DRAFT
ENVIRONMENTAL IMPACT STATEMENT

FOR THE

RHODE ISLAND REGION LONG-TERM DREDGED MATERIAL DISPOSAL SITE EVALUATION PROJECT

Prepared By: U.S. Environmental Protection Agency – New England Region

In cooperation with:

U.S. Army Corps of Engineers – New England District

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ACRONYMS AND KEYWORDS

ACEC	area of critical environmental concern
ACS	American Cetacean Society
Ag	silver
As	arsenic
AWOIS	Automated Wreck and Obstruction Information System
BA	Biological Assessment
Be	beryllium
C	Celsius
Cd	cadmium
CEQ	Council on Environmental Quality
CETAP	Cetacean and Turtle Assessment Program
CI	Coastal Institute
CL	carapace length
cm	centimeter
cm/s	centimeters per second
CMC	Criteria Maximum Concentration
CO_2	carbon dioxide
Corps	U.S. Army Corps of Engineers
CPUE	Catch-per-Unit-Effort
Cr	chromium
CRMC	Coastal Resources Management Council
Cu	copper
CWA	Clean Water Act (a.k.a. Federal Water Pollution Control Act)
CWS	Canadian Wildlife Service
CY	cubic yard
CZM	Coastal Zone Management
DAMOS	Disposal Area Monitoring System
DL	detection limit
DO	dissolved oxygen
DDT	dichlorodiphenyl-trichloroethane
DFW	Department of Fish and Wildlife
DMRP	Dredged Material Research Program
EA	Environmental Assessment
EDC	Economic Development Corporation
EFH	Essential Fish Habitat
EIS	environmental impact statement
ER-L	Effects Range-Low
ER-M	Effects Range-Median
EPA	Environmental Protection Agency

ESA	Endangered Species Act
ESRI	Environmental Systems Research Institute, Inc.
F	Fahrenheit
FDA	Food and Drug Administration
FONSI	Findings of No Significant Impact
ft	feet
ft^3/s	cubic feet per second
FWS	[U.S.] Fish and Wildlife Service (Department of the Interior)
FVP	Field Verification Program
g	gram
g/L	grams per liter
GDP	Gross Domestic Product
GIS	Geographic Information System
GSP	Gross State Product
H′	Shannon-Wiener diversity
Hg	mercury
hrs	hours
IBA	important bird area
IPO_4	inorganic phosphate
IWC	International Whaling Commission
kg	kilogram
kg/m^2	kilograms per square meter
km	kilometer
lbs	pounds
LC_{50}	lethal concentration required to kill 50% of organisms
LNG	liquid natural gas
LPC	limiting permissible concentration
LTFATE	Long Term Fate Model
m	meter
M	million
m^2	square meter
m^3	cubic meter
MA	Massachusetts
MA BUAR	Massachusetts Board of Underwater Archaeological Resources
MAFWS	Massachusetts Fish and Wildlife Service
MARMAP	Marine Resources Monitoring, Assessment, and Prediction
MBDS	Massachusetts Bay Disposal Site
MDL	maximum detection limit

MDMF	Massachusetts Division of Marine Fisheries
MEDMR	Maine Department of Marine Resources
mg/L	milligram per liter
MHC	Massachusetts Historical Commission
min	minute
MIT	Massachusetts Institute of Technology
mL	milliliter
mm	millimeter
µm	micrometer
µM	micromole
MLW	Mean Low Water
MLLW	Mean Lower Low Water
MMPA	Marine Mammal Protection Act of 1972
MPRSA	Marine Protection, Research, and Sanctuaries Act of 1972
NAAQS	National Ambient Air Quality Standards
NAVSTA	Naval Station Newport
ND	not detected
NDBC	National Data Buoy Center
NEFMC	New England Fishery Management Council
NEFSC	Northeast Fisheries Science Center
NEPA	National Environmental Policy Act
NH_3	ammonia
NHPA	National Historic Preservation Act
Ni	nickel
NLDS	New London Disposal Site
NM	not measured
NMFS	National Marine Fisheries Service
nmi	nautical mile
nmi^2	square nautical mile
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NO_X	nitrate and nitrite
NPS	National Park Service
NRC	National Research Council
NTU	nephelometric turbitdy units
NUWC	Naval Undersea Warfare Center
O_3	ozone
OSI	Organism-Sediment Index
PAH	polycyclic aromatic hydrocarbons
Pb	lead
PCB	polychlorinated biphenyls
pct	percent

ppb	parts per billion (i.e., µg/kg, µg/L)
ppm	parts per million (i.e., µg/g, mg/kg, mg/L)
pptr	parts per trillion
PSU	practical salinity unit
RDS	Rockland Disposal Site
RI	Rhode Island
RICRMC	Rhode Island Coastal Resources Management Council
RIDEM	Rhode Island Department of Environmental Management
RIDFW	Rhode Island Division of Fish and Wildlife
RIDOA	Rhode Island Department of Administration
RIDOT	Rhode Island Department of Transportation
RIEDC	Rhode Island Economic Development Corporation
RIHPHC	Rhode Island Historic Preservation and Heritage Commission
RIPA	Rhode Island Port Authority
RIR	Rhode Island Region
RIRPP	Rhode Island Resource Protection Project
ROD	Record of Decision
RPD	redox potential discontinuity
SDE	Spatial Database Engine
Se	selenium
sec	seconds
SIC	Standard Identification Classification
SIP	State Implementation Plan
Site 16	Brenton Reef
Site 18	Brenton-A
Site 69A	Jamestown Bridge Reef
Site 69B	Separation Zone Site
SMMP	Site Management and Monitoring Plan
SPI	sediment profile imaging
STFATE	Short Term Fate Model
STSSN	Sea Turtle Stranding and Salvage Network
TCPU	transportation, communications, and public utilities
TEWG	Turtle Expert Working Group
TN	total nitrogen
TOC	total organic carbon
TP	total phosphorus
TSS	total suspended solids
URI	University of Rhode Island
URI-GSO	University of Rhode Island, Graduate School of Oceanography
U.S.	United States
UXO	unexploded ordnance

