Port of New York and New Jersey

SITE EVALUATION FOR A DREDGED MATERIAL PUBLIC PROCESSING AND STORAGE FACILITY

AUGUST 2007

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Planning Division
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TABLE OF CONTENTS

SECTION PAGE

1.0 INTRODUCTION 1
1.1 STUDY AREA DESCRIPTION 2
1.2 BACKGROUND 2
1.3 PUBLIC PROCESSING FACILITY 4
1.4 PUBLIC STORAGE FACILITY 5
2.0 PUBLIC PROCESSING FACILITY SITES 7
2.1 IDENTIFICATION 7
2.1.1 USACE Site Identification 7
2.1.2 NJDOT/OMR Site Identification 8
2.2 SCREENING 21
2.2.1 USACE Site Screening 21
2.2.2 NJDOT/OMR Site Screening 22
2.3 RESULTS 29
3.0 PUBLIC STORAGE FACILITY SITES 62
3.1 IDENTIFICATION 62
3.1.1 Land-Based 62
3.1.2 Water-Based 72
3.2 SCREENING 85
3.2.1 Land-Based 85
3.2.2 Water-Based 86
3.3 RESULTS 95
4.0 SUMMARY AND CONCLUSIONS 113
5.0 REFERENCES 115

LIST OF FIGURES

FIGURE **PAGE**

Figure 1. Study Area for the Identification of Potential Public Processing Facility Sites in the New York/New Jersey Harbor Area. 3

Figure 2. Preliminary Identification of Potential Public Processing Facility Sites in the New York/New Jersey Harbor Area. 31

Figure 3. Site 1 – South Amboy (south) – Potential Public Processing Facility Site in the New York/New Jersey Harbor. 32

Figure 4. Site 2 – South Amboy (north) – Potential Public Processing Facility Site in the New York/New Jersey Harbor. 34

Figure 5. Site 3 – Tremley Point – Potential Public Processing Facility Site in the New York/New Jersey Harbor. 36

Figure 6. Site 4 – Chelsea – Potential Public Processing Facility Site in the New York/New Jersey Harbor. 38

Figure 7. Site 5 – Pralls Island Reach – Potential Public Processing Facility Site in the New York/New Jersey Harbor. 40

Figure 8. Site 6 – Port Newark – Potential Public Processing Facility Site in the New York/New Jersey Harbor. 42

Figure 9. Site 7 – Kearny Point – Potential Public Processing Facility Site in the New York/New Jersey Harbor. 44

Figure 10. Site 8 – Bergen Point – Potential Public Processing Facility Site in the New York/New Jersey Harbor. 46

Figure 11. Site 9 – Military Ocean Terminal – Potential Public Processing Facility Site in the New York/New Jersey Harbor. 48

Figure 12. Site 10 – Newtown Creek – Potential Public Processing Facility Site in the New York/New Jersey Harbor. 50

Figure 13. Site 11 – Keasbey/Bayshore – Potential Public Processing Facility Site in the New York/New Jersey Harbor. 52

Figure 14. Site 12 – National Lead – Potential Public Processing Facility Site in the New York/New Jersey Harbor. 56

Figure 15. Site 13 – Cortlandt Quarry – Potential Public Processing Facility Site in the New York/New Jersey Harbor. 58

Figure 16. Site 14 – Con Edison – Potential Public Processing Facility Site in the New York/New Jersey Harbor 60

Figure 17. Potential Public Storage Facility Locations in the New York/New Jersey Harbor – Upland Pit CDF. 70

LIST OF FIGURES (CONTINUED)

FIGURE **PAGE**

Figure 18. Potential Public Storage Facility Locations in the New York/New Jersey Harbor – Upland Bermed CDF. 71

Figure 19. Potential Public Storage Facility Locations in the New York/New Jersey Harbor – In-Water Pit CDF. 83

Figure 20. Potential Public Storage Facility Locations in the New York/New Jersey Harbor – Nearshore Bermed CDF. 84

Figure 21. Preliminary Identification of Potential Public Storage Facility Sites in the New York/New Jersey Harbor Area. 96

Figure 22. Site 1 – Newtown Creek Potential Public Storage Facility Site in the New York-New Jersey Harbor area. 97

Figure 23. Site 2 – Caven Point Potential Public Storage Facility Site in the New York-New Jersey Harbor area. 99

Figure 24. Site 3 – Bergen Point Potential Public Storage Facility Site in the New York-New Jersey Harbor area. 101

Figure 25. Site 4 – Kearny Point Potential Public Storage Facility Site in the New York-New Jersey Harbor area. 103

Figure 26. Site 5 – Newark Bay Potential Public Storage Facility Site in the New York-New Jersey Harbor area. 105

Figure 27. Site 6 – Pralls Island Reach Potential Public Storage Facility Site in the New York-New Jersey Harbor area. 107

Figure 28. Site 7 – Tremley Point Potential Public Storage Facility Site in the New York-New Jersey Harbor area. 109

Figure 29. Site 8 – Port Reading Reach Potential Public Storage Facility Site in the New York-New Jersey Harbor Area. 111

LIST OF TABLES

TABLE **PAGE**

Table 1. Size Requirements in Acres for Different Confined Disposal Facility Types and Dredged Material Volume Capacities. 6

Table 2. Potential Public Processing Facility Sites Identified by USACE in New York, New York. 9

Table 3. Potential Public Processing Facility Sites Identified by USACE in New Jersey. .. 15

Table 4. Potential Public Processing Facility Sites Identified by NJDOT/OMR in New Jersey. 20

Table 5. Ranking and Rationale for Potential Public Processing Facility Sites Identified by USACE in New York, New York. 24

Table 6. Ranking and Rationale for Potential Public Processing Facility Sites Identified by USACE in New Jersey. 26

Table 7. Ranking and Rationale for Potential Public Processing Facility Sites Identified by NJDOT/OMR in New Jersey. 28

Table 8. Potential Dredged Material Public Processing Facility Sites in the New York-New Jersey Harbor Area. 29

Table 9. Potential Public Storage Facility Sites Identified by USACE in New York, NY – Upland Pit and Upland Bermed CDFs. 64

Table 10. Potential Public Storage Facility Sites Identified by USACE in New Jersey – Upland Pit and Upland Bermed CDFs. 67

Table 11. Potential Public Storage Facility Locations Identified by USACE in the New York/New Jersey Harbor – In-Water Pit CDFs. 74

Table 12. Potential Public Storage Facility Locations Identified by USACE in the New York/New Jersey Harbor – Nearshore Bermed CDFs. 80

Table 13. Ranking and Rationale for Potential Public Storage Facility Sites Identified by USACE in New York, New York. 87

Table 14. Ranking and Rationale for Potential Public Storage Facility Sites Identified by USACE in New Jersey. 90

Table 15. Potential Dredged Material Public Storage Facility Sites in the New York-New Jersey Harbor Area. 95

Table 16. Summary List of High-Ranked Sites for a Public Processing or Storage Facility. 113

LIST OF ACRONYMS AND ABBREVIATIONS

ACRONYM/ ABBREVIATION	DEFINITION
CDF	Confined Disposal Facility
CWA	Clean Water Act
CY	Cubic Yards
District	New York District
DMMP	Dredged Material Management Plan
ER	Engineer Regulation
GIS	Geographic Information System
Harbor	New York/New Jersey Harbor
HEP	New York/New Jersey Harbor Estuary Program
MCY	Million cubic yards
MPRSA	Marine Protection, Research and Sanctuaries Act of 1972
NJ	New Jersey
NJDEP	New Jersey Department of Environmental Protection
NJDOT/OMR	New Jersey Department of Transportation, Office of Maritime Resources
NWI	National Wetlands Inventory
NY	New York
NYC DoITT	New York City Department of Information Technologies Telecommunications
NYCEDC	New York City Economic Development Corporation
NYSDEC	New York State Department of Environmental Conservation
OASIS	New York City Open Accessible Space Information System Cooperative
PANY/NJ	Port Authority of New York/New Jersey
PEIS	Programmatic Environmental Impact Statement
Port	Port of New York and New Jersey
PPF	Public Processing Facility
PSF	Public Storage Facility
RDT	Regional Dredging Team
States	States of New York and New Jersey
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
WRDA	Water Resources and Development Act

1.0 INTRODUCTION

The United States Army Corps of Engineers (USACE), New York District (District), is working with its partners in the Port of New York and New Jersey (Port) to investigate the feasibility of developing a dredged material Public Processing Facility (PPF) and/or a dredged material Public Storage Facility (PSF) in the Port. In conjunction with the Regional Dredging Team (RDT), which includes the Port Authority of New York and New Jersey (PANY/NJ), the New York State Department of Environmental Conservation (NYSDEC), the United States Environmental Protection Agency (USEPA), the New Jersey Department of Environmental Protection (NJDEP), the New Jersey Department of Transportation, Office of Maritime Resources (NJDOT/OMR), and the New York City Economic Development Corporation (NYCEDC), the District is interested in identifying potential sites for the construction of a dredged material PPF and/or PSF in the New York/New Jersey Harbor (Harbor) area.

Planning, designing, and constructing either type of facility would be an expensive, complex, and high-profile endeavor, and the District is committed to carefully considering every aspect of its development. Determining potential locations to site a facility in the Harbor is an important preliminary step in the planning process. The overall goal of this study is to identify and evaluate potential dredged material PPF and PSF sites in the Harbor, to assist the District and its Port partners in their decision-making.

In order to both avoid overlooking any potential sites and maximize the use of existing information, including the extensive knowledge base of RDT members, the methodology employed in this study is three-fold: comprehensively search the Port area using tax maps and Geographic Information System (GIS) information; utilize sites identified in other studies; and, solicit information from RDT members. The specific objectives of this study are to:

1) Use information from recent economic modeling analyses to develop site screening criteria for a dredged material PPF and PSF;
2) Identify potential properties in the vicinity of the Port that are suitable for construction of a dredged material PPF and PSF;
3) Evaluate identified sites based on information obtained for each site and its surrounding area;
4) Summarize the resultant potential sites, including providing an aerial view of the sites; and,
5) Provide an overview and conclusions based on this analysis.

The results of the siting analysis for a dredged material PPF and a dredged material PSF are presented independently. After the introduction (Section 1.0), there is a description of the District's PPF site identification process, a presentation of the results of this site identification process, and a summary of the analysis and ranking of potential PPF sites (Section 2.0). The District's PSF site identification process, results, and summary of potential sites are then presented (Section 3.0). The report concludes with an overall summary and conclusions (Section 4.0) followed by references (Section 5.0).

1.1 STUDY AREA DESCRIPTION

For the purpose of identifying potential dredged material PPF and PSF sites in the Port, the study area includes all shoreline and nearshore areas in the Harbor, which is divided into an Upper Bay Complex and Lower Bay Complex (Figure 1). The Upper Bay Complex includes the following four sub-areas: 1) Upper New York Bay from the Verrazano Bridge to the Battery, including Bay Ridge Flats, Red Hook Channel and the embayments, flats, and channels of NJ to opposite of the Battery, 2) the Arthur Kill, Kill Van Kull and Newark Bay, north to Route 1/9, 3) the Hudson River from the Battery to the George Washington Bridge, and 4) the East River from the Battery to the Throgs Neck Bridge. The Lower Bay Complex includes Lower New York Bay, Sandy Hook Bay, and Raritan Bay.

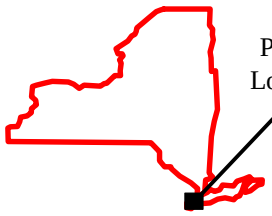
1.2 BACKGROUND

Based on the substantial challenges faced by Port managers to find suitable sites for dredged material placement in the region, and the current high cost of processing and placing dredged material, the RDT is investigating the feasibility of constructing a PPF and/or PSF. The RDT is composed dredged material managers at the local, state, and Federal level.

The RDT's interest in constructing a PPF as an alternative to utilizing existing privately developed facilities arose largely out of concern that private processing facilities may not be economically viable or sustainable for the long-term once large Port development projects like the USACE's Harbor Deepening Project are complete. The RDT is concerned about maintaining dredged material processing capability to adequately meet maintenance dredging needs, as well as avoiding a future situation where exorbitant processing fees are paid to a single dredged material processor in the Port. Interest in developing a PPF arises from the need for cost-effective processing and placement options, as opposed to an implicit or explicit desire to replace existing private dredged material processors with a publicly operated facility.

Another possible method to reduce processing costs involves the development of temporary storage capacity for pre-processed dredged material. Based on an economic sensitivity analysis for processing dredged material, one of the major factors affecting processing costs was flow rate (USACE 2006). Based on this analysis, a steady, consistent flow rate of dredged material to processing facilities could lower processing costs.

However, adding a storage facility would create additional costs (e.g., facilities, equipment, labor, and management). The amount of the additional costs would vary based on the type of storage facility, storage volume, and amount of material annually cycled through the facility. Depending on the ability of dredgers, processors, and operators of placement sites to capitalize on the consistent, available flow of material that would result from storage capacity for pre-processed dredged material, processing costs could be lowered. Sensitivity analyses of model assumptions for the various cost components indicate there may be the potential for cost savings of 20% to 30% below the base costs of the Updated Optimum PPF Model. If a storage facility can lower cost components in the overall PPF operation, there is potential to lower the overall cost for dredging, processing, and placement (USACE 2007).



Source: Digital Data Layers Provided by Environmental Sciences Research Institute, Inc. 1999

SCALE

5 0 5 Miles

10 0 10 Kilometers

LEGEND

- Upper Bay Complex
- Lower Bay Complex
- Major Highway
- Major Road

Figure 1. Study Area for the Identification of Potential Public Dredged Material Processing and Storage Facility Sites in the New York/New Jersey Harbor Area.

