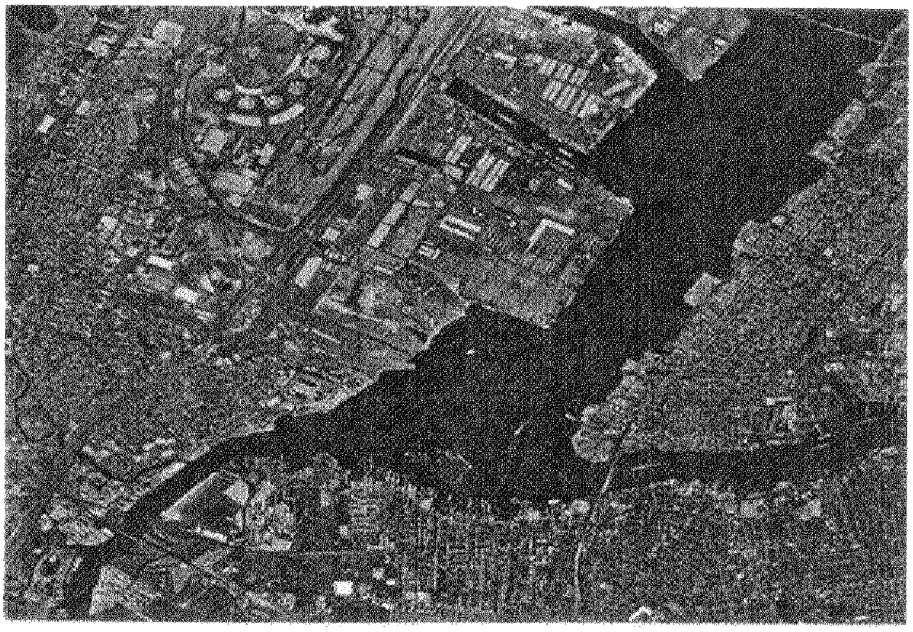
Draft
Finding of No Significant Impact
and
Environmental Assessment
of the
Selection of Potential Dredged Material Placement Sites
for the
Kill Van Kull and Newark Bay Channels
Phase II Deepening Project
(Areas 3, 4B, 5, 6, 7 and 8)



Kill Van Kull Federal Navigation Channel
New York / New Jersey

MAY 2000

US Army Corps of Engineers
New York District

DRAFT
FINDING OF NO SIGNIFICANT IMPACT
SELECTION OF POTENTIAL DREDGED MATERIAL PLACEMENT SITES
FOR THE KILL VAN KULL-NEWARK BAY CHANNELS
PHASE II DEEPENING PROJECT (AREA 3, 4B, 5, 6, 7, and 8)

I have reviewed and evaluated the Environmental Assessment for this project in terms of overall public interest. The proposed action is an administrative decision on the selection of potential sites for placement of dredged material to be removed during channel deepening in Areas 3, 4B, 5, 6, 7 and 8 of the Kill Van Kull and Newark Bay Channels, New York and New Jersey. The channel deepening would increase the authorized depth from -40 feet below mean low water (MLW) to –45 feet below MLW, and up to an additional 2-foot allowance for dredging tolerance in soft material, and the project would increase the authorized depth from –40 feet below mean low water (MLW) to –47 below MLW, and up to an additional 2-foot allowance for dredging tolerance in hard material. The environmental conditions in the project area are analyzed in previous documents, including the Final Environmental Impact Statement (USACE 1980 a,b) and the Final Environmental Assessment (USACE 1997) for the Kill Van Kull/Newark Bay Channels Phase II Deepening Project. The purpose of this Environmental Assessment is to select placement sites, evaluate the manner in which the proposed action would change conditions in the project area, and to determine whether the impacts associated with placement site selection warrant the preparation of a supplement to the Final Environmental Impact Statement.

In the Final Environmental Assessment/Finding of No Significant Impact for the Kill Van Kull/Newark Bay Channels Phase II Deepening Project (USACE 1997), a tiering strategy was developed in accordance with the Council on Environmental Quality (CEQ), National Environmental Policy Act regulations 40 CFR §1502.20 and § 1508.28, in which the final selection of dredged material placement sites was deferred until such time as the issue was ready to be decided upon. The U.S. Army Corps of Engineers, New York District, in coordination with its non-Federal sponsor, the Port Authority of New York and New Jersey, has identified and integrated a number of placement strategies into an overall management plan for the remaining contracts of the Kill Van Kull/Newark Bay Deepening Project. Four potential beneficial-use upland sites, two beneficial-use artificial reef sites, the Historic Area Remediation Site and one potential sub-aqueous disposal site have been identified by the non-Federal sponsor. In addition, the Dredged Material Management Plan for the Port of New York and New Jersey (DMMP) (USACE, Draft Implementation Report, September 1999) has identified other placement or beneficial use opportunities which may become available during the life of the Kill Van Kull/Newark Bay deepening project.

Placement sites, selected as part of the Kill Van Kull/Newark Bay Channels Phase II Deepening Project, must show costs commensurate with suitable benefits and full compliance with environmental requirements. All potential sites have been, or will be, permitted and in compliance with all appropriate Federal, state, and local regulatory and permitting requirements and analyses prior to utilization. Permit approval for the operation of each dredged material site would be obtained by the owner or lessee of each of the potential placement sites.

As a result of my review, I find at this time that there are no substantial changes in the proposed action or significant new circumstances or information relevant to environmental concerns or bearing on the proposed action or its impacts that would warrant the preparation of a supplement to the Final Environmental Impact Statement (USACE, FEIS 1980a,b).

May 2000

William H. Pearce
Colonel, Corps of Engineers
Commanding

DRAFT
ENVIRONMENTAL ASSESSMENT/
FINDING OF NO SIGNIFICANT IMPACT
THE SELECTION OF POTENTIAL DREDGED MATERIAL PLACEMENT SITES FOR THE KILL VAN KULL-NEWARK BAY CHANNELS PHASE II DEEPENING PROJECT (AREA 3, 4B, 5, 6, 7, and 8)

EXECUTIVE SUMMARY: The proposed action is an administrative decision on the selection of potential sites for placement of dredged material. This material would be removed during channel deepening in Areas 3, 4B, 5, 6, 7 and 8 of the Kill Van Kull and Newark Bay Channels Phase II Deepening Project. The channel deepening would increase the authorized depth from -40 feet below MLW to –45 feet MLW, plus up to an additional 2-foot allowance for dredging tolerance in soft material, and from –40 feet below MLW to –47 feet below MLW, plus up to an additional 2-foot allowance for dredging tolerance in hard material. The environmental conditions in the project area are analyzed in previous documents, including the Final Environmental Impact Statement (USACE 1980 a,b) and the Final Environmental Assessment (USACE 1997) for the Kill Van Kull/Newark Bay Channels Phase II Deepening Project. The purpose of this Environmental Assessment is to select placement sites, evaluate the manner in which the proposed action would change conditions in the project area, and to determine whether the impacts associated with placement site selection warrant the preparation of a supplement to the Final Environmental Impact Statement.

Currently, the total volumes of material to be removed during the deepening of Areas 3, 4B, 5, 6, 7 and 8 of the KVK/Newark Bay Channel Phase II Deepening Project are estimated to be approximately 534,000 CY of dredged rock material suitable for placement at the Atlantic Beach, NY artificial reef site and Sandy Hook, NJ artificial reef site, approximately 1,452,000 CY of dredged material unsuitable for use as remediation material at the Historic Area Remediation Site (HARS), approximately 3,258,000 CY of red clay which is HARS suitable, and approximately 1,782,000 CY of dredged material other than red clay, suitable for placement at the HARS. Simultaneous with the closure of the New York Bight Dredged Material Disposal Site (commonly known as the Mud Dump Site or MDS), the site and surrounding areas that had been used historically as disposal sites for dredged materials were redesignated as the HARS at 40 CFR § 228.15(d)(6) of the Marine Protection, Research and Sanctuaries Act of 1972, Ocean Dumping Regulations (See 62 Fed. Reg. 46142 (August 29, 1997); 62 Fed. Reg. 26267 (May 13, 1997). The HARS will be managed to reduce impacts of historical disposal activities at the site to acceptable levels in accordance with 40 CFR Section 228.11(c). The U.S. Environmental Protection Agency (USEPA) designated the HARS in September 1997 for remediation of that site via capping with dredged material that meets current Category I standards and will not cause significant undesirable effects including through bioaccumulation (40 CFR Sections 228.15(d)(6) (See 62 Fed. Reg. 46142 (August 29, 1997); 62 Fed.Reg. 26267 (May 13, 1997)). Dredged material to be removed from future work areas of the Kill Van Kull-Newark Bay Channels Phase II Deepening Project, which meets Category I standards and will not cause significant adverse effects including through bioaccumulation, is referred to in this document as HARS suitable remediation material.

The non-Federal sponsor has identified the HARS and four upland beneficial use sites for placement of non-rock dredged material from the remaining contracts of the deepening project: Seaboard Site, Kearny, NJ; Bayonne Landfill, NJ; Bark Camp Mine site, PA; and Hackensack Meadowlands Development District Landfill Remediation/Redevelopment Project, Rutherford, NJ. Currently, the Bayonne Landfill is the only upland site available to accept dredged material from the KVK project. Two artificial reef sites have been identified for placement of dredged rock: Sandy Hook, NJ and Atlantic Beach, NY. The Newark Bay Confined Disposal Facility has also been identified as a sub-aqueous disposal alternative for HARS unsuitable dredged material. In addition, the Dredged Material Management Plan for the Port of New York and New Jersey (DMMP) (USACE, Draft Implementation Report, September 1999) has identified other placement and beneficial re-use opportunities which may become available during the entire Kill Van Kull/Newark Bay Channels Phase II Deepening Project, including non-local alternatives and long-term strategies. The preliminary findings of this Environmental Assessment indicate that placement at the HARS is the only practicable alternative for HARS suitable dredged material at this time. Placement at the HARS will be re-evaluated with a Memorandum of Alternative Analysis to accompany the project Statement of Findings at the close of the public review period for this Environmental Assessment and a Public Notice to be released by the USACE in May 2000. All potential sites must be permitted and in compliance with all appropriate regulatory and permitting requirements and analyses prior to placement of dredged material. Approval for the placement of dredged material at individual sites would be obtained by the owner/lessee of the each of the potential placement sites.

The District has concluded that the changes in the conditions of environmental resources are not significant, and the proposed impacts on these resources as a result of the authorized project are not significantly different than those described in the Final Environmental Impact Statement (USACE, FEIS 1980 a,b).

If you would like further information on this assessment, contact:

Ms. Megan Grubb
Project Biologist
U.S. Army Corps of Engineers
New York District, CENAN-PL-EA
26 Federal Plaza
New York, New York 10278-0900
(212) 264-5759

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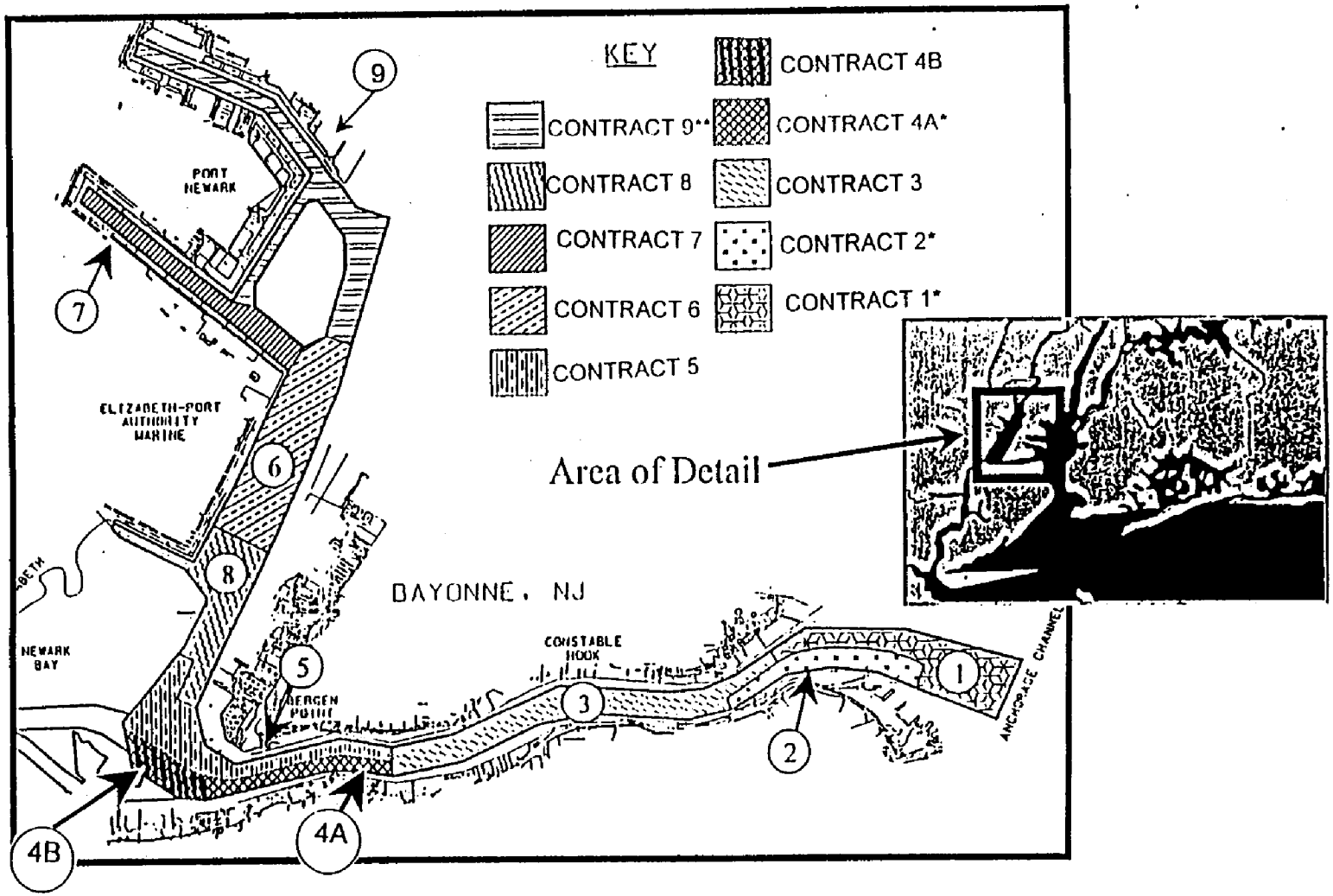
BERH - Board of Engineers for Rivers and Harbors
CEQ - Council on Environmental Quality
CFR - Code of Federal Regulations
CY - Cubic Yard
CZM - Coastal Zone Management
DMMP - Dredged Material Management Plan for the Port of New York and New Jersey
EA - Environmental Assessment
EIS - Environmental Impact Statement
ER - Engineer Regulation
FEA - Final Environmental Assessment
FEIS - Final Environmental Impact Statement
FONSI - Finding of No Significant Impact
FSFEIS - Final Supplement to the Final Environmental Impact Statement
Harbor - New York and New Jersey Harbor
HARS - Historic Area Remediation Site
HMDC - Hackensack Meadowlands Development Corporation
KVK - Kill Van Kull
MLW - Mean Low Water
MCY - Million Cubic Yards
MPRSA - Marine Protection, Research and Sanctuaries Act of 1972
NBCDF - Newark Bay Confined Disposal Facility
NEPA - National Environmental Policy Act
NJDEP - New Jersey Department of Environmental Protection
NJDIG - New Jersey Dredging Inter-Agency Group
NJMR - Office of New Jersey Maritime Resources
NMFS - National Marine Fisheries Service
NRHP - National Register of Historic Places
NY - New York
NYD - New York District
NYSDEC - New York State Department of Environmental Conservation
NY/NJ - New York and New Jersey
O&M - Operations and Maintenance
SHPO - State Historic Preservation Office
SEIS - Supplemental Environmental Impact Statement
USACE - U.S. Army Corps of Engineers
USEPA - U.S. Environmental Protection Agency
USFWS - U.S. Fish and Wildlife Service
WRP - Waterfront Revitalization Program

1.0 INTRODUCTION

This Environmental Assessment (EA) was prepared in accordance with the National Environmental Policy Act (NEPA) to select and evaluate potential placement and disposal alternatives for dredged material removed during the construction and maintenance of the Federal Navigation Project located at Areas 3, 4B, 5, 6, 7 and 8 of the Kill Van Kull and Newark Bay waterways, Port of New York and New Jersey (Figure 1). The authorized project plan provides for the deepening of existing navigational channels, from the confluence of the Kill Van Kull (KVK) and Anchorage channels to the northern edge of the Port Newark Reach in Newark Bay. The project would increase channel depth from the authorized –40 ft below mean low water (MLW) to the authorized –45 ft below MLW in soft sediment material, plus up to an additional 2 ft over depth allowance for dredging tolerance. In hard material, the project would increase channel depth from the authorized –40 ft below MLW to the authorized –47 ft below MLW, plus up to an additional 2 ft over depth allowance for dredging tolerance (Figure 2). The proposed navigation improvements to the Port were analyzed in the Navigation Study on Improvements to Existing Federal Navigation Channels Report (USACE 1980 a, b), the Supplemental Environmental Impact Statement (SEIS)(USACE 1986), the Final Supplement to the Final Environmental Impact Statement (FSFEIS) (USACE 1987), and the Final Limited Reevaluation Report/Final Environmental Assessment and Finding of No Significant Impact for the Kill Van Kull-Newark Bay Channels Phase II Deepening Project (FEA/FONSI) (USACE 1997).

A tiering strategy for dredged material placement was developed in accordance with the Council on Environmental Quality (CEQ), NEPA regulations 40 CFR§1502.20 and §1508.28. The final selection of potential dredged material placement sites was deferred until the issue was ripe for a decision (USACE, FEA/FONSI 1997). This EA documents the evaluation of potential placement and disposal sites for dredged material removed during construction in Areas 3, 4B, 5, 6, 7 and 8 of the KVK-Newark Bay Channels Phase II Deepening Project. This EA is intended to be the last tiered document in a series of three. Dredged material placement site selection for construction Areas 1 and 2, and Area 4A were addressed in the previous two EA documents of this series. If dredged material placement alternatives not considered herein become available for the KVK project and if potential impacts relating to any additional alternatives have not been addressed by a state or Federal regulatory or environmental compliance processes, then the USACE will prepare the appropriate NEPA documentation to evaluate the new alternatives. The non-Federal sponsor, the Port Authority of New York and New Jersey, is responsible for providing potential placement sites, as well as other management options, for the dredged material removed during Kill Van Kull/Newark Bay project construction. In addition, the Dredged Material Management Plan for the Port of New York and New Jersey (DMMP) (USACE, Draft Implementation Report, September 1999) has identified placement or beneficial use opportunities which may become available during the life of the Kill Van Kull/Newark Bay deepening project. Candidate sites are subject to, and must comply with, all appropriate local, state and Federal regulatory and permitting requirements and analyses prior to site utilization. Permit approval for the operation of each dredged material site, would be obtained by the owner or leasee of each of the potential placement sites as applicable. The USACE and its non-Federal sponsor

Figure 1 Project Location: Kill Van Kull and Newark Bay



* Contract Areas already under construction
** Deferred

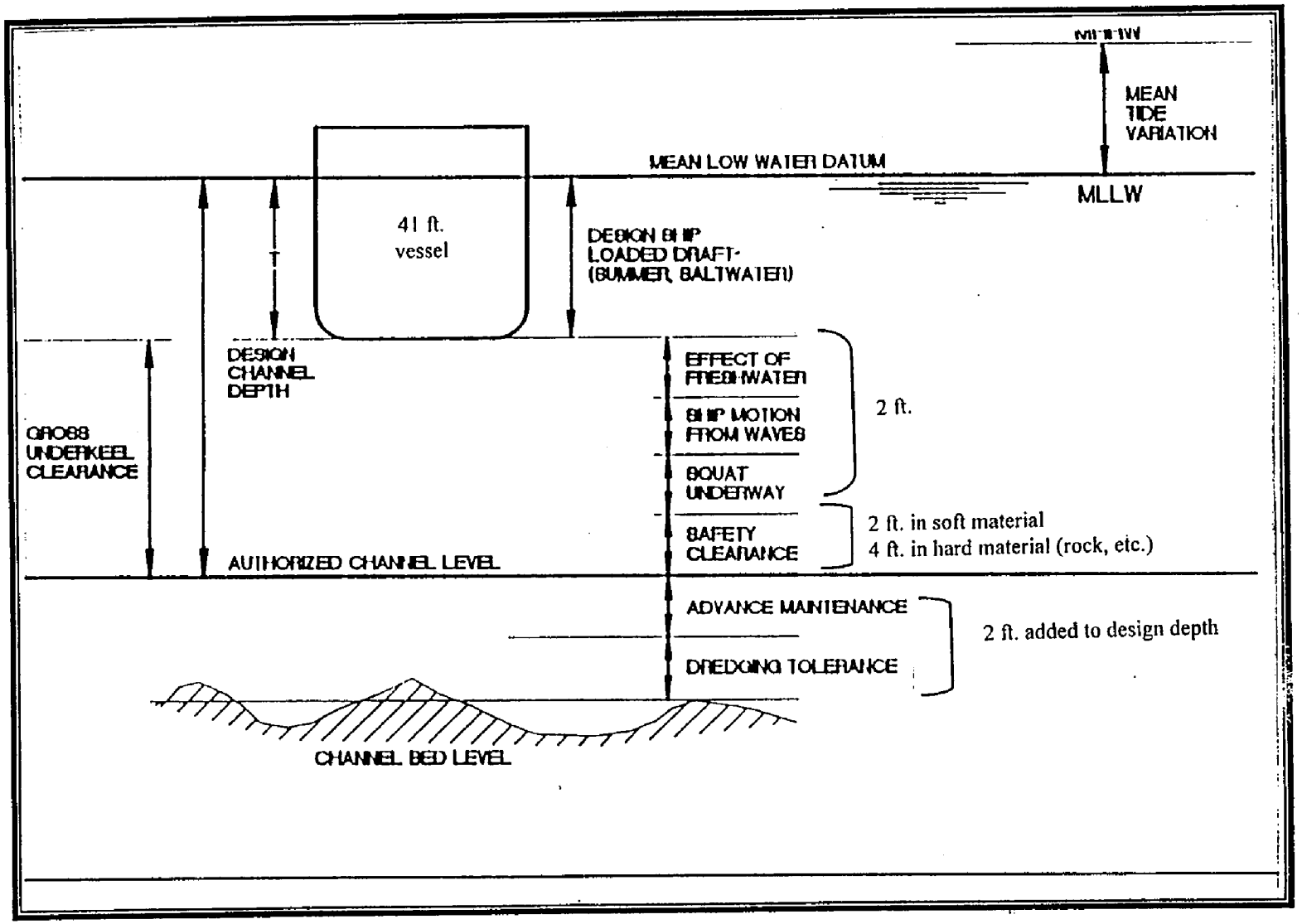


Figure 2 Illustration of authorized and design depth allowances

will conduct appropriate testing procedures to demonstrate the dredged material's acceptability at the selected placement or disposal sites as required by the site owner/operator or the state agencies through the state Water Quality Certification and Coastal Zone Consistency determination permit processes.

The volumes of dredged material to be removed from Areas 3, 4B, 5, 6, 7 and 8 during construction of the Kill Van Kull-Newark Bay Channels Phase II Deepening Project, hereafter collectively referred to as the remaining construction areas of the deepening project, are summarized in Table 1 on Page 5. For the purpose of this document, dredged material is described as one of the following: (1) rock; (2) red clay; (3) dredged material, other than red clay, suitable for placement at the Historic Area Remediation Site (HARS); and (4) dredged material found unsuitable for placement at the HARS. The HARS is at or about the former New York Bight Dredged Material Disposal Site (commonly known as the Mud Dump Site or MDS). The HARS was designated at 40 CFR § 228.15(d)(6) of the Marine Protection, Research and Sanctuaries Act (MPRSA) of 1972, Ocean Dumping Regulations. In the 1997 FSEIS, the U.S. Environmental Protection Agency described the HARS as an area to be remediated with "with uncontaminated dredged material (i.e., dredged material that meets current Category I standards and will not cause significant undesirable effects including through bioaccumulation)" (USEPA, FSEIS September 1997). This dredged material is referred to in this EA as HARS suitable remediation material.

Dredged material described as "rock" refers to material that is a cobble sized (2.5" diameter or larger), meets exclusionary criteria of the MPRSA Ocean Dumping Regulations, and is accepted for placement at artificial reef sites. Dredged material described as " red clay" refers to the red clay underlying Newark Bay-Kill Van Kull, a relatively thick and homogeneous fine-grained sedimentary deposit associated with Pleistocene glacial lakes. The deposition of red clay prior to any industrial human activity in the region, the vertical position of this material, and the sedimentary and hydraulic characteristics of the clay are all factors contributing to the material's low contaminant levels (Memorandum for Record, Discussion of red clay found in borings in Newark Bay, April 9, 1999) (Appendix B). The non-Federal sponsor sampled and tested the red-clay material from Newark Bay in accordance with test protocols for ocean disposal established by the USEPA, Region 2, in compliance with EPA Ocean Dumping Regulations at 40 CFR Part 227 implementing MPRSA. The results of the toxicity and bioaccumulation tests showed that the red clay material met the criteria for ocean placement as described in 40 CFR 227.6, 227.27 and 228.15 implementing MPRSA. The red clay has been determined to be suitable for placement at the HARS as Remediation Material, consistent with the HARS Site Management and Monitoring Plan (SMMP) and the HARS authorization at 40 CFR Part 228.15(d)(6)" (Memorandum for Record, Joint Federal Position on Clay Testing in the Newark Bay Complex, January 26, 2000, USACE and USEPA).

The material described as "dredged material, other than red clay, which is suitable for use as remediation material at the HARS" is any sand, gravel and/or silt-recent clay material, which was tested in accordance with 40 CFR Part 227 of the Ocean Dumping Regulations implementing MPRSA, and was determined to meet the bioaccumulation

Table 1 Estimated Volumes of Dredged Material to be Removed from the Remaining Contract Areas of the KVK –Newark Bay Channels Phase II Deepening Project*

	TOTALS		ROCK		RED CLAY		HARS SUITABLE (other than clay)		HARS UNSUITABLE	
Contract #	Total Contract Volume	Total Contract Area	Rock Volume	Area of Rock	Red Brown Clay Material Volume	Area Of Red Clay	HARS Suitable Material other than Red Clay	Area of HARS Suitable Material other than Red Clay	Non-Rock HARS Unsuitable Material	Area of Non-Rock HARS Unsuitable Material
	CU YARDS	SQ FT	CU YARDS	SQ FT	CU YARDS	SQ FT	CU YARDS	SQ FT	CU YDS	SQ FT
3	1,472,000	9,245,000	0	NA	61,000	497,000	1,411,000	8,768,000	0	0
4B	305,000	1,953,000	97,000	1,236,000	124,000	682,000	7000	451,000	77,000	307,000
5	1,072,000	6,621,000	424,000	4,533,000	225,000	1,361,000	364,000	1,610,000	59,000	801,000
6	1,947,000	10,405,000	8,000	317,000	1,593,000	10,058,000	0	0	346,000	4,928,000
7	995,000	4,413,000	4,000	154,000	666,000	4,259,000	0	0	325,000	4,025,000
8	1,235,000	6,307,000	1,000	237,000	589,000	3,635,321	0	0	645,000	4,674,000

* The listed quantities reflect the volume of material to be dredged as a pay-item quantity. The total volume of material dredged during construction may vary due to factors of dredging tolerance. Pay-item quantities are the volumes of dredged material for which the project construction contractor will be compensated for removing. Any volume of dredged material removed in excess of pay-item quantities is referred to as overdepth volume and is attributed to dredging tolerance

and toxicity standards for ocean placement as described in 40 CFR 227.6, 227.27 and 228.15 implementing MPRSA. Dredged material, which was tested and did not pass bioaccumulation and/or toxicity test criteria, is referred to as dredged material unsuitable for placement at the HARS. The designation of dredged material as HARS suitable refers only to the material's suitability as remediation material at the HARS and not to the determined location of placement. As will be discussed in Section 3 of this report, clay and other dredged material suitable for the HARS, may be used as remediation material at one or more alternate placement sites. The sediment testing results for the remaining construction areas will be further described in the May 2000 Public Notice, Number: FP63-345678CC, which is being released by the USACE.

This assessment was prepared in accordance with NEPA, the implementing regulations of the CEQ at 40 CFR § 1500 – 1508, the USACE procedures for implementing NEPA at 33 CFR § 230, and guidance contained in Engineer Regulation (ER) 200-2-2, *Environmental Quality Procedures for Implementing NEPA* (3-4-88). The projected schedule for construction activity in each work area of the project is summarized in Table 2 below.

Table 2 Kill Van Kull and Newark Bay Channels Phase II Deepening Project Construction Schedule (calendar year)

Contract Area	Year 2000	Year 2001	Year 2002	Year 2003	Year 2004
7					
3					
5					
8					
4B					
6					

2.0 PURPOSE AND NEED FOR ACTION

This EA is required for NEPA compliance regarding the selection and evaluation of potential upland and aquatic dredged material placement and disposal sites. These proposed sites would be utilized for placement of dredged material removed during the authorized deepening of the Kill Van Kull and Newark Bay Channels. The location and selection of appropriate sites for beneficial use or disposal of dredged material, that may be collected during deepening of the remaining contracts of the Kill Van Kull/Newark Bay Channels Phase II Deepening Project, is necessary for the project to proceed. The selection of placement sites was deferred in the Final EA for the Kill Van Kull/Newark Bay Channels Phase II Deepening Project until specific areas were ready for contract solicitation and subsequent contract award and execution (USACE, FEA/FONSI 1997). A summary of the purpose and need presented in the Final EA for the Kill Van Kull/Newark Bay Channels Phase II Deepening Project (USACE, FEA/FONSI 1997) is provided below.

2.1 Marine Traffic and Safety Concerns

Water depths in the existing Federal Navigation Channels in the Kill Van Kull and Newark Bay at present do not provide for economically efficient and safe utilization by deep draft (> 40 feet) vessels. Container ships and oil tankers either transit these channels in a lightered or underloaded condition, or anchor in NY/NJ Harbor to await a favorable tide. As a result, tanker vessel congestion within the Harbor markedly increases, thereby increasing the potential for accidents. The additional shipping/transfer operations needed for lightering also elevates the probability of water pollution from spillage.

