/kg
9.2.2.6	Cadmium (Cd)	1 mg/kg
9.2.2.7	Chromium (Cr)	10 mg/kg
9.2.2.8	Copper (Cu)	10 mg/kg
9.2.2.9	Lead (Pb)	25 mg/kg
9.2.2.10	Mercury (Hg)	0.5 mg/kg
9.2.2.11	Nickel (Ni)	5 mg/kg
9.2.2.12	Zinc (Zn)	25 mg/kg

9.2.3 Dredged material that does not exceed the criteria in Section 9.2.2 and has a chloride concentration that does not exceed 200 mg/kg dry material may be disposed or beneficially used without further conditions.

9.2.4 Dredged material that does not exceed the Residential Direct Exposure Criteria (Table 1, Section 8, Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases, and Appendix D) may be disposed or beneficially used as follows:

9.2.4.1 Where there are no points of groundwater use within 1750 feet of the proposed disposal or use location (or within 400 feet in the case of disposal or beneficial use within 200 feet of mean high water), the

material may be disposed or beneficially used under the following conditions:

- 9.2.4.1.1 Groundwater at the proposed site is classified GB, as defined in the Rules and Regulations for Groundwater Quality; or
- 9.2.4.1.2 Groundwater at the proposed site is classified GA, as defined in the Rules and Regulations for Groundwater Quality, the location is not prohibited in Section 5.4, and the material meets GA Leachability Criteria (Table 2, Section 8, Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases and Appendix D). Dredged material proposed for disposal or beneficial use within 200 feet of mean high water is not required to meet GA Leachability Criteria.
- 9.2.4.2 Where there is an existing groundwater use within 1750 feet of the proposed disposal or use location (or within 400 feet in the case of disposal or beneficial use within 200 feet of mean high water), and the chloride concentration of the dredged material does not exceed 200 mg/ kg dry material, the material may be disposed or beneficially used in accordance with Section 9.2.4.1.1 or 9.2.4.1.2.
- 9.2.4.3 Where there is an existing groundwater use within 1750 feet of the proposed disposal or use location (or within 400 feet in the case of disposal or beneficial use within 200 feet of mean high water), and the chloride concentration of the dredged material exceeds 200 mg/ kg dry material, an initial assessment of the impacts on the identified groundwater use must be submitted.
 - 9.2.4.3.1 If the initial assessment indicates, and the Department concurs, that the chloride concentration in groundwater will not exceed the federal drinking water standard of 250 mg/l at the point of groundwater use, the material may be disposed or beneficially used in accordance with Section 9.2.4.1.1 or 9.2.4.1.2
 - 9.2.4.3.2 If the initial assessment indicates that the chloride concentration in groundwater will exceed 250 mg/l, a pollutant transport analysis may be submitted. If the pollutant transport analysis indicates, and the Department concurs, that the chloride concentration in groundwater will not exceed 250 mg/l at the point of groundwater use, the material may be disposed or beneficially used in accordance with Section 9.2.4.1.1 or 9.2.4.1.2

9.2.5 Dredged material that exceeds Residential Direct Exposure Criteria but does not exceed the Commercial/Industrial Direct Exposure Criteria (Table 1, Section 8, Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases and Appendix D), must be disposed or beneficially used on property that is and will be used for industrial/commercial activities in accordance with an Environmental Land Use Restriction or Conservation Easement to be recorded in the land evidence records for the property or affected portions of the property. Such material may be disposed or beneficially used under the following conditions:

9.2.5.1 Where there are no points of groundwater use within 1750 feet of the proposed disposal or use location (or within 400 feet in the case of disposal or beneficial use within 200 feet of mean high water), the material may be disposed or beneficially used in accordance with Section 9.2.4.1.1 or 9.2.4.1.2.

9.2.5.2 Where there is an existing groundwater use within 1750 feet of the proposed disposal or use location (or within 400 feet in the case of disposal or beneficial use within 200 feet of mean high water) and the chloride concentration of the dredged material does not exceed 200 mg/ kg dry material, the material may be disposed or beneficially used where the groundwater at the proposed location is classified GB or GA, as defined in the Rules and Regulations for Groundwater Quality, provided the location is not prohibited in Section 5.4, and provided the material does not exceed GA Leachability Criteria (Table 2, Section 8, Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases and Appendix D).

9.2.5.3 Where there is an existing groundwater use within 1750 feet of the proposed disposal or use location (or within 400 feet in the case of disposal or beneficial use within 200 feet of mean high water) and the chloride concentration of the dredged material exceeds 200 mg/ kg dry material, an initial assessment of the impacts on the identified groundwater use must be submitted.

9.2.5.3.1 If the initial assessment indicates, and the Department concurs, that the chloride concentration in groundwater will not exceed the federal drinking water standard of 250 mg/l at the point of groundwater use, the material may be disposed or beneficially used in accordance with Section 9.2.5.2.

9.2.5.3.2 If the initial assessment indicates that the chloride concentration in groundwater will exceed 250 mg/l, a pollutant transport analysis may be submitted. If the

pollutant transport analysis indicates, and the Department concurs, that the chloride concentration in groundwater will not exceed 250 mg/l at the point of groundwater use, the material may be disposed or beneficially used in accordance with Section 9.2.5.2.

9.2.5.4 Where the disposal or beneficial use location is within 200 feet of mean high water, that location must be hydrologically connected to the area being dredged.