Prepared By: U.S. Army Corps of Engineers New York District

Date: 4/06

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1.3 PUBLIC PROCESSING FACILITY

The District, in conjunction with the RDT's PPF Subgroup (which comprises representatives from the USACE, NYSDEC, NJDEP, NJDOT/OMR, and PANY/NJ) have completed a preliminary evaluation of the economic feasibility of a Harbor-wide PPF to support proposed dredging in the Port. Following a detailed economic cost/benefit alternatives analysis, involving a series of incremental adjustments, the PPF Subgroup developed an Optimum Alternative. The Optimum Alternative consists of a single PPF sized to process 1.5 million cubic yards (MCY) of fine-grained silty dredged material every year.

This type of dredged material is commonly removed during regular maintenance dredging activities in the Harbor. Processing would consist of mixing the dredged material with chemical additives that act to stabilize the contaminants in the soil matrix, thereby making the dredged material suitable for upland placement and beneficial use at Brownfield sites and for other similar applications.

The Optimum Alternative also provides space for the potential expansion of the facility to handle the processing of more highly contaminated sediments. Although a viable, cost-effective treatment to process such "remedial" sediments has not yet been demonstrated on a large-scale, several promising technologies are under development. After the technology to process highly contaminated dredged material into a saleable product is demonstrated at a large-scale, it could be sited at the PPF. Furthermore, overall costs for the PPF could be significantly reduced if this process also produced a saleable product from a portion of the maintenance dredging material.

To develop the Optimum Alternative, approximately 20 acres of land with shoreline access to the Harbor would be required. A central location is preferable, such as Newark Bay, so that the site would be easily accessible to most dredging projects, but sites further removed from the center of the Harbor were also considered, since real estate in those areas could be more affordable.

The site also would benefit from access to major highways, because truck transport of material from the PPF to beneficial use sites was anticipated in the initial years of operation. Ultimately, however, it is likely that barge transportation of processed dredged material would be rapidly implemented, because of the significant cost savings associated with this type of transportation. Rail access also is an important consideration, so that upland sites inaccessible by water and distant from the Port could be considered for beneficial use.

Formulation of the economic modeling and the development of the Optimum Alternative are part of the first phase of evaluating the feasibility of a PPF for the Port. For the purposes of the GIS site identification and evaluation process in this report, the PPF attributes identified in the Optimum Alternative were used to guide the assessment of potential locations for the PPF in the Port. More detail on the alternatives analysis and the Optimum Alternative can be found in the final Economic Modeling Summary Report (USACE 2006).

1.4 PUBLIC STORAGE FACILITY

Economic modeling of the costs of processing and placing dredged material has indicated that one of the largest factors influencing cost/cubic yard (CY) is a reliable, consistent flow of dredged material, especially at or near the design capacity of the processing facility (Foster Wheeler 2001, Foster Wheeler 2002, USACE 2006). Because maintaining a consistent flow of dredged material on a weekly and yearly basis appears to be the most important factor controlling processing and placement costs, a facility that could store unprocessed dredged material could act to decouple dredging operations and processing operations.

Currently, dredging rates are constrained by Harbor-wide processing capability. Delays and work stoppages at processing facilities adversely affect the efficiency of dredging operations. If storage existed for pre-processed dredged material, there would be potential for simultaneous dredging projects and the optimization of dredging rates. If dredging firms knew their operations would not be limited by processing rate, they might be able to lower costs. In addition, dredged material placement operations would be able to predict more accurately the amount and timing of their receipt of processed dredged material. As with dredging firms, increased predictability could lead to greater operating efficiencies and lower costs (USACE 2007).

To further explore potential cost savings, storage alternatives for pre-processed dredged material were investigated using different storage capacities and facilities (USACE 2007). The additional economic modeling evaluated two facility designs and four sizes. The facility designs were pit confined disposal facilities (CDF) and bermed CDFs. Both types of CDFs could be either land-based or water-based, for a total of four configurations: Upland Pit CDF, Upland Bermed CDF, In-Water Pit CDF, and Nearshore Bermed CDF (Table 1).

The following four storage options were evaluated for each of these configurations: 250,000 CY, 500,000 CY, 1,000,000 CY, and 1,500,000 CY. [Note: these volumes are in-channel cubic yards, although the actual storage facilities were sized to hold decanted cubic yards, which because of "bulking", are about 12% larger by volume (USACE 2007).] These volumes are not arbitrary; they were selected based on the estimated annual volume of dredged material that would pass through a PPF (1,500,000 CY) and the daily in-channel cubic yard processing rate of the Optimum PPF (7,100 CY) (USACE 2006).

Each storage volume would provide enough material for an estimated amount of weeks of processing (USACE 2007):

- 250,000 CY – 6 weeks
- 500,000 CY – 12 weeks
- 1,000,000 CY – 38 weeks
- 1,500,000 CY – 52 weeks.

The 250,000 CY storage volume would be valuable when dredging contracts overlap and cause the production of temporary increases in the daily amounts of dredged material. Short-term ebbs in daily dredged material volumes caused by temporary dredging work stoppages (due to inclement weather, gaps between dredging contracts, etc.) would also not adversely affect

processing if pre-processed dredged material was available for mining from the storage area. Conversely, short-term temporary stoppages in processing would not hamper dredging operations. The 500,000 CY storage volume would provide enough material to accommodate longer periods of contract overlap and longer periods of dredging cessation before processing rates were reduced. Similarly, the 500,000 CY storage volume would increase the length of time processing operations could be offline without affecting dredging operations. Similarly, the two largest storage volumes would provide sufficient material to accommodate significant interruptions in dredging or processing, up to one year for the 1,500,000 CY storage volume (USACE 2007).

Formulation of the economic modeling and the development of the different storage facility configurations are part of the first phase of evaluating the feasibility of a PSF for the Port. For the purposes of the GIS site identification and evaluation process in this report, the PSF attributes identified in the economic modeling (Table 1) were used to guide the assessment of potential locations for a PSF in the Port. More detail on the alternatives analysis and the public storage configurations can be found in the draft Economic Modeling Summary Report (USACE 2007).

Table 1. Size Requirements in Acres for Different Confined Disposal Facility Types and Dredged Material Volume Capacities.

Storage Volumes / Facility Types	250,000 CY			500,000 CY			1,000,000 CY			1,500,000 CY		
	Storage Area	Support Area	Total Upland Area	Storage Area	Support Area	Total Upland Area	Storage Area	Support Area	Total Upland Area	Storage Area	Support Area	Total Upland Area
Land-Based												
Upland Pit	11.1	2.0	13.1	15.4	4.0	19.4	22.2	6.0	28.2	28.2	6.0	34.2
Upland Bermed	18.5	2.0	20.5	36.1	4.0	40.1	66.2	6.0	72.2	96.2	6.0	102.2
Water-Based												
In-Water Pit	6.0	2.0	2.0	9.6	2.0	2.0	15.9	2.0	2.0	21.9	2.0	2.0
Nearshore Bermed	18.6	2.0	2.0	37.1	4.0	4.0	74.2	6.0	6.0	111.3	6.0	6.0

2.0 PUBLIC PROCESSING FACILITY SITES

2.1 IDENTIFICATION

This section describes the process used to identify potential PPF sites in the Harbor. The PPF site identification process involved the use of existing available studies performed in the vicinity of the Port, online research and data, and consultation with Port stakeholders. Site identification data is grouped into two categories: the USACE's GIS-based site identification and a study commissioned by NJDOT/OMR identifying sites in NJ. The site identification processes and initial results from these sources are presented in the following sections.

2.1.1 USACE Site Identification

This section presents the method used by the District to identify potential PPF sites in the Harbor. However, the availability of digital data for New York and New Jersey differed, and these differences determined the method used to identify potential PPF sites. For that reason, the processes and results for PPF identification are described separately for New York and New Jersey.

New York

To identify potential PPF sites in New York, the District used the New York City Open Accessible Space Information System Cooperative (OASIS) website (www.oasisnyc.net) as a starting point. OASIS provides online interactive mapping and data analysis of the five Boroughs of New York City (OASIS 2006). Using OASIS, the District was able to view block and lot information and aerial photography (1994–1997) of the sites, and compared them with aerial photographs (2005) from Google Maps (www.maps.google.com). The District used OASIS to identify all lots greater than 20 acres that have waterfront access in the study area, excluding land designated for open space and outdoor recreation, such as New York City parks.

A number of site-specific attributes were obtained from OASIS for each of the potential PPF sites, including Borough, acreage, tax block and lot numbers, address, number of buildings/number of floors, building gross area, land use, zoning, and owner information. The District also was able to query OASIS regarding presence of natural features, as described below.

HEP	Identified as NY/NJ Harbor Estuary Program (HEP) Restoration or Acquisition sites
Natural Areas	Identified by New Yorkers for Parks and New York City Audubon Society, including sites that retain natural features, ecosystems, or processes
Stream, Lakes, Waterbodies	Identified by New York City Department of Information Technologies Telecommunications (NYC DoITT)

Wetlands Identified by the National Wetlands Inventory (NWI), New York State Tidal Wetlands, and New York State Freshwater Wetlands

In addition to this information, the District compiled a brief site description and included other notes as appropriate.

The District identified 89 potential PPF sites in New York City during this initial site identification. All of these sites reported acreages greater than 20 acres and had some waterfront access. The data collected for these sites are presented in Table 2.

New Jersey

To identify potential PPF sites in NJ, the District utilized tax maps available through NJ Tax Maps (www.njtaxmaps.com), an online tax mapping and data repository for NJ, and compared them with aerial photographs (2005) from Google Maps (www.maps.google.com). Similar to the New York process, the District also identified all lots in New Jersey greater than 20 acres that have waterfront access in the study area, excluding parks and recreation areas.

For each of the potential PPF sites, a number of site-specific attributes were obtained from New Jersey Tax Maps, including county, town, acreage, tax block and lot numbers, address, zoning (if available), and owner information. The District was also able to obtain information from New Jersey Tax Maps on property value, sales price, and deed date for some of the sites.

The District identified 88 potential PPF sites in New Jersey during this initial site identification. All of these sites were larger than 20 acres and had some waterfront access. The data collected for these sites are presented in Table 3.

2.1.2 NJDOT/OMR Site Identification

The NJDOT/OMR commissioned a study to identify potential placement sites for a PPF in the NJ sections of the Harbor (NJDOT/OMR 2003). This study involved a review of United States Geological Survey (USGS) topographic maps (Quadrangle Sheets) to identify potential PPF sites. NJDOT/OMR's review included the area from just south of the George Washington Bridge to just south of the Raritan River along the NJ shoreline. Based on review of the topographic maps for the area of interest, the NJDOT/OMR study initially identified 15 potential sites for siting a PPF (NJDOT/OMR 2003) (Table 4).

Table 2. Potential Public Processing Facility Sites Identified by USACE in New York, New York.

NY Site Number	Borough	Acreage	Block	Lot	Address	Number of Buildings	Number of Floors	Building Gross Area	Landuse	Zoning	Owner	NWI	Tidal Wetlands	Freshwater Wetlands	Parks	Natural Area	HEP Restoration or Acquisition	Notes
1	Brooklyn	35.1	614	1	685 Columbia Street, 11231	1	1	139,170	Transportation and Utility	M3-1: Manufacturing	Gowanus Industrial Pa				NYC Adjacent			Parking area with container storage, bulkhead, Piers; adjacent to ballfields
2	Brooklyn	65.5	612	205	794 Columbia Street, 11231	1	1	97,200	Transportation and Utility	M3-1: Manufacturing	Erie Basin Marine Association							Fully developed solid Pier, warehouses, bulkheads, barges docked
3	Brooklyn	20.7	612	250	Foot-of Columbia Street, 11231	2	1	111,870	Transportation and Utility	M3-1: Manufacturing	Erie Basin Marine Association							Fully developed solid Pier; car off-load site; barge tieup, bulkhead
4	Brooklyn	47.6	612	130	21 Erie Basin, 11231	1	2	627,105	Transportation and Utility	M1-1: Manufacturing	United States Dredgin							Fully developed; dry dock, Piers, bulkhead
5	Brooklyn	73.3	515	61	2 Atlantic Basin, 11231	1	1	1,785,288	Transportation and Utility	M2-1: Manufacturing	Department Re-City of NY							Bulkheads, warehouses, Parking areas, unused impervious surface area
6	Brooklyn	61.9	281	1	.	1	1	721,396	Transportation and Utility	M2-1: Manufacturing	New York State Owned							Lots not contiguous, many Piers, warehouses cover Piers, bulkhead
7	Brooklyn	23.6	245	15	268 Furman Street, 11201	1	3	231,926	Transportation and Utility	M2-1: Manufacturing	Port Authority of NY/NJ							One Pier covered with warehouse & Parking area; bulkhead
8	Brooklyn	48.6	199	3	146 Furman Street, 11201	1	8	1,029,838	Transportation and Utility	M2-1: Manufacturing	Port Authority of NY/NJ							Several Piers covered with warehouses & Parking area; bulkhead
9	Brooklyn	211.6	2023	1	652 Kent Avenue, 11211	91	15	5,600,000	Transportation and Utility	M3-1: Manufacturing	Department of Business							Several Piers; appears mostly abandoned; bulkheads, barges tied up
10	Brooklyn	35.8+/-	2525	1	327 GreenPoint Avenue, 11222	1	0	0	Transportation and Utility	M3-1: Manufacturing	Department of Environmental							Channel may not be navigable; sewage treatment plant; little Shore Frontage, bulkhead
11	Brooklyn	82.2+/-	2837	1	Porter Avenue, 11211	40	0	0	Transportation and Utility	M3-1: Manufacturing	Brooklyn Union Gas Co	YES						Channel may not be navigable; two LNG/petroleum storage tanks & infrastructure occupy most of lot
12	Queens	27.3	2529	1	44-02 57 Avenue, 11378	0	0	0	Vacant Land	M3-1: Manufacturing	Sagres 9 LLC							Channel may not be navigable; site undeveloped, rail line, bulkhead
13	Queens	20.1	1	1	1 2 Street, 11101	1	3	182,397	Industrial and Manufacturing	M3-1: Manufacturing	Port Authority of NY/NJ							Listed acreage seems Incorrect (10 acres?); grAssociationy area near Shore, bulkheads
14	Queens	27.1	490	101	4 1 Street, 11102	22	7	1,116,500	Multi-Family Elevator Buildings	R6: Residential	New York City Housing	YES Shore						Fully developed; large residential Housing area; bulkhead
15	Queens	See Note	850	100	20 Avenue, 11105	0	0	0	Transportation and Utility	M3-1: Manufacturing	Consolidated Edison C	YES Shore						No acreage info available, > 20 acres; petroleum storage tanks; fully developed
16	Queens	123.9	850	1	20 Avenue, 11105	18	0	0	Transportation and Utility	M3-1: Manufacturing	Consolidated Edison C	YES	YES					Power plant, several small petroleum storage tanks; bulkheads, barge tie up, Parking; northeast corner has small amount of open space
17	Queens	33.1	814	27	18-02 Steinway Street, 11105	5	2	13,725	Industrial and Manufacturing	M3-1: Manufacturing	Astoria Energy LLC	YES Shore						Petroleum storage tanks cover lot; bulkhead

Table 2. Potential Public Processing Facility Sites Identified by USACE in New York, New York.