2.2 Economic Concerns

The Port of New York and New Jersey is vitally important to the economy of the Northeast, handling more tonnage than any other port on the U.S. East Coast. According to American Association of Port Authorities (AAPA) figures, container traffic through the Port in 1997 totaled 12.6 million metric tons of cargo in 1.3 million containers, equaling 2.4 million twenty-foot equivalent units (TEUs). The Port provides more than 166,000 jobs and $20 billion in economic activity. (USACE, Final Feasibility Report, December 1999) Despite this level of commercial activity, the Port's volume of cargo has an average annual growth rate of only 3%, substantially lagging behind its major U.S. and international competitors. Worldwide, the future shipping trend is toward increased containerization in larger vessels requiring deeper channels and Port facilities. Deepening the Kill Van Kull-Newark Bay Channel is necessary for the Port to remain a competitor in the U.S. and international trade market. The deepening project can be justified only if, over the assumed 50-year life of the project, its annualized total costs are less than its annualized total benefits. Analysis of deepening costs and project benefits for the Kill Van Kull and Newark Bay Channels Phase II Deepening Project (USACE, FEA/FONSI 1997) estimated that the annualized cost of deepening the Kill Van Kull to –45 feet MLW is approximately $148 million. The annualized benefits resulting from incurring this cost are estimated to be $615 million, thus indicating highly favorable economic viability.

2.3 Commitment of Resources

The Kill Van Kull and Newark Bay Channel project was authorized for construction by the Supplemental Appropriation Act of 1985, P.L. 99-88, which states:

> "...That the Secretary of the Army acting through the Chief of Engineers is authorized and directed to proceed with planning, design, engineering, and construction of the following projects substantially in accordance with the individual report describing such projects as reflected in the Joint Explanatory Statement of the Committee of Conference accompanying the Conference Report for H.R. 2577...; Kill Van Kull Channel, Newark Bay Channel, New York and New Jersey..."

The report referenced in the Joint Explanatory Statement was the December 1981 report of the Chief of Engineers, in which the Chief of Engineers concurred with the view of the Board of Engineers for Rivers and Harbors (BERH). The Chief of Engineers Report recommended channel deepening to –45 feet, widening at selected points, and construction of a dredging turning basin at Port Elizabeth, NY. The construction of the Kill Van Kull/Newark Bay Channel project, as recommended in the Chief of Engineers Report, was authorized by the Supplemental Appropriations Act, 1985; Public Law 99 – 88. The completion of the authorized Kill Van Kull/Newark Bay Channels Phase II Deepening Project is contingent upon the selection and approval of suitable sites for the beneficial use, disposal or other management of dredged material. This EA documents the selection and evaluation of potential placement sites.

3.0 ALTERNATIVES CONSIDERED

The following sections, 3.1-3.5, serve as the analysis of the dredged material management alternatives considered for the remaining construction contracts of the KVK-Newark Bay Channels Phase II Deepening Project. As stated previously, it is the responsibility of the non-Federal sponsor, the Port Authority of New York and New Jersey, to identify suitable sites for dredged material placement or disposal. Selected sites must be suitable to meet schedule needs, must be economically feasible and must meet all local, state and federal environmental compliance requirements prior to utilization. In addition to these criteria, the non-Federal sponsor has requested in a letter to the Corps dated March 31, 1998, that the capacity of potential placement sites should be between 0.50 MCY and 14 MCY, so as to allow smaller permitted facilities to compete for smaller volume placement contracts. Alternatives are categorized as the "No Action" alternative, beneficial use options, disposal options or long-term placement strategies.

3.1 No Action Alternative

Without the selection of placement sites for dredged material management, necessary channel maintenance, and/or channel deepening, cannot occur. As a result, economic benefits in the form of economically efficient trade and commerce would not be realized, most likely resulting in the loss of jobs and tax revenue in the region. Furthermore, sediments that contain chemicals of concern from past and present human activities within the Port of New York and New Jersey area, including the Kill Van Kull and Newark Bay waterways, may pose potential adverse affects on the health of aquatic ecosystems.

3.2 Beneficial Use Options

Beneficial use of dredged material for habitat restoration, creation, and enhancement is an integral part of the New York District's Draft Dredged Material Management Plan (DMMP) for the Port of NY/NJ (USACE 1999). Beneficial use applications are intended to maximize the potential economic and environmental benefits of dredged material as a resource. Beneficial use applications currently being considered for this project include:

1. Restoration of existing degraded borrow pits
2. Creation/Restoration of bird/wildlife habitat
3. Creation/Restoration of mudflats or shallow subtidal habitat
4. Creation/Restoration of shellfish habitat
5. Creation of treatment wetlands
6. Construction of artificial reefs (using rock)
7. Upland remediation (Landfill/Brownfield remediation, mine reclamation)
8. Remediation at the Historic Area Remediation Site (HARS)

3.2.1 Habitat Creation/Restoration

Dredged material has been successfully used in other regions of the country in a wide variety of habitat creation/restoration applications. Potential applications within this region include 1) restoring existing degraded borrow pits, 2) creating or restoring bird or wildlife habitat, 3) creating or restoring mudflats, 4) creating or restoring shellfish habitat, 5) creating or restoring wetlands, and 6) creating artificial reef habitat. Several of the proposed beneficial uses will require considerable research and development before planning, site selection, and implementation. In this region, a number of landfill sites (e.g., Pelham Bay) have been tentatively identified for potential construction of wetlands designed for the purpose of treating effluent or leachate being released at the sites. However, to date, none of these sites has been permitted for construction using dredged material. These uses may become available over the lifetime of the KVK project. However, at this time, artificial reef creation is the only habitat creation/restoration application which has been implemented and is available for use for the material being dredged in this project. Artificial reef creation is described in the following section.

3.2.2 Artificial Reef Sites

The non-federal sponsor has identified two beneficial use placement sites for dredged rock material from the Kill Van Kull-Newark Bay Channels Phase II Deepening Project. These two sites are (1) Atlantic Beach, NY artificial reef and (2) Sandy Hook, NJ artificial reef (Figure 3). The selection of these site locations was conducted in coordination with both the New York State Department of Environmental Conservation, Division of Fish, Wildlife and Marine Resources, Bureau of Marine Resources and the New Jersey Department of Environmental Protection, Division of Fish, Game and Wildlife. The USACE prepared an Essential Fish Habitat Assessment of Placement of Dredged Rock Material from the KVK-Newark Bay Channels Phase II Deepening Project at Two Artificial Reef Sites: Atlantic Beach Reef, NY and Sandy Hook, NJ in December 1999 (Appendix C). The assessment determined that the proposed placement of rock to create artificial reefs would have an overall positive impact on fisheries habitat at these locations.

The change to the areas at these artificial reef sites, as a result of the proposed action, would be the enhancement of hard-bottom substrate. The rock will provide substrate for the colonization by invertebrate populations. An increase in the invertebrate population will boost the population of small fish which feed on the invertebrates. Large fish will

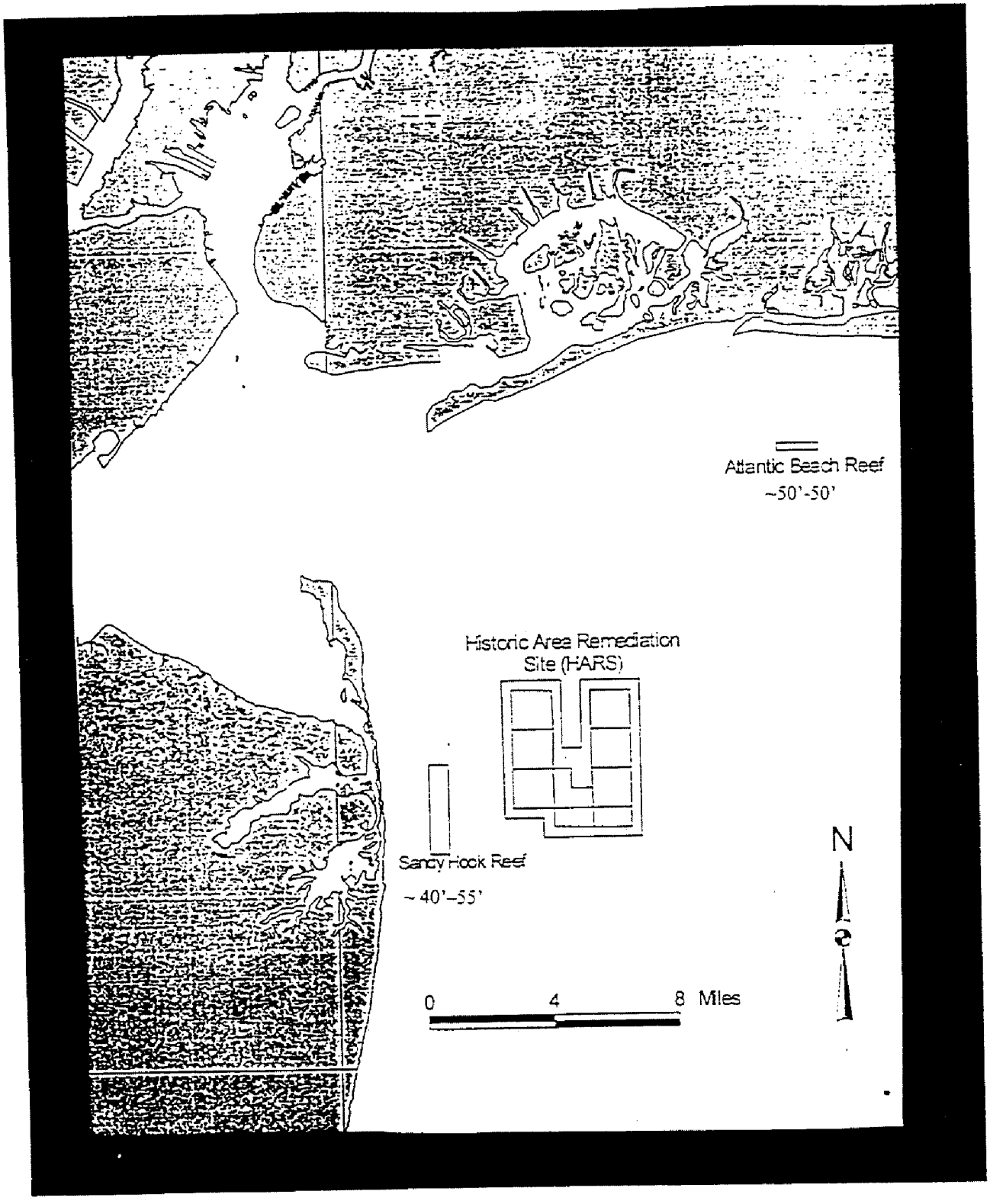


Figure 3 Location Map of two artificial reef sites and the Historic Area Remediation Site

then be attracted to the area for the small fish food source and so forth in the food chain. The rock will also provide shelter and hiding spots for small fish. In recent years, the field of artificial reef technology has made significant advances in understanding fish attraction to and creation of artificial underwater structures (*e.g.*, Seaman and Sprague, 1991; Nakamura *et. al.*, 1991). "Clearly, a reef provides the basic needs of food and protective shelter, as well as unique community structural functions. A reef also possibly provides a spot for resting and can act as some sort of navigational aid for fishes en route" (Duedall and Camp, 1991).

Table 3 below summarizes the approximate volumes of dredged rock material to be placed at the artificial reef sites from the entire Kill Van Kull-Newark Bay Channels Phase II Deepening Project. The listed quantities are pay-item volumes. Pay-item quantities are the volumes of dredged material for which the project construction contractor will be compensated for removing. Any volume of dredged material removed in excess of the pay-item quantities is referred to as overdepth volume and is attributed to dredging tolerance. The project construction contractor will not be compensated for overdepth volumes of dredged material. The actual rock volume dredged may vary from the pay-item volumes shown below due to dredging tolerance. The total rock quantity estimated for placement at the Sandy Hook, NJ reef is approximately 616,000 CY. The total rock quantity estimated for placement at the Atlantic Beach artificial reef is 499,000 CY.

Table 3 Summary of Dredged Rock Quantities from the Kill Van Kull-Newark Bay Channels Phase II Deepening Project

Contract Areas	Rock Quantity Pay Item (CY)	Artificial Reef Site
Contract Area 1*	179,000	Sandy Hook, NJ
Contract Area 2*	233,000	Atlantic Beach, NY
Contract Area 4a*	169,000	Atlantic Beach, NY
Contract Area 4b	97,000	Atlantic Beach, NY
Contract Area 5	424,000	Sandy Hook, NJ
Contract Area 6	8,000	Sandy Hook, NJ
Contract Area 7	4,000	Sandy Hook, NJ
Contract Area 8	1,000	Sandy Hook, NJ

* Contract Areas already under construction.

3.2.3 Landfill/Brownfield Remediation Sites

Remediation of landfills and brownfield sites provides a beneficial use dredged material management option for HARS unsuitable and HARS suitable material. Dredged material is generally stabilized with amendments, dewatered and/or processed using decontamination technology prior to final placement. Remediation sites are often designed with liner or containment structures as environmental safeguards. The action of capping landfills with low permeability dredged material would reduce the amount of precipitation infiltrating contaminated historic fill, and subsequently reduce the level of

contaminants leaching out of the soil into the groundwater or surface water of the region. The use of dredged material at beneficial use sites also saves capital investment needed to otherwise purchase the required fill and grading material for the remediation and management of the sites (USACE, Draft Implementation Report, September 1999). In addition, beneficial use land remediation sites have a potential capacity to receive a substantial volume of dredged material to be removed during construction of the KVK project. The following three landfill and/or brownfield sites have been proposed by the non-federal sponsor as potential beneficial use alternatives:

3.2.3.a Seaboard Site, Kearny, New Jersey

Seaboard Site, Kearny, NJ is a brownfield project under the jurisdiction of NJDEP Site Remediation Program (Figure 4). Utilization of dredged material at the site would remediate the former industrial property for reuse as a manufacturing or warehousing facility. The proposed site remediation plan involves the removal of coal tar deposits from intertidal areas, installation of a cutoff wall, and capping of the entire site with cement-stabilized dredged material. The site has already accepted 1.1 MCY of dredged material and is currently permitted by the State of New Jersey to accept an additional 1 MCY of dredged material. However, the site is not currently operational at this time due to ownership site management decisions.

3.2.3.b Bayonne Landfill, New Jersey

The Bayonne Landfill is located at the City of Bayonne, Hudson County, New Jersey (Figure 5). The Bayonne site includes a 38-acre former landfill and approximately 97 acres of a former industrial property. Utilization of the site would provide proper closure of a former sanitary landfill and remediation of an industrial brownfield. The site has been permitted by the Federal, state, and local agencies. The site has a total capacity for approximately 4.5 MCY of dredged material. Approximately 18 acres of the site contain federal jurisdictional wetlands, although only 8 acres of wetland area would be impacted during site remediation activities. The cost of upland placement at Bayonne is estimated at $29 per cubic yard placed. The Bayonne Landfill has been identified as a placement option for HARS unsuitable dredged material. The site is not practicable for placement of HARS suitable material, based on cost perspective.

3.2.3.c. Hackensack Meadowlands District Landfill Remediation/Redevelopment Project, Rutherford, New Jersey

The Hackensack Meadowlands District Landfill Remediation/Redevelopment Project involves the remediation of three orphan landfills (Avon, Lyndhurst and Rutherford Landfills) within the Hackensack Meadowlands District (HMD) (Figure 6). Following the remediation of the landfills, an approximate 200-acre area is proposed to be redeveloped into a multi-use recreational facility that will include a hotel and conference center, a golf resort, a marina, public rail access, equestrian center, nature/biking trails, and other amenities. The remediation/redevelopment project is proposed to be conducted in two phases.

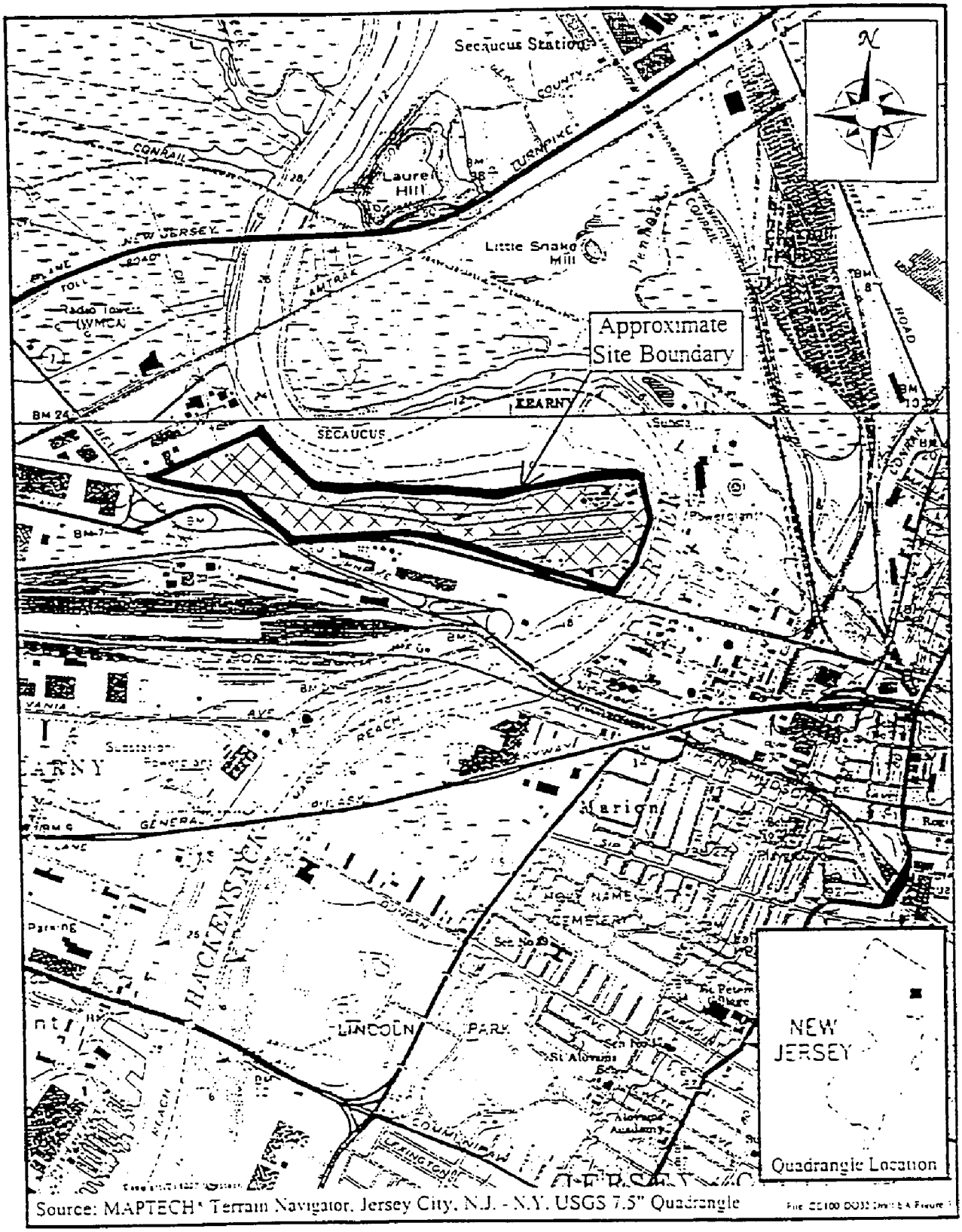


Figure 4 Seaboard Site, Kearny, NJ
Site Location Map

2000 0 2000

1 inch = 2000 feet

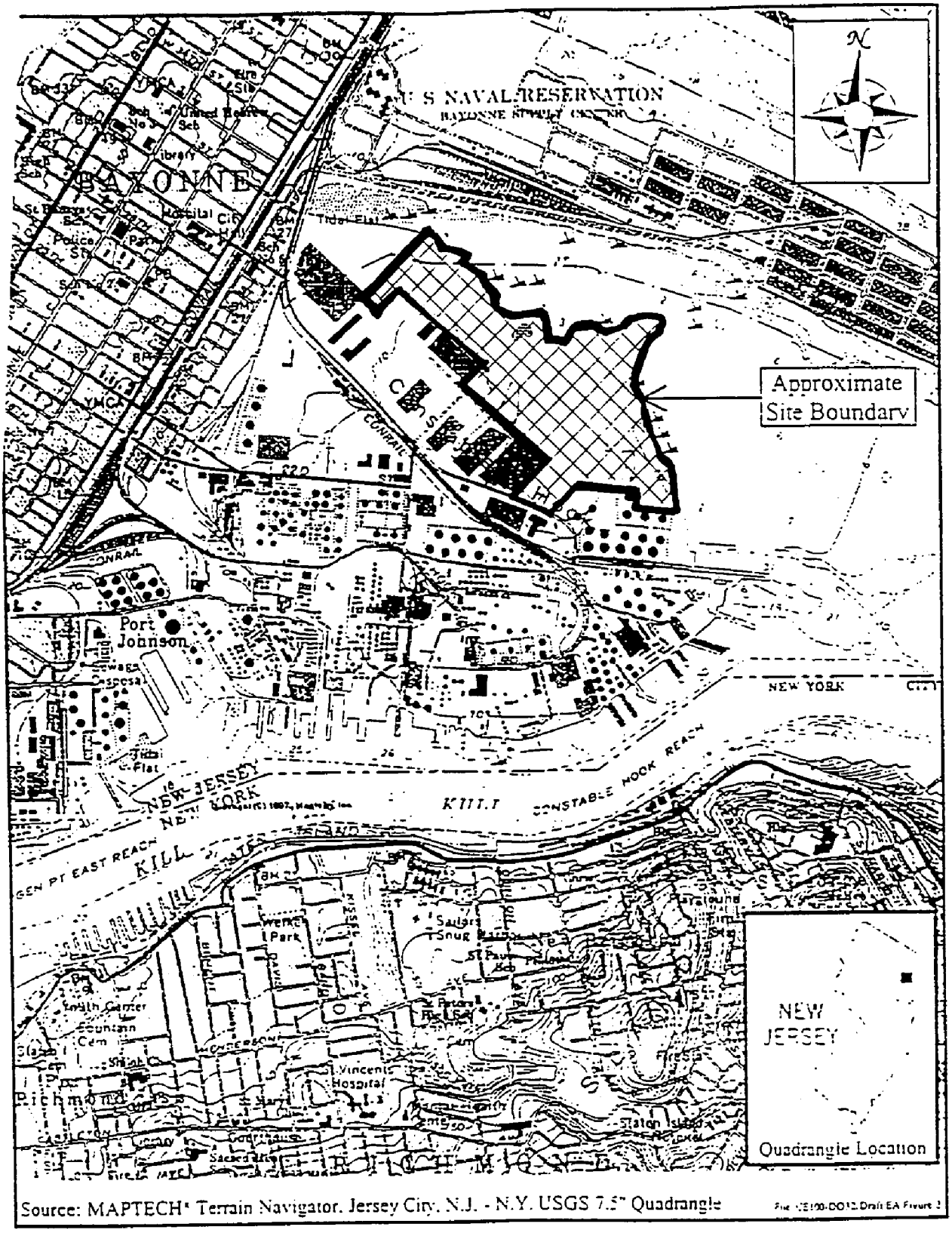


Figure 5 Bayonne Landfill Site Location Map

2000 0 2000

1 inch = 2000 feet

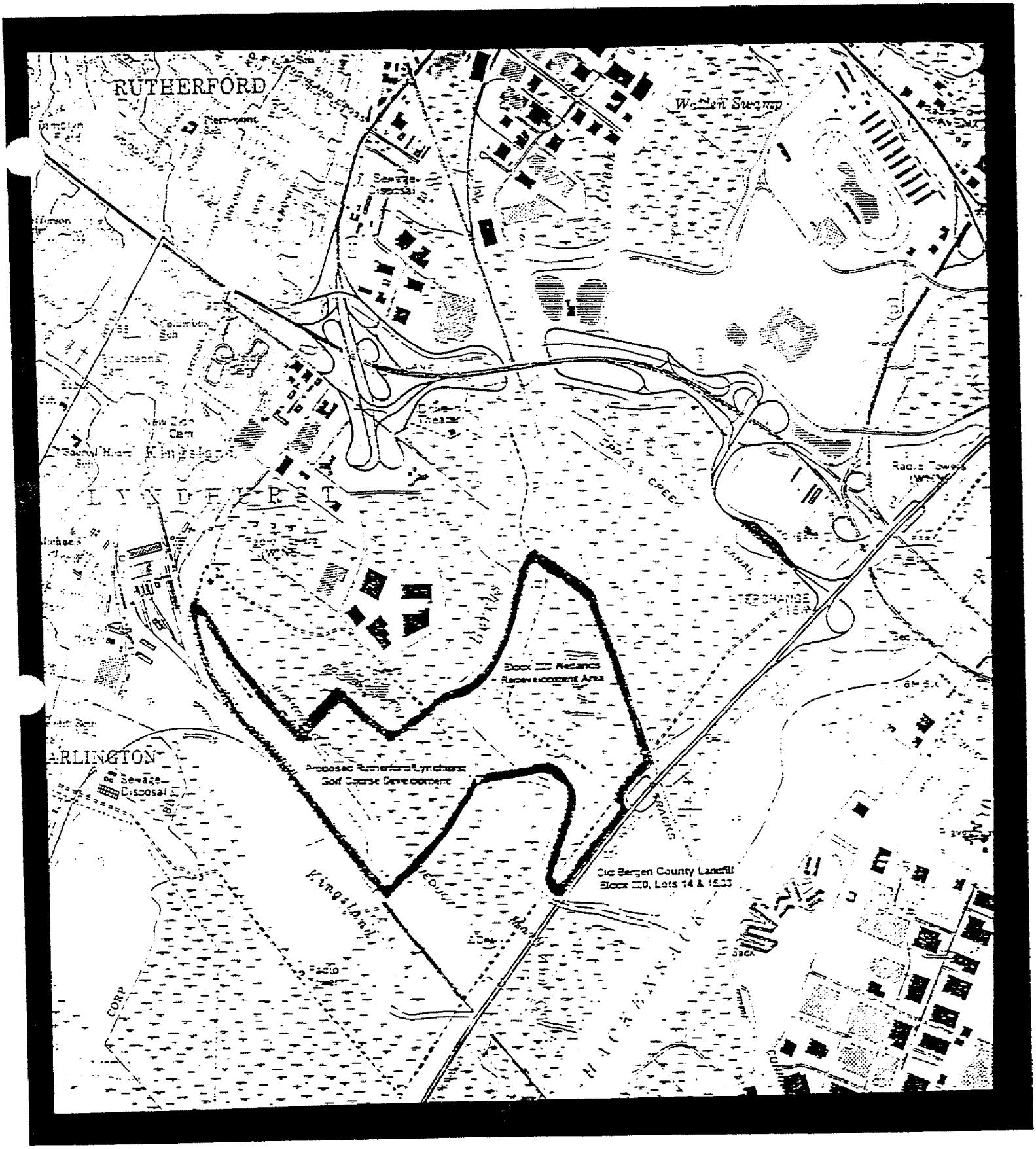


Figure 6 Hackensack Meadowlands District Landfill Remediation/Redevelopment Project Rutherford, NJ Site Location Map

The first phase of the redevelopment project involves site preparation and acceptance of HARS suitable clay material from the Kill Van Kull and Newark Bay Channels Deepening Project to cap the existing landfills. To facilitate off-loading of the clay, a barge berthing area will be dredged on the bank of the Hackensack River. Dredged material removed during this channel site preparation activity in the Hackensack River is proposed to be beneficially used onsite or alternatively would be placed in the Newark Bay Confined Disposal Facility. The second part of this redevelopment project anticipates that dredge material from channel and terminal maintenance projects will also be received over the next four years. Further, a dredged material processing plant is proposed for the receipt of non-HARS suitable sediment for augmentation and subsequent beneficial use in the remediation of the landfills and final site development. One to two million CY of sediment will be processed annually to meet project development requirements. Initial plans allow for a plant with a nominal processing capacity of 7,000 CY/day up to a maximum of 9,000 CY/day. The site has not been implemented yet. This potential upland beneficial use site is currently in the design and environmental compliance process. Permits, which have not yet been obtained, will be required from the State of New Jersey and the USACE for implementation of the project site activities.