9.2.6 Consideration of Naturally Occurring Arsenic. Where the arsenic concentration of dredged material exceeds the Residential Direct Exposure Criteria, and there are no exceedances of any other Residential Direct Exposure Criteria, the applicant may conduct a background study of the proposed disposal and/or beneficial use location to determine whether the dredged material would cause any additional adverse impacts at the site. If the applicant chooses to conduct a background study, a proposed work plan must be submitted to the Department for review and approval. If the background study results indicate, and the Department concurs, that the concentration of arsenic in the dredged material is below the background concentration, and the background concentration is less than 7.0 mg/kg, the dredged material may be disposed or beneficially used at the proposed location without the need to file an ELUR.

9.2.7 Dredged material that exceeds Commercial/Industrial Direct Exposure Criteria must be disposed at a facility licensed to accept and manage such material.

9.3 Upland disposal projects that may impact freshwater wetlands. The following provisions apply to upland sites that contain wetlands under the jurisdiction of the Department, unless there is a valid DEM Freshwater Wetlands permit for the disturbance and other activities affecting wetlands at the site, no changes are proposed, and the disposal and/or beneficial use is carried out in accordance with the permit:

9.3.1 Site plan(s), including all applicable requirements as identified in Appendix A;

9.3.2 Any upland disposal or beneficial use site must be located outside of all freshwater wetlands (RIGL 2-1-20) where feasible. Measures must be taken to protect wetlands adjacent to disposal sites from temporary and long-term impacts. At a minimum, erosion, sedimentation, and stormwater controls must be employed;

9.3.3 If alterations are proposed, the applicant must demonstrate that impacts to freshwater wetlands have been avoided to the maximum extent possible. If impacts cannot be avoided, an applicant must demonstrate that all alternatives to the proposed disposal or beneficial use which would not alter the natural character of any freshwater wetlands were considered and cannot be accomplished, and must further demonstrate that impacts have been minimized

to the maximum extent possible. The applicant must consider and address the information listed in Appendix B.

- 9.3.4 If the project has potential to significantly alter freshwater wetlands, the applicant will be required to file a separate Application to Alter Freshwater Wetlands, pursuant to the Rules and Regulations Governing the Administration and Enforcement of the Freshwater Wetlands Act.

10. In-Water Disposal of Dredged Materials

- 10.1 Applications that propose in-water disposal, except as provided in Section 10.2, must include the information listed below. Evaluation of this information will be conducted in coordination with the USACE and the CRMC and, as applicable, other information as may be required to demonstrate compliance with the Section 404 (b)(1) guidelines in the Clean Water Act. The Department will not issue a determination regarding in-water disposal until a suitability determination has been issued by the USACE.
- 10.1.1 Site plan(s), including all applicable requirements as identified in Appendix A;
- 10.1.2 A narrative description of aquatic resources in the proposed disposal area, including but not limited to, shellfish beds, eel grass beds, migratory pathways for finfish, breeding or nursery areas and other aquatic resources;
- 10.1.3 Information on the past history of the proposed disposal area, including but not limited to, prior disposal activity, historical spills and analytical test data;
- 10.1.4 A description of how the dredged material will be deposited at the disposal location, including the frequency and quantity of each disposal event, and measures to control dispersion;
- 10.1.5 A narrative description of any sequencing or staging activities that may be anticipated as part of final disposal;
- 10.1.6 A plan for monitoring water quality impacts from the disposal activities;
- 10.1.7 An Alternatives Analysis describing alternatives to the proposed disposal location that were investigated in accordance with and as required by the federal 404 (b)(1) guidelines;
- 10.1.8 An evaluation of the impact of the dredged material on the physical, chemical and biological components of the aquatic environment. This evaluation shall follow the tiered approach for evaluating in-water disposal options as presented in the guidance documents referenced in Section 7.5.

This analysis may include, but is not limited to, a numerical mixing model using elutriate data to evaluate the dispersion of contaminants throughout the water column as required to predict the contaminant concentrations present in the water column after consideration of mixing in order to determine compliance with water quality standards;

- 10.2 Applications that propose in-water disposal of dredged material at a federally designated location, must include information as required in Sections 10.1.4-5 and 10.1.7.

11. Dewatering of Dredged Material

- 11.1 Applications that propose dewatering must include the following information:

- 11.1.1 Site plan(s) and engineering plans, including all applicable requirements as identified in Appendix A;
- 11.1.2 The selection and design of settling basins shall be consistent with the USACE publication entitled Engineering and Design, Confined Disposal of Dredged Material, Engineer Manual No. 1110-2-5027. Characterization of the dredged material, engineering computations for the system, and analysis of receiving water mixing to demonstrate the discharge will not violate water quality standards must be included. If the dewatering facility processes dredged material from multiple dredging operations, a Rhode Island Pollutant Discharge Elimination System (RIPDES) permit may also be required;
- 11.1.3 A determination that the proposed dewatering location(s) is not within any area prohibited in Section 5.4 of this document;
- 11.1.4 Groundwater and surface water classification(s) for the proposed dewatering location(s);
- 11.1.5 The dimensional area and volume of the proposed dewatering, settling and storage basins and staging areas and an estimate of the volume of material capable of being handled at any one time. The proposed basins must be shown on scale drawn site plans with cross sectional views of the berms;
- 11.1.6 Identification of the proposed material handling methods (i.e. hydraulic or mechanical) and an estimate of the proposed volume of runoff water expected from the material;
- 11.1.7 A detailed estimate of the time frame required for each aspect of the dewatering process, which includes receiving, handling, dewatering and transferring dredged material to the final disposal location(s). Where

dredged material is proposed for upland disposal or beneficial use, sampling for chloride concentration may be required after dewatering;

11.1.8 A complete Sediment and Erosion Control Plan describing all aspects of the material transfer; and

11.1.9 A discussion of the proposed methods to be used to reduce material losses when offloading the dredge scows. The proposed method of collecting stormwater runoff from any storage areas and directing it to the settling basins for treatment.