VTR	vessel trip report
WCRM	Warren C. Riess Marine, Inc.
WRDA92	Water Resources Development Act of 1992 (Public Law 102-580)
yr	year
ZSF	zone of siting feasibility
Zn	zinc

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ORGANIZATION OF THE DRAFT EIS

This Draft EIS is organized by major sections and subsections, including an Executive Summary, table of contents, appendices, and a Draft Site Management and Monitoring Plan (SMMP). It is intended to guide the reader through the information, questions, issues, and considerations that were evaluated in the decision-making process conducted for the Rhode Island Region Long-Term Dredged Material Disposal Site Evaluation Project. The various sections of the EIS are briefly described below to assist the reader in understanding the document and the decision-making process.

SECTION 1.0 PURPOSE AND NEED FOR THE ACTION

Section 1.0 introduces and describes the proposed action, presents a history of disposal in the Rhode Island Region (RIR), and discusses agency activities related to the RIR, the legislative history of the Clean Water Act (CWA) and Marine Protection, Research, and Sanctuaries Act (MSPRA), regulatory requirements for site use, and the scoping and public involvement process. This background history and information lays the foundation for the subsequent discussion of the purpose of and need for the proposed project. The purpose explains the basis for the designation of one or more dredged material ocean disposal sites; it is followed by a discussion of the identified dredging, navigation, safety, and economic needs for an ocean disposal site.

SECTION 2.0 ALTERNATIVES

Section 2.0 provides a detailed discussion of the screening process used to identify reasonable ocean disposal alternatives. It also discusses alternatives that were considered but eliminated from detailed study and explains why they were eliminated.

SECTION 3.0 AFFECTED ENVIRONMENT

Section 3.0 describes the existing natural, physical, and socioeconomic environment of the Zone of Siting Feasibility (ZSF) and, where applicable, of the RIR. It presents a comprehensive discussion of environmental baseline resources obtained through an extensive literature search and from available environmental studies and analyses; additional information was collected and developed as part of the investigation and at working group meetings. The affected environment is the foundation upon which alternatives are developed and environmental consequences of the alternatives are evaluated. Physical features discussed include geological setting, meteorology, physical oceanography, sediment characteristics and transport, and water quality. Biological resources addressed include plankton community; benthic invertebrates; fish; shellfish; marine and coastal birds; marine mammals and reptiles; rare, threatened, and endangered species; species of special concern; and contaminants in organisms. The socioeconomic environment addresses commercial and recreational fisheries, shipping, military usage, mineral and energy development, recreational activities, natural and cultural features of historical importance, other legitimate uses, and areas of special concern.

SECTION 4.0 ENVIRONMENTAL CONSEQUENCES

Section 4.0 identifies and discusses in detail the environmental consequences that could occur under the two ocean disposal alternatives evaluated and under the no action alternative, including socioeconomic impacts, and evaluates and compares direct, indirect, and cumulative impacts. This section provides information on and justification of the choice of the preferred alternative

SECTION 5.0 FEASIBILITY OF SURVEILLANCE AND MONITORING

Section 5.0 presents the six requirements for ocean disposal site management plans included in the Marine Protection, Research, and Sanctuaries Act of 1972 (MPRSA) Section 102(c)(3) and references the Draft Site Management and Monitoring Plan (SMMP) accompanying this Draft EIS.

SECTION 6.0 AGENCY COORDINATION AND COMPLIANCE

Section 6.0 summarizes the agency coordination and environmental compliance conducted throughout the development of this project. This section documents the coordination activities undertaken by the EPA and the Corps with Federal, state, and local agencies, from the request for identification of cooperating agencies through the identification of the preferred alternative. Additionally, a summary of the Biological Assessment (BA), Essential Fish Habitat (EFH), and Coastal Zone Management (CZM) consistency determination is presented.

SECTION 7.0 PUBLIC INVOLVEMENT

Section 7.0 discusses scoping activities and the continuous public involvement conducted throughout the project, including Working Group and public information meetings, LISTSERV communication, Corps and Working Group websites, and public hearings.

SECTION 8.0 LIST OF PREPARERS

Section 8.0 lists all Federal and state agency personnel, together with the consultants, who were responsible for conducting the environmental studies, technical basis reports, public involvement, and coordination for the preparation of this Draft EIS.

SECTION 9.0 REFERENCES

Section 9.0 lists all references used during this study and documentation of this project.

SECTION 10.0 LIST OF EIS DISTRIBUTION TO AGENCIES, ORGANIZATIONS, AND INDIVIDUALS

Section 10.0 provides a complete Draft EIS distribution list of all Federal and state government agencies having jurisdictional responsibility, expertise, or interest in this project and all

interested parties or persons who requested the opportunity to review and comment on this Draft EIS.

APPENDICES

Appendices include (1) additional data not presented in the text of the EIS but which support evaluations, (2) all pertinent correspondence, and (3) the RIR SMMP.

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