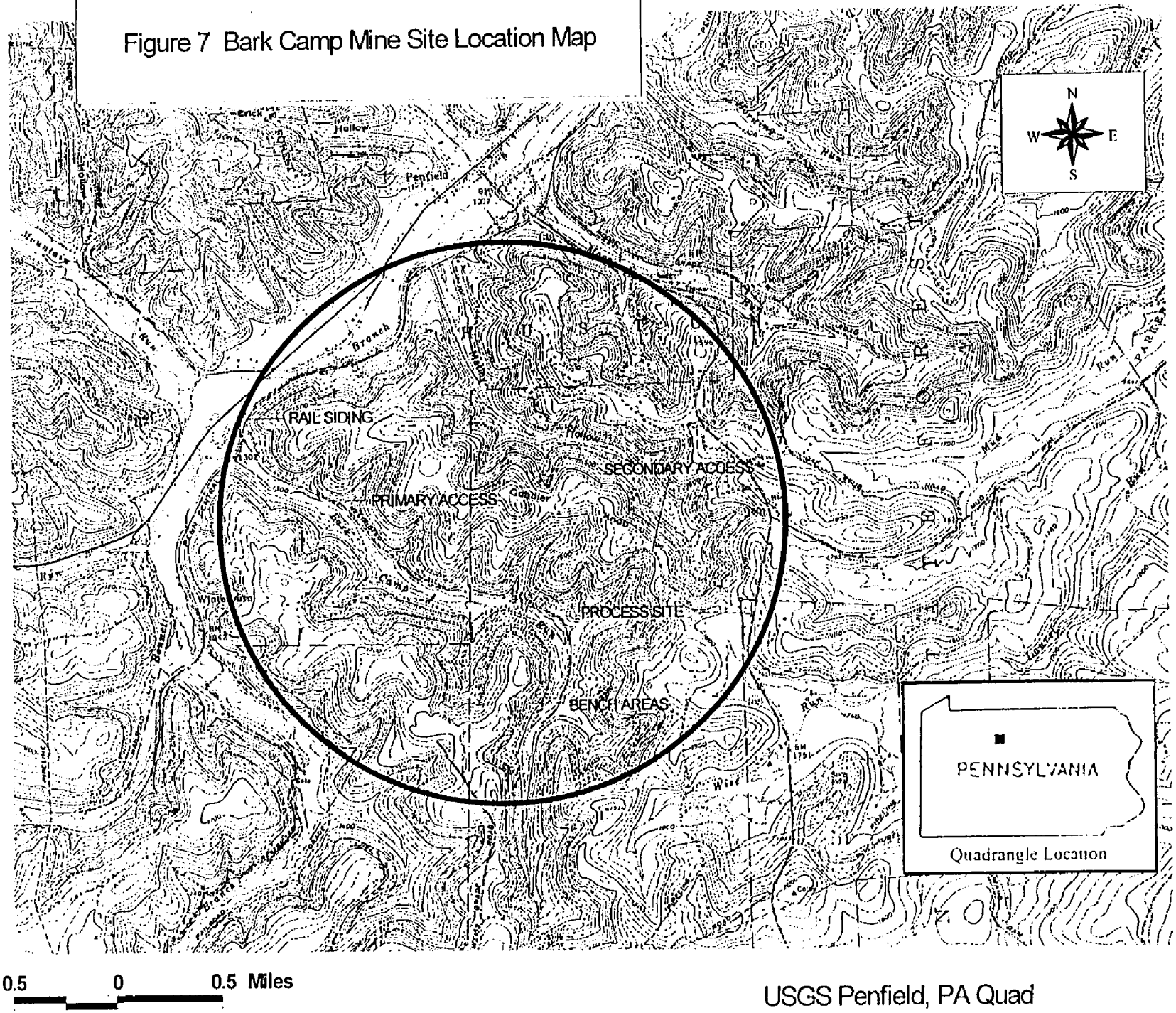
3.2.4 Mine Reclamation Site

Abandoned mine sites provide a great capacity for placement of dredged material. The reclamation of mine sites using both HARS suitable and HARS unsuitable dredged material remedies serious environmental problems associated with the abandoned mines. These environmental problems include land subsidence, underground mine fires, dangerous high walls and acid mine drainage, which pollutes the nation's streams and rivers (USACE, Draft DMMP Implementation Report, September 1999).

The Bark Camp Mine Facility is located in Huston Township, Clearfield County, Penfield, Pennsylvania (Figure 7). The Pennsylvania Department of Environmental Protection permitted the site to be used as a strip mine reclamation facility. The site has accepted 20,000 CY of dredged material from Perth Amboy dredging projects and could accept up to 480,00 CY of treated dredged material (USACE, Draft DMMP Implementation Report, September 1999). Utilization of the site would provide multiple benefits including remediation of an abandoned strip mine that is currently contaminating water resources and wetlands downstream from the facility, as well as reclamation of forest and terrestrial habitat.

The Bark Camp site encompasses approximately 1200 acres. Two deep mine shafts and an open strip mine have been acidifying a stream that runs through the facility since abandonment of the mine in 1988. Efforts are being made to restore the impacted wetlands and stream in the facility as well as reclaim the strip mine. Dredged material from the KVK would have to be dewatered and mixed with coal fly ash (10%-20% of total volume). It would then have to be transported by rail to Driftwood, PA and, subsequently, by local railway to Bark Camp.

Figure 7 Bark Camp Mine Site Location Map



The remaining capacity of the Bark Camp Mine Site has already been designated for dredged material to be removed during the construction of two other dredging projects being undertaken by the Port Authority of New York and New Jersey at Port Newark and Claremont Channel. Hence, use of the site is not available for the KVK project. If the site area is expanded to accept additional material in the future, the Bark Camp Mine Site may become an available alternative for placement of material from the KVK project. Other mine sites within the region may become available during the life of the project; however, at this time none of these sites are permitted and operational to accept material from the KVK project

3.2.5 Historic Area Remediation Site

The Historic Area Remediation Site (HARS) encompasses a 17.7 square nautical mile area of the site and surrounding area of the former Mud Dump Site (2.2 square nautical miles). The HARS is located approximately 3.5 nautical miles east of Highlands, New Jersey and 7.7 nautical miles south of Rockaway, Long Island, New York (Figures 3 and 8). The HARS provides a beneficial use option for dredged material, which is found suitable for use as remediation material at the HARS, at essentially a $6-$8 placement cost. The U.S. Environmental Protection Agency (USEPA) designated the HARS in September 1997 for remediation of that site via capping with dredged material that meets current Category I standards and will not cause significant undesirable effects including through bioaccumulation (40 CFR Sections 228.15(d)(6) implementing MPRSA of 1972). The HARS will be managed to reduce impacts of historical disposal activities at the site to acceptable levels in accordance with 40 CFR Sections 228.11(c) of the Ocean Dumping Regulations under MPRSA of 1972. The environmental impacts of placement of dredged material at the HARS were assessed in the Supplement to the Environmental Impact Statement on New York Dredged Material Disposal Site Designation for the Historic Area Remediation Site (HARS) and the New York Bight Apex, USACE, September 1997.

The HARS includes three areas: (1) the Priority Remediation Area (PRA), which is a 9.0 square mile area to be remediated with at least 1 meter of remediation material; (2) the Buffer Zone, which is a 5.7 square mile area surrounding the PRA in which no placement of remediation material will be allowed, but may receive remediation material that spreads out of the PRA; and (3) the No Discharge Zone, which is an approximate 1.0 square mile area in which no placement or incidental spread of remediation material is allowed. All dredged material proposed for beneficial use at the HARS must pass USEPA testing criteria for placement at the HARS. Testing included bioassays to assess the toxicity of the solid phase, liquid phase and suspended particulate phase of the material proposed to be dredged from the project. Testing was performed in accordance with 40 CFR Part 227 of the Ocean Dumping Regulations implementing MPRSA. Testing criteria for dredged material is subject to change. A peer review process may determine revisions to the standards for HARS suitable dredged material.

The HARS is a beneficial use option with considerable capacity, however in accordance, with 40 CFR Part 227 Subpart C, a need for ocean placement must be demonstrated. The

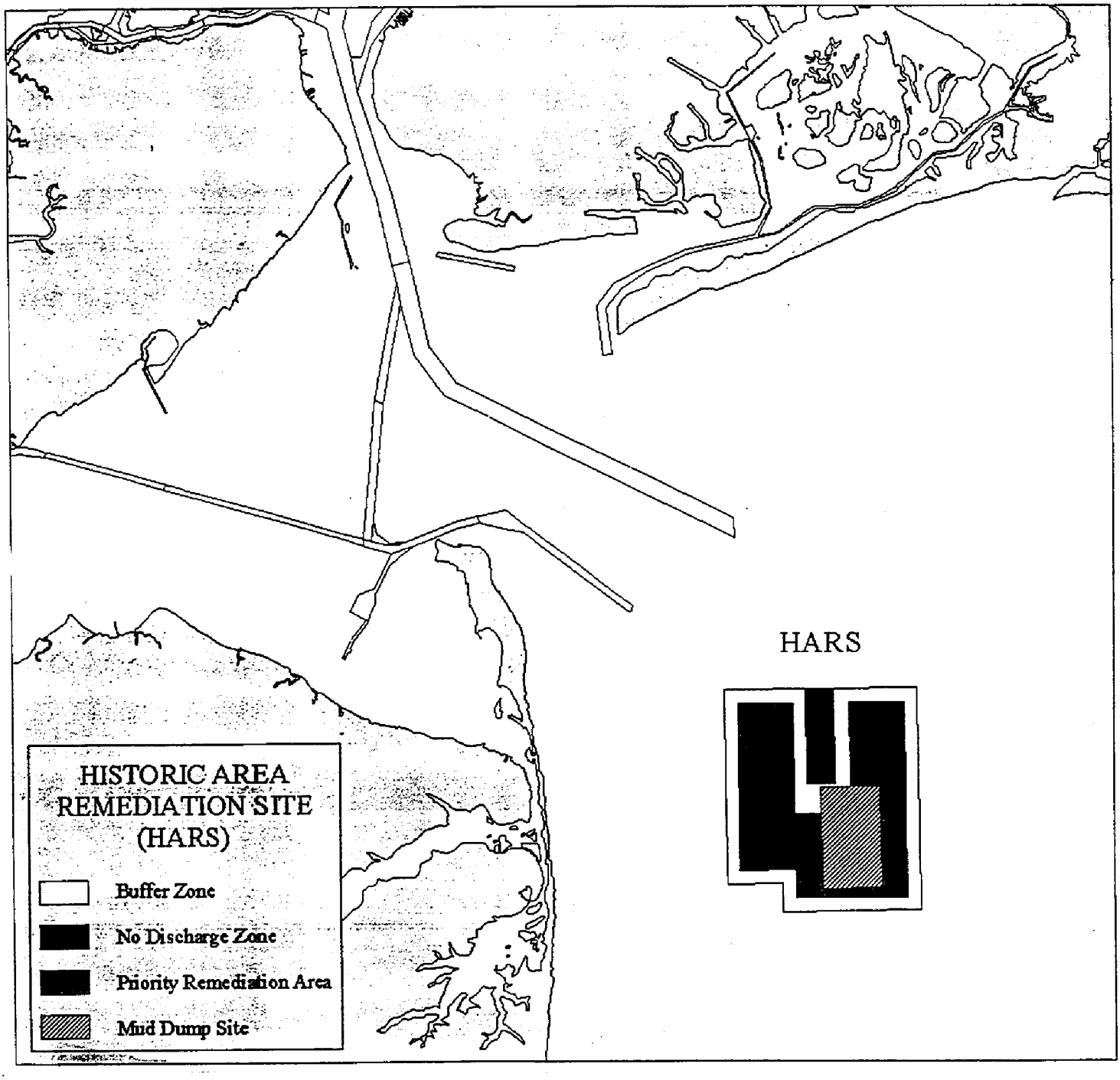


Figure 8 Historic Area Remediation Site Location Map

need is demonstrated if "there are no practicable improvements which can be made in process technology or in overall waste treatment to reduce the adverse impacts of the waste on the total environment [,and if] there are no practicable alternative locations and methods of disposal or recycling available, including without limitation, storage until treatment facilities are completed, which have less adverse environmental impact or potential risk to other parts of the environment than ocean dumping" (40 CFR Part 227.16(1)(a)(1&2)) implementing MPRSA. Alternatives are considered practicable when "they are available at reasonable incremental cost and energy expenditures, which need not be competitive with the costs of ocean dumping, taking into account the environmental benefits derived from such activity, including the relative adverse environmental impacts associated with the use of alternatives to ocean dumping" (40 CFR Part 227.16(1)(b) implementing MPRSA). Therefore, red clay material and material that was found to be HARS suitable, may be placed at the HARS only if it is demonstrated that no practicable alternative dredged material placement or disposal sites are available for the material at that time of construction.

As will be discussed in section 3.6 of this document, placement as remediation material at the HARS is the only practicable alternative for HARS suitable dredged material at this time. The need for placement at the HARS will be demonstrated through a Memorandum of Alternative Analysis, which will be prepared concurrently with the project Statement of Findings, prior to start of construction for the remaining contracts. If at such time in the future, practicable alternatives become available for use in remaining contract areas, a supplemental HARS Alternative Analysis will be prepared evaluating the new alternatives. At this time, no other local ocean placement sites for remediation purposes are currently available to accept dredged material from the KVK project area.

3.3 Disposal Options

The utilization of beneficial use alternatives for dredged material management is preferable to disposal alternatives. However, the capacity of beneficial use sites may not be great enough to handle the volume of HARS suitable and HARS unsuitable material to be dredged from the remaining contracts of the KVK-Newark Bay Channels Deepening Project. Therefore, the following disposal alternatives have been considered:

1) Ocean Disposal
2) Island Confined Disposal Facilities
3) Nearshore Confined Disposal Facilities
4) Contained Aquatic Disposal Pits

3.3.1 Ocean Disposal

At this time, there are no local ocean disposal sites available to accept dredged material from the project area. The use of EPA Region II interim and final designated ocean disposal sites including Fire Island Inlet, NY; Jones Beach Inlet, NY; East Rockaway Inlet, NY; Western Long Island Sound, NY; Shark River Inlet, NJ; Manasquan Inlet, NJ; Absecon Inlet, NJ; and Cold Spring Inlet, NJ is restricted to disposal of material from the designated geographic draw areas, which are outside of the KVK project area (40 CFR

§228.15). Dredged material from the KVK project may meet acceptability criteria for ocean disposal at the EPA Region I Massachusetts Bay, MA Disposal site; however, placement of dredged material at this site does not provide the environmental remediation benefits that placement of HARS suitable material at the HARS provides. Disposal at the Massachusetts Bay ocean site is also not practicable from a cost perspective due to transportation costs.

3.3.2 Island Confined Disposal Facilities

Confined Disposal Facilities (CDFs) involve the construction of dikes or other retention structures to contain dredged material and the use of clean cap material to isolate the dredged material from exposure to the environment ((USACE, Draft DMMP Implementation Report, September 1999). Island CDFs are disposal sites which provide cost-effective disposal of material that cannot be readily used beneficially. Island CDFs have a potential capacity for 50-100 MCY of dredged material. An environmental evaluation of this disposal option has determined that while an island CDF is feasible from an engineering standpoint, and would be cost-effective, both potential and perceived environmental impacts for an island CDF in this region's waters would be unacceptable (USACE, Draft DMMP Implementation Report, September 1999). Island CDFs are therefore no longer under consideration in this region.

3.3.3 Nearshore Confined Disposal Facilities

Several potential nearshore CDFs have been under evaluation in the New York and New Jersey Harbor for dredged material disposal and expansion of landside, Port-related facilities. Nearshore CDFs have at least one side contiguous to the land. The area suitable for nearshore CDFs is limited. To date, no sites have been developed or permitted to allow for placement of dredged material from the KVK project. Environmental concerns of this disposal option include the permanent loss of nearshore aquatic habitat. Consequently, this disposal option is not available for use at this time (USACE, Draft DMMP Implementation Report, September 1999).

3.3.4 Contained Aquatic Disposal Pits

Several existing borrow pits and new constructed Contained Aquatic Disposal (CAD) Pits have been considered within the region for disposal and confinement of dredged material that is unsuitable for remediation at the HARS. One CAD pit site has been identified by the non-federal sponsor as a dredged material management alternative. The site identified is the Newark Bay Confined Disposal Facility. The Newark Bay Confined Disposal Facility (NBCDF) is located in a shallow water area seaward of Port Newark/Elizabeth (Figure 9). The facility is a depression excavated into the bottom of the bay area for the purposes of disposing and confining dredged material removed from dredging operations within the area. The construction of the first sub-aqueous cell of the NBCDF (1S) was completed in November 1997 and has approximately 643,000 CY of remaining capacity. The NBCDF is permitted and available for disposal of HARS

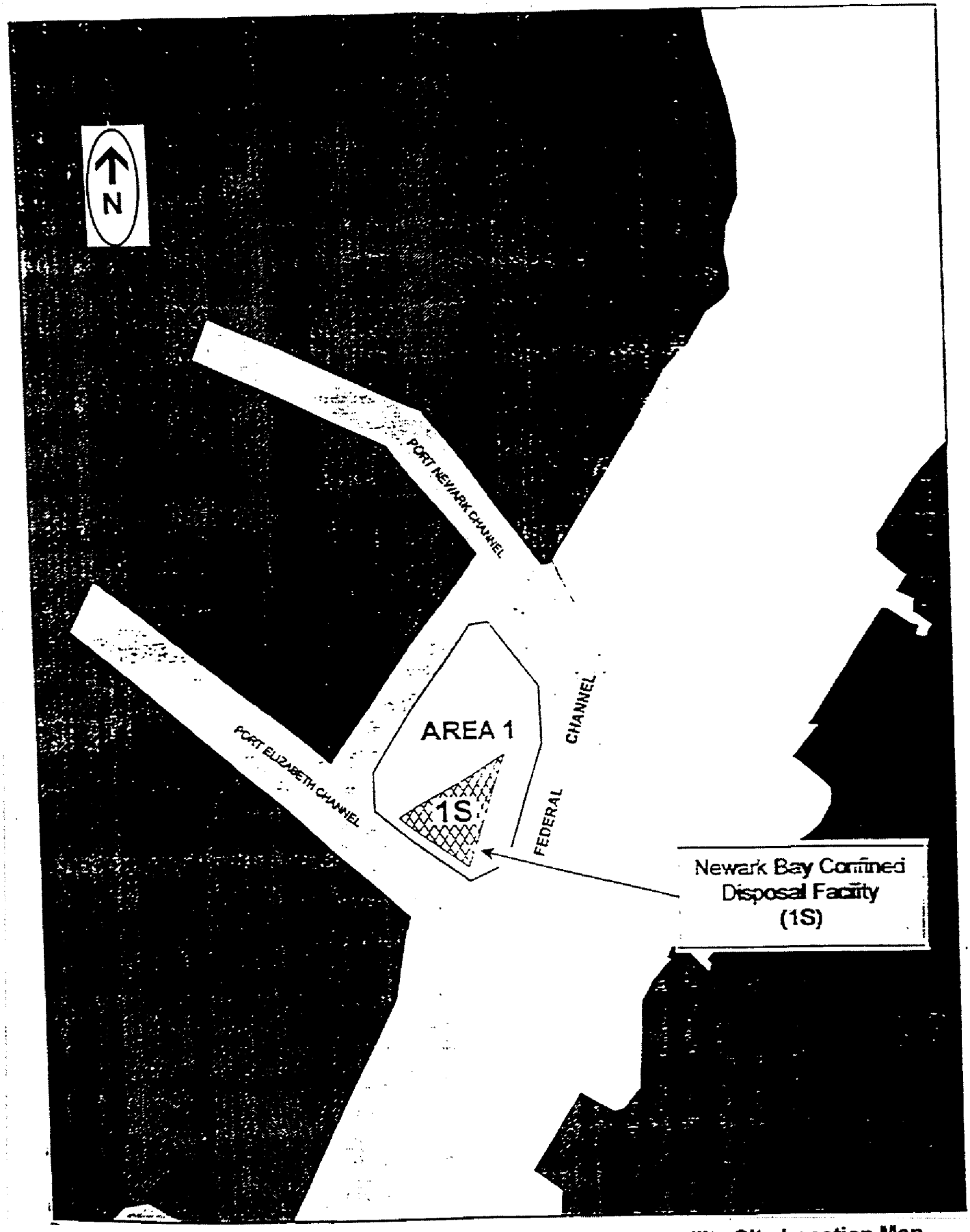


Figure 9 Newark Bay Confined Disposal Facility Site Location Map

(Map modified from Figure 1.02-1 of the USACE, FEIS on the NBCDF, April 1997)

unsuitable dredged material. The facility was designed to be available for disposal of HARS unsuitable material only (USACE, April 1997). The NBCDF is currently operating and undergoing extensive environmental monitoring as disposal occurs. Two NBCDF CAD cells, which are permitted but not yet constructed, would have the combined additional capacity of 1.5 MCY for HARS unsuitable material. The NBCDF was evaluated in the Final Environmental Impact Statement on the Newark Bay Confined Disposal Facility (USACE, April 1997).

3.4 Long-term Placement Strategies

Dredged material placement options, in addition to those identified in this environmental assessment, are anticipated to become available over the projected life of the Kill Van Kull/Newark Bay Channels Phase II Deepening Project (USACE, FEA/FONSI 997). Within this timeframe, maintenance dredging will be required. Any additional placement alternatives developed subsequent to this EA also will be considered for the placement of dredged material generated by the Operations and Maintenance (O&M) Program.

Long-term placement alternatives are dependent on implementation of the policies mandated in the "Three-Party Letter" of July 24, 1996 (see Appendix B). In that statement and in other authorizations, the USACE has been directed to evaluate all feasible dredged material placement alternatives needed to maintain and improve the Port of NY/NJ (USACE, 1999). This process is currently underway. The NYD has issued a draft Implementation Report for DMMP in September 1999 documenting the progress to date, as well as potential alternatives for incorporation into the scoping process for a comprehensive EIS. Two of the many DMMP alternatives, which may become available for the O&M needs of the Kill Van Kull/Newark Bay project, are the construction of additional land remediation sites and the implementation of emerging decontamination technologies. Over time, additional contaminant reduction measures may be developed to process sediments in the project area to such a level that this material may become available for other beneficial uses. If placement alternatives that are considered viable for the Kill Van Kull/Newark Bay project become available, and if potential impacts relating to any additional alternatives have not been addressed by a state or Federal regulatory process, then the NYD will supplement this NEPA document.

3.5 Recommended Plan

The recommended plan for the dredged rock material, to be removed during implementation of the remaining contracts of the Kill Van Kull/Newark Bay Channels Phase II Deepening Project, is placement at the Atlantic Beach, NY and the Sandy Hook, NJ artificial reef sites. The recommended plan for HARS unsuitable dredged material is placement at one or more of the selected upland remediation beneficial use sites. At this time, the Bayonne Landfill site is the only permitted and operational site available for beneficial use of HARS unsuitable dredged material from the KVK project. The Newark Bay Confined Disposal Facility serves as an alternative disposal option for HARS unsuitable dredged material, which cannot be accommodated at the beneficial use sites.

The preliminary alternative analysis of this NEPA document has determined that at this time, there are no practicable alternative locations and methods of disposal or recycling available, including storage until treatment facilities are completed, which have fewer adverse environmental impacts than placement of HARS suitable dredged material, including red clay, to remediate the HARS. The use of HARS suitable material to remediate the HARS meets an established environmental need at a cost effective placement cost. The use of HARS suitable dredged material to remediate upland placement sites (eg. Bayonne Landfill) also meets an environmental need but it depletes the capacity of these sites for placement of dredged material that is unsuitable for the HARS. This capacity is a limited resource within the region. Further, no other sites are feasible relative to the HARS from a cost perspective. Therefore, placement of HARS suitable material at the HARS is the recommended plan at this time.

A Memorandum of Alternative Analysis will be prepared concurrently with the project Statement of Findings to reevaluate any potential practicable alternatives for HARS suitable material, prior to start of construction. Factors including dredged material treatment, temporary placement of dredged material, cost and environmental impacts and benefits will be considered in this Alternative Analysis. If at such time in the future, practicable alternatives to placement of HARS suitable material at the HARS become available for use in remaining construction areas, the need for ocean placement will be reevaluated. Beneficial use alternatives are preferred options to disposal alternatives for placement of all described categories of dredged material. If dredged material placement alternatives not considered herein become available for the KVK project and if potential impacts relating to any additional alternatives have not been addressed by a state or Federal regulatory or environmental compliance processes, then the USACE will prepare the appropriate NEPA documentation to evaluate the new alternatives.

4.0 AFFECTED ENVIRONMENT

The selection of potential placement sites is documented in this EA. All proposed sites have been, or will be, permitted and in compliance with all appropriate Federal, state, and local regulatory and environmental compliance requirements prior to their utilization. The environmental and biological characterization of the affected environment for each of the potential placement sites is the responsibility of, and has been completed by or will be conducted by, the site owners and/or operators via the permitting process. Construction activities of dredging and dredged material placement will be conducted in compliance with permit conditions of all state water quality certifications and coastal zone consistency determinations obtained by the USACE or the non-federal sponsor prior to commencement of construction activity. The USACE and its non-federal sponsor will also be responsible to demonstrate the acceptability of dredged material for use at the selected placement site(s) via any required sediment chemistry or toxicity testing procedures.

A complete environmental description of the deepening project area was summarized in the Final EA for the Kill Van Kull/Newark Bay Channels Phase II Deepening Project (USACE, FEA/FONSI 1997). An environmental description of the HARS also has been included as part of the Supplement to the Environmental Impact Statement On New York

Dredged Material Disposal Site Designation for the Historic Area Remediation Site (HARS) and the New York Bight Apex, September, 1997; hereafter cited as: (USEPA, SEIS 1997). The selection of potential placement sites would not affect any additional project area resources.

5.0 ENVIRONMENTAL IMPACTS

The administrative decision selecting potential sites for the placement or disposal of dredged material that may be removed during the Kill Van Kull/Newark Bay Channels Phase II Deepening Project would not result in impacts on resources beyond those discussed in the Final EA (USACE, FEA/FONSI 1997) and the HARS SEIS (USEPA, SEIS 1997). The NYD is committed to implementing appropriate mitigation measures for any long-term or major environmental impacts that may result from channel construction. Potential environmental impacts of all proposed placement sites discussed above have been, or will be, addressed via the placement site permitting process by the site owner/lessee of each potential site prior to dredged material placement.

6.0 CONCLUSIONS

The purpose of this EA is to propose candidate sites for the placement of dredged material that will be removed during the authorized channel deepening and navigation improvements within Areas 3, 4B, 5, 6, 7, and 8 of the Kill Van Kull and Newark Bay Channels. This EA primarily documents the administrative decision selecting potential sites identified for placement of dredged rock material, dredged material suitable for HARS remediation (including clay), and dredged material unsuitable for placement at the HARS. Other potentially affected environmental resources were not identified, nor were there additional potential impacts to such resources associated with the proposed action. The NYD concludes that the proposed action described above would involve no changes within the project area since the publication of the FEIS, and accordingly does not warrant preparation of a supplement to the EIS. Any and all potential environmental impacts resulting from the use of the sites will be addressed by the owner/lessee of each candidate placement site if applicable via the permitting process. The beneficial impacts that will result directly from the implementation of the proposed action is contingent upon the timely availability of sites for placement of dredged material. Ultimately, benefits will be manifested in the increased and more efficient use of navigational channels in the Port of NY/NJ and beneficial use of dredged material.

All appropriate Federal, state, and local regulatory requirements, including those of NEPA, U.S. Fish and Wildlife Coordination Act, Magnuson Stevens Fishery Conservation and Management Act, Endangered Species Act, National Historic Preservation Act, and State Water Quality and CZM, and any environmental compliance requirements necessary for the use of any placement site (or sites) shall be met, and an opportunity for public review and comment ensured, prior to placement site utilization. Pursuant to Section 404 (33 U.S.C. 1344) of the Federal Water Pollution Control Act (amended in 1977 and commonly referred to as the Clean Water Act), Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), and Section 103 (33 U.S.C. 1413. 86

Stature 1052) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 (commonly referred to as the Ocean Dumping Act), a public notice will be released by the USACE that provides additional information on the proposed work to be performed as part of the second phase of construction of the Kill Van Kull-Newark Bay Channels Phase II Deepening Project, as authorized by section 202 (a) of the Water Resources Development Act (WRDA) of 1986, and modified by WRDA of 1996 and 1999.

7.0 COORDINATION

The NYD is coordinating with all appropriate agencies, including the USEPA, U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), the New Jersey Department of Environmental Protection (NJDEP), and New York State Department of Environmental Conservation (NYSDEC). The NYD will coordinate the update of the CZM consistency, and Water Quality Certification for the project and these specific work areas (3, 4B, 5, 6, 7 and 8) with the NYSDEC and NJDEP. The existing Water Quality Certification and CZM permit from the NYSDEC is included in Appendix F. The NYD is in the application phase for Water Quality Certification and CZM consistency from the NJDEP. Essential Fish Habitat consultation has been conducted with the NMFS for use of the artificial reef sites. The New Jersey and New York CZM Evaluations are included in Appendices D and E of this document, respectively. The Clean Water Act, Section 404(b)(1) Guidelines evaluation is included in Appendix G. All relevant correspondence and project comments are included in Appendices B and H, respectively. A Clean Air Statement of Conformity is included in Appendix I.