11.2 All dewatering activities must comply with the standards and criteria for disposal or beneficial use in accordance with Section 9.

12. Dredged Material Rehandling Facilities

12.1 Applications to construct and/or operate a dredged material rehandling facility shall be submitted to the both the Department and the Council on forms prescribed and provided by the agencies.

12.2 Applications to construct and/or operate a dredged material rehandling facility may follow the Pre-application requirements in Section 6.

12.3 Siting of dredged material rehandling facilities shall comply with the General Provisions and Criteria for Sites Proposed for Upland Disposal or Beneficial Use of Dredged Material in Section 5.4, and Section 9.2 and 9.3, respectively.

12.4 To be considered complete, an application must include, or address, at a minimum, all of the following:

12.4.1 Any existing or pending land use restrictions;

12.4.2 Any information available on historic land use that may have impacted the site, including any past spill or known contamination events, and a demonstration that the rehandling facility will not exacerbate those conditions;

12.4.3 A demonstration that the siting of dredged material rehandling facility complies with the General Provisions and Criteria for Sites Proposed for Upland Disposal or Beneficial Use of Dredged Material in Section 5.4, and Section 9.2 and 9.3, respectively;

12.4.4 Site plan(s), including all applicable requirements as identified in Appendix A.

- 12.4.5 An Operating Plan, including a thorough description of the following in narrative format:
- 12.4.1.1 Operating hours;
 - 12.4.1.2 Operating and design capacities;
 - 12.4.1.3 Dust control program;
 - 12.4.1.4 Odor control program;
 - 12.4.1.5 Methods for accepting dredged materials, dewatering, if necessary, and storage and segregation of different classes of dredged materials. Classification must be based on testing performed prior to dredging operations. Dredged materials may be classified as materials that do not exceed the standards for beach nourishment, Residential Direct Exposure Criteria, or Commercial/Industrial Direct Exposure Criteria. If a facility chooses not to segregate dredged materials, all materials will be classified as the most contaminated stored in the stockpile;
 - 12.4.1.6 Anticipated length of time required for dewatering various grades of dredged material at the facility;
 - 12.4.1.7 Methods and/or equipment used for any processing operations, including separation techniques and storage and/or handling procedures and storage of segregated materials;
 - 12.4.1.8 Anticipated interactions, or areas of overlap, with other materials management operations at the facility;
 - 12.4.1.9 A contingency plan for extreme circumstances, including but not limited to, steps to be taken if dredged material were mistakenly released at the dock or at other locations en route to the dewatering site, if the dewatering basin(s) and storage facilities were reaching capacity due to slower than expected dewatering times, or in the event of failure of the containment berms;
 - 12.4.1.10 Any additional sampling and analysis of dredged materials that may be required for off-site disposal or beneficial use, in accordance with Section 9.2;
 - 12.4.1.11 Proposed long-term maintenance schedule for the proposed stormwater drainage structures;
 - 12.4.1.12 Methods for ensuring that dredged material proposed for off-site distribution is disposed or beneficially used in accordance with

the applicable requirements of Section 5.4 and Section 9.2 and 9.3.

12.5 Operating Requirements.

- 12.5.1 The rehandling facility must dispose of any dredged material that exceeds Commercial/Industrial Direct Exposure Criteria at a facility licensed to accept and manage such material.
- 12.5.2 The rehandling facility must ensure that dredged material distributed from the facility is disposed or beneficially used in accordance with Sections 5.4, 9.2 and 9.3.
- 12.5.3 The facility must provide written notification to the owner of the property proposed for disposal/beneficial use of dredged material of the requirements specified in Sections 5.4, 9.2 and 9.3.
- 12.5.4 The rehandling facility must develop and maintain a tracking system to document that dredged material distributed from the facility has been disposed or beneficially used in accordance with the applicable requirements of Sections 5.4, 9.2 and 9.3.
- 12.5.5 The facility shall identify to the Department a qualified staff person to act as the Environmental Compliance Officer (ECO) for the facility.
- 12.5.6 Records must be maintained at the facility and available for Department review upon request.

13. Review and Processing of Applications

- 13.1 General Evaluation Criteria: In reviewing the application, the Department may use, but is not limited to, the following documents: the most recent version of the Rhode Island Soil Erosion and Sediment Control Handbook, developed jointly by RIDEM and U.S. Department of Agriculture Natural Resources Conservation Service; State of Rhode Island Stormwater Design and Installation Standards Manual, developed jointly by RIDEM and Coastal Resources Management Council; Storm Water Management for Construction Activities (EPA 832-R-92-005), U.S. Environmental Protection Agency; the Technical Support Document for Water Quality-based Toxics Control, March 1991, EPA/505/2-90-001; Evaluation of Dredged Material Proposed for Ocean Disposal -Testing Manual, February 1991, EPA-503/8-91/001; Guidance for Performing Tests on Dredged Material Proposed for Ocean Disposal, developed by the USEPA and the USACE; Evaluation of Dredged Material Proposed for Discharge in Water of the U.S. – Testing Manual, 1998, developed by USEPA and USACE; Interim Regional Policy for New England Stream Flow Recommendations, U. S. Department of Interior, Fish and Wildlife Service; Water

Quality Standards Handbook, 2nd. Ed., August 1994, EPA-823-B-94-005a; Section 404 (b)(1) Guidelines of the Clean Water Act, December 1980; and regulations, laws, standards or policies accepted by the Department.