NY Site Number	Borough	Acreage	Block	Lot	Address	Number of Buildings	Number of Floors	Building Gross Area	Landuse	Zoning	Owner	NWI	Tidal Wetlands	Freshwater Wetlands	Parks	Natural Area	HEP Restoration or Acquisition	Notes
18	Queens	See Note	776	150	Berrian Boulevard, 11105	1	0	0	Transportation and Utility	M3-1: Manufacturing	Department of Environmental					YES	Rest	No acreage info available, > 20 acres; sewage treatment plant; bulkhead, barge tie up, Pier
19	Queens	650.0	926	1	Grand Central Pkwy, 11370	10	1	1,539,263	Transportation and Utility	M1-1: Manufacturing	Department of Business	N/A	N/A	N/A	N/A	N/A	N/A	La Guardia AirPort
20	Queens	See Note	20000	9999	N/A	0	0	0	Unknown Land Use	N/A	N/A							No acreage info available, > 20 acres; Grand Central Pkwy next to La Guardia AirPort covers lot
21	Queens	23.6	3916	100	5 Avenue, 11356	0	0	0	Parking Facilities	R4: Residential	Powell Cove Associates	YES						Partial Parking lot; some open space; vegetated upland
22	Queens	See Note	3925	1	127-11 Powells Cove Blvd, 11356	20	0	0	Transportation and Utility	M2-1: Manufacturing	Steven Dostis						Rest	No acreage info available, > 20 acres; sewage treatment plant
23	Manhattan	23.0	1819	40	Wards Island, 10035	9	5	94,875	Public Facilities and Institutions	M3-1: Manufacturing	Fire Department				NYC Adjacent	YES Adjacent	Rest Adjacent	Warehouse/industrial complex, small buildings, Parking areas; small bulkhead
24	Manhattan	See Note	1819	15	Wards Island, 10035	10	0	0	Transportation and Utility	M3-1: Manufacturing	Department of General Services	YES Shore						No acreage info, > 20 acres; sewage treatment plant; bulkhead, barges tied up
25	Manhattan	107.3	1373	1	281 Main Street, 10044	35		4,576,323	Mixed Residential and Commercial Buildings	R7-2: Residential	Housing Preservation	YES Shore				YES		Island, school; all small Parks; residential, multi story apartments
26	Manhattan	21.2	240	6	South Street, 10002	0	0	0	Vacant Land	C2-8: Commercial	Department of Business	YES Shore						Very thin strip of land between Shore and Street
27	Manhattan	25.2	656	1	Pier 40 Marginal Street, 10014	1	2	1,096,075	Transportation and Utility	M2-3: Manufacturing	Port Authority of NY/NJ	YES Shore						Solid Pier, bulkhead all sides; container storage facility
28	Manhattan	45.2	1171	1	5 West End Avenue, 10023	0	0	0	Vacant Land	R10: Residential	National Railroad Pas	YES Shore						Major Road through site, near Shore; Parking area, some open space; 1/2 lot bulkhead
29	Manhattan	See Note	2101	117	West 135 Street, 10031	0	0	0	Transportation and Utility	M1-1: Manufacturing	Department of Environmental	YES Shore			NYC Adjacent			No acreage info available, > 20 acres; athletic facility
30	Staten Island	52.8	1301	1	3551 Richmond Terrace, 10303	1	1	12,960	Parking Facilities	M2-1: Manufacturing	City Wide Administration	YES	YES			YES	Acq. & Rest	Mostly undeveloped, wetland, some upland vegetation; small Parking area, no bulkhead
31	Staten Island	39.0	1309	10	3625 Richmond Terrace, 10303	0	0	0	Vacant Land	M3-1: Manufacturing	Port Authority of NY/NJ	YES	YES			Adjacent	Acq. & Rest	Partial wetland; mostly undeveloped, upland vegetation; small Pier, small bulkead, small Parking/impervious surface
32	Staten Island	210.4	1410	250	300 Western Avenue, 10303	1	1	575,000	Transportation and Utility	M3-1: Manufacturing	Department of Business	YES	YES			YES	Rest. Small	Large off-loading container facility; bulkhead, ship tie-up; some wetland
33	Staten Island	19.8	1895	1	Old Place, 00000	0	0	0	Vacant Land	M3-1: Manufacturing	Department of Business	YES	YES			YES	Rest	Wetland, lot undeveloped; South of Staten Island Expressway bridge
34	Staten Island	97.6	1835	150	500 Bloomfield Road, 10314	0	0	0	Vacant Land	M3-1: Manufacturing	Gatx Si, Inc.	YES		YES		YES	Rest	Looks commercial/gas; lot possibly being redeveloped; 1/2 lot open area

Table 2. Potential Public Processing Facility Sites Identified by USACE in New York, New York.

NY Site Number	Borough	Acreage	Block	Lot	Address	Number of Buildings	Number of Floors	Building Gross Area	Landuse	Zoning	Owner	NWI	Tidal Wetlands	Freshwater Wetlands	Parks	Natural Area	HEP Restoration or Acquisition	Notes
35	Staten Island	114.0	1835	300	Arthur Kill Road, 10314	0	0	0	Vacant Land	M3-1: Manufacturing	Imtt-Pipeline	YES	YES small	YES		YES	Rest	Undeveloped, 1/2 wetland, 1/4 upland vegetation; small Roads, no bulkhead or Piers
36	Staten Island	48.4	1835	50	1 River Road, 10314	0	0	0	Vacant Land	M3-1: Manufacturing	Texas Eastern Transmission	maybe	YES small		NYC Adjacent	YES	Rest	Undeveloped, some wetland, mostly upland vegetation; no bulkhead or Piers
37	Staten Island	28.1	1801	75	1900 A South Avenue, 10314	1	1	20,000	Industrial and Manufacturing	M3-1: Manufacturing	Vanbro Corp	maybe		YES	NYC Adjacent	YES/Tiny	Rest. Small	Currently being used as a dredge material processing area; wetlands and HEP areas on small part of site; adjacent property (Block 1801, Lot 160) is also being used for dredge storage/processing
38	Staten Island	23.0	2810	12	Meredith Avenue, 10314	0	0	0	Vacant Land	M3-1: Manufacturing	Sam & Frank Mezzacapp	YES	YES			YES	Acq	Undeveloped wetland; no bulkhead or Piers
39	Staten Island	See Note	2705	1	4431 Victory Boulevard, 10314	0	0	0	Transportation and Utility	M3-1: Manufacturing	Arthur Kill Power LLC	YES	YES	YES		YES	Acq	Listed as 14 acres, looks much larger; industrial plant; partly wetland, upland vegetation; over 1/2 of lot undeveloped
40	Staten Island	36.8	2705	225	4435 Victory Boulevard, 10314	1	1	176,000	Industrial and Manufacturing	M3-1: Manufacturing	Visy Paper (NY) Inc	YES				YES	Acq	Some development, partly wetland, some upland vegetation; no bulkhead, no Piers
41	Staten Island	See Note	2705	300	0	0	0	0	Unknown Land Use	Not Listed	Not Listed	YES	YES			YES small	Acq	No acreage info, > 20 acres; mostly wetland, some industrial; new warehouse with Pier/bulkhead
42	Staten Island	84.0	2725	1	Arthur Kill Road, 10314	0	0	0	Vacant Land	M3-1: Manufacturing	Sanitation	YES	YES			YES	Acq. Adjacent	Island of Meadows; undeveloped wetland Island, some upland vegetation; no bulkhead or Piers
43	Staten Island	93.0	2685	100	West Shore EXPWY, 10314	0	0	0	Vacant Land	M3-1: Manufacturing	Sanitation	YES Shore	YES small			YES	Acq. Adjacent	Some development, partial wetland, mostly dry; no buildings, no bulkheads or Piers
44	Staten Island	63.1	2685	1	117 Park Drive West, 10314	1	1	24,175	Transportation and Utility	M1-1: Manufacturing	Sanitation	YES small	YES			YES		Some development, grAssociationy upland; small bulkhead, possible landfill; part of Fresh Kills Park
45	Staten Island	34.0	2600	125	Richmond Avenue, 10314	0	0	0	Vacant Land	R3-2: Residential	Sanitation	YES total	YES total			YES		Undeveloped wetland; part of Fresh Kills Park
46	Staten Island	523.7	2520	1	2171 Richmond Avenue, 10314	1	2	74,000	Transportation and Utility	R3-2: Residential	Sanitation	YES	YES			YES	Rest. Small	Mostly undeveloped wetland; part of Fresh Kills Park; possible landfill; no bulkhead or Pier
47	Staten Island	146.0	5804	1	Arden Avenue, 10312	0	0	0	Transportation and Utility	R3-2: Residential	Sanitation	YES	YES			YES	Rest. Small	Undeveloped, some wetland, grAssociationy; possible landfill; no bulkhead or Pier

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NY Site Number	Borough	Acreage	Block	Lot	Address	Number of Buildings	Number of Floors	Building Gross Area	Landuse	Zoning	Owner	NWI	Tidal Wetlands	Freshwater Wetlands	Parks	Natural Area	HEP Restoration or Acquisition	Notes
48	Staten Island	237.0	5900	100	Arthur Kill Road, 10312	0	0	0	Transportation and Utility	M1-1: Manufacturing	Department of General Servi	YES	YES small			YES	Rest. Small	Undeveloped small Road, small wetland, grAssociationy upland vegetation; possible landfill; no bulkhead or Piers
49	Staten Island	284.0	5900	500	1323 West Service Road, 10314	1	2	18,000	Transportation and Utility	M1-1: Manufacturing	Sanitation	YES Shore	YES small			YES		Roads, barges docked along Shore w/facility, bulkhead; degraded natural area w/ light industrial
50	Staten Island	118.0	5965	500	Arthur Kill Road, 10312	0	0	0	Vacant Land	M1-1: Manufacturing	Sanitation	YES Shore	YES small			YES		Undeveloped small Road bisecting lot; possible landfill
51	Staten Island	91.8	6169	200	1540 West Service Road, 10312	1	2	180,000	Transportation and Utility	M3-1: Manufacturing	Sanitation	YES Shore	YES small			YES		Undeveloped small Road bisecting lot; possible landfill
52	Staten Island	32.9	7162	100	2629 Arthur Kill Road, 10309	4	1	5,050	Transportation and Utility	M3-1: Manufacturing	Department of Correct	YES small						Mostly undeveloped, partial wetland; small dock space, no bulkhead
53	Staten Island	36.4	7167	70	Arthur Kill Road, 10309	1	1	800	Open Space and Outdoor Recreation	M3-1: Manufacturing	Kollel Beth Yiechel M	YES small	YES					Mostly undeveloped, upland vegetation; not much Shore Frontage, no bulkhead or Pier; lot adjacent to school
54	Staten Island	81.0	7187	1	2911 Arthur Kill Road, 10309	1	2	444,000	Public Facilities and Institutions	M3-1: Manufacturing	NYS Urban Development	YES	YES					School (Arthur Kill Correctional Facility)
55	Staten Island	30.8	7207	60	Arthur Kill Road, 10309	0	0	0	Vacant Land	M3-1: Manufacturing	Mobil Oil Corp	YES		YES		YES	Acq	Port Mobile; undeveloped, wetland forest and tidal flats, upland vegetation; small Shoreline, no bulkhead or Pier
56	Staten Island	175.6	7247	1	4101 Arthur Kill Road, 10309	2	2	48,053	Industrial and Manufacturing	M3-1: Manufacturing	Mobil Oil Corp	YES		YES		YES 1/4	1/4 Acq	Petroleum storage tanks; bulkhead, ship and barge docking; fully developed
57	Staten Island	See Note	7400	200	Sharrotts Road, 10309	0	0	0	Vacant Land	M1-1: Manufacturing	Estate of John J Witt	YES Shore				YES		Listed as 20.23 acres; looks smaller; undeveloped, some wetland, some upland vegetation; small Pier, no bulkhead
58	Staten Island	70.0	7596	1	Arthur Kill Road, 10309	0	0	0	Vacant Land	R3-2: Residential	PC Group LLC	YES	YES small	YES		YES		Undeveloped, upland vegetation; no bulkhead or Pier
59	Staten Island	196.0	7644	1	Hylan Boulevard, 10309	0	0	117,475	Vacant Land	R3-2: Residential	People of the State o	YES		YES		YES		Private residence, beach, wooded, open spaces; no bulkhead or Piers
60	Staten Island	66.6	7644	100	Hylan Boulevard, 10309	4	0	0	Public Facilities and Institutions	R3-2: Residential	Not Listed	YES	YES			YES		Private residence, beach, wooded, open spaces; no bulkhead or Piers
61	Staten Island	206.4	3930	90	455 New Dorp Lane, 10306	1	1	45,570	Open Space and Outdoor Recreation	R3-2: Residential	U S Government Owned	YES small				Adjacent		Not shown as a NYC Park; open space, beach, ballfields; Miller Field?
62	Staten Island	207.7	3128	1	Bay Street, 10305	20	3	236,591	Public Facilities and Institutions	R3-2: Residential	Naval Station New York	YES Shore						Location of Verrazano Bridge, Fort Wadsworth, beach, ballfields, offices
63	Staten Island	154.8	487	110	455 Front Street, 10304	8	1	296,350	Public Facilities and Institutions	M1-1: Manufacturing	Department of General Services							Large docking area; somewhat narrow strip between Shore and Street; all bulkhead, large Pier