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APPENDIX A

Mailing List

Federal Agency Mailing List

Federal Transit Administration
Region II
26 Federal Plaza, Suite 2940
New York, NY 10278

Office of Federal Activities
U.S. EPA
NEPA Compliance Division
EIS Filing Section
Mail Code 2252-A
401 M Street S.W.
Washington, DC 20400

U.S. Geological Survey
425 Jordan Rd.
Troy, NY 12180

Mr. Anthony Ward
Executive Coordinator
Military Ocean Base
Bayonne, NJ 07002

Mr. Anton J. Sidoti
Federal Energy Regulatory Commission
19 West 34th Street, Suite 400
New York, NY 10001

Ms. Marie Rust
Regional Director, North Atlantic Region
National Park Service, Dept. of the Interior
15 State St.
Boston, MA 02109-3572

Ms. Sheila Huff
Office of Env. Policy and Compliance
U.S. Dept. of the Interior
1849-C St. NW, Room 2340
Washington, DC 20240

Mr. Terry Martin
Environmental Affairs
Dept. of the Interior
Office of the Secretary
Washington, DC 20240

Mr. Ronald Lambertson
Regional Director
U.S. Fish & Wildlife Service
Dept. of the Interior
300 Westgate Center Dr.
Hadley, MA 01035-9589

Mr. F. L. Rath, Deputy Commissioner
Div. of Historic Preservation
NYS Dept. of Parks and Recreation
Bldg. 1, Empire State Plaza
Albany, NY 12238

Mr. David Bardin, Preservation Officer
NJ Dept. of State Historic Environmental Protection
P.O. Box 1390
Trenton NJ 08625

Mr. Robert Hargrove, Chief
Attn: Mr. Joseph Bergstein
Strategic Planning & Multimedia Programs Branch
U.S. Environmental Protection Agency, Region II
290 Broadway
New York, NY 10007-1866

Mr. Clifford G. Day
Supervisor
U.S. Fish & Wildlife Service
927 North Main St., Bldg. D 1
Pleasantville, NJ 08232

Mr. Robert F. McKeon
U.S. Maritime Administration
26 Federal Plaza
New York, NY 10278

Ms. Diane Rusanowsky
U.S. Department of Commerce
National Marine Fisheries Service
212 Rogers Avenue
Milford, CT 06460-6499

Mr. Stanley W. Gorski
Attn: Ms. Karen Green
National Marine Fisheries Service
Habitat & Protected Resources Division
Sandy Hook Biological Laboratory
74 Magruder Rd.
Highlands, NJ 07732

Mr. Don L. Kilma, Director
Advisory Council on Historic Preservation
The Old Post Office Building
1100 Pennsylvania Ave. NW #809
Washington, DC 20004

Mr. Joe Picciano, Division Chief
Federal Emergency Management Agency
Region 2
26 Federal Plaza
New York, NY 10278

Ms. Grace Musumech
Strategic Planning & Multimedia Programs
Branch
U.S. Environmental Protection Agency, Region II
290 Broadway
New York, NY 10007-1866

Mr. Anthony G. Carr
Federal Transit Administration
One Bowling Green, Room 429
New York, NY 10004-1415

Mr. Michael Ludwig
Attn: Ms.Diane Rusanowsky
U.S. Department of Commerce
National Marine Fisheries Service
212 Rogers Avenue
Milford, CT 06460-6499

State Agencies Mailing List

Mr. Vance Barr
NYS Department of State
Division of Coastal Resources and Waterfront Revitalization
Albany, NY 12231-0001

Mr. Stephen Zahn
Marine Resources Specialist
New York State Dept. of Environmental Conservation
47-40 21st. St.
Long Island City, NY 11101

Mr. Charles De Quilfeldt
Regional Permit Administrator
New York State Dept. of Environmental Conservation
47-40 21st. St.
Long Island City, NY 11101

Thomas Wakeman
Port Authority of New York & New Jersey
One World Trade Center
New York, NY 10048

Mr. Thomas Costanzo
Port Authority of New York & New Jersey
One World Trade Center
New York, NY 10048

Director of Field Services
Div. of Historical Preservation
New York State Dept.of Parks and Recreation
Empire State Plaza, Bldg. 1
Albany, NY 12238

Mr. George Stafford, Director
New York State Dept. of State
Coastal Management Program
162 Washington Avenue, 4th Floor
Albany, NY 12231-0001

Mr. Robert James
New Jersey Dept. of Transportation
1035 Parkway Avenue, CN 600
Trenton, NJ 08625-0600

State of New Jersey
Dept. of Community Affairs
101 South Broad Street, CN 800
Trenton, NJ 08625-0800

Mr. Peter King
State of New York
Dept. of Transportation
Hunters Point Plaza
47-40 21st St.
Long Island City, NY 11101

Mr. Howard Golub, Acting Director
Interstate Sanitation Commission
311 West 43rd Street, Suite 201
New York, NY 10036

Mr. Ron Mieszkowski
State of New Jersey
Highway Authority
P.O. Box 5050
Woodbridge, NJ 07095

Mr. John Yencik
New Jersey Dept. of Labor & Industry
P.O. Box V
Trenton, NJ 08625

Mr. Joel Peccioli
NEPA Coordinator
NJ Dept. of Environmental Protection
501 East State Street, CN 401
Trenton, NJ 08625-0401

Mr. Lawrence Schmidt, Director
Office Of Program Coordination
New Jersey Dept. of Environmental Protection
P.O. Box 418
Trenton, NJ 08625-0418

Commander Larry Leahy
ACTNY - Waterway
Bldg. 108
Governors Island, NY 10004

Ms. Dorothy Guzzo, Deputy Preservation Officer
NJ Dept. of State Historic Environmental Protection
P.O. Box 404
Trenton, NJ 08625-0404

Mr. Larry Baier
NJDEP Office of Dredging and Sediment Technology
401 E. State Street
Trenton, NJ 08625

The Honorable George Pataki
Governor of the State of New York
The Executive Chamber
Albany, NY 12224

The Honorable Christine Todd Whitman
Governor of the State of New Jersey
Office of The Governor
125 West State Street, CN 001
Trenton, NJ 08625-0001

Local Mailing List

Landmarks Preservation Commission
Director of Environmental Review
100 Old Slip
New York, NY 10005

Ms. Roberta Scott Boatti
Director, Business Development
Staten Island Chamber of Commerce
130 Bay Street
Staten Island, NY 10301

Ms. Omi Medford-Ryan
Dept. of City Planning, Waterfront Division
22 Reade St.
New York, NY 10278

Mr. John Doherty
New York City Dept. of Sanitation
125 Worth Street, Room 72
New York, NY 10013

Ms. Esther Siskind
New York City Dept. of Environmental Protection
59-17 Junction Blvd.
Corona, NY 11368

Ms. Georgina Morgenstern
Bureau of Environmental Engineering
New York City Dept. of Environmental Protection
96-05 Horace Harding Expressway
Corona, NY 11368

Mr. William Holzapfel
City Attorney
City of Elizabeth, New Jersey
Dept. of Law, Office of the City Attorney
50 Winfield Scott Plaza
Elizabeth, NJ 07201-2462

Ms. Christina Adidjaja
New York Metropolitan Transportation Council
347 Madison Avenue - 10th Floor
New York, NY 10017

Mr. Peter Janosik
City Council of New York Land Use Division
250 Broadway - 17th Floor
New York, NY 10007

Mr. Christopher Lynn, Commissioner
New York City Dept. of Transportation
40 Worth Street, 10th Floor (CEQR)
New York, NY 10013

Mr. Gary Surmay and Mr. Jorge Valencia
Housing Authority
City of Elizabeth, New Jersey
668 Maple Avenue
Elizabeth, NJ 07202

Mr. Mark Matsil, Director
Natural Resources
New York City Dept. of Parks
1234 5th Avenue, Room 233
New York, NY 10029

Ms. Annette Barbaccia
New York City Office of Environmental Coordination
52 Chambers St., Room 215
New York, NY 10007

Director of Planning
Metropolitan Transportation Authority
347 Madison Avenue
New York, NY 10017-3739

Mr. Floyd Lapp
Director of Transport
Dept. of City Planning
2 Lafayette Street, Suite 1200
New York, NY 10007

Senior Director Service Planning
New York City Transit Authority
130 Livingston Street
Brooklyn, NY 11201

Director
New York MetroTransportation Council
One World Trade Center, Suite 82E
New York, NY 10048

Office of the Mayor
City of Elizabeth, New Jersey
City Hall
50 Winfield Scott Plaza
Elizabeth, NJ 07201-2462

Ms. Linda Corcoran
Vice President
New York City Economic Development Corp.
110 William Street, 4th Floor
New York, NY 10038

Mr. George Ververides
Director of County Planning
Middlesex County Planning Board
40 Livingston Avenue
New Brunswick, NJ 08901

Mr. Armand Fiorletti
Union County Engineer
P.O. Box 2607
Westfield, NJ 07091-2607

Mr. Stephen Van Hecke
Economic Development
Union County
1085 Morris Avenue
Union, NJ 07083

Ms. Janet Treamont
Essex County Dept. of Planning and
Economics
120 Fairview Avenue
Cedar Grove, NJ 07009

Mr. John Rose, Director
New York City Dept. of City Planning
22 Reade Street
New York, NY 10007-1216

Ms. Susan Kath
Environmental Law Division
New York City Law Dept.
100 Church Street, 3rd Floor
New York, NY 10007

Office of the Mayor
City of Bayonne
City Hall
630 Avenue C
Bayonne, NJ 07002

Office of the Mayor
City of Jersey City
280 Grove Street
Jersey City, NJ 07302

Office of the Mayor
City of Newark
920 Broad Street
Newark, NJ 07102

The Honorable Guy Molinari
Staten Island Borough President
Borough Hall
Staten Island, NY 10301

Community Board No. 3
Borough of Staten Island
655-218 Rossville Avenue
Staten Island, NY 10309

Congressional Delegates Mailing List

The Honorable Frank Lautenberg
United States Senate
506 Hart Senate Office Building
Washington, DC 20510-3002

The Honorable Robert Torricelli
United States Senate
Senate Office Building
113 Dirksen
Washington, DC 20510-3010

The Honorable Daniel P. Moynihan
United States Senate
464 Russell Senate Office Bldg.
Washington, DC 20510-3201

The Honorable Robert Menendez
House of Representatives
1730 Longworth House Office Building
Washington, DC 20515-3013

The Honorable Donald M. Payne
2244 Rayburn House Office Bldg.
House of Representatives
Washington, DC 20515-3010

Mr. Todd Turner
Office of State Senator Gentile
664 Bay Street
Staten Island, NY 10304

Honorable Charles Schumer
SHE-313 Hart Senate Office Building
Washington, DC 20510-3202

Honorable Vito Fosella from Staten Island
413 Cannon House Office Building
Washington, DC 20515-3213

Congressman Bob Menendez
405 Cannon House Office Building
Washington, DC 20515-3013

Congressman Jim Saxton
339 Cannon House Office Building
Washington, DC 20515-3003

Congresswoman Carolyn B. Maloney
2430 Rayburn House Office Building
Washington, DC 20515-3214

Congresswoman Nydia M. Velazquez
2241 Rayburn House Office Building
Washington, DC 20515-3212

Congressman Christopher H. Smith
2370 Rayburn House Office building,
Washington,DC 20515-3004

Congressman Frank LoBiondo
222 Cannon House Office Building
Washington, DC 20515-3002

Congressman Anthony D.Weiner
501 Cannon House Office Building
Washington, DC 20515-3209

Congressman Rush Holt
1630 Longworth House Office Building
Washington, DC 20515-3012

Congresswoman Nita M.Lowey
2421 Rayburn House Office building,
Washington,DC 20515-3218

Congressman Jerrold Nadler
2334 Rayburn House Office Building
Washington, DC 20515-3208

Interested Parties Mailing List

Natural Resources Defense Council
40 West 20th Street
New York, NY 10011

New York City Sierra Club
250 Riverside Drive
New York, NY 10025

Ms. Cindy Zipf
Executive Director
Clean Ocean Action
P.O. Box 505
Sandy Hook, NJ 07732

Sierra Club New York City Group
625 Broadway, 8th Floor
New York, NY 10012

Sierra Club
310 Walnut Street
Englewood, NJ 07631

Ms. Beth Milleman, Executive Director
Coast Alliance
235 Pennsylvania Avenue
SE Washington, DC 20003

Mr. Peter Mott
New York City Audubon Society
71 West 23rd Street, Room 606
New York, NY 10010-4102

Mr. John Santacrose, Executive Director
Audubon Society of New York State
46 Rarick Road
Selkirk, NY 12158

United NY and NJ Sandy Hook Pilots
201 Edgewater Street
Staten Island, NY 10305

Mr. Mark Mascaro
President and Chief Executive Officer
Staten Island Chamber of Commerce
130 Bay Street
Staten Island, NY 10301

Mr. Gregory Storey
New York Shipping Association
Two World Trade Center, 20th Floor
New York, NY 10048

United Pilots Association
10 Richmond Avenue
Staten Island, NY 10302

Mr. Tad Deshler
EVS
200 W. Mercer St., Suite 403
Seattle, WA 98119

Mr. James Brown
JMZ Geology, Inc.
43 Emery Avenue
Flemington, NJ 08822

Mr. James Tripp
Environmental Defense Fund
257 Park Avenue South
New York, NY 10010

Mr. Thomas J. Gilmore, Executive Director
New Jersey Audubon Society
P.O. Box 125
790 Ewing St.
Franklin Lakes, NJ 07417

Mr. D.W. Bennett, Executive Director
American Littoral Society Sandy Hook, Building 18
Highlands, NJ 07732

Hudson River Foundation
40 West 20th St. Ninth Floor
New York, NY 10011

New Jersey Alliance For Action
P.O. Box 6438
Raritan Plaza II
Edison, NJ 08818-6438

Mr. Andrew Willner
NY/NJ Harbor Baykeeper
Sandy Hook, Building #181
Highlands, NJ 07732

Dr. Katherine Parsons
Manomet Bird Observatory
P.O. Box 1770
Manomet, MA 02345

Dr. Henry Ross
Union County Alliance
P.O. Box 411
Union, NJ 07083

Utilities Mailing List

Bell Atlantic, New Jersey, Inc.
540 Broad Street
Newark, NJ 07012

Mr. Perry Boynton
Jersey Central Power & Light
300 Madison Avenue
Morristown, NJ 07960

Getty Petroleum Corporation
125 Jericho Turnpike
Jericho, NY 11753

Transcontinental Gas Pipe Line Corp.
Wood Avenue
South Linden, NJ 07036

Mr. Raymond A. Tripodi
Public Service Electric & Gas Co.
80 Park Plaza - T17H
P.O. Box 570
Newark, NJ 07012

The Reactance Corporation
P.O. Box 256
Bayonne, NJ 07002

Mr. James Keeter
Coastal Corporation
Nine Greenway Plaza, Suite 468
Houston, TX 77046-0995

NYNEX Corporation
230 W. 36th Street
New York, NY 10018

Mr. Brian Clemence
Camp, Dresser & McKee
10 Cambridge Center
Cambridge, MA 02142

Mr. Thomas Echikson
Sidley & Austin
1722 I Street, N.W.
Washington, DC 20006

Mr. Jack Frost
TOSCO Refining Company
1400 Park Avenue
Linden, NJ 07036

Ms. Ruth Hierro
Chemical Landholdings
1015 Bellville Turnpike
Kearny, NJ 07032

Mr. Mike Karlovich
Director of Community Relations
TOSCO Bay Refinery
1400 Park Avenue
Linden, NJ 07036

APPENDIX B

Correspondence

ENCLOSURE

July 24, 1996

The Honorable Frank Pallone
United States House of Representatives
Washington, D.C. 20510

Dear Congressman Pallone:

Your leadership and support have been essential in advancing our shared goals of protecting the ocean environment, while ensuring the competitiveness of the Port of New York and New Jersey and the economic health of the region. We are writing to announce our commitment to several substantial new steps to provide additional Administration support for these goals. We believe the three-point plan outlined below demonstrates this Administration's commitment to the continued growth and vitality of the port, to protective regulation of ocean disposal, and to a stronger partnership with the states in protecting regional commerce and the marine environment.

1. We will close the Mud Dump Site by September 1, 1997

After years of contention, this Administration is prepared to help resolve the controversy over disposal at the Mud Dump Site (MDS) off the New Jersey coast.

Environmental, tourism, fishing, and other community groups have long contended that the MDS should be closed immediately. These views reflect the important environmental values that New Jersey's communities identify with their coastal environment. Community concerns have been heightened by the unhappy history of other environmental threats that these communities have had to endure – ranging from oil spills to the littering of shorelines with medical waste. This history warrants sensitivity to concerns about the MDS, including concerns about continued use of the site for so-called "category 2" material. When these concerns are coupled with the limited category 2 disposal capacity we expect the site to provide, we must conclude that long-term use of this site for disposal activity is not realistic.

Accordingly, the Environmental Protection Agency (EPA) will immediately begin the administrative process for closure of the MDS by September 1, 1997. The proposed closure shall be finalized no later than that date. Post-closure use of the site would be limited, consistent with the management standards in 40 C.F.R. Section 228.11(c). Simultaneous with closure of the MDS, the site and surrounding areas that have been used historically as disposal sites for contaminated material will be redesignated under 40 C.F.R. Section 228 as the Historic Area Remediation Site. This designation will include a proposal that the site be managed to reduce impacts at the site to acceptable levels (in accordance with 40 C.F.R. Section 228.11(c)). The Historic Area Remediation Site will be remediated with uncontaminated dredged material (i.e. dredged material that meets current Category I standards and will not cause significant undesirable effects including through bioaccumulation). Our ongoing environmental assessment activities at the site will be

modified to reflect these new commitments. We also will seek to reinforce this approach in appropriate legislation.

Although we recognize that eventual closure of the MDS, followed by remediation, is appropriate, immediate closure could jeopardize the Port, which may need short-term use of the site to dispose of category 2 material. To strike the appropriate balance, use of the site for category 2 material will have to be supported with certifications by the permit applicant, and a finding by the Corps of Engineers that: 1) the affected states or ports were asked to provide alternative sites for disposal of the material identified by the permit, and that the states or ports failed to provide a reasonable alternative site; and 2) the disposal of category 2 material at the MDS will not increase the elevation at the MDS higher than 65 feet below the surface. Any elevation limits will be designed to contain material within the current lateral limits of the MDS, and will be set based on scientific evidence.

2. *We will help remove the immediate obstacles to dredging the Port*

The Port Authority of New York and New Jersey, terminal operators, shipping lines, and labor groups have identified numerous ways in which we can help expedite dredging in the Port. We have heard, and are responding to, their concerns.

Making the MDS available for category 2 material for the next 12 months, and allowing the elevation at the site for category 2 material to increase, would remove the most immediate and major federal obstacles to dredging. The designation of the Historic Area Remediation Site will assure long-term use of category 1 dredge material.

Our outreach to the companies, longshoremen, harbor pilots, and others whose livelihood depends on the Port, has identified many additional steps our agencies can take to further facilitate adequate dredging in the Port. A major source of concern and potential cost for permit applicants has been uncertainty surrounding the testing that must support permit applications. Accordingly, by the end of August, EPA will finalize its proposal that tests of only two species, not three, will be required of permit applicants. EPA then will invest at least nine months in a process for all affected groups -- industry, labor, and environmental groups -- to help the Agency review the ocean disposal testing requirements and ensure that any further revision reflects both sound policy and sound science.

The Corps of Engineers will expedite the processing of dredging permit applications and completion of its own dredging projects. The Corps will issue public notices for dredging permits within 15 days after a completed application is submitted, or will have requested any additional information necessary to make the application complete. Within 90 days, the Corps will either issue the permit, deny the permit, or commit in writing to a deadline for the permit decision. The Corps responsibility for the federal channels will also be met: with cooperation from the states and the funding requested by the President, the Corps will ensure maintenance dredging for 10 high-priority federal channel projects before the end of 1997.

In addition, the Corps and EPA will accelerate their work with the affected state and local governments on a sound dredge material management plan, and complete the interim plan by August 30, 1996. This interim plan will identify any steps that are necessary to sustain dredging through 1997. The final plan will be completed by September, 1998.

Most importantly, we expect that our commitments concerning the MDS will diminish or eliminate the possibility of litigation challenging permits and the EPA rule change during the period prior to September 1, 1997. This proposal is predicated on that result.

2. We will help ensure the health of the Port and the environment for the 21st Century

The short-term efforts identified here cannot truly help the Port without effective long-term strategies to ensure that dredge material is managed properly. We recognize the significant efforts and commitments that New York and New Jersey have made with us to put these strategies in place. We will reinforce those efforts, so that long-term growth of the Port is sustained and sustainable.

Recognizing that a vital Port should be able to accommodate the full range of world-class ships, the Corps will soon begin an expedited feasibility study of alternatives for a 50 foot deep Port, including recent legislative proposals on this issue. The Corps will seek Congressional authorization and take steps to reprogram funds to allow the study to begin in 1996, and the study will be designed for completion in 1999. Recognizing that dredging is not the only issue affecting the future of this and other Ports, the Department of Transportation is committed to a six-month study of the causes of cargo diversion from our East Coast ports. This study, which will be developed in consultation with other affected agencies, will recommend any additional measures that are needed to enhance the international competitiveness of our East Coast ports.

Continued growth of the Port must be coupled with aggressive development of disposal alternatives and expanded efforts to reduce toxic pollution in the harbor. The Administration will continue to support legislation and appropriations to support cost-sharing of upland disposal alternatives. The Administration will also seek support for the range of continuing efforts to develop acceptable alternatives. For example, EPA is today announcing $1.2 million in contract awards to support development of decontamination technologies for dredge material. In addition, the Corps will immediately seek necessary authorization and funding to begin the technical design and feasibility studies needed for environmentally sound confined containment facilities, in anticipation that such facilities may be part of the final dredge material management plan. We also will pursue additional steps to reduce and address toxic pollution in the estuary. We will seek to minimize polluted runoff by funding and supporting local and region-wide watershed planning and implementation activities. By September 1996, EPA will invest $100,000 to facilitate pollution reduction in the Arthur Kill. All of these efforts will be coordinated with the Harbor-Estuary Comprehensive Conservation and Management Plan, which is the blueprint for working cooperatively with

state and local governments, businesses, and citizens to reduce toxic pollution in the watershed.

We will be calling upon every member of the New Jersey and New York delegations, as well as the affected state and local governments, to continue our constructive and cooperative efforts to sustain port growth and environmental protection. We will also be submitting periodic reports to the President on our success in implementing this plan and on any continuing obstacles to harbor dredging.

We appreciate your continuing leadership and advice as we work together to ensure a healthy economy and a healthy environment for the region.

Sincerely,

Carol M. Browner
Administrator
United States Environmental Protection Agency

Federico F. Peña
Secretary
United States Department of Transportation

Togo D. West, Jr.
Secretary
United States Department of the Army

CENAN-OP-SD

9 April 1999

MEMORANDUM FOR: The Record

SUBJECT: Discussion of red clay found in borings at Newark Bay.

1. The red clay found in the borings of Newark Bay and Kill Van Kull appears to represent a laterally continuous sedimentary deposit associated with Pleistocene glacial lakes (Schuberth, 1968).

> "During the Pleistocene Epoch, the Wisconsin ice sheet intruded into what is now the Hackensack and Passaic River Basins, including Newark Bay. As the glacier began to melt, the terminal morraines formed dams which impeded the flow of melt waters. Subsequently large lakes formed in the northern New Jersey – New York region. Lake Hackensack covered what is now Newark Bay and the Hackensack River Basin while Lake Passaic covered most of the present Passaic River Basin." (Suszkowski, 1978, p.11)

2. A relatively thick and homogeneous fine-grained sedimentary deposit, such as the red clay of Newark Bay, indicates an extended period of sedimentation , characterized by similar lacustrine conditions, across a relatively large area.

3. According to the geological "Law of Superposition", the red clay is older than the material which overlies it. The pre-Holocene age means that the sediment was deposited prior to any industrial human activity in the region. Low permeability of fine-grained sediments hinders flow of fluids into or within them. Low permeability of the red clay, combined with position of the Newark Bay sedimentary sequence below sea level, indicates minimal potential for downward migration of contaminants into the red clay. Considering the age, sedimentary and hydraulic characteristics, and vertical position, of the red clay, it is expected to have minimal levels of contamination.

4. Analysis of a small number of sediment samples from a sedimentary deposit with the characteristics of the red clay in the Newark Bay – Kill Van Kull area should provide a good representation of the characteristics (sedimentological, chemical) of the larger, more extensive, "parent" sedimentary unit.

References Cited:

Schuberth, C.J., 1968. The Geology of New York City and environs. The Natural History Press, Garden City, NY, 302p.

Suszkowski, D.J., 1978. Sedimentology Of Newark Bay, New Jersey: An Urban Estuarine Bay. PhD Dissertation, Univ. of Delaware, 222p.

STEPHEN C. KNOWLES, Ph.D.
Geologist
CENAN-OP-SD

JAN 26 2000

MEMORANDUM FOR: The Record

SUBJECT: Joint Federal Position on Clay Testing in the Newark Bay Complex

1. The Port Authority of New York and New Jersey (PA) has recently sampled and tested proposed dredged material from Newark Bay that is predominantly pre-industrial, pro-glacial red clay. This testing was performed in accordance with test protocols for ocean disposal established by the United States Environmental Protection Agency, Region 2 (Region 2), in compliance with EPA Ocean Dumping Regulations at 40 CFR Part 227. The material represents sediments to be excavated from the sub-channel placement cell project that the PA is proposing to construct in Newark Bay. This project is proposed for potential placement at the Historic Area Remediation Site (HARS).

2. Results of these toxicity and bioaccumulation tests indicate that this clay material meets the criteria for ocean placement as described in 40 CFR 227.6, 227.27 and 228.15. As such, it has been determined to be suitable for placement in the HARS as Remediation Material, consistent with the HARS Site Management and Monitoring Plan (SMMP) and the HARS authorization at 40 CFR Part 228.

3. The red clay described above has been found suitable for ocean placement and is of the same pro-glacial geological formation found throughout the Newark Bay Complex and other areas of New York Harbor as indicated in the attached Memorandum for the Record. Region 2 and the New York District have therefore determined that red clay from this geologic formation that is part of future harbor projects proposed for ocean placement has already been adequately characterized as acceptable for HARS placement and will not require any further testing.

4. The Kill van Kull / Newark Bay Deepening Project requires excavation and disposal of large amounts of the red clay bed that is described above and in the attached memo. The red clay from this project is adequately characterized as acceptable for HARS placement and will not require any further testing as described above.

Ronald Borsellino
US Environmental Protection Agency
Region 2
Division of Environmental Planning
And Protection

John R. Hartmann
US Army Corps of Engineers
New York District
Chief, Operations Division

FROM :CORPS OF ENGINEERS-NY 212-264-4260 2000.02-22 16:10 #791 P.02/03

CENAN-OP-S 17 March 2000

MEMORANDUM FOR THE RECORD

SUBJECT: Meeting with Congressman Pallone and Clean Ocean Action Concerning Upcoming Federal O&M Dredging/HARS Placement

1. A meeting was held at Congressman Pallone's request on 16 March 2000 at his Long Branch Office(attendee list enclosed). The meeting was a follow-up to a request he made at a meeting between him and the District Engineer on 28 February 2000. Congressman Pallone asked for the District to meet with local environmental groups, primarily Clean Ocean Action, who had expressed concern over the Raritan River and Buttermilk Channel Federal Navigation Projects. Plans to maintenance dredging these projects and place the dredged material at the Historic Area Remediation Site (HARS) were about to be announced via Public Notice. The District agreed at the 28 February meeting to hold off the public notices for these projects until 1 April 2000, to give the opportunity to have the dialogue with the environmental groups and hear what their concerns are.

2. Mr. Richard Leonard, C, CENAN-OP-ST gave a brief overview of some facts and figures concerning the federal projects and their schedules for dredging. Mr. Monte Greges briefly discussed the test results for both projects and described our determination that they were suitable for use as remediation material at the HARS.

3. Ms. Milligan and Ms. Zipf of Clean Ocean Action (COA) both expressed concern over the quality of the dredged material from both these projects and the criteria that we use to determine acceptability of dredged material as remediation material at the HARS. In response to questioning by Congressman Pallone, they stated that both these projects were not worse that what was at the HARS already, but that they were "just as bad" as what we intended to cover, and therefore "not really remediating anything". They stated that their concerns were not just specific to these two federal projects, but they applied to any and all project where we were applying current HARS acceptability standards. Congressman Pallone asked me what projects were coming up in the next six months on Public Notice or for dredging. I gave him the run down of

maintenance dredging projects coming up, and also described the Public Notice that we were planning to release for the KvK/Newark Bay deepening project. Ms. Zipf said they would be opposed to all those projects as well because the existing HARS acceptability criteria was being applied to them.

4. Congressman Pallone and USEPA staff both pointed out that there was a process that was currently about to start (the "peer review" process) which would allow for their input into possible revision of the standards currently being used for HRS acceptability determinations. Ms. Zipf stated that COA believes that no further placement of dredged material should take place at the HARS until the peer review process is completed. USEPA, USACE-NY and Congressman Pallone all stated that it was not realistic to expect that there would be a moratorium on all dredged material placement at the HARS while the peer review process was under way because the process was only beginning and would take many months to complete.

5. Congressman Pallone stated that he thought the dialogue was a "good beginning" and asked that we schedule another meeting in the near future to continue the dialogue on issues.

JOHN F. TAVOLARO
Chief, Operations Support Branch

THE PORT AUTHORITY OF NEW YORK & NEW JERSEY

LILLIAN C. BORRONE
DIRECTOR
PORT COMMERCE DEPARTMENT

ONE WORLD TRADE CENTER, 345
NEW YORK, NY 10048-0682

(212) 435-6001
(212) 435-6030 FAX
borrone_l@panynj.gov

To:
HAL
HAWKINS
-2 PGS-

February 4, 2000

Colonel William H. Pearce
District Engineer
Department of the Army
New York District, Corps of Engineers
Jacob K. Javits Federal Building
New York, NY 10278-0900

Subject: **Kill Van Kull and Newark Bay Navigation Improvement Project Phase II Contract 4 – Area 7**

Dear Colonel Pearce:

As non-federal sponsor for the subject project, we have been asked by the New York District, Army Corps of Engineers to provide a disposal site for material generated by construction of Contract Area 7 to 45 feet below mean low water. Using the most recent information provided by the Corps, approximately 275,000 cubic yards of non-HARS material and 881,000 cubic yards of HARS-suitable material will be generated by this contract.

We have analyzed the available options for placement of the non-HARS material from this contract. We understand that due to pending litigation, the Seaboard site in South Kearny, New Jersey cannot receive material at this time and therefore cannot be designated for placement of the Contract Area 7 non-HARS material. Designation of the Pennsylvania mine site for placement at Bark Camp is not possible at this time either. The Port Authority will be using 200,000 cubic yards of capacity at Bark Camp this year by placing material from Reaches B, C, and D at Port Newark / Elizabeth. The State of New Jersey plans to utilize an additional 150,000 cubic yards by placing material from the Claremont Channel at Bark Camp. These two projects will bring the 500,000 cubic yard demonstration project at the Bark Camp site very close to completion, making capacity for Contract Area 7 unavailable.

The only other upland permitted facility that will be available to accept the non-HARS material is the OENJ/Cherokee site on Bayonne, New Jersey. As you know, it is the regional policy as reflected in the DMMP, to utilize upland beneficial uses for non-HARS material. Therefore, we are designating the OENJ / Cherokee site for placement of the 275,000 cubic yards of non-HARS material from Contract Area 7. We have been advised by the State of New Jersey and OENJ / Cherokee that the cost of upland placement will not exceed $29 per cubic yard placed and that the production rate will be sufficient to maintain the schedule of completing the KVK/NB Phase II deepening by the year 2004. It remains our position that if either the cost is significantly higher than $29 per cubic yard or the production rate of placement jeopardizes the 2004 schedule, that we would seek to use the Newark Bay Confined Disposal Facility for disposal of the material.

THE PORT AUTHORITY OF NEW YORK & NEW JERSEY

Regarding the beneficial use of the underlying clay from Contract Area 7, we have been approached by the Hackensack Meadowland Development Commission (HMDC) who has expressed a desire to use the clay to cap certain landfills near Berry's Creek at HMDC. HMDC is in the process of obtaining all necessary permits to start this project. If the permits are obtained in a timely manner so as not to have a negative impact on the KVK/NB – Phase II project schedule, the Port Authority will support this use and designate the HMDC site for placement of the clay from this contract. We designate the HARS as an alternate remediation/placement site if HMDC cannot secure permits in time for Contract Area 7, or if production rates at HMDC are insufficient for keeping to our tight schedule. The cost to the Corps and the Port Authority of placing the material at HMDC will be the same as placement at the HARS. Any incremental cost for placing the material at HMDC will be borne by the HMDC and / or the State of New Jersey.