13.2 Application Completeness

- 13.2.1 Upon receipt of an application, the Department will review the application for completeness and shall, within thirty (30) days, notify the applicant in writing whether the application is complete. An application that includes in-water disposal shall not be considered complete unless a suitability determination has been issued by the USACE for the proposed disposal location.
- 13.2.2 If the application is incomplete, the Department shall list the information necessary to make the application complete and shall specify in the notice of deficiency a date for submitting the necessary information. Where the Department has deemed an application to be deficient, the processing of the application will be suspended and the applicant shall correct said deficiencies to the satisfaction of the Department.
- 13.2.3 If the applicant fails or refuses to correct said deficiencies within the specified time period, and if an extension has not been granted by the Department, the permit will be denied.
- 13.2.4 Certification of Complete Applications: Once an application pursuant to these regulations is considered complete, the Department may request additional information from an applicant but only when necessary to clarify, modify, or supplement previously submitted material. Requests for such additional information will not render an application incomplete, but if the applicant fails or refuses to submit such information, the permit may be denied.

13.3 Timelines for Reviewing Complete Applications

- 13.3.1 The Department will complete reviews of applications for maintenance dredging projects and the Director will forward the Department's decision to the applicant and a copy to CRMC within one hundred and eighty (180) days of determining that the application is complete.
- 13.3.2 The Department will complete reviews of applications for new or expanded dredging projects and the Director will forward the Department's decision to the applicant and a copy to CRMC within five hundred and forty (540) days of determining that the application is complete.

13.4 Public Notice and Consideration of Public Comment

- 13.4.1 Public Notice - Upon determination that an application to dredge is complete, the applicant shall provide written notice, in a form approved in writing by the Department, of the proposed project to all abutters of any property upon which new dredging or dewatering or maintenance dredging of over ten thousand cubic yards of dredge material are proposed and all abutters of any property where beneficial use or disposal of dredge material will occur, and to any other such persons, agencies or organizations deemed necessary by the Director.
- 13.4.1.1 For projects involving beneficial reuse or disposal, the applicant shall also notify all parties within 1750 feet of the proposed site of beneficial reuse or disposal or publish a notice in a daily or weekly newspaper with circulation in the involved area.
- 13.4.1.2 For projects involving in-water disposal of over ten thousand cubic yards of dredge material, the applicant will publish notice, in a form approved in writing by the Department, in a daily newspaper with statewide circulation. For projects involving in-water disposal of over ten thousand cubic yards of dredge material, the Department may also require the applicant to publish notice, in a form approved in writing by the Department, in an additional daily or weekly newspaper with circulation that includes the community nearest the proposed location for in-water disposal.
- 13.4.2 Comment Period - The notice will provide for a thirty-day comment period during which time all interested persons may provide written comments or request a hearing on the dredging project proposed by the application.
- 13.4.3 Public Hearing - The Director may provide an opportunity for an oral comments if a hearing is requested by twenty-five (25) persons, or by a governmental subdivision or agency, or by an association having not less than twenty-five (25) members. The applicant, all persons receiving notice under Section 13.5, and all persons submitting comments or requesting a hearing under Section 13.5.1 shall be notified by the applicant, in a form approved in writing by the Department, at least (14) days in advance, of the time and place of the hearing.
- 13.4.4 Consideration of Comments - The Director shall consider all written and oral comments and may approve modifications to the application package made in response to comments received, without requiring another notice and comment period.

- 13.4.5 Notice of Decision - All persons who submit comments, either orally at the hearing or in writing, shall receive written notice of the final agency decision on the application.
- 13.4.6 Modifications - The Director may approve modifications to an approved dredging project without further notice, provided that the project had been noticed in accordance with this section, and such modifications are minor in nature and will have little or no adverse environmental impact.

13.5 Appeals

13.5.1 Right to Appeal Department Decision: Any person whose dredging permit application is denied by the Department may appeal to the Director for review of the Department's decision on which the denial is based by filing an appeal with the Administrative Adjudication Division.

13.5.2 Appeal Procedures

13.5.2.1 Filing of Appeal - All appeals shall be in writing and shall be filed with and received by the Department's Administrative Adjudication Division within twenty (20) days of the effective date of the denial of the subject application.

13.5.2.2 Contents of Appeal - Every appeal shall contain a detailed basis upon which the appeal is taken and a certified check, bank draft or money order in the amount of one thousand five hundred (\$1,500) dollars.

13.5.2.3 Notice of Administrative Hearing - Upon receipt of an appeal, the Administrative Adjudication Division shall notify the following, by first class mail, of the date, time and place of the adjudicatory hearing, in conformance with R.I. General Laws § 42-35-9 (1956): the applicant and all other persons who received notice pursuant to Section 13.5 herein.