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NY Site Number	Borough	Acreage	Block	Lot	Address	Number of Buildings	Number of Floors	Building Gross Area	Landuse	Zoning	Owner	NWI	Tidal Wetlands	Freshwater Wetlands	Parks	Natural Area	HEP Restoration or Acquisition	Notes
64	Staten Island	52.7	2	20	75 Richmond Terrace, 10301	1	0	0	Open Space and Outdoor Recreation	M1-1: Manufacturing	The City of New York	YES Shore						Adjacent to North Shore Esplanade Park, Richmond County Bank BallPark & large Parking area
65	Brooklyn	27.0	644	1	730 3 Avenue, 11232	7	3	453,678	Transportation and Utility	M3-1: Manufacturing	Department of Business							Acreage appears to Include Pier, which has been removed in newer aerials
66	Brooklyn	137.1	662	1	269 37 Street, 11232	1	1	3,970,000	Transportation and Utility	M3-1: Manufacturing	Department of Business							Large docking area, Parking; bulkhead, Piers, one large Pier looks unused (~9 acres)
67	Brooklyn	75.8	725	1	5102 1 Avenue, 11232	9	6	659,725	Transportation and Utility	M3-1: Manufacturing	Department of Business					YES	Rest	Acreage appears to be smalled than listed, with non-contiguous Piers; railRoad adjacent looks unused; upland vegetation; bulkhead, old Piers need repair
68	Brooklyn	21.2	725	200	5102 1 Avenue, 11232	1	0	0	Transportation and Utility	M3-1: Manufacturing	Not Listed	YES small				YES	Rest	Looks unused, undeveloped; upland vegetation; some bulkhead, old Piers need repair
69	Brooklyn	33.2	819	1	5600 1 Avenue, 11220	1	2	316,478	Industrial and Manufacturing	M3-1: Manufacturing	Department of Business							Warehouses, Parking, bulkhead; fully developed
70	Brooklyn	94.8	5778	1	6224 2 Avenue, 11220	3	8	5,359,400	Transportation and Utility	M2-1: Manufacturing	Department of Business							Large buildings, Piers, Parking, bulkhead; rail line close by
71	Brooklyn	See Note	5804	2	Colonial Road, 00000	0	0	0	Transportation and Utility	M2-1: Manufacturing	Department of Business							No acreage info available, looks close to 20 acres; open space; rail yard, bulkhead, small Shore Frontage
72	Brooklyn	See Note	5835	1		0	0	0	Unknown Land Use	non listed	non listed							No acreage info available, looks close to 20 acres; sewerage facility
73	Brooklyn	183.8	6153	1	9275 Ft Hamilton Parkway, 11209	77	1	1,545,708	Public Facilities and Institutions	R4: Residential	City of New York							Location near Verrazano Bridge; sPorts facilities; major Road along Shore; Fort Hamilton
74	Brooklyn	22.3	6491	11	1608 Shore Parkway SR S, 11214	7	2	285,471	Commercial and office Buildings	M3-1: Manufacturing	Monica Rippa	YES Shore						Large building, Parking, some of Parking area maybe unused, bulkhead
75	Brooklyn	23.6	6943	30	1860 Bay 41 Street, 11214	1	5	193,441	Transportation and Utility	M3-1: Manufacturing	Sanitation	YES Shore			NYC adjacent			Large buildings, Power plant?, bulkhead, Pier
76	Brooklyn	57.6	8760	60	2001 Oriental Boulevard, 11235	11	8	353,600	Public Facilities and Institutions	R3-1: Residential	N.Y.S. Dormitory Auth							CUNY Kingsboro Community College
77	Queens	21.1	16340	50	101 Bayside Drive, 11697	463	1	0	One and Two Family Buildings	R4: Residential	Breezy Point Coopera	YES				Adjacent		Beach, many residential units
78	Queens	82.4	16350	300	202-30 Rockaway Point Blvd, 11697	1,007	1	2	One and Two Family Buildings	R4: Residential	Breezy Point Coopera	YES Shore						Beach, many residential units
79	Bronx	83.5	5530	50	Ft Schuyler Park, 10465	26	2	666,387	Public Facilities and Institutions	R4: Residential	State of New York	YES Shore						Bridge crosses lot; ballfields, residential
80	Bronx	55.3	5506	1	Silver Beach, 10465	223	1	0	One and Two Family Buildings	R4A: Residential	Helen Salmon	YES Shore						Many residential units

Table 2. Potential Public Processing Facility Sites Identified by USACE in New York, New York.

NY Site Number	Borough	Acreage	Block	Lot	Address	Number of Buildings	Number of Floors	Building Gross Area	Landuse	Zoning	Owner	NWI	Tidal Wetlands	Freshwater Wetlands	Parks	Natural Area	HEP Restoration or Acquisition	Notes
81	Bronx	128.8	2770	1	410 Halleck Street, 10474	1	2	1,172,005	Unknown Land Use	M1-1: Manufacturing	Department of Business							Large warehouses, trucking, tractor trailers, Parking; rail yard; fully developed
82	Bronx	166.2	2781	500	Hunt's Point Avenue, 10474	1	1	1,405,879	Transportation and Utility	M3-1: Manufacturing	Department of General Servi	YES						Large warehouses, trucking, tractor trailers, Parking, bulkhead; some open Shoreline undeveloped or unused
83	Bronx	See Note	2780	73	1280 Ryawa Avenue, 10474	2	2	400,000	Unknown Land Use	M3-1: Manufacturing	Department of Business							Area listed as 14.3 acres looks much larger; new warehouse facility; Parking lot with Pier, bulkhead (approx 26 acres)
84	Bronx	See Note	2780	2	Ryawa Avenue, 10474	0	0	0	Transportation and Utility	M3-1: Manufacturing	Department of Environmental	YES small						No area info available, > 20 acres; sewerage facility
85	Bronx	51.4	2604	174	Leggett Avenue, 10455	0	0	0	Vacant Land	M3-1: Manufacturing	Britestarr Homes Inc	YES Shore				YES		Undeveloped, upland vegetation; old bulkhead, old Piers, near rail line
86	Bronx	20.5	2605	20	North Brother Island, 10474	16	0	24,600	Public Facilities and Institutions	C8-2: Commercial	Department of General Services	YES				YES		Island; partial bulkheads, small Piers; part of Riker's Island complex?
87	Bronx	409.2	2605	40	10-01 Hazen Street, 11370	3	6	5,502,107	Public Facilities and Institutions	C8-2: Commercial	Department of General Servi							Rikers Island (prison?)
88	Manhattan	177.6	1	10	1 Governors Island, 10004	163	0	2,725,731	Public Facilities and Institutions	R3-2: Residential	Governors Island Preservation							Governor's Island; fully developed; fort, small Piers
89	Manhattan	63.5	1	201	1 Ellis Island, 10004	1	201	603,130	Unknown Land Use	R3-2: Residential	U S Govt Land & Bldgs	YES Shore						Ellis Island; fully developed

Key

Rest HEP Restoration Site
Acq HEP Acquisition Site

Table 3. Potential Public Processing Facility Sites Identified by USACE in New Jersey.

NJ Site Number	County	Town	Acreage	Block	Lot	Address	Zoning	Owner	Value *	Sales Price	Deed Date	Corresponds with NJDOT Report	Notes
1	Bergen	Ft. Lee	22.7	7202	3	East of Hudson Terr.		Palisades Interstate Park Comm.					Ft. Lee Historic Park; undeveloped area south of George Washington Bridge
2	Bergen	Edgewater	45.6	84.01	1.01	455 River Road		Edwtr Ret. Ptnrs, C/O KPMG, LLG					New large building, possible shopping mall; parking
3	Bergen	Edgewater	21.9	92	3								Undeveloped, new construction on site
4	Bergen	Edgewater	21.3	99	1								Many buildings, parking; lawns
5	Hudson	West New York	83.1	168	7								Many residential buildings, possibly condos; 1/4 site open; underdevelopment
6	Hudson	Weehawken	61.6	64	1.01								Large parking area, marina; area to bulkhead 61.64 acres
7	Hudson	Weehawken	48.6	45	2.01								Lincoln Tunnel; area to bulkhead 26.18 acres; parking & marina
8	Hudson	Weehawken	26.6	36.01	6.01								South of Lincoln Tunnel; lot undeveloped, trees, open space
9	Hudson	Weehawken	47.2	34.03	4								Bulkhead to pierhead 20.5 acres; large buildings, parking, marina
10	Hudson	Hoboken	20.7	261	1	1101-1125 Hudson		PT Maswell LLC					Industrial facility, parking, piers
11	Hudson	Jersey City	27.7	1507	10.B	Foot of Linden Avenue		Hugo Neu Schnitzer East	$ 3,332,000		3/10/1981		Possible scrap metal site; many barges, few buildings
12	Hudson	Jersey City	56.5	1507	17	New York Bay		Consolidated Rail Corp.					Greenville Rail Yards; many railroad tracts, piers
13	Hudson	Jersey City	131.2	1507	25	20 Colony Rd.		Port Authority of NY & NJ					Parking area, piers, barges
14	Hudson	Jersey City	25.0	1514.8	3			1514.D 410 Port Authority	$ 11,700,000	$ -	1/15/1982	NJDOT/OMR Site #3 - Global Marine Terminal	End of large loading area, solid pier; container storage & car off-loading site; partial water acreage
15	Hudson	Jersey City	28.2	1514.8	4			1514.D 411 Port Authority	$ 9,803,200	$ -	1/15/1982	NJDOT/OMR Site #3 - Global Marine Terminal	End of large loading area, solid pier; container storage & car off-loading site; partial water acreage
16	Hudson	Jersey City	46.2	1514.6	2							NJDOT/OMR Site #3 - Global Marine Terminal	Large loading area, solid pier; container storage
17	Hudson	Bayonne	638.7	404	1	Bayonne, NJ		Bayonne Local Redevelopment Authority	$ 435,000,000	$ 1	9/11/2002	NJDOT/OMR Site #3 - Global Marine Terminal	Military Ocean Terminal, some areas appear less used or abandoned, others in active use
18	Hudson	Bayonne	64.8	412	4.01	75 Le Fante Way		Bayonne Golf Holdings LLC	$ 1,337,000	$ 1	3/28/2005		Large cleared area, gravel; possibly under construction for a golf course
19	Hudson	Bayonne	159.8	412	5.01	1 Le Fante Way		Bayonne Golf Holdings LLC	$ 5,809,000	$ 1	3/28/2005		Large cleared area, gravel; possibly under construction for a golf course

*Note: this information is New Jersey Tax Map's most up-to-date information, but is not necessarily current.

Table 3. Potential Public Processing Facility Sites Identified by USACE in New Jersey.

NJ Site Number	County	Town	Acreage	Block	Lot	Address	Zoning	Owner	Value *	Sales Price	Deed Date	Corresponds with NJDOT Report	Notes
20	Hudson	Bayonne	215.0	412	6	Le Fante Way		Bayonne Golf Holdings LLC	$ 385,000	$ 1	3/28/2005		Large cleared area, gravel; possibly under construction for a golf course
21	Hudson	Bayonne	108.0	419	1								Petroleum storage tank facility; boat dockage
22	Hudson	Bayonne	23.7	478	2								Narrow, actual acreage may be too small; oil storage tanks in adjacent lot; mostly undeveloped
23	Hudson	Bayonne	82.7	478	1								Petroleum storage tank facility; boat dockage
24	Hudson	Bayonne	23.0	476.01	6							NJDOT/OMR Site #4 - Port Johnson	Petroleum storage tank facility; boat dockage
25	Hudson	Bayonne	23.0	475	9								City of Bayonne Sewage Disposal Plant; narrow shore frontage; actual acreage may be too small
26	Hudson	Bayonne	32.5	390	1	Avenue A & W 1st Street		Texaco Inc.	$ 6,498,000			NJDOT/OMR Site # 5 - Bergen Point	Large open area, bulkhead, adjacent lots also open (Block 391/2, 7.05 acres; Block 360/2, 10.9 acres); near residential, but other industrial adjacent
27	Hudson	Jersey City	26.7	1288.1	19								Residential, barracks; fully developed
28	Hudson	Jersey City	25.4	1290.3	14								Droyer's Point; large cleared area, gravel
29	Hudson	Kearny	144.9	288	2								Large container facility; large buildings, parking
30	Hudson	Kearny	10 See Note	297	2	Central Ave		Passaic VLY WTR Com	$ 11,000	$ -		NJDOT/OMR Site #8D - Kearny Point	Kearny Point - large open area, bulkhead, adjacent lots also open (Block 297/3, 9.47acres; Block 297/1, 5 acres; area east of Central Ave contains three lots Block 297/1a, 5.62 acres; Block 297/1b, 6.8 acres; Block 297/1c, 11.6 acres); vegetated and small buildings on site; industrial area, mostly barren; possible holding ponds and water treatment
31	Hudson	Kearny	116.9	296	20							NJDOT/OMR Site #8C - Droyers Point	Trucking and warehousing facility; small vacant area in south part of site is clear with some docking space, bulkhead
32	Essex	Newark	46.8	5074	25.01								Petroleum storage tank facility
33	Essex	Newark	39.3	5074	9.01	754-768 Doremus Ave. R.		Motive Enterprises	$ 3,953,400	$ 16,169,720	10/1/1998		Undeveloped, wetland; wildlife habitat
34	Essex	Newark	115.9	6000	117								Huge outdoor storage area, car off-loading; piers, barges, bulkhead around the site Port Newark
35	Essex	Newark	81.7	6000	1								Huge outdoor storage area, car off-loading; piers, barges, bulkhead. Port Newark
36	Essex	Newark	93.9	6000	10.01							NJDOT/OMR Site #6 - Port Newark	Huge outdoor storage area, car off-loading; piers, barges, bulkhead. Port Newark
37	Essex	Newark	210.7	6000	35	Port Newark Zone		City of Newark	$ 98,234,900	$ -	2/21/1995	NJDOT/OMR Site #6 - Port Newark	Large mixed use dock area, one portion looks unused (approx 35 acres); Port Newark

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Table 3. Potential Public Processing Facility Sites Identified by USACE in New Jersey.

NJ Site Number	County	Town	Acreage	Block	Lot	Address	Zoning	Owner	Value *	Sales Price	Deed Date	Corresponds with NJDOT Report	Notes
38												NJDOT/OMR Site #7 - Port Elizabeth	Elizabeth Port Authority Piers; no tax map information available; large outdoor container storage area, over 20 acres
39	Union	Elizabeth	66.7	See Note									No block and lot info available, listed #1-1206 C; huge outdoor storage area/parking; bulkhead, barges; heavily developed
40	Union	Elizabeth	105.5	See Note				Allied Chemical and Dye Corp.					No block and lot info available, listed #1-1314; some open space small wetland, open area probably over 20 acres
41	Union	Elizabeth	85.0	See Note									No block and lot info available, listed #1-1380; warehouse or factory with parking around large building
42	Union	Elizabeth	39.6	See Note									No block and lot info available, listed #1-953 B; fully developed; many buildings, RR line adjacent
43	Union	Linden	82.3	586	5	Dock Property		Bayway Refining Co % ConocoPhilips	$ 8,787,000	$ 66,300,000	4/18/1993		Petroleum off-loading area; some open space, bulkhead, barges; wetlands
44	Union	Linden	33.9	586	7.01								Lot fully developed; Public Service Generating Station
45	Union	Linden	93.8	586	8	Waterfront		New Jersey State of Department of Enviro.	$ 15,939,600	$ -	3/17/2005	NJDOT/OMR Site #9 - Pralls Island Reach	Abandoned, entirely open space
46	Union	Linden	21.4	586	2.01								Petroleum off-loading area; bulkhead, barges; only 150 ft of shoreline; actual acreage may be too small
47	Union	Linden	21.2	587	7	4801 Tremley Pt Rd Rear		Citgo Petroleum					Several oil tanks; bulkhead; over 1/2 lot open space
48	Union	Linden	21.5	587	8	4900 Tremley Pt Rd		Linden Marine LLC / American Cyanide Co	$ 6,950,000	$ 8,750,000	9/21/2005	NJDOT/OMR Site #14 - Tremley Point	Residential, barracks; fully developed
49	Union	Linden	39.6	587	13	4800 Tremley Pt Rd		Citgo Petroleum					Many oil tanks; located on Rahway River; very small area open space, possibly > 20 acres
50	Union	Linden	87.3	587	16	4050 Tremley Pt Rd		George Sacks Inc.	$ 1,746,000	$ 1,198,152			Entire lot undeveloped, mostly wetland; located on Rahway River
51	Middlesex	Carteret	See Note	See Note			Light Industry	Carteret					Point on Rahway River, contains several adjacent lots with same owner; Block 10 lots 12,13,14,15 total 31.57 acres; wetland with somewhat dry, gravel roads
52	Middlesex	Carteret	30.6	5.02	1.01		Heavy Industry	Borough of Carteret					Partially developed, with some cleared open space; two small oil tanks, possibly abandoned; small dock space

*Note: this information is New Jersey Tax Map's most up-to-date information, but is not necessarily current.

Table 3. Potential Public Processing Facility Sites Identified by USACE in New Jersey.

NJ Site Number	County	Town	Acreage	Block	Lot	Address	Zoning	Owner	Value *	Sales Price	Deed Date	Corresponds with NJDOT Report	Notes
53	Middlesex	Carteret	See Note	See Note			Heavy Industry	US Metals Refining Company					Multiple lots with same owner (Block 3 Lots 4, 2.01, 2.02, 2.23, 1; total acreage 57.21); large open space along shoreline, large industrial site on western portion
54	Middlesex	Carteret	36.8	1	2.2	380 Middlesex Ave.	Heavy Industry	Cyprus Amax C/O	$ 22,845,600	$ -			Tufts Point; large open space along shoreline; large industrial building on lot
55	Middlesex	Woodbridge	See Note	1095	1,2,3,4	Port Reading Ave	Light Industry	Public Service Electric & Gas Co.	$ 8,657,300	$ 12,000,000	9/30/2004	NJDOT/OMR Site #10 - Port Reading	Four lots with same owner (195.8 total acres); rail yard; large open space on northeastern portion of property; bulkhead, piers; potential wildlife habitat & green space
56	Middlesex	Woodbridge	46.3	1095	6	Port Interior		Amerada Hess (Port Reading)	$ 1,852,400	$ 1	3/4/1985		Area adjacent to rail yards; partial wetland, possible boat docking
57	Middlesex	Woodbridge	46.2	760.B	1	S Creek & S.I. Sound		Amerada Hess (Port Reading) Corp	$ 1,610,400				Docking area with pier, bulkhead; some of the lot undeveloped; some paved parking
58	Middlesex	Woodbridge	42.5	760.A	3			Amerada Hess (Port Reading) Corp					Petroleum storage tanks; bulkhead, boat docking area with pier
59	Middlesex	Woodbridge	84.6	760	1-A			Public Service Electric & Gas Co.					Large factory/power plant; little open area
60	Middlesex	Woodbridge	28.2	740.C	1			Royal Petroleum Corp.					Petroleum storage tanks; bulkhead, boat docking area with pier
61	Middlesex	Woodbridge	26.2	738	1			Shell Oil Company					Petroleum storage tanks; bulkhead, boat docking area with pier
62	Middlesex	Perth Amboy	35.1	484	1								Petroleum storage tanks; bulkhead, boat docking area with pier
63	Middlesex	Perth Amboy	33.0	481	1								Petroleum storage tanks; bulkhead, boat docking area with pier
64	Middlesex	Perth Amboy	68.4	430	1								Container loading area; bulkhead, boat docking area with pier
65	Middlesex	Perth Amboy	76.5	425	1.01	State Street		Stolthaven Perth Amboy Inc.	$ 13,928,000	$ -			Large open area, partial wetland; lot just north of Outer Bridge Crossing Rt 440
66	Middlesex	Perth Amboy	29.2	354	1								Petroleum storage tanks; bulkhead, boat docking area with pier
67	Middlesex	Perth Amboy	55.6	353	1.06	State Street		Harbortown Terrace, LLC.	$ 7,063,700	$ 1	12/26/2005	NJDOT/OMR Site #11 - Perth Amboy	Large open area between residential area and shore; docking area.
68	Middlesex	Perth Amboy	56.8	13	1	Ft. of Elm St.		Raritan River Urban Renewal Corp.	$ 2,055,600	$ -			Sandy Point; industrial site uncertain of use; bulkhead
69	Middlesex	Sayreville	39.3	257.03	2								Undeveloped wetland area between Garden State Parkway and Rt 35

*Note: this information is New Jersey Tax Map's most up-to-date information, but is not necessarily current.

Table 3. Potential Public Processing Facility Sites Identified by USACE in New Jersey.

NJ Site Number	County	Town	Acreage	Block	Lot	Address	Zoning	Owner	Value *	Sales Price	Deed Date	Corresponds with NJDOT Report	Notes
70	Middlesex	South Amboy	24.4	160	1	Main Street		New South Amboy Development Co.	$ 2,894,700	$ 2,279,000	10/12/2005		Storage area for containers/tractor trailers, adjacent to site 71
71	Middlesex	South Amboy	22.8	160	1.03	Main Street		New South Amboy Development Co.	$ 3,529,800	$ 1	8/26/2003		Open area, partial wetland; next to rail line, adjacent to site 70
72	Middlesex	South Amboy	28.7	161.01	26			Jersey Central Power & Light Co.					Power plant with petroleum storage tanks
73	Middlesex	South Amboy	33.3	161	90			Modern Transportation Co.	$ 2,244,000	$ 615,500	6/1/2005	NJDOT/OMR Site #13 - South Amboy	Old building, appears abandoned; moderate open space, bulkhead, pier, rail line; adjacent to parcel #74
74	Middlesex	South Amboy	24.7	161	25			Great Lakes Dredge & Dock Co.	$ 4,481,000	$ 1	3/30/2005	NJDOT/OMR Site #13 - South Amboy	Looks like a site where dredge material is stored/processed; many barges, boat docking; adjacent to parcel #73
75	Middlesex	South Amboy	See Note	161	20.11	South Shore Drive							No tax map data, possibly newly filled, cleared area; preperation for new athletic fields?
76	Middlesex	Sayreville	70.7	506	1	North & East of R R		Borough of Sayreville	$ 706,700	$ -			Open space, wetland; located adjacent to rail line; small beach area along shore
77	Middlesex	Sayreville	33.1	1	4.5.11								Narrow beach area along shore; 3 jetties
78	Monmouth	Aberdeen	33.7	340	1			Township of Aberdeen					Beach area, Treasure Lake occupies 6 acres of this lot
79	Monmouth	Aberdeen	80.2	366	2								Open space, wetland; Matawan Point
80	Monmouth	Keyport	60.5	141	15								Open space, wetland; lot partially occupied by small industrial facility
81	Monmouth	Union Beach	130.0	251	1								Open space, mostly wetland; small beaches along shore
82	Monmouth	Union Beach	72.6	251	2								Open space, mostly wetland; small beaches along shore
83	Monmouth	Union Beach	67.6	249	1								Natco Plant, large industrial facility; beach shoreline, some wetlands visable
84	Monmouth	Union Beach	58.6	249	2								Open space, road bisects lot; wetland, beach shoreline
85	Monmouth	Middletown	26.2	137	2								Open space, dune/scrub shrub; bulkhead on Compton's Creek, small roads present
86	Monmouth	Middletown	260.0	306	66	Port Monmouth Rd		Monmouth County	$ 7,590,400				Open space, small industrial area with bulkhead; wetland and beach along shore
87	Monmouth	Middletown	90.9	306	45								Naval Ammunition Depot; beach along shoreline; long pier present
88	Monmouth	Atlantic Highlands	20.9	7	5			Borough Property Yacht Club					Large parking area for marina; bulkhead

*Note: this information is New Jersey Tax Map's most up-to-date information, but is not necessarily current.

Figure 9. Site 7 – Kearny Point – Potential Public Processing Facility Site in the New York/New Jersey Harbor.

Site 7 – Kearny Point

Location:	This site borders the Passaic River and Newark Bay and is located adjacent to Central Ave., in Kearny, Hudson County New Jersey.
USGS Quadrangle:	Jersey City, New Jersey – New York
Block / Lot:	Block 297 / Lot 1, 2, and 3
Ownership:	Passaic Valley Water Commission
Approximate Area:	24.5 Acres (above water line 24.5 Acres)
Shoreline Frontage:	590 Meters
Length of Pier(s):	Not Applicable
Distance to Navigable Channel:	349 Meters
Distance to Statue of Liberty:	23.6 Kilometers
Distance to Rail Line:	250 Meters
Distance to Major Highway Exit Ramp:	3367 Meters (Exit 18 New Jersey Turnpike)
National Wetlands Inventory[6]:	E1UBL (0.22 Acres)
Surrounding Land Use:	Surrounding land use includes a parking lot and industrial facility to the north, and a vacant lot to the east of this site.

[6] E1UBL = [E] Estuarine, [1] subtidal, [UB] unconsolidated bottom, [L] subtidal

Figure 10. Site 8 – Bergen Point – Potential Public Processing Facility Site in the New York/New Jersey Harbor.

Site 8 – Bergen Point

Location:	This site borders Newark Bay and the Kill Van Kull and is located adjacent to Avenue A and West 1st St., in Bayonne, Hudson County, New Jersey.
USGS Quadrangle:	Elizabeth, New Jersey – New York
Block / Lot:	Block 390 / Lot 1
Ownership:	Texaco Inc.
Approximate Area:	43.2 Acres (above water line 32.8 Acres)
Shoreline Frontage:	836 Meters
Length of Pier(s):	202 Meters
Distance to Navigable Channel:	448 Meters
Distance to Statue of Liberty:	14.9 Kilometers
Distance to Rail Line:	935 Meters
Distance to Major Highway Exit Ramp:	909 Meters (Junction of Willowbrook Expressway and John F. Kennedy Boulevard)
National Wetlands Inventory[7]:	E1UBL (0.18 Acres), PEM1E (0.14 Acres)
Surrounding Land Use:	Surrounding land use includes vacant lot and a small petroleum storage tank facility to the north, residential neighborhood to the northeast, and a vacant lot and recreation ball fields to the east of this site.

[7] E1UBL = [E] Estuarine, [1] subtidal, [UB] unconsolidated bottom, [L] subtidal; and, PEM1E = [P] Palustrine, [EM] emergent, [1] persistent, [E] seasonally flooded/saturated.

Figure 11. Site 9 – Military Ocean Terminal – Potential Public Processing Facility Site in the New York/New Jersey Harbor.

Site 9 – Military Ocean Terminal

Location:	This site borders Upper New York Bay and is located adjacent to Port Terminal Blvd. and Route 440, in Bayonne, Hudson County, New Jersey.
USGS Quadrangle:	Jersey City, New Jersey – New York
Block / Lot:	Block 404 / Lot 1
Ownership:	Bayonne Local Redevelopment Auth.
Approximate Area:	672.1 Acres (above water line 429.0 Acres)
Shoreline Frontage:	6819 Meters
Length of Pier(s):	Not Applicable
Distance to Navigable Channel:	142 Meters
Distance to Statue of Liberty:	5.8 Kilometers
Distance to Rail Line:	85 Meters
Distance to Major Highway Exit Ramp:	1864 Meters (Exit 14A New Jersey Turnpike)
National Wetlands Inventory[8]:	E1UBL (2.12 Acres), E1UBLx (0.10 Acre), E2EM1P (0.58 Acre), E2EM (0.23 Acre), E2US2P (0.14 Acre), E2USN (0.27 Acre), PEM1E (3.25 Acres), PEM (6.20 Acres), PEM (4.36 Acres), PFO1E (12.84 Acres), PFO4E (3.06 Acres)
Surrounding Land Use:	Surrounding land use includes container off-loading facility and warehouses to the north, residential neighborhood to the west, and industrial facilities and petroleum storage tanks to the south of this site.

[8] E1UBL = [E] Estuarine, [1] subtidal, [UB] unconsolidated bottom, [L] subtidal; E1UBLx = [E] Estuarine, [1] subtidal, [UB] unconsolidated bottom, [L] subtidal, [x] excavated; E2EM1P = [E] Estuarine, [2] intertidal, [EM] emergent, [1] persistent, [P] irregularly flooded; E2EM = Unknown [E] Estuarine, [2] intertidal, [EM] emergent; E2US2P = [E] Estuarine, [2] intertidal, [US] unconsolidated shore, [2] sand, [P] irregularly flooded; E2USN = [E] Estuarine, [2] intertidal, [US] unconsolidated shore, [N] regularly flooded; PEM1E = [P] Palustrine, [EM] emergent, [1] persistent, [E] seasonally flooded/saturated; PEM = Unknown [P] Palustrine, [EM] emergent; PEM = Unknown [P] Palustrine, [EM] emergent; PFO1E = [P] Palustrine, [FO] forested, [1] broad-leaved deciduous, [E] seasonally flooded/ saturated; and, PFO4E = [P] Palustrine, [FO] forested, [4] needle-leaved evergreen, [E] seasonally flooded/saturated.

Figure 12. Site 10 – Newtown Creek – Potential Public Processing Facility Site in the New York/New Jersey Harbor.

Site 10 – Newtown Creek

Location:	This site borders Newtown Creek and is located adjacent to the Long Island rail line and the Brooklyn Queens Expressway, in Queens, Queens County, New York.
USGS Quadrangle:	Brooklyn, New York
Block / Lot:	Block 2529 / Lot 1
Ownership:	Sagres 9 LLC
Approximate Area:	27.3 (above water line 27.3 Acres)
Shoreline Frontage:	622 Meters
Length of Pier(s):	Not Applicable
Distance to Navigable Channel:	70 Meters
Distance to Statue of Liberty:	14.0 Kilometers
Distance to Rail Line:	155 Meters
Distance to Major Highway Exit Ramp:	667 Meters (Exit 35 Brooklyn Queens Expressway)
National Wetlands Inventory:	Not Applicable
Surrounding Land Use:	Surrounding land use includes warehouse and industrial facilities to the north, warehouse and industrial facilities to the east, two large storage tanks to the south, and a cemetery and industrial facilities to the west of this site.

Figure 13. Site 11 – Keasbey/Bayshore – Potential Public Processing Facility Site in the New York/New Jersey Harbor.

Site 11 – Keasbey / Bayshore

Location: This site borders the Raritan River and is located between the Garden State Parkway and Crows Mill Road, in Woodbridge, Middlesex County, New Jersey.

USGS Quadrangle: Perth Amboy, New Jersey – New York

Ownership	Block	Lot
N/A	41.C	A.B
RH Macy – Crows Mill / FED DEPT ST	41.C	1.A2
Township of Woodbridge	41.C	3.A
Recycling Technology	41.C	3.B
Recycling Technology	51	1
Recycling Technology	51	2
N/A	51	1.B
N/A	51	2.C
Lefcourt Associates LTD	51	3
N/A	51	4.A
N/A	52	1
N/A	75	1

Approximate Area: 100.2 Acres (above water line 91.4 Acres)

Shoreline Frontage: 869 Meters

Length of Pier(s): Not Applicable

Distance to Navigable Channel: 141 Meters

Distance to Statue of Liberty: 49.6 Kilometers

Distance to Rail Line: 239 Meters

Distance to Major Highway Exit Ramp: 839 Meters (Exit 127 Garden State Parkway)

National Wetlands Inventory[9]: E1OW (2.650 Acres), E2EM (8.215 Acres)

[9]E1OW = [E] Estuarine, [1] subtidal, [OW] open water/unknown bottom, E2EM = [E] Estuarine, [2] intertidal, [EM] emergent.

Surrounding Land Use: Surrounding land use includes industrial facilities and transportation infrastructure to the north, transportation infrastructure and parking area to the east, Raritan River to the south, and an aggregate storage facility to the west of this site.

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Figure 14. Site 12 – National Lead – Potential Public Processing Facility Site in the New York/New Jersey Harbor.

Site 12 – National Lead

Location:	This site borders the Raritan River and is located adjacent to the Garden State Parkway and Main Street Extension, in Sayreville, Middlesex County, New Jersey.
USGS Quadrangle:	Perth Amboy, New Jersey – New York and South Amboy, New Jersey – New York
Block / Lot:	Block 257.01 / Lot 1 Block 257.00 / Lot 3.04 Block 257.02 / Lot 1 Block 257.01 / Lot 4
Ownership:	NL Industries Inc. % W Clifton
Approximate Area:	301.6 Acres (above water line 297 Acres)
Shoreline Frontage:	2248 Meters
Length of Pier(s):	Not Applicable
Distance to Navigable Channel:	166 Meters
Distance to Statue of Liberty:	51 Kilometers
Distance to Rail Line:	11 Meters
Distance to Major Highway Exit Ramp:	716 (Exit 125 Garden State Parkway)
National Wetlands: Inventory[10]:	E1OW (2.159 Acres), E2EM (11.474 Acres), E2FL (12.468 Acres), L1OW (41.032 Acres), L2FL (17.55 Acres), PEM (3.277 Acres)
Surrounding Land Use:	Surrounding land use includes the Raritan River to the north and west, transportation infrastructure to the east, and an industrial facility complex to the south of this site.

[10] E1OW = [E] Estuarine, [1] subtidal, [OW] open water/unknown bottom, E2EM = [E] Estuarine, [2] intertidal, [EM] emergent, E2FL = [E] Estuarine, [2] intertidal, [F] semipermanently flooded, [L] subtidal, L1OW = [L] Lacustrine, [1] limnetic, [OW] open water/unknown bottom, L2FL = [L] Lacustrine, [2] littoral, [F] semipermanently flooded, [L] subtidal, PEM = [P] Palustrine, [EM] emergent.

Figure 15. Site 13 – Cortlandt Quarry – Potential Public Processing Facility Site in the New York/New Jersey Harbor.

Site 13 – Cortlandt Quarry

Location:	This site borders the Hudson River and is located between Kings Ferry Road, Sunset Road, and Montrose Point Road, in Cortlandt, Westchester County, New York.
USGS Quadrangle:	Haverstraw, New York
Block / Lot:	Section 54.10 / Block 1 / Lot 1
Ownership:	People of the State of NY
Approximate Area:	47.2 Acres (above water line 47.2 Acres)
Shoreline Frontage:	57 Meters
Length of Pier(s):	Not Applicable
Distance to Navigable Channel:	1110 Meters
Distance to Statue of Liberty:	68 Kilometers
Distance to Rail Line:	1775 Meters
Distance to Major Highway Exit Ramp:	2806 Meters (US HWY 9, State HWY 9A on ramp)
National Wetlands Inventory[11]:	E1UBL6 (0.069), PEM1E (0.381), PUBHh (2.296), R3UBH (0.920)
Surrounding Land Use:	Surrounding land use includes residential neighborhoods to the north and east, George's Island County Park to the south, and a marina to the west of this site.

[11] E1UBL6 = [E] Estuarine, [1] subtidal, [UB] unconsolidated bottom, [L] subtidal, [6] Oligohaline, PEMIE = [P] Palustrine, [EM] emergent, [1] persistent, [E] seasonally flooded/saturated, PUBHh = [P] Palustrine, [UB] unconsolidated bottom, [H] permanently flooded, [h] diked/impounded, R3UBH = [R] Riverine, [3] upper perennial, [UB] unconsolidated bottom, [H] permanently flooded.

Figure 16. Site 14 – Con Edison – Potential Public Processing Facility Site in the New York/New Jersey Harbor

Site 14 – Con Edison

Location:	This site borders the Hudson River and is located adjacent to 9th Street, 11th Street, and Broadway, in Cortlandt, Westchester County, New York.
USGS Quadrangle:	Peekskill, New York
Block / Lot:	Section 43.12 / Block 1 / Lot 1 Section 43.13 / Block 2 / Lot 1 Section 43.14 / Block 1 / Lot 1 Section 43.14 / Block 3 / Lot 1 Section 43.13 / Block 1 / Lot 2 Section 43.17 / Block 1 / Lot 1
Ownership:	Con Edison
Approximate Area:	121 Acres (above water line 119.7 Acres)
Shoreline Frontage:	811 Meters
Length of Pier(s):	Not Applicable
Distance to Navigable Channel:	518 Meters
Distance to Statue of Liberty:	70.1 Kilometers
Distance to Rail Line:	2294 Meters
Distance to Major Highway Exit Ramp:	2566 Meters (US Hwy 9, State Hwy 9A on ramp)
National Wetlands Inventory[12]:	E1UBL6 (2.187 Acres), L1UBHx (30.281 Acres), PEM1E (1.519 Acres), PSS1Fh (0.347 Acres), PUBHh (0.673 Acres
Surrounding Land Use:	Surrounding land use includes industrial facility and the Indian Point Nuclear Generating Station to the north, residential neighborhoods to the east, and residential/storage tanks to the south of this site.

[12] E1UBL6 = [E] Estuarine, [1] subtidal, [UB] unconsolidated bottom, [L] subtidal, [6] Oligohaline, L1UBHx = [L] Lacustrine, [1] limnetic, [UB] unconsolidated bottom, [H] permanently flooded, [x] excavated, PEM1E = [P] Palustrine, [EM] emergent, [1] persistent, [E] seasonally flooded/saturated, PSS1Fh = [P] Palustrine, [SS] scrub-shrub, [1] broad-leaved deciduous, [F] semipermanently flooded, [h] diked/impounded, PUBHh = [P] Palustrine, [UB] unconsolidated bottom, [H] permanently flooded, [h] diked/impounded.

3.0 PUBLIC STORAGE FACILITY SITES

3.1 IDENTIFICATION

This section describes the process used to identify potential PSF sites for pre-processed dredged material in the Harbor. The PSF site identification process involved the use of existing available data for the Port area. The availability of digital data for New York and New Jersey differed, and these differences determined the method used to identify potential storage sites. Where differences existed, processes and results for site identification are described separately for New York and New Jersey.

In addition, the processes and results are divided into land-based and water-based categories for each state. The land-based category includes Upland Pit and Upland Bermed CDFs and the water-based category includes In-Water Pit and Nearshore Bermed CDFs (Section 1.4).

3.1.1 Land-Based

New York

The District used the New York City OASIS website (www.oasisnyc.net) as a starting point to identify potential Upland Pit and Upland Bermed CDF sites in New York. OASIS provides online interactive mapping and data analysis of the five Boroughs of New York City (OASIS 2006). Using OASIS, the District was able to view block and parcel lot information and aerial photography (2004) of the sites, and compared them with aerial photographs using Google Earth (Europa Technologies 2007). The District used OASIS to identify all lots in the study area that met Upland Pit and Upland Bermed CDF minimum acreage requirements (Table 1) and that have waterfront access.

A number of site-specific attributes were obtained from OASIS for each of the potential sites, including borough, acreage, tax block and lot numbers, land use, zoning, and owner information. The District also compiled a brief site description and included other notes as appropriate. The District was able to query OASIS regarding the presence of natural areas, such as HEP sites. HEP areas are designated as NY/NJ Harbor Estuary Program Restoration or Acquisition sites. Natural areas included Federal, state, and local parks, historic sites, forests, and wildlife management areas.

New Jersey

To identify potential Upland Pit and Upland Bermed CDF sites in New Jersey, the District utilized tax maps available through NJ Tax Maps (www.njtaxmaps.com), an online tax mapping and data repository, and compared them with aerial photographs using Google Earth (Europa Technologies 2007). Similar to the New York process, the District identified all lots in the study area that met Upland Pit and Upland Bermed CDF minimum acreage requirements (Table 1) and had waterfront access.

The site-specific attributes that were obtained for each of the potential PSF sites from New Jersey Tax Maps included county, town, acreage, tax block and lot numbers, address, zoning (if available), and owner information.

New York and New Jersey

Each CDF type has four separate volume capacities for pre-processed dredged material storage, therefore each upland facility type had four different acreage requirements based on size (Table 1). Areas excluded from CDF site consideration included parcel lots designated as: natural areas (e.g., parks, historic areas, wildlife management areas, NY/NJ HEP restoration or acquisition sites) and residentially-zone areas. In general, "natural areas" are lands designated for open space, outdoor recreation, and/or wildlife.

Due to engineering and operation constraints (USACE 2007), parcels were excluded if they contained less than 500 feet of shoreline frontage or less than 1,500 feet of wharf frontage. For the same reasons, parcels whose aspect ratio was greater than 3 to 1 were not included. Due to operating cost considerations, parcels also were excluded if they did not have water depths of 20 feet or greater (mean low tide) within 500 feet of their shoreline.

Results

Using the criteria described above, the District identified 43 potential upland PSF sites in New York (Table 9) and 55 potential upland PSF sites in New Jersey (Table 10). The geographic distribution of Upland Pit CDF sites is shown in Figure 17 and of Upland Bermed CDF sites is shown in Figure 18. The largest possible CDF that met the criteria is indicated on the figures. For example, a site designated at the 1.0 MCY size would also accommodate the 0.50 and 0.25 MCY sizes.

Table 9. Potential Public Storage Facility Sites Identified by USACE in New York, NY – Upland Pit and Upland Bermed CDFs.

Table 9. Potential Public Storage Facility Sites Identified by USACE in New York, NY – Upland Pit and Upland Bermed CDFs (continued).

Table 9 continued

Table 10. Potential Public Storage Facility Sites Identified by USACE in New Jersey – Upland Pit and Upland Bermed CDFs.

Table 10. Potential Public Storage Facility Sites Identified by USACE in New Jersey – Upland Pit and Upland Bermed CDFs (continued).

Table 10. Potential Public Storage Facility Sites Identified by USACE in New Jersey – Upland Pit and Upland Bermed CDFs (continued).

Figure 17. Potential Public Storage Facility Locations in the New York/New Jersey Harbor – Upland Pit CDF.

Figure 18. Potential Public Storage Facility Locations in the New York/New Jersey Harbor – Upland Bermed CDF.

3.1.2 Water-Based

Using digital information (e.g., OASIS, NJ Tax Maps, Google Maps) available for New York and New Jersey as described in Section 3.1.1, the District employed a two-step process to identify potential In-Water Pit and Nearshore Bermed CDF sites. First, water-based criteria were used to identify appropriate submerged areas. Second, upland criteria were applied to those shoreline areas bordering submerged areas that had met the water-based criteria.

Submerged Areas

The water-based criteria identified submerged areas with the following characteristics:

- contained water depth less than or equal to 20 feet mean low water;
- were within 2,000 feet of the shoreline; and,
- were at least 100 feet away from active, maintained navigation channels.

The criterion for a 20 feet water depth was based on design criteria for the In-Water Pit and Nearshore Bermed CDFs (USACE 2007). The 20-foot isobath was derived by digitizing from nautical maps (NOAA 1998). The criterion for distance-from-shoreline was established due to operational constraints that became prohibitive beyond 2,000 feet, in terms of the distance between the upland base of operations (i.e., dock and upland space for mining support vessels, monitoring vessels, work scows, and maintenance activities) and the In-Water Pit CDF.

Because a Nearshore Bermed CDF is by definition adjacent to the shoreline, the 2,000 feet from shoreline requirement only applied to In-Water Pit CDFs and only applied to the entrance to such a facility (i.e., the entire In-Water Pit did not have to be within 2,000 feet of shoreline, only the entrance). The 2,000 feet distance from shoreline was measured using 2006 Environmental Systems Research Institute (ESRI) GIS shoreline data. Safety considerations were the basis for establishing the 100 feet buffer around active, maintained navigation channels. A GIS was also used to measure the 100 feet buffer.

Each CDF type has four separate volume capacities for pre-processed dredged material storage, so both water-based facility types had four different acreage requirements based on size (Table 1). Because In-Water Pit CDFs are deeper than Nearshore Bermed CDFs, acreage requirements for the same amount of storage volume differed greatly (Table 1). As with Upland Pit CDFs and Upland Bermed CDFs, in order for a submerged area to accommodate a certain facility type and size, the area could not have an aspect ratio greater than 3 to 1.

For In-Water Pit CDFs, the area ranged from a circle of a specified acreage (Table 1) to an oval with the same acreage and an aspect ratio no greater than 3 to 1 as compared to the circle; for Nearshore Bermed CDFs, the area ranged from a square of a specified acreage (Table 1) to a rectangle with the same acreage and an aspect ratio no greater than 3 to 1 as compared to the square.

Shoreline Areas

The upland criteria for water-based CDFs identified shoreline areas with the following characteristics:

- specified upland acreage requirements, by facility type and size (Table 1);
- a minimum of 500 feet of shoreline or 1,500 feet of wharf frontage; and,
- not classified as parks, natural areas, or residential areas.

Upland acreage requirements for water-based facilities encompass the area needed for support structures and operation and maintenance equipment and staging. Because no dredged material storage occurs on the upland area, the required acreage is small (Table 1). As with the submerged areas, the upland support areas were constrained by both size and an aspect ratio of 3 to 1. The shoreline and wharf frontage requirements are based upon assumptions from the economic model (USACE 2007). Areas excluded from CDF site consideration included parcel lots designated as: New York State parks, New York City parks, natural areas, NY/NJ HEP restoration or acquisition sites, and residentially-zone areas. "Natural areas" are lands designated for open space, outdoor recreation, and/or wildlife.

For the purposes of determining the specific upland block and lot parcel that could be matched with a submerged area, for 250,000 and 500,000 CY In-Water Pit CDFs, the storage volume area had to fall completely within submerged areas encompassed by imaginary lines running perpendicular to the shoreline at the parcel's borders and extending into the water. For 1,000,000 and 1,500,000 CY In-Water Pit CDFs, it was acceptable for the boundaries of storage volumes to extend into submerged areas that did not lie directly "in front of" the parcel designated as the upland support area, as long as adjacent shoreline parcels all fit the upland criteria for water-based CDFs. In this situation, multiple block and lot parcels could act as the upland staging area, and at this stage in the process one parcel is not singled out.

For Nearshore Bermed CDFs of all sizes, it was assumed that the parcel's shoreline area must be able to accommodate 100% of the storage volume's length in that direction. That is, in order for a Nearshore Bermed CDF to "fit" in the submerged area bordered by a certain parcel, there could not be any overlap of the Nearshore Bermed CDF onto adjacent properties. Both In-Water and Nearshore Bermed CDF areas could not overlap into areas designated as parks, natural areas, or residential areas.

Results

Using the criteria described above, the District identified 81 potential water-based PSF locations in New York and New Jersey. Fifty-three (53) of the areas were potential In-Water Pit CDF sites (Table 11; Figure 19) and 28 of the areas were potential Nearshore Bermed CDF sites (Table 12; Figure 20). On the figures, the largest possible CDF that met the criteria is indicated. For example, a site designated at the 1.0 MCY size would also accommodate the .50 and .25 MCY sizes.

Table 11. Potential Public Storage Facility Locations Identified by USACE in the New York/New Jersey Harbor – In-Water Pit CDFs.

Table 11. continued.

Table 11. Continued.

Table 11. Continued.

Table 11. Continued.

Table 11. Continued.

Table 12. Potential Public Storage Facility Locations Identified by USACE in the New York/New Jersey Harbor – Nearshore Bermed CDFs.

Table 12. Continued.

Table 12. Continued.

Figure 19. Potential Public Storage Facility Locations in the New York/New Jersey Harbor – In-Water Pit CDF.

Figure 20. Potential Public Storage Facility Locations in the New York/New Jersey Harbor – Nearshore Bermed CDF.

3.2 SCREENING

This section describes the screening process used to evaluate potential PSF sites.

3.2.1 Land-Based

Upland areas initially identified as potential land-based PSF sites (Section 3.1.1) were subjected to a secondary level of screening to differentiate those sites most appropriate for siting a PSF, using the following criteria for categorizing sites as having low, medium, or high potential.

Low

- Fully developed (i.e., parcel is completely covered with impervious surfaces, including a mixture of buildings and parking areas)
- Heavily developed (i.e., high intensity of development/built structures)
- Active use (i.e., apparent current use of site, such as sewage treatment, recreation, petroleum storage tanks, or barge docking)
- Predominantly wetland
- Adjacent to residential area
- Predominantly HEP restoration or acquisition site

Medium

- Moderately developed (i.e., part of the site is vacant land with no development, and the developed areas have a moderate density of development/built structures)
- Active use (i.e., apparent current use of site, such as car or container off-load and storage)
- Minimal presence of wetlands (<25% of area)
- Predominantly green space (i.e., vegetated, not a designated recreation area, with no or few apparent trees and shrubs)
- Apparent wildlife habitat (i.e., vegetated, with apparent trees and shrubs)
- Adjacent to residential area but in a predominantly industrial area

High

- Vacant lot (i.e., no current development)
- Abandoned (i.e., built structures appear unused and degraded)
- Redevelopment of previously developed site
- Adjacent to industrial/commercial areas
- Presence of bulkhead along shoreline

The same ranking and rationale were applied to sites in both New York and New Jersey. Of the 43 individual upland sites identified in New York, all of them could accommodate at least one size of Upland Pit CDF and 39 of the 55 sites were also appropriate for an Upland Bermed CDF (Table 13). Of the 56 individual upland sites identified in New Jersey, all of them could accommodate at least one size of Upland Pit CDF and 40 of the 56 sites were also appropriate for an Upland Bermed CDF (Table 14).

3.2.2 Water-Based

Submerged areas initially identified as potential water-based PSF sites (Section 3.1.2) were subjected to a secondary level of screening to differentiate those sites most appropriate for siting a PSF. The identification criteria used for submerged areas (Section 3.1.2) was not supplemented with additional high-medium-low criteria. Rather, water-based sites were differentiated by the value of their small upland staging areas, using the same criteria as described for land-based CDFs (Section 3.2.1).

The same ranking and rationale were applied to sites in both New York and New Jersey. Eighteen water-based sites were identified in New York; six of them utilized areas for upland staging that had been identified as individual upland sites and 12 of them did not (Table 13). Of the 18 water-based sites, 17 could accommodate at least one size of In-Water Pit CDF and six of them were also appropriate for a Nearshore Bermed CDF. Fifty-two water-based sites were identified in New Jersey; nine of them utilized areas for upland staging that had been identified as individual upland sites and 43 of them did not (Table 14). Of the 52 water-based sites, all of them could accommodate at least one size of In-Water Pit CDF and 22 of them were also appropriate for a Nearshore Bermed CDF.

Table 13. Ranking and Rationale for Potential Public Storage Facility Sites Identified by USACE in New York, New York.

Table 13 continued

Table 13 continued

Table 14. Ranking and Rationale for Potential Public Storage Facility Sites Identified by USACE in New Jersey.

Table 14 continued (2)

Table 14 continued (3)

Table 14 continued (4)

Table 14 continued (5) (last)

3.3 RESULTS

The District's identification and screening of potential PSF sites identified one site in New York and seven sites in New Jersey with the highest potential suitability for development of a PSF. These eight sites (Table 15) were advanced into the next phase of the assessment process.

As in Section 2.3, a GIS was employed to provide additional information for comparative purposes for the eight sites. Information for water-based sites was collected for the upland staging area. The collected information includes:

- Linear distance of shoreline frontage
- Distance from midpoint of shoreline to closest navigable channel
- Distance from midpoint of shoreline to center of Harbor (i.e., Statue of Liberty), following navigable channels
- Average depth to bedrock (where available)
- General soil characteristics
- Presence of NWI wetlands (if any)
- Length of existing piers (if any)
- Distance from geographic center of site to closest railroad line
- Distance from geographic center of site to nearest major highway exit.

For each site, a "fact sheet" summarizing each site's attributes is accompanied by an aerial photograph of the site, showing the property boundaries of the potential PSF site. In addition to the GIS information listed above, site attributes include site location, USGS Quadrangle, Block/Lot number, ownership, and surrounding land use.

Table 15. Potential Dredged Material Public Storage Facility Sites in the New York-New Jersey Harbor Area.

Site Number	Site Name	State	County	Town or Borough	Acreage	Block	Lot
1	Newtown Creek	NY	Queens	Queens	27	2529	1
2	Caven Point	NJ	Hudson	Jersey City	9	1497	6 2R
3	Bergen Point	NJ	Hudson	Bayonne	32	390	1
4	Kearny Point	NJ	Hudson	Kearny	24	297	1, 2, 3
5	Newark Bay	NJ	Essex	Newark	15	5066	12
6	Pralls Island Reach	NJ	Union	Linden	94	586	8
7	Tremley Point	NJ	Union	Linden	22	587	8
8	Port Reading Reach	NJ	Middlesex	Woodbridge	196	1095	1, 2, 3, 4

Figure 21. Preliminary Identification of Potential Public Storage Facility Sites in the New York/New Jersey Harbor Area.

Figure 22. Site 1 – Newtown Creek Potential Public Storage Facility Site in the New York-New Jersey Harbor area.

Site 1 – Newtown Creek

Upland Pit CDF: up to 500,000 CY Storage
Upland Bermed CDF: 250,000 CY Storage

Location:	This site borders Newtown Creek and is located adjacent to the Long Island rail line and the Brooklyn Queens Expressway, in Queens, Queens County, New York.
USGS Quadrangle:	Brooklyn, New York
Block / Lot:	Block 2529 / Lot 1
Ownership:	Sagres 9 LLC
Approximate Area:	27.3 (above water line 27.3 Acres)
Average Depth to Bedrock:	Not Available
Shoreline Frontage:	622 Meters
Length of Pier(s):	N/A
Distance to Navigable Channel:	70 Meters
Distance to Statue of Liberty:	14.0 Kilometers
Distance to Rail Line:	155 Meters
Distance to Major Highway Exit Ramp:	667 Meters (Exit 35 Brooklyn Queens Expressway)
National Wetlands Inventory:	Not Available
General Soil Characteristics:	Not Available
Surrounding Land Use:	Surrounding land use includes warehouse and industrial facilities to the north, warehouse and industrial facilities to the east, two large storage tanks to the south, and a cemetery and industrial facilities to the west of this site.

Figure 23. Site 2 – Caven Point Potential Public Storage Facility Site in the New York-New Jersey Harbor area.

Site 2 – Caven Point

In-Water Pit CDF: up to 1,000,000 CY Storage

Location:	This site borders Upper New York Bay and is located adjacent to Caven Point Rd., in Jersey City, Hudson County, New Jersey.
USGS Quadrangle:	Jersey City, New Jersey – New York
Block / Lot:	Block 1497 / Lot 6 2R
Ownership:	Not Available
Approximate Area:	9.7 (above water line 9.7 Acres)
Average Depth to Bedrock:	Not Available
Shoreline Frontage:	261 Meters
Length of Pier(s):	N/A
Distance to Navigable Channel:	1,797 Meters
Distance to Statue of Liberty:	2.4 Kilometers
Distance to Rail Line:	305 Meters
Distance to Major Highway Exit Ramp:	534 Meters (Exit 14B New Jersey Turnpike)
National Wetlands Inventory[13]:	E1UBL (0.22 Acre), E2USN (0.01 Acre)
General Soil Characteristics:	Not Available
Surrounding Land Use:	Surrounding land use includes Interstate 78 and Conrail rail lines to the north, warehouse and industrial facilities to the northeast, and redevelopment to the south and west of this site.

[13] E1UBL = [E] Estuarine, [1] subtidal, [UB] unconsolidated bottom, [L] subtidal

Figure 24. Site 3 – Bergen Point Potential Public Storage Facility Site in the New York-New Jersey Harbor area.

Site 3 – Bergen Point

Upland Pit CDF: up to 1,000,000 CY Storage
Upland Bermed CDF: up to 250,000 CY Storage
In-Water Pit CDF: up to 500,000 CY Storage

Location:	This site borders Newark Bay and the Kill Van Kull and is located adjacent to Avenue A and West 1st St., in Bayonne, Hudson County, New Jersey.
USGS Quadrangle:	Elizabeth, New Jersey – New York
Block / Lot:	Block 390 / Lot 1
Ownership:	Texaco Inc.
Approximate Area:	43.2 Acres (above water line 32.8 Acres)
Average Depth to Bedrock:	Not Available
Shoreline Frontage:	836 Meters
Length of Pier(s):	202 Meters
Distance to Navigable Channel:	448 Meters
Distance to Statue of Liberty:	14.9 Kilometers
Distance to Rail Line:	935 Meters
Distance to Major Highway Exit Ramp:	909 Meters (Junction of Willowbrook Expressway and John F. Kennedy Boulevard)
National Wetlands Inventory[14]:	E1UBL (0.18 Acre), PEM1E (0.14 Acre)
General Soil Characteristics:	Not Available
Surrounding Land Use:	Surrounding land use includes vacant lot and a small petroleum storage tank facility to the north, residential neighborhood to the northeast, and a vacant lot and recreation ball fields to the east of this site.

[14] E1UBL = [E] Estuarine, [1] subtidal, [UB] unconsolidated bottom, [L] subtidal; and, PEM1E = [P] Palustrine, [EM] emergent, [1] persistent, [E] seasonally flooded/saturated.

Figure 25. Site 4 – Kearny Point Potential Public Storage Facility Site in the New York-New Jersey Harbor area.

Site 4 – Kearny Point

Upland Pit CDF: up to 1,000,000 CY Storage
Upland Bermed CDF: 250,000 CY Storage
In-Water Pit CDF: up to 1,500,000 CY Storage

Location:	This site borders the Passaic River and Newark Bay and is located adjacent to Central Ave., in Kearny, Hudson County New Jersey.
USGS Quadrangle:	Jersey City, New Jersey – New York
Block / Lot:	Block 297 / Lot 1, 2, and 3
Ownership:	Passaic Valley Water Commission
Approximate Area:	24.5 Acres (above water line 24.5 Acres)
Average Depth to Bedrock:	Not Available
Shoreline Frontage:	590 Meters
Length of Pier(s):	N/A
Distance to Navigable Channel:	349 Meters
Distance to Statue of Liberty:	23.6 Kilometers
Distance to Rail Line:	250 Meters
Distance to Major Highway Exit Ramp:	3367 Meters (Exit 18 New Jersey Turnpike)
National Wetlands Inventory[15]:	E1UBL (0.22 Acre)
General Soil Characteristics:	Not Available
Surrounding Land Use:	Surrounding land use includes a parking lot and industrial facility to the north, and a vacant lot to the east of this site.

[15] E1UBL = [E] Estuarine, [1] subtidal, [UB] unconsolidated bottom, [L] subtidal

Figure 26. Site 5 – Newark Bay Potential Public Storage Facility Site in the New York-New Jersey Harbor area.

Site 5 – Newark Bay
Upland Pit CDF: 250,000 Cubic Yard Storage

Location:	This site borders Newark Bay and is located adjacent to Doremus Ave. to the west, in Newark, Essex County New Jersey.
USGS Quadrangle:	Jersey City, New Jersey – New York
Block / Lot:	Block 5066 / Lot 12
Ownership:	Passaic Valley
Approximate Area:	14.9 Acres (above water line 14.9 Acres)
Average Depth to Bedrock:	Not Available
Shoreline Frontage:	201 Meters
Length of Pier(s):	Not Applicable
Distance to Navigable Channel:	51 Meters
Distance to Statue of Liberty:	21.4 Kilometers
Distance to Rail Line:	670 Meters
Distance to Major Highway Exit Ramp:	2078 Meters (Exit 14 New Jersey Turnpike)
National Wetlands Inventory[16]:	E1UBLx (0.05 Acre), E2EM5P (0.09 Acre), and PSS1R (0.02 Acre)
General Soil Characteristics[17]:	URBHGB (14.9 Acres)
Surrounding Land Use:	Surrounding land use includes petroleum processing and storage facilities to the north, south, and west of this site.

[16] E1UBL = [E] Estuarine, [1] subtidal, [UB] unconsolidated bottom, [L] subtidal
[17] URBHGB = Urban Land, Bigapple Substratum, 0 to 8 percent slopes

Figure 27. Site 6 – Pralls Island Reach Potential Public Storage Facility Site in the New York-New Jersey Harbor area.

Site 6 – Pralls Island Reach

Upland Pit CDF: up to 1,500,000 CY Storage
Upland Bermed CDF: up to 1,000,000 CY Storage

Location:	This site borders the Arthur Kill and Piles Creek, in Linden, Union County, New Jersey.
USGS Quadrangle:	Arthur Kill, New York – New Jersey
Block / Lot:	Block 586 / Lot 8
Ownership:	New Jersey Department of Environmental Protection
Approximate Area:	91.8 Acres (above water line 87.7 Acres)
Average Depth to Bedrock:	Not Available
Shoreline Frontage:	1150 Meters
Length of Pier(s):	Not Applicable
Distance to Navigable Channel:	93 Meters
Distance to Statue of Liberty:	21.0 Kilometers
Distance to Rail Line:	45 Meters
Distance to Major Highway Exit Ramp:	2543 Meters (Exit 13 New Jersey Turnpike)
National Wetlands Inventory[18]:	E1UBL (0.60 Acre), PUBHx (0.26 Acre)
General Soil Characteristics[19]:	UdoB (32.16 Acres), UR (54.55 Acres), and Water (0.57 Acre)
Surrounding Land Use:	Surrounding land use includes a marsh and industrial facility to the west, and petroleum storage tanks to the south of this site.
Additional Considerations:	This site is adjacent to a HEP acquisition site.

[18] E1UBL = [E] Estuarine, [1] subtidal, [UB] unconsolidated bottom, [L] subtidal; and, PUBHx = [P] Palustrine, [UB] unconsolidated bottom, [H] permanently flooded, [x] excavated.
[19] UdoB = Udorthents, organic substratum, 0 to 8 percent slopes; UR = Urban soil.

Figure 28. Site 7 – Tremley Point Potential Public Storage Facility Site in the New York-New Jersey Harbor area.

Site 7 – Tremley Point

Upland Pit CDF: up to 500,000 CY Storage
Upland Bermed CDF: 250,000 CY Storage

Location:	This site borders the Arthur Kill and Rahway River and is located at the end of Tremley Point Road, in Linden, Union County, New Jersey.
USGS Quadrangle:	Arthur Kill, New York – New Jersey
Block / Lot:	Block 587 / Lot 8
Ownership:	Linden Marine LLC / American Cyanide Co
Approximate Area:	32.0 Acres (above water line 29.4 Acres)
Average Depth to Bedrock:	Not Available
Shoreline Frontage:	813 Meters
Length of Pier(s):	Not Applicable
Distance to Navigable Channel:	85 Meters
Distance to Statue of Liberty:	23.4 Kilometers
Distance to Rail Line:	1 Meter
Distance to Major Highway Exit Ramp:	4471 Meters (Exit 13 New Jersey Turnpike)
National Wetlands Inventory[20]:	E1UBL (0.03 Acre)
General Soil Characteristics[21]:	UdoB (0.27 Acre), UR (29.08 Acres), and Water (0.05 Acre)
Surrounding Land Use:	Surrounding land use includes a vacant lot with docking space to the north, and petroleum storage tanks to the west of this site.

[20] E1UBL = [E] Estuarine, [1] subtidal, [UB] unconsolidated bottom, [L] subtidal
[21] UdoB = Udorthents, organic substratum, 0 to 8 percent slopes; UR = Urban soil.

Figure 29. Site 8 – Port Reading Reach Potential Public Storage Facility Site in the New York-New Jersey Harbor Area.

Site 8 – Port Reading Reach

Upland Pit CDF: up to 1,500,000 CY Storage
Upland Bermed CDF: up to 1,500,000 CY Storage
In-Water Pit CDF: 250,000 CY Storage

Location:	This site borders the Arthur Kill and is located south of Point Reading Ave., in Woodbridge, Middlesex County, New Jersey.
USGS Quadrangle:	Arthur Kill, New York – New Jersey
Block / Lot:	Block 1095 / Lot 1, 2, and 4
Ownership:	Public Service Electric & Gas Co.
Approximate Area:	120.2 Acres (above water line 120.2 Acres)
Average Depth to Bedrock:	Not Available
Shoreline Frontage:	631 Meters
Length of Pier(s):	277 Meters
Distance to Navigable Channel:	524 Meters
Distance to Statue of Liberty:	27.8 Kilometers
Distance to Rail Line:	65 Meters
Distance to Major Highway Exit Ramp:	3,052 Meters (Exit 12 New Jersey Turnpike)
National Wetlands Inventory[22]:	E1UBL (0.03 Acre), E2EM1N (0.001 Acre), and E2Em5P (7.8 Acres)
General Soil Characteristics[23]:	BogB (13.38 Acres), BouB (0.06 Acre), HanA (1.21 Acres), HctA (6.23 Acres), PssA (56.83 Acres), PstA (0.09 Acre), and UR (41.05 Acres)
Surrounding Land Use:	Surrounding land use includes residential neighborhoods to the north, warehouses to the east, and petroleum storage tanks to the west of this site.

[22] E1UBL = [E] Estuarine, [1] subtidal, [UB] unconsolidated bottom, [L] subtidal
[23] BogB = Boonton loam, 3 to 8 percent slopes; BouB = Boonton-Urban land complex, 0 to 8 percent slopes; HanA = Haledon silt loam, 0 to 3 percent slopes; HctA = Hasbrouck silt loam, 0 to 3 percent slopes; PssA = Psamments, 0 to 3 percent slopes; PstA = Psamments, sulfidic substratum, 0 to 3 percent slopes; UR = Urban soil.

4.0 SUMMARY AND CONCLUSIONS

A detailed search of the New York-New Jersey Harbor area identified numerous potential sites for a PPF and/or a PSF. The initial assessment identified sites on the basis of criteria such as minimum upland acreage and water depth, which resulted from economic modeling studies (USACE 2006; USACE 2007). After screening the sites using information such as existing land use, proximity to residential areas, natural onsite features, and the acreage of the site available for development, the initial sites were ranked as high, medium, or low for their potential to act as a PPF or a PSF site.

Seventeen sites fit the criteria for a "high" site (Table 16). Of these 17 sites, 14 sites ranked high for a PPF and eight sites ranked high for a PSF. Five of the sites ranked high for both a PPF and a PSF: Newtown Creek (Queens, NY); Bergen Point (Bayonne, NJ); Kearny Point (Kearny, NJ); Pralls Island Reach (Linden, NJ); and Tremley Point (Linden, NJ) (Table 16). Based on this

Table 16. Summary List of High-Ranked Sites for a Public Processing or Storage Facility.

Site Name	State	Town or Borough	PPF Site Number	PSF Site Number	PSF Type and Maximum Size (MCY)			
					Upland Pit	Upland Bermed	In-Water Pit	Near-shore Bermed
Bergen Point	NJ	Bayonne	**8**	**3**	1.0	0.25	0.50	
Caven Point	NJ	Jersey City		**2**			1.0	
Con Edison	NY	Cortlandt	**14**					
Cortlandt Quarry	NY	Cortlandt	**13**					
Chelsea	NY	Staten Island	**4**					
Kearny Point	NJ	Kearny	**7**	**4**	1.0	0.25	1.5	
Keasbey/Bayshore	NJ	Woodbridge	**11**					
Military Ocean Terminal	NJ	Bayonne	**9**					
National Lead	NJ	Sayreville	**12**					
Newark Bay	NJ	Newark		**5**	0.25			
Newtown Creek	NY	Queens	**10**	**1**	0.5	0.25		
Port Newark	NJ	Newark	**6**					
Port Reading Reach	NJ	Woodbridge		**8**	1.5	1.5	.25	
Pralls Island Reach	NJ	Linden	**5**	**6**	1.5	1.0		
South Amboy (north)	NJ	South Amboy	**2**					
South Amboy (south)	NJ	South Amboy	**1**					
Tremley Point	NJ	Linden	**3**	**7**	0.5	0.25		

analysis, the Harbor contains potential sites for a PPF and potential sites for any of the four PSF sizes (from 0.25 to 1.5 MCY) for Upland Pit, Upland Bermed, and In-Water Pit CDFs. No potential sites were identified for any size Nearshore Bermed CDF (Table 16).

The purpose of this study was not to recommend one PPF site or one PSF site. The purpose of the study was to assist the District and its Port partners in their decision-making process by identifying and screening potential PPF and PSF sites and gathering site-specific information for "high" sites. Therefore, the high sites are not further ranked based on the information collected on their key characteristics and presented in fact sheets (e.g., distance to center of Harbor using navigable channels, distance to nearest navigable channel, distance to closest rail line). In addition, the rationale for ranking sites high, medium, and low is summarized in tabular form throughout the report.

The rationale used in site screening and assessment is presented clearly and in an iterative fashion so that the process and findings will have the maximum value to the District and its Port partners in the next phase of project assessment. The District is investigating the potential for a PPF and/or a PSF in the Harbor, and along with economic, environmental, and operational considerations, the ability to site such a facility is an important aspect of future development. The District will utilize all of these factors in the next phase of project development, when an alternatives analysis is used to weigh all project-related costs and benefits, including the costs and benefits associated with different potential facility locations.

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