The Port Authority is an active participant in the formulation and implementation of the DMMP. We will support any dredged material disposal or placement initiatives at fully permitted beneficial use sites which have the capacity to deliver future dredging / deepening projects in an efficient and cost-effective fashion. The strategy for dredged material management outlined in this letter, we believe, reflects the spirit and intent of the DMMP. If you have any questions or concerns regarding this matter, please contact me at 212 435-6001.

Sincerely,

Lillian C. Borrone
Director
Port Commerce Department

cc: R. Barrios, T. Costanzo, M. Masters – PANYNJ
H. Hawkins - USACE

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT, CORPS OF ENGINEERS
JACOB K. JAVITS FEDERAL BUILDING
NEW YORK, N.Y. 10278-0090

REPLY TO
ATTENTION OF

Programs and Project Management Division

3 Mar 00

Ms. Lillian C. Barrone
Director
Port Commerce Department
The Port Authority of New York and New Jersey
One World Trade Center,34s
New York, New York 10048

Dear Ms. Borrone:

Thank you for your letter dated February 4, 2000 that identified an upland disposal site for Contract Area 7 of the Kill Van Kull & Newark Bay Phase II Navigation Project.

Based on the information your office provided, the following concerns need to be addressed:

As you indicated in your letter, the OENJ/Cherokee site in Bayonne, New Jersey is the only upland site currently permitted to accept dredged material not meeting criteria for placement at the Historical Area Remediation Site (HARS). However, as you know, the OENJ/Cherokee site is not currently operational. For the Corps to ask contractors to prepare bids, we will need a site that is fully operational or obtain written assurance that the Port Authority will be financially responsible for any additional costs should the government's contractors be unable to use the site when dredging operations begin. When the government issues its Notice to Proceed, the contractor may be in a position to mobilize immediately and commence dredging. If the upland disposal site is not available, the government could be liable to incur stand-by costs.

Your letter also identifies the Newark Bay Confined Disposal Facility (NBCDF) as an alternative placement site for non-HARS material. However, to divert to this location, we understand coordination by the Port Authority will be required with the State of New Jersey. Our plans and specifications will only include the OENJ/Cherokee as the upland disposal site. Language to allow the Government to negotiate a change in disposal sites will be included into the solicitation. As you are aware the use of the NBCDF will require different type scows from that used at the OENJ/Cherokee site. We will need to discuss the use of these sites once confirmation is received that New Jersey will allow diversion to the NBCDF.

We are currently evaluating the viability of using the Hackensack Meadowland Development Commission (HMDC) sites for placement of dredged clay from the project. New Jersey has indicated that they are willing to fund any difference in cost associated with the disposal of clay at the HMDC site rather than placing material at the HARS as previously scheduled. As you know, we have no contractual arrangement with the State of New Jersey for this project and, hence, we can not accept funding directly from them. If New Jersey wishes to pursue the disposal of clay at the HMDC site, the payment for the cost difference would presumable have to come through some arrangement with the Port Authority. We will need to discuss further the use of this site once we have more information concerning the status of their permit application.

Should you have any questions, please do not hesitate to contact Dr. Raimo Liias at (212) 264-0110 or Mr. Hawkins, the project manager at (212) 264-9092. As you know, we have and will continue to work very closely with your staff to ensure a timely completion of the construction of the project.

Sincerely,

William H. Pearce
Colonel, Corps of Engineers
District Engineer

THE PORT AUTHORITY OF NEW YORK & NEW JERSEY

PORT COMMERCE DEPARTMENT
ONE WORLD TRADE CENTER
NEW YORK, NY 10048-0682

(212) 435-7000
(973) 961-6600

May 8, 2000

Dr. Raimo A. Liias
Harbor Program Manager
Department of the Army
New York District, Corps of Engineers
Jacob K. Javits Federal Building
New York, NY 10278-0090

Dear Raimo:

By e-mail dated March 27 to Tom Costanzo, copy attached, Hal Hawkins requested that the Port Authority identify by letter any and all potential dredged material placement sites for the remainder of the Kill Van Kull and Newark Bay Channels Deepening Project to 45 feet.

As you know, the growing trend for all dredging projects in this region is to dispose of non-HARS suitable material (excluding rock) in upland sites. Although we can identify upland sites, the Kill Van Kull and Newark Bay Project will continue for at least another four years and in that time new sites may emerge. Therefore, it will be difficult to identify all available sites for the project. On the other hand, the District's Draft Dredged Material Management Plan of September 1999, which the Port Authority endorses, can predict potential sites for future use.

For the foreseeable future, the Port Authority will identify the Newark Bay Confined Disposal Facility, Subchannel cells in Newark Bay, the OENJ Cherokee site in Bayonne, the presently dormant Seaboard site in South Kearny and HMDC sites along the Hackensack River as potential upland disposal sites.

Sincerely,

Thomas H. Wakeman III
Program Manager
Dredging Division
Port Commerce Department

Cc: Hal Hawkins, NYD-COE

ork State Department of Environmental Conservation
of Fish, Wildlife & Marine Resources
Marine Resources
Belle Mead Road, Suite 1, East Setauket, New York 11733
516) 444-0439 FAX: (516) 444-0434

John P. Cahill
Commissioner

January 21, 1999

r. Steven Weinberg
VK Project Engineer
epartment of the Army
ew York District Corps of Engineers
cob K. Javits Federal Building
ew York, NY 10278-0900

EF: KVK DEEPENING PROJECT, CONTRACT 2, DREDGED ROCK DISPOSAL

ear Mr. Weinberg:

e Department of Environmental Conservation is pleased to provide space on our Atlantic Beach rtificial reef site for disposal of approximately 232,000 cubic yards of clean dredged rock generated by e referenced project.

nclosed is the dump schedule for the referenced project, along with a copy of a reef material report log rm. We ask that you notify this office in writing when a firm date is established for beginning of nstruction, and by telephone or fax at least three days prior to beginning disposal. We ask also that a port log be completed by the tug Captain at the conclusion of each day of disposal and faxed to this fice along with the printout of the "black box" records for that day, and that the reports and printouts e mailed to this office at the conclusion of the project.

hank you for your cooperation. Please contact me at once if you require additional information or rification.

Sincerely,

Steve Heins
Reef Project Coordinator

c (2)
J. Rugg

00903 - 1

State of New Jersey

Christine Todd Whitman
Governor

Department of Environmental Protection
Division of Fish, Game and Wildlife
P.O. Box 400
Trenton, New Jersey 08625-0400
Robert McDowell
Director
Visit our Division Website: www.state.nj.us/dep/fgw

Robert C. Shinn, Jr.
Commissioner

Nacote Creek Research Station
Bureau of Marine Fisheries
P.O. Box 418
Port Republic, NJ 08241
August 24, 1999

Steve Weinberg, Project Engineer
Planning Division-Environmental Assessment
U.S. Army Corps of Engineers
26 Federal Plaza
New York, NY 10278

Dear Mr. Weinberg:

New Jersey is eagerly awaiting the rock that will be coming from the Harbor Deepening Project for its Reef Program. Since previous dredging projects have delivered about 1.5 million cubic yards of rock to the Sandy Hook Reef, I strongly recommend a bathymetric survey of the entire site to document depth profiles over the rock piles. Also, I have enclosed a chart of the Sandy Hook Reef with a schedule of rock deployment sites for the upcoming project.

If you need further information, please contact me.

Sincerely,

Bill Figley
Reef Coordinator

BF:pa/b45
Enclosure
c. Steve Knowles
Judy Rugg

4

State of New Jersey
Department of Environmental Protection
Division of Fish and Wildlife
P.O. Box 400
Trenton, NJ 08625-0400
Robert McDowell
Director
Visit our Division Website: www.state.nj.us/dep/fgw

Christine Todd Whitman
Governor

Robert C. Shinn, Jr.
Commissioner

Bureau of Marine Fisheries
PO Box 418
Port Republic, NJ 08241-0418
March 20, 2000

Frank Santomauro, P.E.
Chief, Planning Division
Department of The Army
New York District, Corps of Engineers
Jacob K. Javits Federal Building
New York, NY 10278-0090

Dear Mr. Santomauro:

The State of New Jersey will accept the following quantities of dredge rock specified in your two letters of March 3 for placement on the Sandy Hook Reef:

5,700 c.y. Contact Area 7 Kill Vankull
51,000 c.y. Contact Area I Arthur Kill

Enclosed are 20 charts of the Sandy Hook Reef showing deployment locations for the rock. Please provide these data sheets to your observers and tug captains. Each barge load of rock should be reported on a separate data sheet. Please ensure that they follow the simple reporting procedures on the data log sheets.

Sincerely,

Bill Figley
Reef Coordinator

BF:nl
Enclosure

SANDY HOOK REEF

"The reef that Jackson built"

ROCK DEPLOYMENT LOG

N.Y. HARBOR DEEPENING PROJECT

A LOG FORM MUST BE COMPLETED FOR EACH ROCK DEPLOYMENT ON THE SANDY HOOK REEF.

Targeted location (GPS)

_____ _____

Deployment date

_____

Deployment Location"GPS"

_____ _____

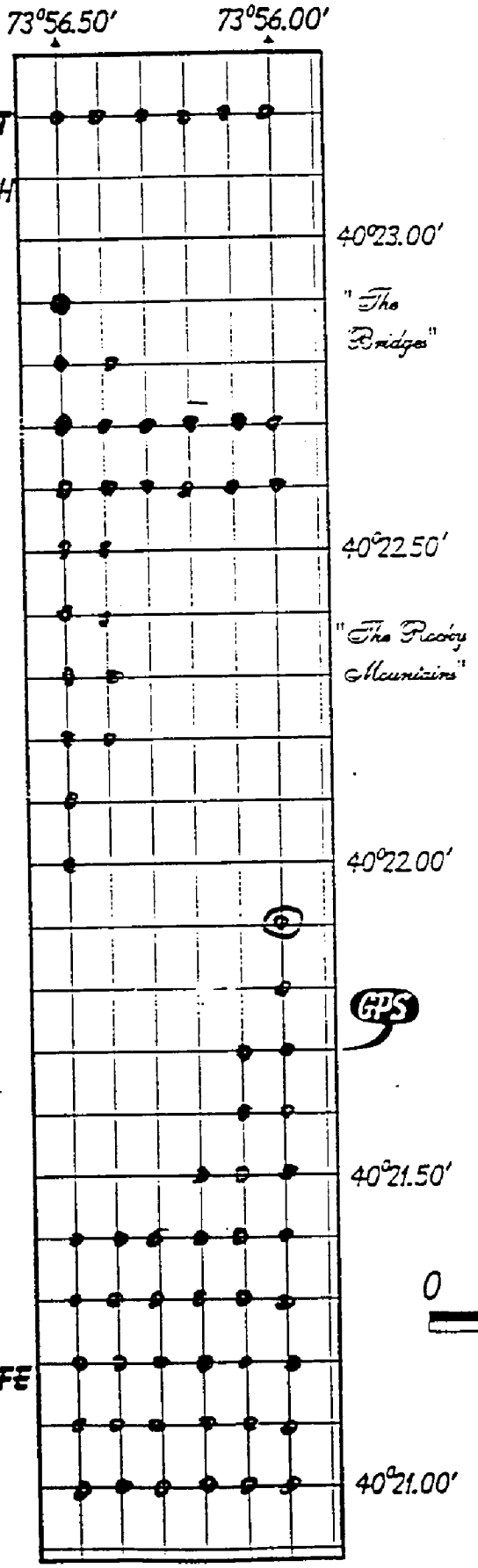
Tug Captain's signature

_____

Attach copy of "black box" cruise plot as proof of deployment location to this form and mail to:

BILL FIGLEY
N.J. DIVISION FISH,GAME+WILDLIFE
PO BOX 418
PORT REPUBLIC N.J. 08241

MAKE COPY FOR YOUR RECORDS



DEPARTMENT OF THE ARMY
NEW YORK DISTRICT, CORPS OF ENGINEERS
JACOB K. JAVITS FEDERAL BUILDING
NEW YORK, N.Y. 10278–0090

REPLY TO
ATTENTION OF

December 30, 1999

Planning Division

Mr. Lawrence Baier, Chief
Office of Dredging and Sediment Technology
PO Box 028
Trenton, NJ 08625

Dear Mr. Baier:

The U.S. Army Corps of Engineers, NY District, (District) would like to request the New Jersey Department of Environmental Protection to review the following Kill Van Kull and Newark Bay Channels Phase II Deepening Project proposal for dredging equipment. The request involves the method of dredging. The District proposes to use a cutterhead dredge in Area 3 of the Deepening Project to dredge Category 1 material which is suitable for placement at the Historic Area Remediation Site (HARS) (*see Attachment 1*). The cutterhead dredge utilizes both a mechanical head and a hydraulic pump to efficiently conduct dredging operations (*see Attachment 2*).

The Water Quality Certification and Coastal Zone Consistency Determination has not yet been awarded for dredging operations in Area 3, however the District would appreciate your agency's cooperation in reviewing this advance planning request. Although construction for Area 3 is not proposed to commence until the next fiscal year, the District would like to request your timely review in order to meet advance construction bidding and operation plan deadlines.

The District looks forward to the continued working relationship with your agency. Please direct any project questions or concerns to Megan Grubb, project biologist, at 212-264-5759.

Sincerely,

Frank Santomauro, P.E.
Chief, Planning Division

enc.

Cc: Joel Pecchioli, NJDEP
Larry Schmidt, NJDEP
Charles De Quilfeldt, NYSDEC

'hristine Todd Whitman
overnor

State of New Jersey
Department of Environmental Protection

Robert C. Shinn, Jr.
Commissioner

Site Remediation Program
Office of Dredging and Sediment Technology
P.O. Box 028
Trenton, NJ 08625
(609) 292-1250
FAX (609) 777-1914

January 21, 2000

Mr. Frank Santomauro, Chief
Planning Division
Army Corps of Engineers, New York District
Jacob K. Javits Federal Building
New York, New York 10278-0090

RE: KVK Phase II Deepening to –45 Feet
Contract 5 – Area 3, Bergen Point
Use of Cutterhead Dredge

Dear Mr. Santomauro:

This letter is forwarded in response to your letter dated December 30, 1999, requesting an informal opinion on the potential use of a cutterhead hydraulic dredge during the Phase II Kill Van Kull deepening project in Area 3, which is located in the Kill Van Kull and Newark Bay in the vicinity of Bergen Point. Foremost, your request lacks sufficient detail for the Department to draw any conclusions concerning the application of this method of dredging for the removal of clay in the vicinity of Bergen Point. Critical information is missing from the request including the location to where the material will be pumped. However, based on our experience, the following concerns can be identified.

In New Jersey, cutterhead and other hydraulic dredges have most commonly been employed where dredged material can be pumped to an upland confined disposal facility. Most often, hydraulic dredges have been used in the back bay areas of the New Jersey's Atlantic coastal basin, (referred to as Region 2 in the Department's Technical Manual). Despite the low concentrations of inorganic and other contaminants in the sediments of Region 2, modified elutriate testing data often shows exceedances of the State's Surface Water Standards in both the suspended and dissolved phase for contaminants in the return water. These impacts are usually successfully addressed by employing best management practices, such as increasing the retention time within the CDF.

I am unaware of any upland CDF in the vicinity of Bergen Point. Therefore, I have to assume that the material will be pumped into barges for transport to either the HARS or another beneficial use site such as landfills located in the Hackensack Meadowlands District. It is unclear how the dredge will be able to generate an economic load under these circumstances. Hydraulic dredges incorporate a significant volume of water in order to slurry the dredged material so that it may be pumped through a pipe. Consequently barges filled by this method without barge overflow would contain 80 percent or more water. Even if this material could be economically transported under these conditions, I anticipate that the clay now, agitated by the cutter head and immersed in water would not reconsolidate in the barge. This would likely lead to a lack of precision in the placement of the material at the Historic Area Remediation Site (HARS) due to dispersion as it descends through the water column. Obviously, this excess water causes a number of complications in the handling of the material for upland beneficial use applications as well.

If the thought would be to allow barge overflow to gain a more economical load, it is unclear, whether continuously pumping this fine grained material into a scow could ever achieve an economic load

due to the fine grained nature of the material and the limited retention time available in a scow. Further, the concept of economic loading raises environmental concerns. When a hydraulic dredge continuously pumps to an overflowing a barge this causes a significant increase in total suspended solids (TSS) and potentially other contaminants. While the severity of this impact cannot be quantified based on the information presented, it is equally unclear how the dredger will be able to reduce TSS to acceptable levels under this scenario.

Further, it is unclear as to how the dredger will be able to effectively remove all of the contaminated overburden from the clay prior to employing the cutterhead dredge. Failure to effectively remove all of the contaminated sediment may result in additional surface water criteria being exceeded.

Lastly, though I have been unable to coordinate this review with the resource agencies, the change in the method of dredging may result in the application of different time restrictions in order to protect finfish.

Should you decide to pursue the use of a hydraulic cutterhead dredge, please be sure to specify the method of dredging when requesting a sediment-sampling plan. Also your application for area specific coastal zone consistency and water quality certification must clearly specify this method of dredging and address the concerns expressed in this letter.

If you have any questions regarding this letter, please do not hesitate to contact me at (609) 292-8838.

Sincerely,

Lawrence J. Baier
Chief
Office of Dredging and Sediment Technology

C: Beverly Fedorko, Special Assistant to the Commissioner
Frank McDonough, Director, New Jersey Maritime Resources
Joel Pecchioli, Office of Program Coordination and Coastal Planning
Bill Andrews, Division of Fish Game and Wildlife, Nacote Creek Research Station, PO Box 418, Port Republic, NJ 08241
Charles DeQuilfeldt, NY Department of Environmental Conservation, Hunters Point Plaza, 47-40 21st Street, Long Island City, NY 11101
Karen Greene, National Marine fisheries Service James J. Howard Marine Sciences Lab, Highlands, NJ 07732

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT, CORPS OF ENGINEERS
JACOB K. JAVITS FEDERAL BUILDING
NEW YORK, N.Y. 10278–0090

REPLY TO
ATTENTION OF

5 April 2000

Planning Division

Mr. Lawrence Baier, Chief
Office of Dredging and Sediment Technology
PO Box 028
Trenton, NJ 08625

Dear Mr. Baier:

The U.S. Army Corps of Engineers, New York District (District) requests the issuance of a Water Quality Certificate and a Coastal Zone Consistency Determination for work in Area 7 of the Kill Van Kull and Newark Bay Channels Phase II Deepening Project. Area 7 is the fourth contract work area of the dredging project (*see Attachment I*). The District previously received an issuance of a Water Quality Certificate and Coastal Zone Consistency Determination for Contract Areas 1 and 2, File number 0000-92-0031.4, and Contract Area 4A, File number 0000-92-0031.8.

Enclosed for your review are the bathymetric surveys of Area 7, the bulk sediment chemistry test results for Area 7 and a copy of the Coastal Zone Management Evaluation to be presented in the *Draft Environmental Assessment for the Selection of Potential Dredged Material Placement Sites for the Kill Van Kull-Newark Bay Channels Phase II Deepening Project (Areas 3, 4B, 5-8) (Attachment II)*. The bulk sediment chemistry test results for Area 7 are identified as Contract 7 Reach 1 (C7R1) in the attached lab reports (*Attachment III*).

The estimated quantities of dredged material to be removed from Area 7 of the Kill Van Kull-Newark Bay Deepening Project are presented in *Table 1* of *Attachment IV*. The non-federal sponsor, the Port Authority of New York and New Jersey, has identified several placement options for dredged material to be removed from Area 7. The Sandy Hook, NJ artificial reef site has been selected for placement of dredged rock material. The Hackensack Meadowland Development Commission (HMDC) landfill remediation/redevelopment site in Rutherford, NJ has been selected as a primary beneficial use placement site for clay material from Area 7. The HMDC site is currently undergoing the permit process. The non-federal sponsor has designated the Historic Area Remediation Site (HARS) as the alternate remediation/placement site if HMDC cannot secure permits in time for Contract Area 7, or if production rates at HMDC are insufficient for keeping the project on schedule.

The non-federal sponsor has also selected the Bayonne landfill remediation site in Bayonne New Jersey as the primary site for beneficial use of dredged material which does not meet suitability criteria for placement at the HARS. The alternate site for disposal of dredged material, which was found unsuitable for placement at the HARS, is

the Newark Bay Confined Disposal Facility (NBCDF). The NBCDF will be utilized as an alternate disposal facility if production rates at the Bayonne site are insufficient to meet the project schedule or if cost of disposal significantly increases. The dredged material proposed for placement at the Bayonne landfill is presently being sampled and tested to determine its acceptability for use at the site. The test results, upon availability, will be submitted to your office for your review.

We continue to look forward to a productive working relationship between the NJDEP and the District. If we can answer any questions concerning our request for the relevant State authorizations, please do not hesitate to contact Megan Grubb, Project Biologist at 212-264-5759.

Sincerely,

Frank Santomauro, P.E.
Chief, Planning Division

Encl.

Cc: Joel Pecchioli, NJDEP
Larry Schmidt, NJDEP
Charles De Quilfeldt, NYSDEC

State of New Jersey

Christine Todd Whitman
Governor

Department of Environmental Protection

Robert C. Shinn, Jr.
Commissioner

Site Remediation Program
Office of Dredging and Sediment Technology
P.O. Box 028
Trenton, NJ 08625
(609) 292-1250
FAX (609) 777-1914

MAY 1 1 2000

Ms. Megan Grubb, Project Biologist
U.S. Army Corps of Engineers, New York District
Jacob K Javits Federal Building
New York, New York 10278-0090

RE: Federal Consistency and Water Quality Certification Request
File No.: 0000-92-0031.10 and 0000-92-0031.11
Area 7, Kill Van Kull Phase II Deepening Project

Dear Ms. Grubb:

The Office of Dredging and Sediment Technology received the referenced request for a Federal Consistency Determination and Water Quality Certification on April 14, 2000. I have completed my preliminary review of the submitted information and request the following information and clarification.

Foremost, analytical data on the sediment from Area 7 has not yet been submitted to this Office for review. Consequently, we cannot make a determination as to whether this project is in compliance with the Rules governing New Dredging (N.J.A.C. 7:7E-4.2) and Dredged Material Disposal on Land (N.J.A.C. 7:7E-7.12). It is my understanding that this data will be delivered to this Office by May 19, 2000.

The compliance statement submitted in support of the subject request appears to include information relative to the Phase II deepening as a whole, and not Area 7. In particular, statements concerning the following Rules on Coastal Zone Management (N.J.A.C. 7:7E) may need to be revised:

Finfish Migratory Pathways (3.5) – Anadromous finfish migrate from saline waters to freshwater for spawning during the spring, generally April 15 through June 15. However, Area 7 encompasses the Elizabeth Channel in Newark Bay and not the main channel. The main channel is more likely to be used as a migration route for anadromous finfish. Therefore, provided the turbidity plume associated with the Area 7 dredging does not block the cross sectional area of the Newark Bay Channel, it is unlikely that special timing restrictions would have to be applied to this project.

Submerged Infrastructure Routes (3.12) – While the Phase II deepening project includes deepening channels over submerged infrastructure, I am not aware of any such infrastructure located in Area 7. If such infrastructure exists then the compliance statement should identify the specific infrastructure and its location, or the procedure to be followed to identify and have the infrastructure moved if necessary.

Intertidal and Subtidal Shallows (3.15) – This Special Area is defined as those water areas extending from the spring high water line to a depth of 4 feet below the plane of mean low water. The compliance statement identifies 16 acres of shallow water habitat will be impacted. Does this "shallow water" meet the definition of Intertidal and Subtidal Shallows as expressed above? Are all 16 acres of impact located in Area 7? Shallow water habitats that are deeper than 4 feet below mean low water would not require mitigation under this Rule. If Intertidal and Subtidal Shallows are being impacted, then mitigation is potentially required under this Rule. I would ask that you research earlier correspondence from the DEP

during the EIS review for this project that would indicate that mitigation was not being required to offset this impact.

Historic and Archaeological Resources (3.36) – The compliance statement indicates several historic wrecks in the Phase II deepening project area. It is unclear from the compliance statement whether any of the wrecks are located in proximity to Area 7. If these wrecks are not located in Area 7 this issue goes away. If they are located in Area 7 consultation with the State Historic Preservation Office should already be underway.

Critical Wildlife Habitat – The Department was under the impression that the agreed upon protective zone for Shooter's Island was 1000 feet, within which dredging and blasting was prohibited during the breeding season. In any case Area 7 is located more than 1000 feet from Shooter's Island so this should not be an issue under this determination request.

Once you have reviewed this letter, I ask that the compliance statement for the referenced consistency request be revised to reflect the impacts associated with Area 7 dredging only. If the compliance statement does accurately reflect Area 7 impacts then additional discussion between our offices concerning mitigative measures as required for the above cited Rules will be necessary. Because of the information requested above and the lack of analytical data, I am hereby requesting a seven day extension of the 45-day review period to June 5, 2000.

Should you have any questions in this regard, please do not hesitate to contact me at (609) 292-8838.

Sincerely,

Lawrence J. Baier

Lawrence J. Baier
Chief
Office of Dredging and Sediment Technology

C: Joel Pecchioli, Office of Program Coordination and Coastal Planning

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT, CORPS OF ENGINEERS
JACOB K. JAVITS FEDERAL BUILDING
NEW YORK, N.Y. 10278-0090

REPLY TO
ATTENTION OF

15 May 2000

Planning Division

Mr. Lawrence Baier, Chief
Office of Dredging and Sediment Technology
PO Box 028
Trenton, NJ 08625

Dear Mr. Baier:

The U.S. Army Corps of Engineers, New York District (District) requested the issuance of a Water Quality Certificate and a Coastal Zone Consistency Determination for work in Construction Area 7 of the Kill Van Kull and Newark Bay Channels Phase II Deepening Project in a April 5, 2000 letter to your office. As stated in the referenced correspondence, the non-federal sponsor, the Port Authority of New York and New Jersey, has selected the Bayonne Landfill Remediation Site in Bayonne, New Jersey as the primary site for beneficial use of dredged material which does not meet suitability criteria for placement at the HARS. The dredged material, proposed for placement at the Bayonne Landfill, is presently being sampled and tested to determine its acceptability for use at the site.

The testing results to determine the dredged material's suitability for placement at the Bayonne Landfill will be supplied to your office as soon as they become available. The District would like to request the issuance of a Water Quality Certificate and Coastal Zone Consistency Determination at this time, with the stipulation that the upland testing results be submitted to the New Jersey Department of Environmental Protection for review and approval prior to the start of any dredging construction activities within Construction Area 7. The issuance of the permits with this condition, would allow the District to proceed with construction bid openings on May 19, 2000.

As requested on May 11, 2000, the following sections of the New Jersey Costal Zone Management Evaluation for Area 7 have been revised as follows:

7:7E-3.5 Finfish Migratory Pathways
This policy prohibits construction of dams or dikes which create physical barriers to migratory fish. Development which impacts water quality so as to interfere with fish movement is also prohibited. The migratory fish pathway of concern for this project is the main KVK channel. Area 7 is located in the Elizabeth Channel. Therefore, construction activity in Area 7 is not anticipated to impact migratory fish movement. Water quality impacts within the Elizabeth Channel are anticipated to be temporary and are not anticipated to have adverse impacts on fish movement within the channel.

7:7E-3.12 Submerged Infrastructure Routes
This policy prohibits any activity which would increase the likelihood of submerged infrastructure damage or interfere with maintenance operations. Several submerged pipelines exist within the KVK project area, however these pipelines are located outside of Construction Area 7.

7:7E-3.15 Intertidal and Subtidal Shallows
This policy discourages disturbance of shallow water areas (i.e., permanently or twice daily submerged areas from the spring high tide to a depth of four feet below MLW). No shallow waters, as defined by the NJDEP, are anticipated to be impacted as a result of construction activity in Area 7 of the KVK project.

7:7E-3.36
This policy protects the value of historic and archaeological resources and may require cultural resource surveys and other protective measures. No historic resources have been identified in Construction Area 7 of the KVK project.

7:7E-3.39
This policy discourages development that would adversely affect critical wildlife habitat. No critical wildlife habitat has been identified in Construction Area 7.

We appreciate your cooperation in working with the District to meet a tight project schedule. We continue to look forward to a productive working relationship between the NJDEP and the District. If we can answer any questions concerning our request for the relevant State authorizations, please do not hesitate to contact Megan Grubb, Project Biologist at 212-264-5759.

Sincerely,

Frank Santomauro, P.E.
Chief, Planning Division

Cc: Joel Pecchioli, NJDEP
Larry Schmidt, NJDEP
Charles De Quilfeldt, NYSDEC

APPENDIX C

Essential Fish Habitat Assessment for Placement of Dredged Rock Material at Artificial Reef Sites

Essential Fish Habitat Assessment for Placement of Dredged Rock Material from the Kill Van Kull-Newark Bay Channels Phase II Deepening Project at Two Artificial Reef Sites: Atlantic Beach Reef, NY and Sandy Hook Reef, NJ. December 1999

The U.S. Army Corps of Engineers, NY District, (District) is providing the following Essential Fish Habitat (EFH) Assessment pursuant to Section 305(b)(2) of the Magnuson Stevens Fishery Conservation and Management Act (MSFCMA). This assessment was prepared to evaluate the potential impacts of the placement of rock material, dredged from the Kill Van Kull-Newark Bay Channels Phase II Deepening Project, to EFH at two chosen beneficial-use artificial reef sites. The two artificial reef sites chosen include the Atlantic Beach reef site in NY, off the southern coast of Long Island, and the Sandy Hook reef site in NJ, off the northern coastline of New Jersey. The selection of the Atlantic Beach reef site and the Sandy Hook reef site as placement sites for dredged rock material was coordinated with both the New York State Department of Environmental Conservation and the New Jersey Department of Environmental Protection (*Attachment 1 and 2*).