13.5.2.4 Conduct of Hearing - The notice and conduct of the hearing by the Administrative Adjudication Division shall comply in all respects with the administrative procedures set forth in R.I. General Laws Chapter 42-35 (1956) and the Rules of Practice and Procedure for the Administrative Adjudication Division for Environmental Matters.

13.5.3 Burden of Proof and Standard of Review - At the adjudicatory hearing, the applicant shall have the burden of proof to demonstrate through clear and convincing evidence that:

- 13.5.3.1 A literal enforcement of the regulations will result in unnecessary hardship;
 - 13.5.3.2 That the dredging project proposed in the application complies with R.I. General Laws, Chapter 46-6.1; and
 - 13.5.3.3 That the issuance of a permit will not be contrary to the public interest, public health and the environment.
- 13.5.4. Right to Appeal Council Decision - Any interested party may file a substantive formal written objection and/or request for hearing on dredging permit decisions made by the Council pursuant to the Council's Management Procedures.

14. Severability

If any provision of these Rules and Regulations, or the application thereof to any person or circumstances, is held invalid by a court of competent jurisdiction, the validity of the remainder of the Rules and Regulations shall not be affected thereby.

15. Superseded Rules and Regulations

- 15.1 On the effective date of these Rules and Regulations, all previous state of Rhode Island Rules and Regulations, and any RI DEM policies regarding the administration and enforcement of the Marine Waterways and Boating Facilities Act of 2001, R.I. General Laws, Chapter 46-6.1 (1956) shall be superseded. However, any enforcement action taken by, or application submitted to, the Department prior to the effective date of these Rules and Regulations shall be governed by the Rules and Regulations in effect at the time the enforcement action was taken, or application filed.
- 15.2 On the effective date of these Rules and Regulations, Rule 17.01(f) of the Rules and Regulations for Groundwater Quality is hereby revoked and superseded by the Rules and Regulations herein.

16. Effective Date

The foregoing "Rules and Regulations [*Rules and Regulations for Dredging and Dredged Material Management*]," after due notice, are hereby adopted and filed with the Secretary of State this _____ day of _____, 2____ to become effective twenty (20) days thereafter, in accordance with the provisions of Chapters 46-6.1, 42-35, 42-17.1, 42-17.6 of the General Laws of Rhode Island of 1956, as amended.

Jan H. Reitsma, Director
Department of Environmental Management

Notice Given on: July 18, 2002
Public Hearing held: August 6, 2002
Filing Date:
Effective Date:

Appendix A

Application Site Plan Requirements

All site plans must be at least 8-1/2" x 11" in size but no larger than 24" x 36". If plans larger than 8-1/2" x 11" are utilized, one set of plans reduced to 8-1/2" x 11" are required with the CRMC application package.

All site plans depicting projects submitted for review and/or approval must have all markings permanently fixed. Site plans which are pieced together with tape or contain markings of pen, pencil, crayon, markers or other items which can be changed or altered at a later date are not acceptable. Blueline or blackline prints or photocopies of originals are acceptable.

All site plans must contain a title block, original date of the plan and latest revision date of the plan if applicable. The title block must include the name of the person or party involved, the proposed project title if any, the principal street/road abutting the site, the tax assessor's plat and lot number(s), the city or town, the name of the preparer and the scale of the plan.

All site plans must be prepared by a licensed or registered professional and must contain the stamp of the professional affixed to each sheet prepared along with the date and the signature of the Professional. Only one datum for the project shall be utilized. The applicant shall also provide proof of property ownership.

All site plans containing more than one (1) sheet must be numbered consecutively.

For all projects, site plans must depict at minimum, the following:

- Magnetic North Arrow;
- Entire property boundary outline and dimension;
- Insert map showing location of site in the community;
- A locus using USGS quadrangle map;
- All streets and rights of way within 50 feet of the property lines of the proposed activity with fixed reference points including utility poles, house numbers, stone walls, bulkheads, buildings, edge of woods/fields, trails, parking areas, above and underground utilities, drainage structures and any other infrastructure on-site or within 50 feet of the property lines(s).
- Fixed referenced points including, but not limited to, stone walls, buildings, structures, fences, edge of fields/woods, trails, bulkheads, access roads, and parking lots;
- Scale of plans; with graphic scale if plans are reduced;
- A legend which explains all markings and/or symbols.
- Surface Water Bodies
- Delineation of all freshwater and coastal wetland jurisdictional areas of the DEM, Council and ACOE within 100 feet of the property lines of the project;
- Any jurisdictional area that extends beyond the property line shall be shown for 100 feet beyond the property line

- Existing and proposed utilities and drainage facilities;

For projects proposing dredging, the following must be included:

- The area to be dredged with separate plans showing the existing and proposed contours of the dredging area;
- Cross sectional views in two directions with a maximum spacing of 200' of the area to be dredged showing the existing and proposed contours of the dredging area;
- In-water facilities, such as docks, piers, floats, etc. within 100 feet of the property line including all moorings;
- Location of federal navigation projects, such as channels, anchorage areas, etc.;
- Mean high and mean low water elevations;
- The datum used to reference all grades and depths;
- Location of aquatic resources in the area such as shellfish beds, eel grass beds, migratory pathways, habitat for finfish.
- Location of sampling points.

For projects proposing dewatering, the following must be included:

- Separate site plans that detail the existing conditions and topography at two-foot intervals and proposed site conditions and topography at two-foot intervals. All existing topography and proposed grading shall be shown 50 feet beyond the property lines;
- The existing plans shall detail the groundwater classification of the site, zoning designations and the FEMA limits and elevations.
- Proposed limits of disturbance of the dredge area including all sides slopes of the dewatering area, of any stock pile area, construction vehicle access/storage;
- Existing and proposed contour lines at two foot intervals;
- Proposed limits of disturbance;
- Temporary and permanent erosion and sediment controls;
- Temporary and permanent stormwater and water quality management controls and best management practices;
- Location of all proposed dewatering basins, settling basins, and storage areas for all dredged material;
- Cross-sectional views of the settling basins, including wall construction and volume calculations;
- Details of the berms, overflow and outlet weirs and runoff collection systems associated with the proposed basins and all point source discharge locations. The selection and design of settling basins shall be consistent with the USACE publication entitled Engineering and Design, Confined Disposal of Dredged Material, Engineer Manual No. 1110-2-5027.
- Location of any pier or dock proposed for transfer or off-loading of dredged material from scows to land and their position relative to the dredge site and the proposed dewatering location including certification by a professional that such facilities are adequate for the proposed purpose;
- All access roads to be utilized by trucks for offloading, transferring or removing dredged material to the dewatering location(s) and final disposal location(s);

- Certification by a Professional Engineer that all adjacent structures (within 25 feet of the limit of disturbance) have the capacity to withstand the proposed dredging/dewatering operations and that the stability has been investigated and will not be effected.

For projects proposing in-water disposal of dredged material, the following must be included:

- Site plans of the disposal area showing existing bottom contours and those that will result from disposal activities, including the geographic extent of filling, mean high and low water marks, and the datum used to establish all grades;
- Cross sectional plans of the area where disposal will take place. Plans must show existing and proposed contours.

For projects proposing upland disposal or beneficial use of dredged materials, the following must be included:

- Location of the disposal/beneficial use area including area 100 feet beyond the proposed limits of disposal/reuse;
- Separate plans detailing the existing and proposed conditions including contours of two-foot intervals. This is not required for landfill disposal but is required for all types of upland disposal/beneficial use;
- Cross sections of the upland disposal/reuse in two directions at 200' maximum spacing;
- Method of placement of dredge material at the site including access points and any disturbance placement may cause.
- Existing and proposed contours of the disposal/beneficial use area;
- Groundwater classification of the disposal/beneficial use area;
- The edge and elevation of any flood plain and the limit of any floodway; (on the project datum);
- The location of all wells; within 2000 feet;
- Zoning approval from municipality;
- Temporary and permanent erosion and sediment controls;
- Temporary and permanent stormwater and water quality management controls and best management practices;

For projects involving freshwater wetlands, the following must be included:

- The edge of any swamp; marsh; bog; pond; emergent, submergent, shrub, or forested wetland; or any special aquatic site;
- The edge of any river, stream, intermittent stream, area subject to flooding and/or storm flowage;
- The edge of any fifty-foot (50') perimeter wetland;
- The edge of any one hundred foot (100') or two hundred foot (200') riverbank wetland;
- The edge and elevation of any flood plain and the limit of any floodway; Note: The Department may grant an exception to this requirement when pre-determined 100-year flood elevations are not available from published sources including previous engineering studies, and a registered professional engineer provides clear and convincing documented evidence that the project site is above any probable 100-year flood elevation;

- The name of any surface or flowing water body or any other wetland where applicable
- Where changes to existing grades are proposed, the plan shall show both existing and proposed contour line elevations at maximum intervals of two (2') feet. Where no changes to grades are proposed, include a notation which so indicates;
- Profiles and/or cross sections drawn to scale;
- Proposed limits of all vegetative clearing and surface or subsurface disturbance;
- Temporary and permanent erosion and sediment controls;
- Temporary and permanent stormwater, flood protection and/or water quality management controls, and best management practices;
- Proposed measures to conduct, contain or otherwise control the movements of surface water, groundwater, or stormwater flows; and the ultimate destination of such flows;
- Construction activities either above or below the earth's surface which may affect any wetland including the height of planned buildings.

For rehandling facility projects, the following must be included:

- All existing and proposed private wells within 2000 feet;
- All existing and proposed infrastructure, including roadways; surface and subsurface utilities; sewer and sanitary lines, water quality structures;
- All existing and proposed site drainage facilities, both above surface and subsurface;
- Proposed locations of loading and unloading areas;
- Proposed location of processing, tipping, sorting, and treatment areas;
- Cross sections of proposed storage basins, berms;
- Cross sections and/or details for any proposed structure;
- Proposed sedimentation and erosion controls;
- Proposed weighing facilities (if any);
- On-site traffic patterns;
- Proposed landscaping.

Appendix B

Impact Avoidance and Minimization

A. Impact Avoidance

The applicant must consider and address, at a minimum, the following issues in order to satisfactorily demonstrate to the Department that all impacts to the wetlands functions and values have been avoided to the maximum extent possible, and that all alternatives to the proposed alterations which would not alter the natural character of any freshwater wetlands were considered and cannot be accomplished:

- 1) Description of the primary purpose of the proposed project;
- 2) Whether the primary proposed activity is water-dependent, or if it requires access to freshwater wetlands as a central element of its primary purpose (e.g., a pier);
- 3) Whether there are any areas within the same property or other property owned or controlled by the applicant that could be used to achieve the same project purpose without altering the natural character of any freshwater wetlands;
- 4) Whether there are any other properties not currently owned or controlled by the applicant but which are reasonably available to the applicant that would not involve wetland alterations and could be used to achieve the same project purpose;
- 5) Whether there are alternative designs, layouts, or technologies that could be used to avoid freshwater wetlands or impacts on wetland functions and values on the subject property or reasonably available properties which would achieve the same project purpose, and whether these design alternatives are feasible;
- 6) Description of all attempts applicant has made to overcome or remove such constraints as zoning, infrastructure, parcel size, or other similar constraints in order to avoid wetland alterations; and
- 7) Whether the available alternatives which would not alter the natural character of any freshwater wetlands on the subject property or reasonably available properties, if incorporated in the proposed project, would result in significant adverse consequences to the public health and safety, and/or the environment.