Description of Proposed Action

The Kill Van Kull-Newark Bay Channels Phase II Deepening Project evaluated in the *Final Limited Reevaluation Report and Final Environmental Assessment and Finding of No Significant Impact, December 1997*, entails deepening the existing navigational channels from the confluence of the Kill Van Kull and Anchorage channels to the northern edge of Port Newark in Newark Bay to the authorized depth of –45 feet MLW plus an additional 2-foot allowance for dredging tolerance in soft material and –47 feet MLW plus an additional 2-foot allowance for dredging tolerance in rock and hard material. The proposed action to be evaluated in this assessment is the placement of rock material dredged from the KVK-Newark Bay Deepening Project at two artificial reef sites: Atlantic Beach, NY and Sandy Hook, NJ. Rock material from five dredging work areas will be distributed between the two artificial reef sites (*Attachment 3*). The final selection of disposal site(s) was deferred until this point as part of a tiering strategy of the initial *FLRR/FEA/FONSI, USACE, December1997*, in accordance with the Council of Environmental Quality, NEPA regulations 40 CFR 1502.20 and 1508.28. The quantities of rock material from each of the work areas to be placed at the reef sites is summarized in the following table (*Table 1*). The quantities listed do not include the volume estimates associated with overdepth. The quantity of rock for Area 4A, including overdepth volumes, is estimated at 272,000 CY. Quantities for future contracts, including overdepth volumes, will be prepared and supplied to NMFS at a later date.

Table 1 Summary of Dredged Rock Quantities from the Kill Van Kull-Newark Bay Channels Phase II Deepening Project

Contract Areas	Rock Quantity (CY)	Artificial Reef Site
Contract Area 1	179,000	Sandy Hook, NJ
Contract Area 2	233,000	Atlantic Beach, NY
Contract Area 4a	169,000	Atlantic Beach, NY
Contract Area 4b	170,000	Atlantic Beach, NY
Contract Area 5	516,000	Sandy Hook, NJ

Total Rock Quantity (CY) at Atlantic Beach, NY = 572,000
Total Rock Quantity (CY) at Sandy Hook, NJ = 695,000

Approximately 110,000 CY of dredged rock material from Contract Area 2 has been placed at the Atlantic Beach artificial reef. Rock will be equitably distributed between the two states for remaining contracts. Rock material is delivered to the artificial reef sites via split-hull scows. "Scows are equipped with automated "black boxes" to record date, time, and position of scows during transport and disposal operations. Tugboats utilize Digital Global Positions System (DGPS) navigation equipment, in conjuction with VHF radio communication with the scow "black boxes", for precise placement of rock materials at designated geographic coordinates. The District has coordinated rock placement with the New York State Department of Environmental Conservation, Division of Fish, Wildlife and Marine Resources, Bureau of Marine Resources and will continue to do so for the life of the project. The District will coordinate placement of rock at the Sandy Hook, NJ reef with the New Jersey Department of Environmental Protection, Division of Fish, Game and Wildlife. Placement of dredged rock material was identified as a beneficial use application in the *Draft Dredged Material Management Plan for the Port of New York and New Jersey: Programmatic Environmental Impact Statement, September 1999.* The District will actively manage and coordinate all navigation improvement projects which may contribute rock material to the reef sites.

Essential Fish Habitat Species

The following life stages of fish species were identified by the National Marine Fisheries Service (NMFS) to have essential fish habitat within the areas of the chosen artificial reef sites:

Atlantic Beach, NY Artificial Reef
Essential Fish Habitat Species

SPECIES	LIFE STAGES
Atlantic salmon (*Salmo salar*)	Adults
Pollock (*Pollachius virens*)	Juveniles
Whiting (*Merluccius bilinearis*)	Eggs, Larvae, Juveniles
Red hake (*Urophycis chuss*)	Eggs, Larvae, Juveniles
Winter flounder (*Pleuronectes americanus*)	All*

Windowpane flounder (*Scopthalmus aquosus*)	Juveniles, Adults
Atlantic sea herring (*Clupea harengus*)	Adults
Monkfish (*Lophius americanus*)	Eggs, Larvae, Adults
Bluefish (*Pomatomus saltatrix*)	Juveniles, Adults
Atlantic butterfish (*Peprilus triacanthus*)	All*
Atlantic mackerel (*Scomber scombrus*)	All*
Summer flounder (*Paralicthys dentatus*)	Juveniles, Adults
Scup (*Stenotomus chrysops*)	Juveniles, Adults
Black sea bass (*Centropristus striata*)	Juveniles
King mackerel (*Scomberomorus cavalla*)	All*
Spanish mackerel (*Scomberomorus maculatus*)	All*
Cobia (*Rachycentron canadum*)	All*
Sand tiger shark (*Odontaspis taurus*)	Larvae
Blue shark (*Prionace glauca*)	Adults
Dusky shark (*Charcharinus obscurus*)	Larvae
Sandbar shark (*Charcharinus plumbeus*)	Larvae, Juveniles, Adults
Tiger shark (*Galeocerdo cuvieri*)	Larvae

Sand Hook, NJ Artificial Reef
Essential Fish Habitat Species

SPECIES	LIFE STAGES
Atlantic cod (*Gadus morhua*)	Adults
Whiting (*Merluccius bilinearis*)	All*
Red hake (*Urophycis chuss*)	Eggs, Larvae, Juveniles
Witch flounder (*Glyptocephalus cynoglossus*)	Larvae
Winter flounder (*Pleuronectes americanus*)	All*
Yellowtail flounder (*Pleuronectes ferruginea*)	Eggs, Larvae
Windowpane flounder (*Scopthalmus aquosus*)	All*
Atlantic sea herring (*Clupea harengus*)	Juveniles, Adults
Monkfish (*Lophius americanus*)	Eggs, Larvae
Bluefish (*Pomatomus saltatrix*)	All*
Atlantic butterfish (*Peprilus triacanthus*)	Juveniles
Summer flounder (*Paralicthys dentatus*)	Juveniles, Adults
Scup (*Stenotomus chrysops*)	Juveniles, Adults
Black sea bass (*Centropristus striata*)	Juveniles, Adults
Ocean quahog (*Artica islandica*)	Adults
King mackerel (Scomberomorus cavalla)	All*
Spanish mackerel(*Scomberomorus maculatus*)	All*
Cobia (*Rachycentorn canadum*)	All*
Sand tiger shark	Larvae
Dusky shark	Larvae, Juveniles
Shortfin mako shark (Isurus oxyrhyncus)	Larvae
Sandbar shark (*Charcharinus plumbeus*)	Larvae, Juveniles, Adults
Bluefin tuna (*Thunnus thynnus*)	Juveniles
Skipjack tuna (*Katsuwonus pelamis*)	Adults
Tiger shark (*Galeocerdo cuvieri*)	Larvae

(All*=Eggs, Larvae, Juvenile and Adult)

Based upon a review of literature regarding the above species and their life stages (NOAA/NMFS, 1999), the District notes the following:

Atlantic cod – Adults are found in water depths between 10 and 150 meters on substrates composed of rocks, pebbles, or gravel and water temperatures below 10 degrees Centigrade. Salinities are oceanic in nature.

Atlantic salmon – Adults occur in water depths between 10 and 150 meters on substrates composed of rocks, pebbles or gravel. Adults are found in water with temperatures of below 10 degrees Centigrade and oceanic salinity.

Pollock – Juveniles are found in waters with temperature below 18 degrees Centigrade, salinities between 29 and 32 ppt and depth between 0 and 250 meters. Juveniles occur on bottoms with aquatic vegetation or a substrate of sand, mud or rock.

Whiting – Eggs occur where surface water temperatures are below 20 degrees Centigrade and water depths range between 50 and 150 meters. Peak presence is between June and September. Larvae are found in waters with surface temperatures similar to eggs, but depths range between 50 and 130 meters between July and September. Juveniles inhabit waters with temperatures below 21 degrees, salinities greater than 20 ppt. and depths between 20 and 270 meters. Adults occur in bottom habitats on all substrate types generally under the following conditions: water temperatures below 22 degrees Centigrade and depths between 30 and 325 meters.

Red hake – Eggs occur in surface waters with temperatures below 10 degrees Centigrade and salinities less than 25 ppt. The window for red hake egg populations is May through November with a peak period between June and July. Larvae and Juvenile red hake are pelagic, becoming demersal after reaching a length of 0.9 to 1.6 inches. Juveniles seek shelter along the continental shelf bottom among protective structures, but are most commonly associated with sea scallop beds. Juveniles remain associated with sea scallop beds through their first fall and winter (until reaching a length of approximately 3.5 to 4.6 inches, and then occupy either estuarine or inshore marine waters over sand or mud substrate, prior to joining adults in the offshore migration during their second winter.

Winter flounder – Eggs are found on substrate composed on sand, muddy sand, mud and gravel offshore of the middle Atlantic states, south to Delaware Bay. Eggs occur mostly between February and June in water temperatures less than 10 degrees Centigrade with salinities between 10 and 30 ppt. and depths normally less than 5 meters. Winter flounder larvae inhabit pelagic and bottom waters less than 6 meters deep with surface temperatures below 15 degrees Centigrade and salinities between 4 and 30 ppt. Larvae are typically present between March and July. Juveniles occur on substrates of mud or fine grained sand in waters that are 0.1 to 10 meters deep, have temperatures below 28 degrees Centigrade, and salinities of 5 to 33 ppt. Adults are found in estuaries on a substrate of mud, sand or gravel where the water depths are 1 to 100 meters and water temperatures are below 25 degrees Centigrade, with salinities of 15 to 33 ppt.

Witch flounder – Larvae occur in surface waters to water depths of 250 meters where surface temperatures are below 13 degrees Centigrade over deep water with high salinities. Witch flounder are most often observed between March and November with peaks between May and July.

Windowpane flounder – Windowpane flounder eggs are found in surface waters with temperatures less than 20 degrees Centigrade, and water depths less than 70 meters, between February and November. The larvae occur in pelagic waters with temperatures less than 20 degrees Centigrade, water depths between 1 and 100 meters, and salinities between 5.5 and 36 ppt. Windowpane flounder juveniles are found in a muddy or fine grained sandy substrate with water depths between 1 and 100 meters, water temperatures below 25 degrees Centigrade, and salinities between 5.5. and 36 ppt. Adults are found on a muddy or fine grained sandy substrate with water depths between 1 and 75 meters, water temperatures below 26.8 degrees Centigrade, and salinities between 5.5 and 36 ppt.

Yellowtail flounder – Yellowtail flounder eggs are found in surface waters with temperatures below 15 degrees Centigrade. Water depths range between 30 and 90 meters, and salinities range between 32.4 and 33.5 ppt. Eggs are often found between mid-March and July. Larvae are found where surface water termperatures are below 17 degrees Centigrade, within water depths between 10 and 90 meters, and salinities between 32.4 and 33.5 ppt. Larvae are most often observed in March and April.

Atlantic sea herring – Atlantic sea herring juveniles are pelagic in nature, using all bottom habitats with water depths between 15 and 135 meters and salinities between 26 and 32 ppt. Adult sea herring are pelagic and can also be found in bottom habitats with water depths between 20 and 130 meters, in 10 degree Centigrade waters, and salinities above 28 ppt.

Monkfish – Monkfish eggs are found where surface water temperatures are below 18 degrees Centigrade and water depths range between 15 and 1000 meters. They are most common during the months of March and September. Larvae are pelagic in nature with water temperatures of 15 degrees Centigrade and water depths of 25 to 1000 meters. They are most abundant during March through September. Juveniles are bottom dwellers in substrates of a sand-shell mix, algae covered rocks, hard sand, pebbly gravel or mud occurring in water depths between 25 and 2000 meters. Water temperatures are below 13 degrees Centigrade and salinities range between 29.9 and 36.7 ppt. Adults are found in bottom habitats with sand-shell mix, hard sand, pebbly gravel, algae covered rocks or mud substrates. Adults are generally found in waters with temperatures below 15 degrees Centigrade, salinities between 29.9 and 36.7% and at a depth between 25 and 200 meters.

Bluefish – Bluefish eggs are collected between April and August in water temperatures greater than 18 degrees Centigrade and normal shelf salinities of greater than 31 ppt. Larvae inhabit waters between April and September and in temperatures greater than 18 degrees Centigrade with salinities greater than 30 ppt. Juveniles and adult bluefish occur in both estuarine and marine salinity zones. Bluefish is a schooling pelagic species, not generally associated with bottom habitats. Bluefish juveniles are found in the mixing

zone from June through October. Adults are found in estuarine waters of 25 ppt. or less between April and October.

Atlantic butterfish – Eggs are found in waters from shore to 6000 ft and temperatures between 52 and 63 degrees Fahrenheit. Larvae occur in the mixing or seawater portions of estuaries or in open ocean waters. Water depths in these areas are 33 feet to 6000 feet with water temperatures of 48 to 66 degrees Fahrenheit. Juvenile Atlantic butterfish habitats are similar to those of larvae except they occur in depths between 33 and 1200 feet with water temperatures of 37 to 82 degrees Fahrenheit. Adults have the same occurrences as the larvae and juveniles.

Atlantic mackerel – Eggs are found from shore to 50 ft. in water temperatures between 41 and 73 degrees Fahrenheit. Larvae are found in waters at depths between 33 and 425 ft and temperatures between 43 and 72 degrees Fahrenheit. Juveniles are pelagic in estuarine waters between the shoreline and 1250 feet depth. Water temperatures range between 39 and 72 degrees Fahrenheit. Atlantic mackerel adult habitat is similar but the temperatures range between 39 and 61 degrees Fahrenheit. Atlantic mackerel is not generally associated with bottom habitats.

Summer flounder – Juvenile summer flounder occur where water temperatures are greater than 37 degrees Fahrenheit with salinities between 10 and 30 ppt. Juveniles prefer a sandy substrate, but can be found in a muddy substrate and submerged aquatic vegetation beds. Adults occur in shallow coastal and estuarine water during warm months. They move offshore to the minus 500 foot contour in colder months. Adults also prefer a sandy substrate but also utilize muddy bottoms and submerged aquatic vegetation beds.

Scup – Juvenile scup are found in demersal waters with temperatures of 45 degrees Fahrenheit and salinities greater than 15 ppt., during the spring and summer months in estuaries and bay sands, mud, mussel and eelgrass beds. Adults are found in demersal waters. Wintering adults occur November through April in offshore waters above 45 degrees Fahrenheit.

Black sea bass – Juveniles are found in demersal waters with temperatures greater than 6 degrees Centigrade and salinities above 18 ppt. Black sea bass juveniles occur on rough substrates, shellfish and eelgrass beds, manmade structures in sandy-shelly areas, offshore clam beds and shell patches. The juveniles are found in coastal waters, but move offshore in cold months south of New Jersey. Juveniles found inshore are in estuarine waters during the warm months. Wintering adults are found November through April in offshore waters above 6 degrees Centigrade. Inshore adults are found in estuarine waters between May and October.

Ocean quahog – Adults occur in the substrate to a depth of 3 feet where water depths range from 25 feet to 800 feet. Occurrences become rare if water temperatures are greater than 65 degrees Fahrenheit.

Cobia – Cobia habitat includes sandy shoals of capes and offshore bars, high profile rocky substrates and barrier island ocean-side waters, and from the surf zone to the shelf break zone. From the Gulf Stream shoreward, habitat areas include Sargassum. In addition, essential habitats are found in high salinity bays, estuaries, and seagrass beds.

King mackerel and Spanish mackerel – Except that they are also found in highly saline waterways such as bays, estuaries, and seagrass beds, these two species have occurences similar to the cobia.

Sand tiger shark – Larvae are found in shallow coastal waters (less than 4 meters). The area around Sandy Hook, New Jersey is a known nursery.

Blue shark – Adults can travel a great distance and have a complex migratory pattern. They inhabit clear, deep blue waters, usually in temperatures between 10 and 20 degrees Centigrade at depths greater than 180 meters.

Dusky shark – Dusky sharks are found in warm and temperate waters moving north to south with the seasons, along the continental shelf.

Shortfin mako shark – Found in warm temperate waters of all oceans.

Sandbar shark – Sandbar shark inhabit subtropical and warm temperature coastal waters. Sandbar shark are bottom-dwelling, commonly found in water depths between 20 and 55m of water and occassionally at depths of 200 m. Early Juveniles are found in waters with salinity greater than 22ppt. and temperatures greater than 21 degrees Centigrade.

Bluefin tuna – Bluefin tuna are epipelagic and usually oceanic. Seasonally, they may come closer to the shore. They often inhabit areas over the continental shelf and in embayments, generally during the summer months when they feed actively on herring, mackerel and squids in the north Atlantic. Juveniles are found in waters of 12 degrees Centigrade or warmer.

Skipjack tuna – Skipjack tuna are generally limited by the 15 degrees Centigrade isotherm. Skipjack tuna are an epipelagic and oceanic species and may dive to a depth of 260m during the day. Adult skipjack tuna occur in pelagic waters from 20 to 31 degrees Centigrade.

Tiger shark – Tiger shark inhabit warm waters in both deep oceanic and shallow coastal regions.

Analysis of Effects on EFH

Changes to EFH for life stages of several fish species may be a possible result of implementation of the proposed action. Generally, the change would, in the long-term, be of benefit to the diversity of fish species in the area of the chosen artificial reefs. The Atlantic Beach, NY and Sandy Hook, NJ reef sites were chosen based on their relatively low species diversity. The selected sites were utilized for reef creation prior to the present project, therefore impacts to EFH have already occurred. Certain bottom dwelling EFH species, such as the flounder species, may lose habitat to promote a vertical structure community, which would benefit several other EFH designated species. Several of the designated EFH species were noted to have habitat ranges for all or several life stages with water depths greater than the water depths of the reef locations. These species (i.e. blue shark, whiting, adult sea herring, monkfish, sandbar shark, etc.) and other pelagic species may incur no impact at all as a result of the proposed activity.

The overall change to the area as a result of the proposed action, would be the enhancement of hard-bottom substrate. EFH species, which inhabit areas with hard-bottom substrate, such as the adult Pollock, are anticipated to be attracted to the created artificial reefs. The rock will provide substrate for the colonization of invertebrate populations. An increase in the invertebrate population will boost the population of small fish which feed on the invertebrates. Large fish will then be attracted to the area for the small fish food source and so forth in the food chain. The rock will also provide shelter and hiding spots for small fish. "In recent years, the field of artificial reef technology has made significant advances in understanding fish attraction to and habitat creation of underwater manmade structures" (e.g., Seaman and Sprague, 1991; Nakamura et. al., 1991). "Clearly, a reef provides the basic needs of food and protective shelter, as well as unique community structural functions. A reef also possibly provides a spot for resting and can act as some sort of navigational aid for fishes en route" (Duedall and Camp, 1991: 98).

Bohnsack, Johnson and Ambrose, 1991, found that colonization of artificial reef habitats begins at the moment of deployment. "Most fouling organisms colonize artificial reefs by settlement of pelagic larvae. Fishes can colonize either by direct settlement of pelagic larvae or by immigration of juveniles or adults" (Seaman and Sprague, 1991: 84). Gascon and Miller (1981) found that most fish colonization in temperate areas was by adult and subadult individuals.

As found by the South Carolina Department of Natural Resources:
"During the spring, as ocean water temperatures rise, bluefish, cobia, amberjack, Spanish mackerel and king mackerel are among the more popular pelagic species landed by trolling or drifting bait or artificial lures over artificial reef structures. Bottom fish taken during this same period include black sea bass, sheepshead, porgy, red drum and black drum. Late spring and early summer months bring additional fish to the reefs. Pelagic species such as crevalle jack, pompano, barracuda, spadefish and shark are commonly found on inshore reefs. Farther offshore, dolphin, tuna, mackerel and even sailfish have

been landed on or close to reef structures. Black sea bass, snapper, grouper, porgy and flounder are also commonly landed during summer months while bottom fishing. Even during the coldest months of the year artificial reefs are still a popular haven for large black sea bass, grouper, sheepshead and drum."

--http://www.dnr.state.sc.us/marine/pub/seascience/artreef.html

A temporary impact of the proposed action would be turbidity caused by settling of dredged material after it was released by the delivery barge. It is USACE experience that dredged material reaches the bottom quickly with little areal dispersal of suspended sediments (Tavolaro, 1982). The EFH species are anticipated to move away from areas of active rock placement and return to the areas after settlement.

Conclusion

The District has found that the proposed action to place dredged rock material from the Kill Van Kull-Newark Bay Channels Phase II Deepening Project at the two chosen artificial reef sites has an overall positive impact to Essential Fish Habitat. The *Draft Dredged Material Management Plan for the Port of New York and New Jersey: Programmatic Environmental Impact Statement, September 1999,* identified placement of dredged material at artificial reef sites as a beneficial use application. The overall EFH species diversity at the proposed activity sites is anticipated to increase with the placement of rock material and the enhancement of the reef communities. The placement of rock material at the Atlantic Beach, NY reef site and Sandy Hook, NJ reef site will continue to be coordinated with the appropriate state agencies.

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APPENDIX D

New Jersey Coastal Zone Management Evaluation

APPENDIX D:
NEW JERSEY COASTAL ZONE MANAGEMENT EVALUATION

The Coastal Zone Management Act of 1972 (16 U.S.C. §§1451-1464) was enacted by Congress to balance the competing demands of growth and development with the need to protect coastal resources. Its stated purpose is to "... preserve, protect, develop and, where possible to restore or enhance, the resources of the nation's coastal zone..." The primary means of achieving this balance is through coastal zone management programs adopted by the states and designed to regulate and use activities that could affect coastal waters. The Act offered incentives to encourage the coastal states and territories to exercise their full authority over coastal areas through development of coastal zone management programs, consistent with the minimum federal standards. The Coastal Zone Act Reauthorization Act Amendments of 1990 strengthened the Act by requiring the state programs to focus more on controlling land use activities and the cumulative effect of activities in coastal zones.

New Jersey administers its Federally approved coastal zone program (N.J.A.C. 7:7, 7:7E) through the Department of Environmental Protection. Pursuant to the Federal Coastal Zone Management Act, New Jersey has defined its coastal zone boundaries and the policies to be utilized to evaluate projects occurring within the designated zones. The Waterfront Development Law (N.J.S.A. 12:5-3) and related requirements (N.J.A.C. 7:7-23) provide the authority for issuance of permits for, among other activities, the placement or construction of structures, pilings, or other obstructions in any tidal waterway. New Jersey's Rules on CZM are employed by the state's Land Use Regulation Program in the review of permit applications and coastal decision making; they address issues of location, use and resources. New Jersey's rules provide for a balancing between economic development and coastal resource protection, recognizing that coastal management involves explicit consideration of a broad range of concerns, in contrast to other resource management programs which have a more limited scope of concern.

The proposed project is within the coastal zone boundaries of New Jersey. The following assessment identifies the coastal zone policies and evaluates the project's consistency with the applicable policies. The consistency evaluation is provided to enable New Jersey to consider the effect of the project on their coastal zone resources.

E.I NEW JERSEY COASTAL ZONE MANAGEMENT POLICIES

SUBCHAPTER 3 - SPECIAL AREAS

7:7E-3.2 Shellfish Habitat

This policy generally limits disturbance of shellfish habitat. Over-wintering blue crabs are known to exist in the project area. As part of the coordination for the authorized plan and prior to construction of Phase I of the KVK/NB Navigation Project, the NYD initiated a survey to monitor fishery impacts and collected baseline data. A recent study

titled "A Biological and Hydrographical Characterization of Newark Bay, New Jersey, May 1993-April 1995" is available to update the baseline study. The NYD has agreed with the USFWS, NMFS, and NJDEP Division of Game, Fish, and Wildlife, to assess the need for including additional biological monitoring in order to determine appropriate measures to avoid adverse impacts to blue crabs as a result of construction activities.

7:7E-3.3 Surf Clam Areas

This policy prohibits development that would destroy or contaminate surf clam beds. The project area does not support surf clam beds; therefore, this policy is not applicable.

7:7E-3.4 Prime Fishing Areas

This policy prohibits sand or gravel submarine mining in prime fishing areas. The project does not involve submarine mining and the project area is not considered a prime fishing area; therefore, this policy is not applicable.

7:7E-3.5 Finfish Migratory Pathways

This policy prohibits construction of dams or dikes which would create physical barriers to migratory fish. Development which reduce lower water quality so as to interfere with fish movement is also prohibited. While the project area is not a designated finfish migratory pathway, it is used by migratory fish. The proposed project would not interfere with fish movement; therefore, this policy is not applicable.

7:7E-3.6 Submerged Vegetation Habitat

This policy prohibits or restricts dredging so as to protect water areas that support submerged vegetation. This project area is an existing and maintained navigation channel; therefore, this policy is not applicable.

7:7E-3.7 Navigation Channels

This policy prohibits construction that would extend into a navigation channel and restricts dredging in navigation channels. The proposed project deepens the Kill Van Kull and Newark Bay Navigation Channels in the project area. Dredging standards would meet all applicable conditions for maintenance dredging in navigation channels; therefore, the project is consistent with this policy.

7:7E-3.8 Canals

This policy prohibits actions that would interfere with boat traffic in canals used for navigation. The project area is not a canal as defined by the NJDEP; therefore, this policy is not applicable.

7:7E-3.9 Inlets

This policy prohibits filling and discourages submerged infrastructure in coastal inlets. The project area is not an inlet as defined by the NJDEP; therefore, this policy is not applicable.

7:7E-3.10 Marina Moorings

This policy prohibits non-water dependent development in marina mooring areas. Construction of the proposed project would not involve development in any marina mooring areas; therefore, this policy is not applicable.

7:7E-3.11 Ports

This policy prohibits actions which would interfere with port uses. The proposed project would not interfere with port uses. By deepening the project area navigation channels, the proposed project would benefit port related activities (*e.g.*, improve navigation, efficiency of cargo delivery); therefore, the project is consistent with this policy.

7:7E-3.12 Submerged Infrastructure Routes

This policy prohibits any activity which would increase the likelihood of submerged infrastructure damage or interfere with maintenance operations. Several submerged abandoned and active pipelines exist within the project area. According to Federal policy, all buried pipelines and cables must be at least 7 feet below the authorized navigation channel project depth. Exceptions may be made provided plans providing less top cover are found to be technically sound and owners guarantee that the Government and its contractors would be held free of any liability for damage during construction and maintenance. Construction of the project would meet all applicable Federal and state guidelines; therefore, the project is consistent with this policy.

7:7E-3.13 Shipwrecks and Artificial Reefs

This policy restricts the use of special areas with shipwrecks and artificial reefs which would adversely affect the usefulness of this special area as a fisheries resource. The project area does not contain any known shipwrecks or artificial reefs; therefore, this policy is not applicable. Known abandoned vessels in the vicinity of the project will not be impacted by this project action.

7:7E-3.14 Wet Borrow Pits

This policy restricts the use and filling of wet borrow pits. The project area does contain any known wet borrow pits; therefore, this policy is not applicable.

7:7E-3.15 Intertidal and Subtidal Shallows

This policy discourages disturbance of shallow water areas (*i.e.*, permanently or twice daily submerged areas from the spring high tide to a depth of four feet below MLW). Disturbance of shallow water areas generally requires mitigation by creating similar habitat at a ratio of one acre created to one acre lost, unless the dredged area is reduced to the minimum extent practicable. The proposed KVK project is not anticipated to impact shallow water areas as defined by the NJDEP.

7:7E-3.16 Dunes

This policy protects and preserves ocean and bayfront dunes. The project area does not contain any dunes; therefore, this policy is not applicable.

7:7E-3.17 Overwash Areas

This policy restricts development in overwash areas due to their sensitive nature. The project area does not contain any overwash areas; therefore, this policy is not applicable.

7:7E-3.18 Coastal High Hazard Areas

This policy restricts development in coastal high hazard (*i.e.*, flood prone) areas. The project area is not a coastal high hazard area; therefore, this policy is not applicable.

7:7E-3.19 Erosion Hazard Areas

This policy prohibits development under most circumstances to protect public safety. The project area is not an erosion hazard area; therefore, this policy is not applicable.

7:7E-3.20 Barrier Island Corridor

This policy restricts new development on barrier islands. The project area is not a barrier island corridor; therefore, this policy is not applicable.

7:7E-3.21 Bay Islands

This policy restricts development on bay islands. The project area does not contain any bay islands; therefore, this policy is not applicable.

7:7E-3.22 Beaches

This policy restricts development on beach areas. The project area does not contain any beach areas; therefore, this policy is not applicable.

7:7E-3.23 Filled Water's Edge

This policy seeks to promote water dependent uses at areas along the waterfront that have been previously filled. The proposed project is not a waterfront development; therefore, this policy is not applicable.

7:7E-3.24 Existing Lagoon Edges

This policy restricts development at lagoon edges because of potential water quality problems. The project area does not contain any lagoon edges; therefore, this policy is not applicable.

7:7E-3.25 Flood Hazard Areas

This policy is designed to restrict development in flood hazard areas and ensure that the waterfront is not preempted by uses which could function equally well at inland locations. Construction of the proposed project would not involve development in a flood hazard area; therefore, this policy is not applicable.

7:7E-3.26 (Reserved)

7:7E-3.27 Wetland

This policy restricts disturbance in wetland areas and requires mitigation if wetlands are destroyed or disturbed. The proposed project will not impact any wetlands. Construction of the project would meet all applicable guidelines or permit requirements (*e.g.*, mitigation); therefore, the project is consistent with this policy.

7:7E-3.28 Wetland Buffers

This policy restricts development in wetland buffer areas in order to protect wetlands. The proposed project would not affect wetland buffer areas; therefore, this policy is not applicable.

7:7E-3.29 (Reserved)

7:7E-3.30 (Reserved)

7:7E-3.31 Coastal Bluffs

This policy restricts development on coastal bluffs. The project area does not contain coastal bluffs; therefore, this policy is not applicable.

7:7E-3.32 Intermittent Stream Corridors

This policy restricts actions in stream corridors. The project area does not contain intermittent stream corridors; therefore, this policy is not applicable.

7:7E-3.33 Farmland Conservation Areas

This policy seeks to preserve large parcels of land used for farming. The project area does not contain farmland conservation areas; therefore, this policy is not applicable.

7:7E-3.34 Steep Slopes

This policy seeks to preserve steep slopes by restricting development in such areas. Steep slopes help to control erosion and reduce flooding. The project area does not have steep slopes, therefore, this policy is not applicable.

7:7E-3.35 Dry Borrow Pits

This policy restricts the excavation and filling of dry borrow pits. The project area does not contain any dry borrow pits; therefore, this policy is not applicable.

7:7E-3.36 Historic and Archaeological Resources

This policy protects the value of historic and archaeological resources and may require cultural resource surveys and other protective measures.

Recent cultural resources investigation conducted in connection with the New York Harbor Collection and Removal of Drift Project have identified a number of vessels eligible or potentially eligible for the National Register of Historical Places (NRHP) along the Kill Van Kull shoreline. Ten vessels are found within five clusters along the Staten Island side of the waterway, and three vessels are located along the Bayonne shoreline. A structure, the B&O Transfer Bridge, was identified along the Staten Island shore. Another vessel at Port Johnson was also determined potentially significant as a contributing element to the Port Johnson Historic Sailing Vessels cluster. Coordination with the NY/NJ State Historic Preservation Offic (SHPO) will be undertaken to determine specific monitoring requirements during blasting. Monitoring will be conducted to ensure there are no impacts to the B&O Transfer Bridge or historic vessels.

7:7E-3.37 Specimen Trees

This policy seeks to protect specimen trees. The project area does not contain specimen trees; therefore, this policy is not applicable.

7:7E-3.38 Endangered or Threatened Wildlife or Vegetation Species Habitats

This policy restricts development in endangered or threatened wildlife or vegetation species habitat areas. The peregrine falcon, nesting on local area bridges (see Section 4.1.5 Threatened and Endangered Species), was the only threatened and/or endangered species for which potential adverse impacts were identified. The proposed project would have no adverse impact on habitat areas for this species; therefore, the proposed project

would be consistent with this policy. The district will employ any and all measures recommended by the USFWS and NJDEP to avoid adverse impacts to state and Federally listed threatened and endangered species.

7:7E-3.39 Critical Wildlife Habitats

This policy discourages development that would adversely affect critical wildlife habitat. The coastal heron rookery located on Shooters Island (part of the Harbor Herons Complex) was listed as a rare natural community by the NJDEP. The NYD will continue to follows the USFWS recommendation that no blasting or dredging be conducted within 300 feet of Shooters Island. The NYD will further coordinate with both the USFWS and the NJDEP Division of Game, Fish, and Wildlife regarding appropriate measures to avoid adverse impacts to nesting waterbirds and other sensitive biological components of the environment. The proposed project would not affect this critical habitat; therefore, the proposed project would be consistent with this policy.

7:7E-3.40 Public Open Space

This policy encourages new public open spaces and discourages development that might adversely affect existing public open space. Construction of the proposed project would not affect any public open space; therefore, this policy is not applicable.

7:7E-3.41 Special Hazard Areas

This policy discourages development in hazard areas due to potential dangers. The project area does not contain special hazard areas; therefore, this policy is not applicable.

7:7E-3.42 Excluded Federal Lands

Federal lands are beyond the jurisdiction of the New Jersey Coastal Zone. New Jersey has the authority to review activities on Federal lands if there may be spillover impacts on New Jersey's Coastal Zone. There are no excluded federal lands in the project area; therefore, this policy is not applicable.

7:7E-3.43 Special Urban Areas

This policy seeks to encourage waterfront development that would benefit certain municipalities that receive state aid. The project area is located near Elizabeth, which qualifies as a special urban area. Construction of the proposed project would provide indirect economic benefits to Elizabeth, NJ because of improved shipping efficiencies and commercial navigation access. Therefore, the proposed project would be consistent with this policy.

7:7E-3.44 Pinelands National Reserve and Pinelands Protection Area

This policy allows the Pinelands Commission to serve as the reviewing agency for

actions within the Pinelands National Reserve. The proposed project is not located within the pinelands; therefore, this policy is not applicable.

7:7E-3.45 Hackensack Meadowlands District

This policy allows the Hackensack Meadowlands Development Commission to serve as the reviewing agency for actions within the Hackensack Meadowlands District. The proposed project is not located within the Hackensack Meadowlands District; therefore, this policy is not applicable.

7:7E-3.46 Wild and Scenic River Corridors

This policy recognizes the outstanding value of certain rivers in New Jersey by restricting development to compatible uses. The proposed project is not located within a wild and scenic river corridor; therefore, this policy is not applicable.

7:7E-3.47 Geodetic Control Reference Marks

This policy discourages disturbance of geodetic control reference marks. There are no known geodetic control reference marks in the project study area; therefore, this policy is not applicable.

7:7E-3.48 Hudson River Waterfront Area

This policy restricts development along the Hudson River Waterfront and requires development, maintenance, and management of a section of the Hudson Waterfront Walkway coincident with the shoreline of the development property. The proposed project is not located within the Hudson River Waterfront Area; therefore, this policy is not applicable.

SUBCHAPTER 3A - STANDARDS FOR BEACH AND DUNE ACTIVITIES

These standards apply to routine beach maintenance, emergency post-storm beach restoration, dune creation and maintenance, and construction of boardwalks. The proposed project is not located within a beach or dune area; therefore, these standards are not applicable.

SUBCHAPTER 3B - WETLAND MITIGATION PROPOSALS

This section details the requirements of a wetland mitigation proposal. Construction of the project would meet all applicable guidelines or permit requirements; therefore, the project is consistent with this section.

SUBCHAPTER 3C - IMPACT ASSESSMENT FOR ENDANGERED AND THREATENED WILDLIFE SPECIES.

This section details the performance and reporting standards for impact assessments for endangered and threatened wildlife species. The peregrine falcon, nesting on local area bridges, was the only threatened and/or endangered species for which potential adverse impacts were identified. The impact assessment for endangered and threatened wildlife species is described in sections 4.1.5 and 5.1.5 Threatened and Endangered Species. A biological assessment has been prepared by the USACE and submitted to the USFWS on March 12, 1997 and assesses potential dredging impacts to the peregrine falcon. This action is consistent with the standards provided with this policy.

SUBCHAPTER 4 - GENERAL WATER AREAS

This section defines general water areas. For purposes of definition, the Kill Van Kull is considered a tidal straight, a waterway connection between two estuarine bodies of water.

7:7E-4.2 Acceptability Conditions for Uses

This section defines the important uses of general water areas and sets conditions or standards of acceptability for certain uses. Only those standards applicable to the proposed project are listed:

(f) Standards relevant to maintenance dredging are as follows:

2. Maintenance dredging is conditionally acceptable to the authorized depth, length and width within all General Water Areas to ensure that adequate water depth is available for safe navigation, provided that:

i. The non-federal sponsor has identified four upland, one aquatic containment facility, Historic Area Remediation Site and two beneficial artificial reef sites as potential dredged material management placement areas. The sites have sufficient capacity to receive dredged material from the project.

ii. A complete array of pre-dredging chemical and physical analysis of the dredged material and elutriate has been completed for the project. Testing included bioaccumulation testing and bioassays of sediments.

iii. Water quality and biological monitoring programs are incorporated with the project.

iv. The project will utilize best management practices and will work cooperatively with the NJDEP if parameters of this standard arise.

v. The project will utilize best management practices. Excavators and clamshell buckets will be used. Dredging of material that does not meet Category 1 criteria, excluding rock and clay, shall be conducted with a sealed watertight bucket.

vi. The project meets acceptability conditions.

vii. Mechanical dredges will be utilized for the project.

(g) Standards relevant to new dredging are as follows:

1. "New Dredging" : The project proposes the deepening of navigable channels to the newly authorized depth of 45 foot in soft material plus 2 foot dredging tolerance and 47 foot in hard material (rock, etc.) plus 2 foot dredging tolerance.

2. Acceptability conditions for new dredging area as follows:

i. The project is an acceptable navigation channel.

1) The *Final Limited Reevaluation Report and Final Environmental Assessment and Finding of No Significant Impact for the Kill Van Kull-Newark Bay Channels Phase II Deepening Project, December 1997*, demonstrated that the existing Federal Channels in the Kill Van Kull and Newark Bay are presently at depths which do not provide for economically efficient and safe utilization of these channels by the deeper draft vessels with drafts greater than 40 feet.
2) As discussed previously in 7:7E-3.16 – 7:7E-3.32, the project location does not include any of the Special Water's Edge Areas.
3) The adjacent water areas are used for recreational boating, commercial fishing and marine commerce.
4) The dredge area does not include Special Water's Edge Areas.
5) Best management practices for dredging operations and dredged material management will be utilized to minimize adverse environmental impacts.
6) See (f)2(I) through (vii)
7) The non-federal sponsor has identified three upland disposal sites, one subaqueous containment facility and two beneficial use artificial reef sites as potential dredged material placement sites for the project.
8) The dredge area is reduced to the minimum practical.
9) The project meets this acceptability condition.
10) The project is not anticipated to have an impact on groundwater resources.

(h) Standards relevant to dredged material disposal are as follows:

2. Acceptability conditions relevant to dredged material disposal are as follows:

i and ii. These conditions do not apply to the project.

iii. The Historic Area Remediation Site has been identified as a placement site alternative for Category I dredged material meeting bioaccumulation and testing standards of the Ocean Dumping Regulations. The Historic Area Remediation Site will only be utilized if no practicable alternative is available for placement of the uncontaminated dredged material.

iv. Alternatives for dredged material management have been evaluated as part of the *Dredged Material Management Plan for the Port on New York and New Jersey, Draft Programmatic Environmental Impact Statement, September 1999*. Dredged material placement sites for the project, to be identified in the *Draft Environmental Assessment for the Kill Van Kull-Newark Bay Channels Phase II Deepening Project (Area 3, 4B, 5-8)* will be used based on availability and environmental considerations.

v., vi. and vii. These conditions do not apply to the dredged material of the remaining contracts of the project.

viii. The project will comply with this condition.

ix. See 7:7E-7.12

3. The project does not include unconfined disposal of sediment into water bodies. Rock material will be placed at beneficial-use artificial reef sites.

SUBCHAPTER 5 - GENERAL LAND AREAS

The proposed project area includes the Cities of Newark and Bayonne. From a coastwide perspective, development in these regions is preferred over development in other regions. No development is associated with the proposed project; therefore, this policy is not applicable.

SUBCHAPTER 6 - GENERAL LOCATION RULES

7:7E-6.1 Location of Linear Development

This rule sets conditions for acceptability of linear development (*e.g.*, roads, walkways, pipelines). The proposed project is consistent with the rules on location of linear development.

7:7E-6.2 Basic Location

This rule states that NJDEP may reject or conditionally approve a project for safety, protection of certain property, or preservation of the environment. The proposed project is consistent under the location rule.

7:7E-6.3 Secondary Impacts

This rule sets the requirements for the secondary impact analysis. The proposed project would be consistent with the requirements for secondary impact analysis.

SUBCHAPTER 7 - USE RULES

7:7E-7.2 Housing Use

These rules set standards for housing construction in the coastal area. The proposed project does not involve housing construction. therefore, this policy is not applicable.

7:7E-7.3 Resort Recreational Use

This rule sets standards for resort and recreational uses in the coastal area. The proposed project does not involve resort recreational uses; therefore, this policy is not applicable.

7:7E-7.3A Marina Development

This rule sets standards for marina development in the coastal area. The proposed project does not involve marina development; therefore, this policy is not applicable.

7:7E-7.4 Energy Use

This rule sets standards for energy uses in the coastal area. The proposed project does not involve energy uses; therefore, this policy is not applicable.

7:7E-7.5 Transportation Use

This rule sets standards for roads, public transportation, foot paths and parking facilities in the coastal area. The proposed project does not involve construction of roads, public transportation, foot paths, or parking facilities; therefore, this policy is not applicable.

7:7E-7.6 Public Facility Use

This rule sets standards for public facilities (*e.g.*, solid waste facilities) in the coastal area. The proposed project does not involve construction of a public facility; therefore, this policy is not applicable.

7:7E-7.7 Industry Use

This rule sets standards for industrial uses in the coastal area. Construction of the proposed project would improve commercial navigation and access to existing industrial centers in the port of New York and New Jersey and allow for more efficient movement of cargo to the Port Newark and Elizabeth - Port Authority Marine Terminal, Tosco Oil Refinery, GATX Facility, and Gulfport petroleum storage facility. Therefore, the proposed project would be consistent with this policy.

7:7E-7.8 Mining Use

This rule sets standards for mining in the coastal area. The proposed project does not involve mining; therefore, this policy is not applicable.

7:7E-7.9 Port Use

This rule sets standards for port uses and port-related development. The standards are designed to ensure that port facilities retain their economic vitality. Deepening the Kill Van Kull Channel will improve navigation and cargo movement to established facilities in the Port of New York/New Jersey; therefore, the proposed project is consistent with this policy.

7:7E-7.10 Commercial Facility Use

This rule sets standards for commercial facilities such as hotels, and other retail services in the coastal zone. The proposed project does not involve construction of commercial facilities; therefore, this policy is not applicable.

7:7E-7.11 Coastal Engineering

This rule sets standards to protect the shoreline, maintain dunes, and provide beach nourishment. Standards applying to structural shore protection are included. Deepening of the navigation channels would be consistent with standards for shoreline protection; therefore, the proposed project would be consistent with this policy.

7:7E-7.12 Dredged Material Placement on Land

This rule sets standards for placement of dredged materials. Dredging operations and placement of dredged material would be done in accordance with the DMMP and the NJDEP's Management and Regulation of Dredging Activities and Dredged Material in New Jersey Tidal Waters, and would comply with applicable state and Federal regulations. Therefore, the proposed project would be consistent with this policy.

7:7E-7.13 National Defense Facility Use

This rule sets standards for the location of defense facilities in the coastal zone. The proposed project does not involve location of a defense facility; therefore, this policy is not applicable.

7:7E-7.14 High Rise Structures

This rule sets standards for high rise structures in the coastal zone. The proposed project does not involve construction of high rise structures; therefore, this policy is not applicable.

SUBCHAPTER 8 - RESOURCE RULES

7:7E-8.2 Marine Fish and Fisheries

This rule sets standards of acceptability so as to cause minimal feasible interference with the reproductive and migratory patterns of estuarine and marine species of finfish and shellfish. While the project area is used by migratory estuarine and marine fish, the proposed project would not interfere with the reproductive and migratory patterns of fish; therefore, the project is consistent with this policy.

7:7E-8.3 (Reserved)

7:7E-8.4 Water Quality

This rule sets standards for coastal development so as to limit effects on water quality. Construction of the project would meet all applicable Federal and state guidelines or permit requirements and regulations for water quality; therefore, the project is consistent with this policy.

7:7E-8.5 Surface Water Use

This rule sets standards for coastal development so as to limit effects on surface water. Deepening of the navigation channels will not cause unacceptable surface water disturbances (*e.g.*, drawdown, alteration of flow patterns); therefore, the proposed project is consistent with this policy.

7:7E-8.6 Groundwater Use

This rule sets standards for coastal development so as to limit effects on groundwater reserves. The proposed project will not involve groundwater supplies; therefore, this policy is not applicable.

7:7E-8.7 Stormwater Management

This rule sets standards for coastal development so as to limit effects of stormwater runoff. The proposed project does not involve stormwater runoff; therefore, this policy is not applicable.

7:7E-8.8 Vegetation

This rule sets standards for coastal development so as to protect vegetation. The proposed project does not involve the disturbance of vegetation; therefore, this policy is not applicable.

7:7E-8.9 (Reserved)

7:7E-8.10 Air Quality

This rule sets standards for coastal development with requirements that projects meet applicable air quality standards. The proposed project would not contravene Federal or state air quality standards. Reduction of marine traffic and congestion would benefit overall air quality in the project area. Therefore, the proposed project would be consistent with this policy.

7:7E-8.11 Public Access to the Waterfront

This rule requires that coastal development adjacent to the waterfront provide perpendicular and linear access to the waterfront to the extent practicable, including both visual and physical access. Construction of the proposed project would not preclude access to public water related recreation resources and facilities located along the Kill Van Kull and Newark Bay. Deepening of the navigation channels will maintain access to public water related recreation resources and facilities. Therefore, the project would be consistent with this policy.

7:7E-8.12 Scenic Resources and Design

This rule sets standards for new coastal development to be visually compatible with its surroundings. The project area consists mainly of industrial uses, roadways, and some recreational uses. The proposed project would be consistent with this policy.

7:7E-8.13 Buffers and Compatibility of Uses

This rule sets standards for adequate buffers between uses found to be not compatible. The proposed project would be consistent with this policy.

7:7E-8.14 Traffic

This rule sets standards for coastal development to not disturb traffic systems. The proposed project does not involve existing traffic systems; therefore, this policy is not applicable.

7:7E-8.15 through 8.20 (Reserved)

7:7E-8.21 Subsurface Sewage Disposal Systems

This rule sets standards for subsurface sewage disposal systems in the coastal zone. The proposed project does not involve sewage disposal; therefore, this policy is not applicable.

APPENDIX E

New York Coastal Zone Management Evaluation

APPENDIX E:
NEW YORK COASTAL ZONE MANAGEMENT EVALUATION

The Coastal Zone Management Act of 1972 (16 U.S.C. §§1451-1464) was enacted by Congress to balance the competing demands of growth and development with the need to protect coastal resources. Its stated purpose is to "...preserve, protect, develop and, where possible to restore or enhance, the resources of the nation's coastal zone..." The primary means of achieving this balance is through coastal zone management programs adopted by the states and designed to regulate land use activities that could affect coastal waters. The act offered incentives to encourage the coastal states and territories to exercise their full authority over coastal areas through development of coastal zone management programs, consistent with the minimum federal standards. The Coastal Zone Act Reauthorization Act Amendments of 1990 strengthened the Act by requiring the state programs to focus more on controlling land use activities and the cumulative effect of activities in coastal zones.

New York currently administers its Federally approved coastal zone program (Executive Law §§910-921) through the Department of State. Pursuant to the Federal Coastal Zone Management Act, New York State has defined its coastal zone boundaries and the policies to be utilized to evaluate projects occurring within the designated zones. In 1981 New York State adopted the Waterfront Revitalization and Coastal Resources Act, creating the New York State Coastal Management Program (CMP). The CMP embodies 44 policy statements supportive of the act's intent to promote a balance between economic development and coastal resource preservation and optimization.

The proposed project is within the coastal zone of New York State. The following assessment identifies the coastal zone policies and evaluates the project's consistency with the applicable policies. The consistency evaluation is provided to enable New York to consider the effect of the project on their coastal zone resources.

F.1 NEW YORK STATE COASTAL ZONE MANAGEMENT POLICIES

1) Restore, revitalize and redevelop deteriorated and underutilized waterfront areas for commercial, industrial, cultural, recreational and other compatible uses.

Construction of the proposed project would contribute to the revitalization of the Staten Island waterfront area if the project deepening spurs the development of additional water dependent uses of the Staten Island waterfront which would otherwise not occur without the proposed project. Therefore, the proposed project would be consistent with this policy.

2) Facilitate the siting of water dependent uses and facilities on or adjacent to coastal waters.

The proposed project would improve the existing navigation channel serving existing water dependent facilities and assist in the placement of water dependent uses adjacent to

coastal waters. Therefore, the proposed project would be consistent with this policy.

3) Further develop the state's major ports of Albany, Buffalo, New York, Ogdensburg, and Oswego as centers of commerce and industry, and encourage the siting, in these port areas, including those under the jurisdiction of state public authorities, of land use and development which is essential to, or in support of, the waterborne transportation of cargo and people.

Construction of the proposed project would improve commercial navigation and access to existing centers of commerce and industry in the Port of New York and New Jersey and allow for more efficient movement of cargo to Port Newark and Elizabeth - Port Authority Marine Terminal. This in turn could result in greater port development and increased port related commerce. This will sustain the numerous maritime support industries currently located along the Kill Van Kull, including tug and barge companies, marine repair and drydock facilities, oil and petroleum transporters, vessel outfitters and converters, and marine operations. Therefore, the proposed project would be consistent with this policy.

4) Strengthen economic base of smaller harbor areas by encouraging the development and enhancement of those traditional uses and activities which have provided such areas with their unique maritime identity.

Construction of the proposed project would not strengthen the economic base of smaller harbor areas. Therefore, this policy does not apply.

5) Encourage the location of development in areas where public services and facilities essential to such development are adequate.

Construction of the proposed project would not result directly in any new development in the area requiring additional public services or facilities. Therefore, this policy does not apply.

6) Expedite permit procedures in order to facilitate the siting of development activities at suitable locations.

Construction of the proposed project would not involve the siting of development activities. Therefore, this policy does not apply.

7) Significant coastal fish and wildlife habitats, as identified on the coastal area map, shall be protected, preserved, and where practicable, restored so as to maintain their viability as habitats.

Potential impacts to significant coastal fish and wildlife habitats (*e.g.*, Shooters Island) and measures to protect and mitigate potential adverse effects are described in Section 5.0. By avoiding or mitigating for potential impacts, the proposed project would be consistent with this policy.

8) Protect fish and wildlife resources in the coastal area from the introduction of hazardous wastes and other pollutants which bio-accumulate in the food chain *or* which cause significant sublethal or lethal effect on those resources.

Potential impacts to fish and wildlife resources include exposure to contaminates released from sediments during dredging or placement operations. Potential impacts would be limited due to the low potential for contaminated sediments at the proposed project depth. Best management practices will be employed during dredging in order to minimize disturbance and resuspension of solids in the water column. By utilizing these mitigation measures for contaminated sediments, the proposed project would be consistent with this policy.

9) Expand recreational use of fish and wildlife resources in coastal areas by increasing access to existing resources, supplementing existing stocks, and developing new resources. Such efforts shall be made in a manner which ensures the protection of renewable fish and wildlife resources and considers other activities dependent on them.

Construction of the proposed project would not affect recreational use of fish and wildlife resources. There is no commercial fishing in the Kill Van Kull and Newark Bay. Therefore, this policy does not apply.

10) Further develop commercial finfish, shellfish and crustacean resources in the coastal area by encouraging the construction of new, or improvement of existing onshore commercial fishing facilities, increasing marketing of the state's seafood products, maintaining adequate stocks, and expanding aquaculture facilities. Such efforts shall be made in a manner which ensures the protection of renewable fish and wildlife resources and considers other activities dependent on them.

Construction of the proposed project would not affect commercial fishing. There is no commercial fishing in the Kill Van Kull and Newark Bay. Therefore, this policy does not apply.

11) Buildings and other structures will be sited in the coastal area so as to minimize damage to property and the endangering of human lives caused by flooding and erosion.

The proposed project does not include the siting of buildings or other structures in the coastal area. Therefore, this policy does not apply.

12) Activities or development in the coastal area will be undertaken so as to minimize damage to natural resources and property from flooding and erosion by protecting natural protective features including beaches, dunes, barrier islands, and bluffs. Primary dunes will be protected from all encroachments that could impair their natural protective capacity.

Construction of the proposed project would not involve beaches, dunes, barrier islands, or bluffs. The project would not adversely impact wetlands. Construction of the project would not involve other types of natural protective features as noted under this policy. Therefore, this policy does not apply.

13) The construction or reconstruction of erosion protection structures shall be undertaken only if they have a reasonable probability of controlling erosion for at least thirty years as demonstrated in design and construction standards and/or assured maintenance or replacement programs.

The proposed project does not include the construction or reconstruction of erosion protection structures. Therefore, this policy does not apply.

14) Activities and development, including the construction or reconstruction of erosion protection structures, shall be undertaken so that there will be no measurable increase in erosion or flooding at the site of such activities or development, or at other locations.

The proposed project does not include the construction or reconstruction of erosion protection structures. Therefore, this policy does not apply.

15) Mining, excavation or dredging in coastal waters shall not significantly interfere with the natural coastal processes which supply beach materials to land adjacent to such waters and shall be undertaken in a manner which will not cause an increase in erosion of such land.

Dredging and excavation associated with the proposed project would not affect natural coastal processes or increase the potential of erosion from adjacent land. Therefore, the proposed project would be consistent with this policy.

16) Public funds shall only be used for erosion protective structures where necessary to protect human life, and new development which requires a location within or adjacent to an erosion hazard area to be able to function, or existing development; and only where the public benefits outweigh the long-term monetary and other costs including the potential for increasing erosion and adverse effects on natural protective features.

The proposed project does not include erosion protective structures. Therefore, this policy does not apply.

17) Use nonstructural measures to minimize damage to natural resources and property from flooding and erosion shall be used whenever possible. Such measures shall include: (i) the setback of buildings and structures; (ii) the planting of vegetation and the installation of sand fencing and draining; (iii) the reshaping of bluffs; and (iv) the flood-proofing of buildings or their elevation above the base flood level.

Construction of the proposed project would not include structural flood control elements. Therefore, this policy does not apply.

18) To safeguard the vital economic, social and environmental interests of the state and of its citizens, proposed major actions in the coastal area must give full consideration to those interests, and to the safeguards which the state has established to protect valuable coastal resource areas.

Construction of the proposed project would promote the economic interests of the region. Potential impacts to valuable coastal resources (*e.g.*, colonial wading bird rookery) and measures to mitigate adverse effects (*i.e.*, safeguards), are described in Section 5.0 The proposed project would be consistent with this policy.

19) Protect, maintain, and increase the level and types of access to public water related recreation resources and facilities, so that these resources and facilities may be fully utilized in accordance with reasonably anticipated public recreation needs and the protection of historic and natural resources.

Construction of the proposed project would not preclude access to public water related recreation resources and facilities located along the Kill Van Kull and Newark Bay. Deepening of the navigation channels will maintain access to public water related recreation resources and facilities. Therefore, the project would be consistent with this policy.

20) Access to the publicly-owned foreshore and to lands immediately adjacent to the foreshore or the water's edge that are publicly-owned shall be provided and it shall be provided in a manner compatible with adjoining uses. Such lands shall be retained in public ownership.

No publicly-owned foreshore is located in the project area. Construction of the proposed project would not preclude public access to waterfront land in the project vicinity. Therefore, this policy does not apply.

21) Water-dependent and water-enhanced recreation will be encouraged and facilitated, and will be given priority over non-water related use along the coast, provided it is consistent with the preservation and enhancement of other coastal resources and takes into account demand for such facilities. In facilitating such activities, priority shall be given to areas where access to the recreation opportunities of the coast can be provided by new or existing public transportation, services, and to those areas where the use of the shore is severely restricted by existing development.

Construction of the proposed project would not preclude access to public water related recreation resources and facilities located along the Kill Van Kull and Newark Bay. Deepening of the navigation channel will maintain access to public water related

recreation resources and facilities. Therefore, the project would be consistent with this policy.

22) Development, when located adjacent to the shore, will provide for water related recreation, whenever such use is compatible with reasonably anticipated demand for such activities, and is compatible with the primary purpose of the development.

The proposed project does not include shoreline development. Therefore, this policy does not apply.

23) Protect, enhance, and restore structures, districts, areas or sites that are of significance in history, architecture, archaeology or culture of the state, its communities, or the nation.

Recent cultural resources investigation conducted in connection with the New York Harbor Collection and Removal of Drift Project have identified a number of vessels eligible or potentially eligible for the NRHP along the Kill Van Kull shoreline. Ten vessels are found within five clusters along the Staten Island side of the waterway, and three vessels are located along the Bayonne shoreline. A structure, the B&O Transfer Bridge, was identified along the Staten Island shore. Another vessel at Port Johnson was also determined potentially significant as a contributing element to the Port Johnson Historic Sailing Vessels cluster. Coordination with the NY/NJ SHPOs will be undertaken to determine specific monitoring requirements during blasting. Monitoring will be conducted to ensure there are no impacts to the B&O Transfer Bridge or historic vessels.

24) Prevent impairment of scenic resources of statewide significance as identified on the coastal area map. Impairment shall include: (i) the irreversible modification of geologic forms, the destruction or removal of structures, whenever the geologic forms, vegetation or structures are significant to the scenic quality of an identified resource; and (ii) the addition of structures which, because of siting or scale will reduce identified views or which because of scale, form, or materials, will diminish the scenic quality of an identified resource.

No scenic resources of statewide significance are located in the project area. Therefore, the policy does not apply.

25) Protect, restore or enhance natural and man-made resources which are not identified as being of statewide significance but which contribute to the overall scenic quality of the coastal area.

The proposed project would not adversely impact the overall scenic quality of the coastal area. Therefore, this policy does not apply.

26) To conserve and protect agricultural lands in the state's coastal area, an action shall not result in a loss nor impair the productivity of important agricultural lands as identified on the coastal area map, if that loss or impairment would adversely affect the viability of agriculture in an agricultural district, or if there is no agricultural district, in the area surrounding such lands.

The project study area is not located adjacent to agricultural lands. Therefore, this policy does not apply.

27) Decisions on the siting and construction of major energy facilities in the coastal area will be based on public energy needs, compatibility of such facilities with the environment, and the facility's need for a shorefront location.

Construction of the proposed project would not involve siting of an energy facility. Therefore, this policy does not apply.

28) Ice management practices shall not interfere with the production of hydroelectric power, damage significant fish and wildlife and their habitats, or increase shore line erosion or flooding.

This policy is not applicable to the project area.

29) Encourage the development of energy resources on the outer continental shelf in Lake Erie and in other water bodies, and ensure the environmental safety of such activities.

Construction of the proposed project does not involve development of energy resources. Therefore, this policy does not apply.

30) Municipal, industrial, and commercial discharge of pollutants, including but not limited to, toxic and hazardous substances, into coastal waters will conform to state and national water quality standards.

The project would conform with the applicable permitting requirements. Therefore, the proposed project would be consistent with this policy.

31) State coastal area policies and management objectives of approved local waterfront revitalization programs will be considered while reviewing coastal water classifications and while modifying water quality standards; however, those waters already overburdened with contaminants will be recognized as being a development constraint.

Construction of the proposed project would not affect the water classification or water quality standards of the Kill Van Kull and Newark Bay. Therefore, this policy does not apply.

32) Encourage the use of alternative or innovative sanitary waste systems in small communities where the costs of conventional facilities are unreasonably high, given the size of the existing tax base of these communities.

Construction of the proposed project would not involve sanitary waste systems. Therefore, this policy does not apply.

33) Best management practices will be used to ensure the control of stormwater runoff and combined sewer overflows draining into coastal waters.

The proposed project would not involve stormwater runoff or construction of combined sewer overflows. Therefore, this policy does not apply.

34) Discharge of waste materials into coastal waters from vessels subject to state jurisdiction will be limited so as to protect significant fish and wildlife habitats, recreational areas and water supply areas.

Construction of the proposed project would not affect discharge from vessels into the Kill van Kull and Newark Bay. Therefore, this policy does not apply.

35) Dredging and dredged material placement in coastal waters will be undertaken in a manner that meets existing state dredging permit requirements, and protects significant fish and wildlife habitats, scenic resources, natural protective features, important agricultural lands, and wetlands.

Dredging operations and placement of dredged materials would be done in accordance with the NYD's DMMP and would comply with applicable state and Federal regulations including the protection of significant fish and wildlife habitats, social resources and wetlands. Therefore, the proposed project would be consistent with this policy.

36) Activities related to the shipment and storage of petroleum and other hazardous materials will be conducted in a manner that will prevent or at least minimize spills into coastal waters; all practicable efforts will be undertaken to expedite the cleanup of such discharges; and restitution for damages will be required when these spills occur.

Construction of the proposed project would provide safer and more efficient transportation of petroleum. Therefore, the proposed project would be consistent with this policy.

37) Best management practices will be utilized to minimize the non-point discharge of excess nutrients, organics and eroded soils into coastal waters.

Construction of the proposed project does not involve the non-point discharge of nutrients, organics and eroded soils. Therefore, this policy does not apply.

38) The quality and quantity of surface water and groundwater supplies will be conserved and protected, particularly where such waters constitute the primary or sole source of water supply.

The proposed project would not affect surface water or groundwater reserves in the area. Therefore, this policy does not apply.

39) The transport, storage, treatment and disposal of solid wastes, particularly hazardous wastes, within coastal areas will be conducted in such a manner so as to protect groundwater and surface water supplies, significant fish and wildlife habitats, recreation areas, important agricultural land, and scenic resources.

The proposed project does not involve the transport, storage, treatment and disposal of solid wastes. Therefore, this policy does not apply.

40) Effluent discharged from major steam electric generating and industrial facilities into coastal waters will not be unduly injurious to fish and wildlife and shall conform to state water quality standards.

The proposed project would not affect any effluent discharge from generating and industrial facilities into the Kill Van Kull and Newark Bay. Therefore, this policy does not apply.

41) Land use or development in the coastal area will not cause national or state air quality standards to be violated.

The proposed project would not contravene air quality standards. Marine traffic reduction and congestion would benefit overall air quality in the project area. Therefore, the proposed project would be consistent with this policy.

42) Coastal management policies will be considered if the state reclassifies land areas pursuant to the prevention of significant deterioration regulations of the Federal Clean Air Act.

The proposed project would not affect state classifications of land areas. Therefore, this policy does not apply.

43) Land use or development in the coastal area must not cause the generation of significant amounts of acid rain precursors: nitrates and sulfates.

The proposed project would not cause the generation of significant amounts of acid rain precursors nitrates and sulfates. Therefore, this policy does not apply.

44) Preserve and protect tidal and freshwater wetlands and preserve the benefits derived from these areas.

The proposed project would not cause any impacts to tidal and freshwater wetlands; therefore, this policy does not apply.

NEW YORK CITY

CONSISTENCY WITH WATERFRONT REVITALIZATION PROGRAM (WRP) POLICIES

The twelve New York City WRP policies are discussed below. Insight into the objectives of these policies and the rationale behind their development were provided by the following documents: State of New York Coastal Management Program and Final Environmental Impact Statement (Section 6, August 1982), CEQR Technical Manual (Appendix 1, December 1993), New York City Waterfront Revitalization Program (September 1982).

New York City WRP Policies

Policy A

> Improve urban shorelines by maintaining, removing, or recycling waterfront structures (piers, docks, wharves, etc.) in accordance with waterfront development policies and plans. Identify alternative uses for underutilized waterfront structures.

The purpose of this policy is to address rehabilitation of the waterfront consistent with the City's economic and recreational needs. The project does not directly include piers, docks, or wharves within the Staten Island portion of the project. To this extent, this policy does not apply. Indirect benefits may occur to support maritime industries located along the Kill Van Kull.

Policy B

> Improve channels as necessary to maintain and stimulate economic development.

The purpose of this policy is to add specificity to New York State Policy 2 and identifies the need to develop or modify federal waterways on a timely basis and where needed to support water dependent uses.

The proposed project would improve the existing federal navigation channel serving existing water dependent facilities and assist in the placement of water dependent uses adjacent to coastal waters. Therefore, the proposed project would be consistent with this policy.

Policy C

> Provide shorefront protection against coastal erosion hazards where there is public benefit and public use along non-public shores.

This policy adds specificity to New York State Policies 11 and 16 by providing erosion protection and by identifying a particular public resource endangered by erosion. The proposed project does not include the siting of buildings or other structures in the coastal area and the proposed project does not include erosion protective structures. Therefore, this policy does not apply.

Policy D

> Provide technical assistance for the identification and evaluation of erosion problems, as well as the development of erosion control plans along privately-owned eroding shores.

This policy adds specificity to New York Policies 11 and 16 since it addresses erosion protection for private property which may impact other sites. The proposed project does not include the siting of buildings or other structures in the coastal area and the proposed project does not include erosion protective structures. Therefore, this policy does not apply.

Policy E

> Implement public and private structural flood and erosion control projects only when:

- Public economic and environmental benefits exceed public economic and environmental costs;
- non-structural solutions are proven to be ineffective or cost prohibitive;
- projects are compatible with other coastal management goals and objectives, including aesthetics, access and recreation;
- adverse environmental impacts are minimized;
- natural protective features are not impaired; and
- adjacent (downdrift) shorelines are not adversely affected.

This policy adds specificity to New York State Policies 11, 12, 13, 14, 15, 16, and 17 by identifying potential problems associated with structural flood control projects. These state policies address the siting of activities and development in hazard areas. The proposed project is not a structural flood and erosion control project, therefore this policy does not apply.

Policy F

> Priority shall be given to the development of mapped parklands and appropriate open space where the opportunity exists to meet the recreational needs of:

- immobile user groups; and
- communities without adequate waterfront park space and/or facilities.

This policy was developed to address the concerns of recreational needs of special user groups who rarely enjoy water-related activities. The policy also adds specificity to New York State Policy 21.

The project would not result in a reduction of existing or required access to or along coastal waters, public access areas, public parks or open spaces. Therefore, this policy does not apply.

Policy G

> Maintain and protect New York City beaches to the fullest extent possible.

This policy adds specificity to New York State Policy 21 by insuring that water dependent recreation will be encouraged and facilitated, and adds specificity to New York State Policy 16 by identifying a particular public resource endangered by erosion. The project area and vicinity does not contain any New York City public beaches, therefore this policy is not applicable.

Policy H

> Insure ongoing maintenance of all waterfront parks and beaches to promote full use of secure, clean areas with fully operable facilities.

The purpose of this policy is to address the operation and maintenance of New York City waterfront parks and outdoor recreational facilities. The project area does not contain any waterfront parks or beaches, therefore this policy is not applicable.

Policy I

> Siting of liquefied and substitute natural gas facilities, including those associated with the tinkering of such gas, shall take into consideration state and national energy needs, public safety concerns and the necessity for a shorefront location.

The purpose of this policy is to address the safety of locating liquefied natural gas facilities in metropolitan areas. The proposed project does not involve the siting of natural gas facilities, therefore this policy does not apply.

Policy J

> Adopt end-use plans for landfill areas which specify the following:

- final capacity
- final contours
- leachate, erosion and gas control systems
- revegetation strategies
- interim review schedules.

The proposed project will not affect landfill areas, therefore this policy is not applicable.

Policy K

> Curtail illegal dumping throughout the coastal zone and restore areas scarred by this practice.

This policy adds specificity to New York State Water Quality Policy 39. The proposed project will follow best management practices during project construction. All required permits for construction of the project and placement of dredged material will be obtained. Illegal dumping will not occur. Therefore, the proposed project would be consistent with this policy.

Policy L

> Encourage energy development from waste and waste landfills.

The purpose of this policy is to assist in achieving the national objective of energy independence through recovering or producing energy from waste. The proposed project does not involve energy development from waste and waste landfills, therefore, this policy does not apply.

APPENDIX F

Permit for New York State Water Quality Certification and Coastal Zone Consistency

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DEC PERMIT NUMBER 2-6499-00002/00004		EFFECTIVE DATE January 11, 1999
FACILITY/PROGRAM NUMBER(S)	**PERMIT** Under the Environmental Conservation Law (ECL)	EXPIRATION DATE(S) September 30, 2003

TYPE OF PERMIT ☐ New ☐ Renewal ■ Modification ☐ Permit to Construct ☐ Permit to Operate

- ☐ Article 15, Title 5: Protection of Waters
- ☐ Article 15, Title 15: Water Supply
- ☐ Article 15, Title 15: Water Transport
- ☐ Article 15, Title 15: Long Island Wells
- x 6NYCRR 608: Water Quality Certification
- ☐ Article 17, Titles 7, 8: SPDES
- ☐ Article 19: Air Pollution Control
- ☐ Article 24: Freshwater Wetlands
- ☐ Article 25: Tidal Wetlands
- ☐ Article 27, Title 7; 6NYCRR 360: Solid Waste Management
- ☐ Article 27, Title 9; 6NYCRR 373: Hazardous Waste Management
- ☐ Article 34: Coastal Erosion Management
- ☐ Article 36: Floodplain Management

PERMIT ISSUED TO	TELEPHONE NUMBER
UNITED STATES DEPARTMENT OF THE ARMY, NEW YORK DISTRICT, CORPS OF ENGINEERS	
ADDRESS OF PERMITTEE	
JACOB J. JAVITS FEDERAL BUILDING, NEW YORK, NY 10278-0090	
CONTACT PERSON FOR PERMITTED WORK	TELEPHONE NUMBER
JOHN HARTMANN, CHIEF, OPERATIONS DIVISION	212/264-0199
NAME AND ADDRESS OF PROJECT/FACILITY	
KILL VAN KULL CHANNEL PHASE II DEEPENING	
LOCATION OF PROJECT/FACILITY	
KILL VAN KULL CHANNEL BETWEEN UPPER BAY AND NEWARK BAY.	

COUNTY	CITY	WATERCOURSE	NYTM COORDINATES
RICHMOND	NEW YORK CITY	KILL VAN KULL CHANNEL	

DESCRIPTION OF AUTHORIZED ACTIVITY

DREDGING AND BLASTING OF APPROXIMATELY 10.7 MILLION CUBIC YARDS OF BOTTOM SEDIMENT AND ROCK FROM THE KILL VAN KULL CHANNEL TO A DEPTH OF 47 FEET IN BEDROCK AND 45 FEET IN SOFT SUBSTRATES IN THE KILL VAN KULL CHANNEL BETWEEN UPPER BAY (NY) AND NEWARK BAY (NJ). DREDGED MATERIAL SUITABLE FOR OCEAN DISPOSAL WILL BE DISPOSED AS COVER MATERIAL AT THE FORMER ATLANTIC OCEAN MUD DUMP SITE (HISTORIC AREA REMEDIATION SITE, HARS). BEDROCK MATERIAL WILL BE USED FOR CREATION OR ENHANCEMENT OF ARTIFICIAL REEFS SITES IN NEW YORK AND NEW JERSEY. DREDGED MATERIAL UNSUITABLE FOR DISPOSAL AT THE FORMER MUD DUMP SITE OR FOR USE AS REEFS WILL BE DEPOSITED AT THE NEWARK BAY CONFINED DISPOSAL FACILITY OR AT PERMITTED UPLAND SITES IN NEW JERSEY AS NEEDED.

By acceptance of this permit, the Permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified (see page 2) and any Special Conditions included as part of this permit.

REGIONAL PERMIT ADMINISTRATOR:	ADDRESS	
John J. Ferguson	47-40 21 Street Long Island City, NY 11101	
AUTHORIZED SIGNATURE John J. Cugan DEPUTY REGIONAL PERMIT ADMINISTRATOR	DATE 11 January 1999	Page 1 of 4

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification
The permittee has accepted expressly, by the execution of the application, the full legal responsibility for all damages and costs, direct or indirect, of whatever nature and by whomever suffered, for liability it incurs resulting from activity conducted pursuant to this permit or in noncompliance with this permit and has agreed to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from such activity.

Item B: Permittee to Require it's Contractors to Comply with Permit
The permittee shall require its independent contractors, employees, agents and assigns to read, understand and comply with this permit, including all special conditions, and such persons shall be subject to the same sanctions for violations of this permit as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits
The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required for this project.

Item D: No Right to Trespass or Interfere with Riparian Rights
This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

GENERAL CONDITIONS

General Condition 1: Facility Inspection by the Department
The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).
The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when written or verbal notification is provided by the Department at least 24 hours prior to such inspection.
A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

General Condition 2: Relationship of this Permit to Other Department Orders and Determinations
Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

General Condition 3: Applications for Permit Renewals or Modifications
The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.
The permittee must submit a renewal application at least:

a) 180 days before expiration of permits for State Pollutant Discharge Elimination System (SPDES), Hazardous Waste Management Facilities (HWMF), major Air Pollution Control (APC) and Solid Waste Management Facilities (SWMF); and
b) 30 days before expiration of all other permit types.

Applications for permit renewal or modification are to be submitted to:
NYSDEC, Regional Permit Administrator, Region 2
47-40 21ST Street, Long Island City, NY 11101

General Condition 4: Permit Modifications, Suspensions and Revocations by the Department
The Department reserves the right to modify, suspend or revoke this permit when:

a) the scope of the permitted activity is exceeded or a violation of any condition of the permit or provisions of the ECL and pertinent regulations is found;
b) the permit was obtained by misrepresentation or failure to disclose relevant facts;
c) new material information is discovered; or
d) environmental conditions, relevant technology, or applicable law or regulation have materially changed since the permit was issued.

5. That if future operations by the State of New York require an alteration in the position of the structure or work herein authorized, or if, in the opinion of the Department of Environmental Conservation it shall cause unreasonable obstruction to the free navigation of said waters or flood flows or endanger the health, safety or welfare of the people of the State, or cause loss or destruction of the natural resources of the State, the owner may be ordered by the Department to remove or alter the structural work, obstructions, or hazards caused thereby without expense to the State, and if, upon the expiration or revocation of this permit, the structure, fill, excavation, or other modification of the watercourse hereby authorized shall not be completed, the owners, shall, without expense to the State, and to such extent and in such time and manner as the Department of Environmental Conservation may require, remove all or any portion of the uncompleted structure or fill and restore to its former condition the navigable and flood capacity of the watercourse. No claim shall be made against the State of New York on account of any such removal or alteration.
6. That the State of New York shall in no case be liable for any damage or injury to the structure or work herein authorized which may be caused by or result from future operations undertaken by the State for the conservation or improvement of navigation, or for other purposes, and no claim or right to compensation shall accrue from any such damage.
7. Granting of this permit does not relieve the applicant of the responsibility of obtaining any other permission, or approval from the U.S.Army Corps of Engineers, U.S. Coast Guard, New York State Office of General Services, or local government which may be required.
8. All necessary precautions shall be taken to preclude contamination of any wetland or waterway by suspended solids, sediments, fuels, solvents, lubricants, epoxy coatings, paints, concrete, leachate, or any other environmentally deleterious materials associated with the project
9. Any material dredged in the prosecution of the work herein permitted shall be removed evenly, without leaving large refuse piles, ridges across the bed of a waterway or floodplain or deep holes that may have a tendency to cause damage to navigable channels or to the banks of a waterway.
10. There shall be no unreasonable interference with navigation by the work herein authorized.
11. If upon the expiration or revocation of this permit, the project hereby authorized has not been completed, the applicant shall, without expense to the State, and to such extent and in such time and manner as the Department of Environmental Conservation may require, remove all or any portion of the uncompleted structure or fill and restore the site to its former condition. No claim shall be made against the State of New York on account of any such removal or alteration.
12. If granted under Article 36, this permit does not signify in any way that the project will be free from flooding.
13. If granted under 6 NYCRR Part 608, the NYS Department of Environmental Conservation hereby certifies that the subject project will not contravene effluent limitations or other limitations or standards under Sections 301, 302, 303, 306, and 307 of the Clean Water Act of 1977 (PL 95-217) provided that all of the conditions listed herein are met.

SPECIAL CONDITIONS

14. All work shall comply with project plans as described in the technical supporting documentation for the project and the July 7, 1998 (and attachment dated July 8, 1998) from Frank Santomauro (USACE) to John Ferguson (NYSDEC) addressing Kill Van Kull Water Quality Certification issues.

15. The Corps shall submit quarterly reports on the results of the biological and water quality monitoring programs. Data shall be submitted to Stephen Zahn, Marine Resources, NYSDEC, 47-40 21st street; Long Island City, NY 11101.

Pre-Dredging

At least thirty (30) days prior to the start of work, the Corps shall submit a plan for DEC approval describing the method of dewatering dredged material or otherwise handling water associated with dredged material that does not meet Category 1 criteria such that the Total Suspended Solids (TSS) do not exceed 200 mg/L when returned to New York waters. DEC will respond within thirty (30) days of the receipt of the plan.

17. At least thirty (30) days prior to the beginning of dredging in any contract phase, the Corps shall submit the bulk sediment chemistry results for the project site as indicated in the April 24, 1998 letter from Santomauro (USACE) to Ferguson (NYSDEC). The submittal shall include a sample site plan as well as a narrative on the sampling methods utilized.

18. At least thirty (30) days prior to the start of work, the Corps shall provide the bathymetric survey of the project area as indicated in the April 24, 1998 letter from Santomauro (USACE) to Ferguson (NYSDEC).

19. The Corps shall perform dredging site inspections at 72 hour intervals when dredging material that does not meet Category 1 criteria to determine:
    a. Dredging bucket is sealed during operations.
    b. Hoist speed does not exceed 2 feet/second
    c. TSS from barge dewatering does not exceed 200 mg/Liter.

    These parameters are to be monitored daily by the contractor and noted in the QA/QC reports. Copies of said reports shall be submitted to Steven Zahn, DEC Marine Resources, with a copy of the Corps Inspection Reports on a weekly basis.

Dredging Windows

20. Dredging and blasting is prohibited during the period of March 1 - August 31 in an area within 1000 feet from the shoreline of Shooters Island.

21. Dredging is prohibited during the period of November 15 - May 31 in any portion of Contract Reach 3 determined through biological monitoring to harbor significant (as determined by NYSDEC in consultation with NMFS and the Corps) populations of Blue-claw crab or Winter flounder. Biological monitoring will be carried out as described in the June 1, 1998 letter (with attachment) and the July 7, 1998 letter (with attachment from Santomauro (USACE) to Ferguson (NYSDEC).

SPECIAL CONDITIONS

DREDGING (Cont.)

Bucket

22. Dredging of material that does not meet Category 1 criteria, excluding rock and clay, shall be conducted with a sealed, watertight bucket according to the Best Management Practices described in the Corps' July 7, 1998 letter. The bucket shall be monitored continuously during dredging to ensure a tight seal is maintained. If frequent or excessive loss of dredged material from the bucket is observed, the Corps shall halt dredging operations and closely inspect the bucket for defects. Dredging operations shall be delayed until all necessary repairs are made.

23. Bucket hoist speed shall be limited to 2 ft/s while dredging material that does not meet Category 1 criteria.

24. The bucket shall be lowered to the level of the barge gunwales prior to release of the bucket load.

Barge Overflow and De-watering

25. Barge overflow is prohibited while handling material that does not meet Category 1 criteria. Total Suspended Solids in barge de-watering effluent returned to New York waters shall not exceed 200 mg/L while handling material that does not meet Category 1 criteria.

In-Water Management of Dredged Material

26. Dredge material that does not meet Category 1 criteria will be disposed at the Newark Bay Confined Disposal Facility. The Corps shall inform the Department at least 30 days prior of any plans for alternative disposal sites.

27. Disposal of rock for artificial reef enhancement or creation in New York shall be done in consultation with Stephen Heins, Finfish and Crustaceans, NYSDEC, 205 N. Belle Meade Road, East Setauket, NY 11733.

Upland Management of Dredged Material

28. At least 30 days prior to the use of any upland management site(s) for dredged material disposal, the Corps shall identify the site(s) and submit a copy of any contract or letter of agreement showing that the dredged material may be managed under the jurisdiction of the receiving state.

29. Additional analysis of dredged material may be required if, in the Department's opinion, the initial bulk sediment chemistry (see # 17) is inadequate to support the permittee's determination that the dredged material is non-hazardous pursuant to federal or NY State (6NYCRR371) regulations. The permittee may archive the initial samples, consistent with appropriate laboratory procedures, in lieu of resampling.

Post - Dredging

30. A bathymetric survey of each completed project phase shall be submitted to the Department in triplicate within sixty (60) days of completion.

Additional Special Condition

31. Item A and General Condition 6 are included by the State of New York as the permit issuing authority under the Clean Water Act. Such conditions do not, nor are they intended to, apply to, abrogate, or annul any obligation, responsibility or liability on the part of the Port Authority of New York and New Jersey to the Federal Government under the terms of a Project Cooperation Agreement (PCA) entered into by those two agencies for the Kill Van Kull and Newark Bay Channels, New York and New Jersey Project. Pursuant to that PCA, the Port Authority of New York and New Jersey remains legally responsible to hold and save the Federal Government free from all damages arising from the construction, operation, and maintenance of the Project and the local service facilities, and if the Port Authority requests such, for any Project-related betterments, including liabilities arising from Item A and General Condition 6, except for damages due to the fault or negligence of the Federal Government or its contractors. No provision of this permit shall be deemed to supercede applicable federal law with regard to appropriation of funds or liability for damages caused by the Army Corps or its agents or other representatives.

APPENDIX G

Clean Water Act Section 404 (B)(1) Guidelines Evaluation

APPENDIX G: SECTION 404(b)(1) GUIDELINES EVALUATION

G.1 INTRODUCTION

This appendix of the Draft Potential Dredged Material Placement Sites EA for the Kill Van Kull and Newark Bay Federal Navigation Channel Deepening project presents a Section 404(b)(1) guidelines evaluation for the placement of the dredged material from the proposed project that is determined to be unacceptable for ocean placement. The evaluation is based on the regulations found at 40 CFR 230, Section 404(b)(1): Guidelines for Specification of Disposal Sites for Dredged or Fill Material. The Regulations implement Sections 494(b) and 401(a) of the Clean Water Act, which govern the placement of dredged and fill material inside the territorial sea baseline (§230.2(b)).

G.2 DRAFT 404(b)(1) EVALUATION

The following Section 404(b)(1) evaluation is presented in a format consistent with typical evaluations in the NY/NJ Harbor area and addresses all required elements of the evaluation.

I. Project Description

a. Location: The Kill Van Kull & Newark Bay Federal Navigation Deepening Project area extends from the confluence of the Kill Van Kull & Anchorage Channels to Station 168+22N, the northern edge of the Port Newark Reach.

b. General Description: The authorized project plan entails deepening of existing navigational channels from the confluence of the Kill Van Kull and Anchorage channels to the northern edge of the Port Newark Reach in Newark Bay (Station 168+22N) to -45 feet MLW plus a 2-foot overdepth allowance for dredging tolerance. This will approach or equal the depth of the Ambrose-Anchorage channel feeder arteries which connect the harbor with the Atlantic Ocean. At this time, construction of the Port Newark Channel and a portion of the Newark Bay Channel (Station 139+20N to Station 168+22N) has been deferred at the request of the non-federal sponsor (Port Authority of New York and New Jersey and/or State of New Jersey).

c. Authority and Purpose: The project is authorized in the Supplemental Appropriations Act of 1985 and in Section 202 (b) of the Water Resources Development Act (WRDA) 1986 IPL 99-88). The Limited Reevaluation Study, which includes this EA was initiated at the request of the non-federal sponsor (the Port Authority of New York and New Jersey and/or the State of New Jersey) for the purpose of accommodating deeper draft and otherwise larger ocean-going vessels entering Port Newark and Elizabeth - Port Authority Marine Terminal.

d. General Description of Dredged Material: Approximately 10.7 million cubic yards (mcy) of dredged material would be removed by the proposed action. This includes about 1.1 mcy of rock.

e. Proposed Discharge Sites: Potential discharge sites that are proposed include the Newark Bay Confined Placement Facility (permitted), the Bayonne Landfill (permitted), and Kearny Koppers Coke (permit pending) site.

f. Placement Method: The NYD will utilize a site (or sites) listed above pending approval through a separate compliance/permitting process.

II. Factual Determinations

a. Physical Substrate Determinations

(1) Substrate Elevation and Slope: No Impact

(2) Sediment Type: No Impact

(3) Dredged Material Movement: Minor short term movement

(4) Physical Effects on Benthos: Minimal to no impact

(5) Other Effects: None identified

(6) Action to Minimize Impacts: Not applicable

b. Water Circulation, Fluctuations, and Salinity Determinations

(1) Water

(a) Salinity: The proposed deepening of the Kill Van Kull and Newark Bay Channels will have no effect on salinity because the project does not influence the water mass movements (tidal flow and river discharge) that control salinity.

(b) Water Chemistry: The proposed channel deepening project will have localized effects on water chemistry during the dredging operations. The effects are associated with sediment resuspension from dredging activities (see Section 5.5). The localized effects will be limited to the period of time that the dredging activities take place.

(c) Clarity: Temporary increase in turbidity will occur from sediment resuspension from dredging activities (see Section 5.5).

(d) Color: Minor temporary changes possible

(e) Odor: Odor typical of dredging operations will be created in the project area during operations. Because the site is remote from residential areas the potential odor problem will be minimal to no impact.

(f) Taste: Not applicable

(g) Dissolved Gas Levels: Not applicable

(h) Nutrients: No long-term increase in nutrients and eutrophication will result from the proposed project.

(i) Eutrophication: A short-term, localized increase in nutrients could contribute to an increase in algal growth. However, the limited quantity of disturbed sediments will result in minimal short-term nutrient releases which will not result in project area eutrophication.

(j) Other: None identified.

(2) Current Patterns and Circulation: No impacts identified

(3) Normal Water Level Fluctuations: No impacts identified

(4) Salinity Gradients: No impacts identified

(5) Actions to Minimize Impact: Not applicable

c. Suspended Particulate/Turbidity Determination

(1) Change at Placement Site: Not applicable

(2) Effects on Chemical and Physical Properties of the Water Column: Impact should be minimal since dredging activities would cause prior disturbance.

(3) Effects on Biota: There will be short-term, localized increases in suspended particulates/turbidity due to dredging activity. Motile fauna are capable of avoiding the impacted area.

(4) Action to Minimize Impacts: Not applicable

d. Contaminant Determination: As noted in the Code of Federal Regulations, 40 CRF §227.13 (b) dredged material which meets the criteria set forth in the following paragraphs (b) (1), (2), or (3) of this section is environmentally acceptable for ocean disposal without further testing under this section (*if*):

(1) Dredged material is composed predominantly of sand, gravel, rock or any other naturally occurring bottom material with particle sizes larger than silt, and the material is found in areas of high current or wave energy such as streams with large bed loads or coastal areas with shifting bars and channels; or

(2) Dredged material is for beach nourishment or restoration and is composed predominantly of sand, gravel or shell with particle sizes compatible with material on the receiving beaches; or

(3) When (ii) The site from which the material proposed for placement is to be taken is far removed from known existing and historical sources of pollution so as to provide reasonable assurance that such material has not been contaminated by such pollution.

Channel deepening may result in the temporary and localized resuspension and distribution of sediments within the project area. On the basis of current analysis, it is estimated that approximately 6.8 mcy of sediments meet the criteria listed above under (b)(1) and (b)(3)(ii) for ocean placement. Borings data indicate that approximately 3.3 mcy of sediments may contain contaminants known to exist in the harbor. For this material, a sampling design will be developed to evaluate the nature and extent of contamination as well as compliance with required discharge permit limitations.

Rock material removed from the project area will be used in the construction of artificial reefs. Both the NJDEP and the NYSDEC have indicated an interest in obtaining the rock material for this purpose.

e. Aquatic Ecosystems and Organisms Determination: No impact

f. Proposed Placement Site Determination: The selection of potential dredged material placement sites is a result of extensive alternatives analyses, as included in the Final EA for the KVK/NB navigation project and other documents. The analyses took into account all pertinent factors, including timing, constructability, capacity, permitability, and

environmental acceptance, as well as all methods of placement. The selection of potential placement sites will have no direct impact on any environmental resource.

g. Determination of Cumulative Effects on the Aquatic Ecosystem: None identified

h. Determination of Secondary Effects on the Aquatic Ecosystem: None identified

III. Findings of Compliance or Noncompliance

a. There are no practicable alternatives for the proposed action under the jurisdiction of Section 404 (b)(1) Guidelines.

b. The proposed action does not appear to violate applicable state water quality standards or effluent standards.

c. The USFWS is concerned that channel deepening may cause resuspension of contaminated sediments and that the contaminants could be transported through the food chain and result in adverse impacts to peregrine falcons. Pursuant to the Endangered Species Act, the NYD has prepared a Biological Assessment to evaluate the potential impacts of resuspension of contaminants during dredging. The NYD will continue to consult with the USFWS to evaluate the need for and design of a monitoring program which will fully evaluate the nature and extent of any outstanding concerns.

The proposed action would result in moving the channel away from the colonial wading bird rookery on Shooters Island. Minimal short-term impacts and no long-term impacts are expected.

d. The proposed action will not result in significant adverse impacts on human health or welfare, including municipal and private water supplies, recreational and commercial fishing, plankton, shellfish, wildlife and special aquatic sites.

e. All appropriate steps to minimize adverse environmental impacts have been taken.

f. No significant adaptation of the guidelines were made relative to this evaluation.

IV. Conclusions

Based on all of the above, the proposed action is determined to be in compliance with the Section 404(b)(1) Guidelines, subject to appropriate and reasonable conditions, to be determined on a case-by-case basis, to protect the public interest.

APPENDIX H

Project Comments

APPENDIX I

Clean Air Act Statement of Conformity

CLEAN AIR ACT
STATEMENT OF CONFORMITY

UPPER BAY OF NEW YORK HARBOR
NEW YORK/ NEW JERSEY HARBOR
KILL VAN KULL
FEDERAL NAVIGATION PROJECT

Based on the conformity analysis in the subject report, I have determined that the proposed action conforms to the applicable State Implementation Plan (SIP). The Environmental Protection Agency had no adverse comments under their Clean Air Act authority. All air quality comments were fully addressed, and the project would not lead to adverse air emission as compared to the no-action alternative; and thus, would comply with Section 176 (c) (1) of the Clean Air Act Amendments of 1990.

_____
DATE

_____
WILLIAM H. PEARCE
Colonel, Corps of Engineers
District Engineer