B. Impact Minimization

The applicant must consider and address, at a minimum, the following issues in order to satisfactorily demonstrate to the Department that all impacts to the wetland functions and values cannot be avoided, and therefore have been reduced to the maximum extent possible:

- 1) Whether the proposed project is necessary at the proposed scale and whether the scale of the alteration could be reduced and still achieve the same primary project purpose;
- 2) Whether the proposed project is necessary at the proposed location or whether another location within the site could achieve the same primary project purpose while resulting in less impact to the wetland;
- 3) Whether there are alternative designs, layouts, densities, or technologies that are feasible, and which would result in less impact to the wetland while still achieving the same project purpose; and
- 4) Whether reduction in the scale of the proposed project or relocation to minimize impact to the wetland would result in significant adverse consequences to public health and safety and/or the environment.

Appendix C

ENVIRONMENTAL LAND USAGE RESTRICTION

This Declaration of Environmental Land Usage Restriction (“Restriction”) is made on this _____ day of _____, [2001] by [Property Owner], a corporation qualified in Rhode Island, and its successors and/or assigns (the “Grantor”).

WITNESSETH:

WHEREAS, the Grantor is the owner in fee simple of certain real property [Plat, Lot(s), address and City or Town] Rhode Island (the “Property”), more particularly described in Exhibit A [Legal Description] attached hereto and made a part hereof;

WHEREAS, the Property has accepted contaminated dredge sediments in excess of the Residential Direct Exposure Criteria pursuant to the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (“Remediation Regulations”);

WHEREAS, the Grantor has determined that the environmental land use restrictions set forth below are consistent with the regulations adopted by the Rhode Island Department of Environmental Management (“Department”) pursuant to R.I.G.L. § 23-19.1-14;

WHEREAS, the Department's written approval of this Restriction is contained in the document entitled: []; and

WHEREAS, the [Property/Contaminated Site] (or portion thereof identified in the Class I survey which is attached hereto as Exhibit B and is made a part hereof) has been determined to contain contaminated dredge sediments; and

WHEREAS, to prevent exposure to or migration of hazardous substances and to abate hazards to human health and/or the environment, and in accordance with the Remediation Regulations, the Grantor desires to impose certain restrictions upon the use, occupancy, and activities of and at the [Dredged material disposal site];

WHEREAS, the Grantor believes that this Restriction will effectively protect public health and the environment from such contamination; and

WHEREAS, the Grantor intends that such restrictions shall run with the land and be binding upon and enforceable against the Grantor.

NOW, THEREFORE, Grantor agrees as follows:

- A. **Restrictions Applicable to the [Dredged material disposal site]:** In accordance with the [permit], the Grantor shall assure that the use, occupancy and activity of and at the [Dredged material disposal site] are restricted as follows:

- i. No residential use of the **[Property]** is permitted;
- ii. No groundwater at the **[Property]** is used as potable water;
- iii. No soil at the **[Property]** is disturbed in any manner without written permission of the Department;
- iv. Water does not infiltrate soils at the **[Property]** containing hazardous substances in concentrations exceeding the applicable Department approved leachability criteria pursuant to the Remediation Regulations;

B. No action shall be taken, allowed suffered, or omitted if such action or omission is reasonably likely to:

- i. Create a risk of migration of hazardous substances or potential hazard to human health or the environment; or
- ii. Result in a disturbance of the structural integrity of any engineering controls designed or utilized at the **[Property]** to contain hazardous substances or limit human exposure to hazardous substances,.

C. Emergencies: In the event of any emergency which presents a significant risk to human health or to the environment, including but not limited to maintenance and repair of utility lines or a response to emergencies such as fire or flood, the application of Paragraphs A (iii.-vii.) and B above may be suspended, provided such risk cannot be abated without suspending such Paragraphs and the Grantor complies with the following:

- i. Notifies in writing the Department of the emergency as soon as possible but no more than three (3) business days after having learned of the emergency. (This does not remove Grantor's obligation to notify any other necessary state, local or federal agencies.);
- ii. Limits both the extent and duration of the suspension to the minimum period reasonable and necessary to adequately respond to the emergency;
- iii. Implements reasonable measures necessary, at that time, to prevent actual, potential, present and future risk to human health and the environment resulting from such suspension;
- iv. Communicates at the time of written notification to the Department his or her intentions to conduct the emergency response actions and provides a schedule to complete the emergency response actions;
- v. Continues to implement the emergency response actions, on the schedule submitted to the Department, to ensure that the **[Property]** is restored to its condition prior to such emergency. Based upon information available to the Department at the time of

execution pertaining to environmental conditions at the **[Property]**, maintenance and repair of utility lines shall only require restoration of the **[Property]** to its condition prior to the maintenance and repair of the utility lines.

- vi. Submits to the Department, at the completion of the emergency response action, a status report describing the emergency activities that have been completed.

- D. Release of Restriction; Alterations of Subject Area:** The Grantor shall not make, or allow or suffer to be made, any alteration of any kind in, to, or about any portion of the **[Property]** inconsistent with this Restriction unless the Grantor has first received the Department's written approval of such alteration. If the Department determines that the proposed alteration is significant, it may require the amendment of this Restriction. Insignificant alterations will be approved by the Department via a letter from the Department. The Department shall not approve any such alteration and shall not release the **[Property]** from the provisions of this Restriction unless the Grantor demonstrates to the Department's satisfaction that Grantor has managed the **[Property]** in accordance with applicable regulations.
- E. Notice of Lessees and Other Holders of Interests in the [Property]:** The Grantor, or any future holder of any interest in the **[Property]**, shall cause any lease, grant, or other transfer of any interest in the **[Property]** to include a provision expressly requiring the lessee, grantee, or transferee to comply with this Restriction. The failure to include such provision shall not affect the validity or applicability to the **[Property]** of this Restriction.
- F. Severability and Termination:** If any court of competent jurisdiction determines that any provision of this Restriction is invalid or unenforceable, the Grantor shall notify the Department in writing within fourteen (14) days of such determination.
- G. Binding Effect:** All of the terms, covenants, and conditions of this Restriction shall run with the land and shall be binding on the Grantor and each owner and any other party entitled to possession or use of the **[Property]** during such period of ownership or possession.
- H. Inspection & Non-Compliance:** It is the obligation of the Grantor, or any future holder of any interest in the **[Property/Contaminated Site]**, to provide for independent inspections of the **[Property]** for compliance with the ELUR every five (5) years.

[An officer or director of the company with direct knowledge of past and present conditions of the [Property] (the “Company Representative”), or] A qualified environmental professional will, on behalf of the Grantor or future holder of any interest in the **[Property]**, evaluate the compliance status of the **[Property]** every five (5) years. Upon completion of the evaluation, the **[Company Representative or]** environmental professional will prepare and simultaneously submit to the Department and to the Grantor or future holder of any interest in the **[Property]** an evaluation report detailing the findings of the inspection and noting any compliance violations at the **[Property]**. If the **[Property]** is determined to be out of compliance with the terms of the ELUR, the Grantor or future

holder of any interest in the **[Property/Contaminated Site]** will submit a corrective action plan in writing to the Department within ten (10) days of receipt of the evaluation report, indicating the plans to bring the **[Property/Contaminated Site]** into compliance with the ELUR, including, at a minimum, a schedule for implementation of the plan.

In the event of any violation of the terms of this Restriction which remains uncured more than ninety (90) days after written notice of violation, all approvals and agreements relating to the **[Property]** shall be null and void at the option of the Department.

- I. Terms Used Herein:** The definitions of terms used herein shall be the same as the definitions contained in Section 3 (DEFINITIONS) of the Remediation Regulations.

It is so agreed:

[Name of person(s), company, LLC or LLP]

By: _____ Date: _____
Grantor

So Sworn Before Me:

_____ Date: _____
Notary Public

My Commission Expires: Date:

Appendix D

Constituent	Beach Nourishment Criteria	Residential Direct Exposure Criteria¹	Commercial/Industrial Direct Exposure Criteria²	TCLP Criteria for Hazardous Waste Determination	GA Leachability Criteria³
% Solids	75	NA	NA	NA	NA
Total Petroleum Hydrocarbons (TPH)	NA	500 ppm	2500 ppm	NA	500 ppm
PCBs	NA	10 ppm	10 ppm	NA	10 mg/kg
Arsenic (As)	1.7 mg/kg (subject to ongoing review)	1.7 mg/kg (subject to ongoing review)	3.8 mg/kg (subject to ongoing review)	5.0 mg/L	NA
Cadmium (Cd)	1 mg/kg	39 mg/kg	1000 mg/kg	1.0 mg/L	0.03 mg/L
Chromium (Cr)	10 mg/kg	390 mg/kg	10000 mg/kg	5.0 mg/L	1.1 mg/L
Copper (Cu)	10 mg/kg	3100 mg/kg	10000 mg/kg		
Lead (Pb)	25 mg/kg	150 mg/kg	500 mg/kg	5.0 mg/L	0.04 mg/L
Mercury (Hg)	0.5 mg/kg	23 mg/kg	610 mg/kg	0.2 mg/L	0.02 mg/L
Nickel (Ni)	5 mg/kg	1000 mg/kg	10000 mg/kg	NA	1 mg/L
Vanadium (V)	25 mg/kg	550 mg/kg	10000 mg/kg	NA	NA
Zinc (Zn)	25 mg/kg	6000 mg/kg	10000 mg/kg	NA	NA

Other TCLP criteria to be considered to determine if the material is hazardous waste:

Constituent	TCLP Criteria for Hazardous Waste Determination
Barium (Ba)	100.0 mg/L
Selenium (Se)	1.0 mg/L
Silver (Ag)	5.0 mg/L

¹ Residential Direct Exposure Criteria are defined in Table 1 in Section 8 of the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases.

² Commercial/Industrial Direct Exposure Criteria are defined in Table 1 in Section 8 of the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases.

³ GA Leachability Criteria are defined in Table 2 in Section 8 of the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases.