FUDS Property No. C02NY0057

FUDS Project Name – Fort Totten Coast Guard Station
Formerly Used Defense Site
Queens, New York

Final
Decision Document
Engineer School, Fort Totten

March 2016

Prepared for:

U.S. Army Corps of Engineers

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ATTACHMENTS

ABBREVIATIONS/ACRONYMS AND GLOSSARY

ALM	Adult Lead Model
ARAR	Applicable or Relevant and Appropriate Requirements Applicable requirements means those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance found at a CERCLA site. Only those state standards that are identified by a state in a timely manner and that are more stringent than federal requirements may be applicable. Relevant and appropriate requirements means those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that, while not "applicable" to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site. Only those state standards that are identified in a timely manner and are more stringent than federal requirements may be relevant and appropriate.
ATSDR	Agency for Toxic Substances and Disease Registry
bgs	below ground surface
CDC	Centers for Disease Control
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act – a federal statute that concerns responses to releases or threats of releases of hazardous substances, pollutants, or contaminants, and concerns compensation and liability
CFR	Code of Federal Regulations
DERP	Defense Environmental Restoration Program – Congressionally authorized in 1986, DERP promotes and coordinates efforts for the evaluation and cleanup of contamination at Department of Defense installations and Formerly Used Defense Sites
DERP-FUDS	Defense Environmental Restoration Program Formerly Used Defense Site
DoD	Department of Defense
FS	Feasibility Study
ft	feet
FUDS	Formerly Used Defense Sites – a facility or site (property) that was under the jurisdiction of the Secretary of Defense and owned by, leased to, or otherwise possessed by the United States at the time of actions leading to contamination by hazardous substances. The FUDS program is limited to those real properties that were transferred from Department of Defense control prior to 17 October 1986.
GRA	General Response Actions
HHRA	Human Health Risk Assessment – an evaluation of risk posed to humans from exposure to contaminants
HI	Hazard Index
IEUBK	Integrated Exposure Uptake Biokinetic Model
µg/dL	micrograms per deciliter
mg/kg	milligram per kilogram
NCP	National Oil and Hazardous Substances Contingency Plan – regulations that implement and provide a regulatory framework for CERCLA.

NYC	New York City
NYSDEC	New York State Department of Environmental Conservation – regulatory body for environmental issues in New York State
NYSDOH	New York State Department of Health – regulatory body for health issues in New York State
O&M	Operations and Maintenance
PAH	polycyclic aromatic hydrocarbons – a class of semi-volatile compounds
Pb	lead
PbB	blood lead level
PCB	polychlorinated biphenyl – a group of toxic, persistent chemicals used in electrical transformers and capacitors for insulating purposes, and in gas pipeline systems as lubricant.
PPE	personal protective equipment
RAO	Remedial Action Objective
RG	remedial goal
RI	Remedial Investigation
RSL	Regional Screening Levels
SCO	soil cleanup objectives
SI	Site Inspection
sf	square feet
SLERA	Screening Level Ecological Risk Assessment – an abbreviated form of an ecological risk assessment that assesses the potential impact of site contaminants on the health of plants and animals at a site.
SRI	Supplemental Remedial Investigation
SRI2	Supplemental Remedial Investigation #2
SVOC	semi-volatile organic compound – a class of organic chemicals
SWPPP	Storm Water Pollution Prevention Plan
TCLP	toxicity characteristic leaching procedure
TMV	toxicity, mobility, and volume
USACE	United States Army Corps of Engineers – a federal agency whose authority includes response to releases or threatened releases of hazardous substances, pollutants, or contaminants at formerly used defense sites
USCG	United States Coast Guard
USEPA	United States Environmental Protection Agency
UU/UE	unlimited use/unrestricted exposure

1.0 DECLARATION

1.1 Site Name and Location

The Fort Totten Coast Guard Station (CGS) Formerly Used Defense Site (FUDS), "The Site", is located in the northwest portion of Long Island in the Queens Borough of New York City, New York (Figure 1-1). The Fort Totten CGS FUDS is listed in United States Army Corps of Engineers (USACE) records as Engineer School, Flushing, New York, FUDS site C02NY0057. The FUDS is currently owned and operated by the United States Coast Guard (USCG), although a large portion is currently not in use. The FUDS was formerly owned and operated by the Department of Defense (DoD).

The DoD acquired Fort Totten, a 146.75-acre property, between 1857 and 1943, for the coastal defense of Long Island Sound and the eastern entrance to the East River. Fort Totten also served as a post-Civil War hospital, an engineering school, and a training site for West Point Cadets. The US Army Reserve portion of Fort Totten is currently the Headquarters for the 77th Army Reserve Command. In 1968 the Department of the Army conveyed 9.6 acres of the property to the USCG, retaining ownership of the remaining 137.15 acres. This FUDS property comprises the conveyed 9.6 acres.

Fort Totten CGS FUDS was divided into five investigation areas (Area 1 through 5), based on current and former building locations and uses (Figure 1-2). No further action will be taken at Areas 2 through 5. A remedial action will be taken at Area 1. Area 1, previously designated as the Fill Area, is a rectangular-shaped parcel of land located in the northeastern portion of the FUDS (Figure 1-2). Area 1 was created when the Army placed soil excavated from the vicinity of Buildings 118, 119, and 121 (former vehicle maintenance shops located outside of the Fort Totten CGS FUDS boundary) in a low spot in a recreational field to eliminate periods of standing water. The excavated material included portions of the building's parking lots. Subsequent soil testing revealed that the soils in Area 1 contain lead at concentrations that are unacceptable for human health and that exceed background.

Area 1 is currently open space and is not used for a specific purpose. Future site use is not expected to change; however, the US Coast Guard has an approved planning proposal to increase its operational presence at Fort Totten and the location of the new facilities, which conceptually includes future duty housing units, may be close to the ball field area and thus close to Area 1.

1.2 Statement of Basis and Purpose

USACE is the lead agency for response actions for DoD's hazardous substances at FUDS pursuant to the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 et seq., and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 Code of Federal Regulations (CFR) Part 300.

USACE commissioned a Site Inspection (SI) of Fort Totten CGS FUDS in 1988 (Metcalf & Eddy, 1988). The SI report recommended a risk assessment, at a minimum, or a Remedial Investigation (RI)/Feasibility Study (FS) be performed. The USACE initiated a comprehensive RI in 1997 to determine the nature and extent of the contamination (USACE, 2005). The RI was conducted in two phases. Phase I was conducted from July 1997 through August 1998 and Phase II was conducted between November 1999 and August 2000. The USACE conducted a Supplemental Remedial Investigation (SRI) in summer 2004 to address data gaps and questions raised by the New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) regarding the nature and extent of semi-volatile organic compounds (SVOC) and metals in soils in Area 1. The USACE conducted a Supplemental Remedial Investigation #2 (SRI2) in 2011 and 2012 to further delineate and characterize environmental conditions in the upland portion of the Fort Totten CGS FUDS and to support updated risk assessments. The results of the initial 1997 RI, SRI, and SRI2 were combined into a Final RI report (USACE, 2014a). Based on the findings of the risk assessment and other information provided in the Final RI report (USACE, 2014a), no further action will be taken at the ballfield, or at Areas 2, 3, 4, and 5. The only portion of Fort Totten CGS FUDS where Department of Defense (DoD) activities resulted in conditions that may pose a risk to future receptors is the lead impacted soil in Area 1. The

USACE completed a FS for Area 1 in 2014 (USACE, 2014b). The FS evaluated a range of options for addressing the human health risks posed by Area 1. Area 1 is an overgrown, open space area, adjacent to the ball fields which are used for active recreation.

A Proposed Plan (USACE, 2015) was issued for all of Fort Totten CGS FUDS in June 2015, with a preferred alternative for Area 1 of removal, off-site disposal, and backfill. The public comment period for the Proposed Plan ran from July 17, 2015 to August 28, 2015. The Proposed Plan was posted on the USACE web site and direct-mailed copies of the plan were provided to stakeholders and the Bay Terrace Library. A public meeting was held on June 30, 2015 at the Bay Terrace Jewish Center where the USACE presented the Proposed Plan and the public was offered an opportunity to voice their comments, and/or to provide them in writing.

The State of New York concurs with the Selected Alternative of removal, off-site disposal, and backfill for Area 1. In a May 22, 2015 letter, NYSDEC agrees that the remedy of removal, off-site disposal, and backfill for Area 1 is acceptable for the current use of the facility as an active Coast Guard Station. Although no further action will be taken at Areas 2, 3, 4, and 5, the NYSDEC's soil clean up objectives (SCOs) were exceeded at several sampling locations within each of these areas; therefore, NYSDEC intends to issue an Environmental Notice of their own for the property, not within the scope of the USACE remedy. The NYSDEC intends to issue the "Environmental Notice", notwithstanding a CERCLA-compliant risk assessment conducted by USACE, which concludes unlimited use/unrestricted exposure (UU/UE) at Areas 2, 3, 4, and 5 (with no further action). UU/UE will be achieved at Area 1 when the removal of soils above background concentrations of lead is completed. The USACE remedy does not require five year reviews, because UU/UE will be achieved, site-wide.

The Administrative Record, which concerns information relevant to decision making for this site, may be viewed on the project web site: http://www.nan.usace.army.mil/FortTotten, and at the Bay Terrace Library, 18-36 Bell Blvd., Bayside, New York.

1.3 Assessment of the Site

Based on the findings of the risk assessment and other information provided in the Final RI report (USACE, 2014a), no further action is proposed at Areas 2, 3, 4, and 5 of Fort Totten CGS FUDS. The only area and media requiring remedial action is Area 1 due to concentrations of lead in soil that result in unacceptable risk to human health.

The Remedial Action Objective (RAO) at Area 1 is to prevent or reduce the potential for a child's ingestion of soils with total lead concentrations significantly above background concentrations. By comparison, background concentrations [522.5 milligrams per kilogram (mg/kg) in shallow soils and 448.9 mg/kg in deep soils] are slightly above the 400 mg/kg NYSDEC soil cleanup objective.

1.4 Description of the Selected Remedy

Based on the evaluation presented in the FS and the Proposed Plan, the decision for Areas 2 – 5 of the Fort Totten CGS FUDS is no further action. The selected alternative for Area 1 is Alternative 4 – Removal, Off-Site Disposal, and Backfill. The selected remedy involves removal of soil from Area 1 that contains lead concentrations greater than background. The soil will be transported off-site for disposal at an appropriate facility. The area will be backfilled with certified clean fill and topsoil, and revegetated in accordance with the restoration plan provided as part of the remedial action work plan.

Alternative 4 provides the best balance of the threshold, primary balancing, and modifying criteria. It satisfies the RAO by excavating the contaminated soil and disposing of the soil off-site, thus eliminating the potential future residential exposure to contaminated soil in Area 1.

1.5 Statutory Determinations

For Areas 2 – 5, none of the CERCLA Section 121 statutory determinations are necessary in this section since no remedy is being selected; no remedial action is necessary for Areas 2 – 5 to ensure protection of human health and the environment. The selected alternative for Area 1 is Alternative 4 – Removal, Off-Site Disposal, and Backfill. Alternative 4 is protective of human health and the environment, utilizes permanent solutions, and is cost-effective. There are no Federal and State requirements that are Applicable or Relevant and Appropriate Requirements (ARAR) to the remediation action. The remedy does not employ treatment; therefore, does not satisfy the statutory preference for treatment as a principal element of the remedy. However, the selected remedy is the only alternative evaluated during the FS that provides a permanent solution and an opportunity for site closure. A five-year review is not necessary because there will not be any residual risk after the selected remedy has been completed. NYSDEC intends to issue an Environmental Notice to address several sampling locations at Areas 2, 3, 4, and 5 which exceeded NYSDEC's soil clean up objectives (SCOs).

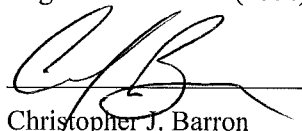
1.6 Data Certification Checklist

The following information is included in the Decision Summary section (Section 2.0) of this Decision Document. Additional information can be found in the Administrative Record for this site.

Data Item	Location in Document
Contaminants of Concern (COC) and their respective concentrations.	Section 2.5.3
Baseline risk represented by the COC.	Section 2.7
Cleanup levels established for the COC and the basis for these levels.	Section 2.8
How source materials constituting principal threats will be addressed.	Section 2.12
Land use resulting from the implementation of the Selected Remedy.	Section 2.6
Estimated annual and total present value costs, discount rate, and the number of years over which the remedy cost estimate is projected.	Section 2.12.3
Key factor(s) that led to selecting the remedy.	Sections 2.12 and 2.13

1.7 Authorizing Signature

This Decision Document presents the selected response action at Fort Totten CGS FUDS, Queens, New York. The USACE is the lead agency under the Defense Environmental Restoration Program (DERP) at the Fort Totten CGS FUDS, and has developed this Decision Document consistent with the CERCLA, as amended, and the NCP. This Decision Document will be incorporated into the larger Administrative Record file for the Fort Totten CGS FUDS, which is available for public view. Based on the findings of the risk assessment and other information provided in the Final Remedial Investigation Report, no further action is proposed at the ball field or at Areas 2, 3, 4, & 5, and the only media and area requiring remedial action is soil at Area 1 due to unacceptable lead concentrations in soil. This document presents the selected remedy for Area 1, which consists of the removal and off-site disposal of soils above background concentrations of lead, and backfill with clean fill. This decision is approved by the undersigned, pursuant to Memorandum, DAIM-ZA, September 9, 2003, subject: Policies for Staffing and Approving Decision Document, and to the FUDS Program Policy, U.S. Army Corps of Engineers Regulation 200-3-1 (2004).



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Christopher J. Barron
Colonel, EN
Commanding

Date

2.0 DECISION SUMMARY

2.1 Site Name, Location, and Brief Description

The 9.6-acre Fort Totten CGS FUDS property is located in the northwest portion of Long Island in the Queens Borough of New York City, New York and is currently owned and operated by the USCG (Figure 1-1).

For the purposes of the SRI2, the Site was divided into five investigation areas (Areas 1 through 5) based on current and former building locations and Site uses (Figure 1-2).

- Area 1 (Former Fill Area): Area 1 was created when the Army placed excavated soil in a low spot of the recreation field to eliminate periods of standing water. The soil came from excavation of parking lots associated with former and existing vehicle maintenance shops on the Army-owned portion of Fort Totten.
- Area 2 (Building 624): Building 624 was originally constructed as a workshop and was later used for storage, including the storage of pesticides.
- Area 3 (Buildings 610, 611, and 612): This area was originally investigated due to the presence of a transformer south of Building 610 that was suspected of containing polychlorinated biphenyls (PCBs).
- Area 4 (Building 625): A concrete pad adjacent to Building 625 originally supported two electrical transformers suspected of containing PCBs.
- Area 5 (Building 615): Building 615 was originally used as a torpedo and mine repair facility. The armaments contained mercury in their guidance systems and when repair required removal of the mercury, it was disposed of into the floor drains.

The area around Buildings 620 and 621 was excluded from further characterization during SRI2 based on the results of previous investigations that did not indicate a need for further characterization. Buildings 620 and 621 were constructed in the late 1800's, were formerly used respectively as a torpedo laboratory and shop building, and were later converted to housing and a garage, respectively (USACE, 1985).

Area 1 is the only portion of Fort Totten CGS FUDS that was recommended for further action in the RI and is the only area that will be addressed by the response action. Area 1, previously designated as the Fill Area, is a rectangular-shaped area located in the northeastern portion of the FUDS (Figure 1-2).

In accordance with the provisions of the DERP Management Guidance, the Department of the Army (DA) serves as the DoD Executive Agent for execution of the Defense Environmental Restoration Program for Formerly Used Defense Sites (DERP-FUDS).

The DA further delegated the responsibility of the DERP-FUDS program management and execution to the USACE. All plans and activities conducted by USACE at Fort Totten CGS FUDS are coordinated with the NYSDEC, the New York State Department of Health (NYSDOH), and the USCG.

2.2 Site History and Enforcement Activities

2.2.1 Summary of Activities

There is no record of any enforcement activities taken at this site.

The SI conducted at Fort Totten CGS FUDS indicated that contamination was present at concentrations that may require regulatory review in groundwater (lead and chromium), soil (mercury), sediment (mercury and petroleum hydrocarbons), and on building surfaces (pesticides). The contamination resulted from previous DoD activities at Fort Totten CGS FUDS.

Fort Totten CGS FUDS is listed on the New York State Registry of Inactive Hazardous Waste Sites as a Class 2 Site (i.e., a property that may present a significant threat to human health and the environment). The justification for classification stated: "The mercury contamination is (sic) the Bay is most likely the result of improper disposal of mercury contaminated wastes used in the manufacture, repair, or disposal

of various weapons systems during the Army's use of the site. The mercury contamination in the Bay is extensive; Marine Resources has stated that these sediments would be considered impaired for benthic and fish life. Elevated levels of mercury contamination on-site, and elevated levels of mercury and other heavy metals in sediments off-site represent a significant threat to public health and the environment. A determination of significant threat is warranted" (NYSDEC, 1996).

2.2.2 Site Investigations

The Fort Totten CGS FUDS has been the subject of several investigations. These include the land portion of the FUDS, referred to as the upland area, and the surface water and sediment of Little Bay. The results of these investigations are summarized below and are discussed in detail in the Final RI Report for Fort Totten (USACE, 2014a) and the FS for Area 1 (USACE, 2014b). The following investigations were conducted:

- 1988 SI
- 1992 Fill Area Soil Sampling
- 1996 Ball Field Soil Sampling
- 1997 Initial Comprehensive RI
- 2004 SRI
- 2006-2007 Building 615 Mercury Excavations
- 2011-2012 SRI2

The results of the investigations and accompanying human health and ecological risk assessments are summarized below.

- Area 1 (Fill Area): There is unacceptable risk from exposure to lead in Area 1soils. Specifically, the probability percentage of blood lead concentrations greater than 10 micrograms per deciliter (µg/dL) exceeded the 5 percent acceptable risk margin for a future child resident.
- Area 2 (Building 624): Significant levels of pesticides were not detected in nearby soils. The final RI report recommended no further action under FUDS because the cancer risks and non-cancer hazard index (HI) for current and potential future land use receptors are within or below the acceptable risk range (10^{-6} to 10^{-4}) and below the threshold non-cancer HI value of 1.
- Area 3 (Buildings 610, 611, and 612): PCBs were not detected in soils collected near these buildings. The final RI report recommended no further action under FUDS because the only risk greater than risk limits was driven by a single elevated detection of arsenic associated with a pressure treated deck. In the absence of that detection, the cancer risks and non-cancer HIs for future land use receptors at Area 3 would be within or below the acceptable risk range (10^{-6} to 10^{-4}) and below the threshold non-cancer HI value of 1. Additional investigation and qualitative risk evaluation of mercury in Area 3 confirmed the conclusion of previous risk assessment; mercury in surface soil within Area 3 is not a human health concern.
- Area 4 (Building 625): PCBs were not detected in soils collected near the building. Polycyclic aromatic hydrocarbons (PAHs) were detected at concentrations significantly higher than background, resulting in unacceptable risk to future residents. Visual observations from soil borings and hand-dug holes confirmed that the elevated PAH concentrations in Area 4 are attributable to historic urban fill. Based on these observations, the final RI report recommended no further action under FUDS.

- Area 5 (Building 615): During investigation activities (to locate the exit point of floor drains), mercury-impacted soil was excavated to the extent possible from outside of the building in 2006 and 2007. Underground structures, including a buried electrical line, active sewer line, and former cesspools prevented complete removal of all impacted soils. These structures are still in place and will limit or prevent future soil removal within the source area. Air monitoring within Building 615 indicated that there were no detectable concentrations of mercury greater than the state screening level (USACE, 2006). Surface water sampling in Little Bay did not detect significant concentrations of mercury (USACE, 2005). The HHRA indicated there are no unacceptable risks or hazards from the remaining soil and the screening level ecological risk assessment (SLERA) indicated that concentrations of metals are not likely to result in actionable population level effects to ecological receptors. The final RI report recommended no further action under FUDS. Because Area 5 contains low-levels of residual mercury in the subsurface, the U.S. Coast Guard indicated in a letter dated 22 May 2015 (Attachment A) that management/institutional controls will be utilized to track any residual environmental liabilities at the site.
- Little Bay: Mercury levels in the sediment were not significantly higher than those found in sediment in other portions of Long Island Sound and New York Harbor, indicating that substantial quantities of mercury were not released from Building 615 into the Bay. An ecological risk assessment indicated that mercury posed no risk to the aquatic environment of Little Bay. The USACE issued a No Further Action Record of Decision for Little Bay (USACE, 2003) after additional fish and shellfish tissue sampling confirmed that mercury continued to pose no significant threat to human health and the environment.
- Ball Field: The NY Department of Health determined that no contaminants were detected at levels that would pose a health concern for users of the ball field (NYDOH, 1996). NYSDEC provided a letter dated March 18, 2014 confirming "… there were no waste handling practices ever inferred to have occurred at the ball fields portion of the site, and further, data collected early in the Remedial Investigation process from the ball fields did not reveal any significant contamination. Based upon that review… this area will require no further investigation ...".
- Site-wide Groundwater: Samples collected in 2011 contained PAHs, sodium, and chloroform above the New York State Class A groundwater guidance criteria. The PAH concentrations were likely related to suspended solids in groundwater samples rather than dissolved PAHs (based on a comparison of subsequent sample results from filtered versus unfiltered samples). A qualitative risk evaluation of 2012 groundwater sampling results indicated that risk from exposure to groundwater is not of concern. The final RI report (USACE, 2014a) recommended no-action for area groundwater because there is no current exposure and no potential for future exposure.

2.2.3 Site Actions

Site investigations and removal of mercury-impacted soil by Building 615 discussed above. These are the only site actions that have occurred at Fort Totten CGS FUDS.

2.3 Community Participation

Community participation activities provide the public with an opportunity to express its views on the selected remedial action. USACE considered state (NYSDEC and NYSDOH) and public input from the community in selecting the Preferred Remedy for Area 1.

The USACE hosted a public meeting on June 30, 2015 at the Bay Terrace Jewish Center to present the Proposed Plan for Fort Totten CGS FUDS. The public comment period for the Proposed Plan ran from July 17, 2015 to August 28, 2015. Approximately three weeks prior to the public meeting, the Proposed Plan was posted on the USACE website and copies were direct-mailed to stakeholders and the Bay Terrace Library.

The public meeting presentation included a discussion of the no further action decision for Areas 2 through 5 and a discussion of the Preferred Remedy for Area 1, which is Alternative 4 – Removal, Off-Site Disposal, and Backfill. Comments from the public were received and addressed during the meeting. A responsiveness summary, in which responses to public comments received during the public meeting and over the duration of the public comment period, is provided in Section 3.0 of this Decision Document. A transcript of the June 30, 2015 meeting is provided as Attachment A.

Notices announcing the public meeting were intended to be published in the *Bayside Time*s and *Flushing Times* on June 12, 2015. Both newspapers have general circulation in the area of Fort Totten. Unfortunately, due to an error on the part of the newspaper, the notice was not published. A subsequent notice of the availability of the Proposed Plan was published on July 17, 2015. The subsequent notice extended the public comment period through August 28, 2015 and indicated that a second public meeting would be held if members of the public requested such a meeting (the initial public comment period was to close on July 24, 2015). No such request was made for a second public meeting.

2.4 Scope and Role of the Response Action

The response action will be undertaken by USACE as part of the FUDS program. Area 1 is the only portion of Fort Totten CGS FUDS that was recommended for further action in the RI and it the only area that will be addressed by the response action.

The need for the response action at Area 1 is driven by the risks to human health posed by contaminants in soil. The response action at Area 1 will protect potential future residents from human health risks posed by lead in soil by removing the contaminated soil from the site. The soil will be disposed of off-site at a permitted receiving facility. The area will be backfilled and revegetated.

2.5 Site Characteristics

The description of site characteristics is limited to the area where the response action will be conducted, specifically Area 1. Area 1 is approximately 0.84 acres located in the northeast portion of Fort Totten CGS FUDS. The land is fairly flat with a small wetland on the northern edge of the area. The wetland is not regulated under the New York State Freshwater Wetlands Act. Area 1 is currently heavily vegetated except along the eastern boundary.

2.5.1 Conceptual Site Model

A conceptual site model (CSM) is an effective tool for defining site dynamics, streamlining risk assessments, establishing exposure hypotheses, and developing appropriate corrective actions. CSMs are useful for identifying completed exposure pathways between the contaminated media and potential receptors. The purpose of the CSM is to aid in understanding and describing a site and presents the assumptions regarding:

- Suspected sources and types of contaminants present;
- Contaminant release and transport mechanisms;
- Affected media;
- Potential receptors that could come in contact with site-related contaminants in affected media under current and future land use scenarios; and
- Potential routes of exposure.

Potential human receptors are defined as individuals who may be exposed to site-related contaminants in environmental media. Consistent with United States Environmental Protection Agency (USEPA) guidance, current and reasonably anticipated land uses were considered in the receptor selection process.

USEPA defines an exposure pathway as: "The course a chemical or physical agent takes from a source to an exposed organism. An exposure pathway describes a unique mechanism by which an individual or population is exposed to chemicals or physical agents at or originating from a site. Each exposure pathway includes a source or release from a source, an exposure point, and an exposure route. If the

exposure point differs from the source, a transport/exposure medium (e.g., air) or media (in cases of intermedia transfer) is also included."

A review of potential exposure pathways links the sources, locations, and types of environmental releases with receptor locations and activity patterns to determine the significant pathways of concern.

Based on the investigations, the observations and reasonable assumptions for the potential human receptors for Area 1 are listed below.

- Current Receptors: Area 1 is open space and is not currently used for any specific purposes. Receptors include Outdoor Commercial/Industrial Workers (adults) and Trespasser/Recreational Receptors (adolescents and adults).
- Future Receptors: Future potential receptors include Outdoor Commercial/Industrial Workers (adults), Indoor Commercial/Industrial Workers (adults), Construction Workers (adults), Recreational Receptors (children and adults), and Residents (children and adults).

2.5.2 Sampling Strategy

A total of 24 surface and subsurface soil samples were collected from Area 1 during three separate sampling events conducted to determine the nature and extent of metals, SVOCs, and volatile organic compounds. Phase I sampling occurred from July of 1997 through August of 1998, Phase II sampling occurred in November 1999 and August 2000, and the SRI sampling occurred during the summer of 2004.

2.5.3 Sources, Types and Extent of Contamination

Area 1 was created when the Army placed soil excavated from the vicinity of Buildings 118, 119, and 121 (former vehicle maintenance shops located outside of the Fort Totten CGS FUDS boundary) in a low spot in a recreational field to eliminate periods of standing water. The excavated material included portions of the building's parking lots.

Lead is the only contaminant of concern and soil is the only media of concern. Lead was detected in all soil samples collected from Area 1. The estimated extent of lead concentrations in excess of background [522 mg/kg for shallow soils (0 to 3 inches) or 449 mg/kg for deep soils (greater than three inches)] [1] is limited to the southern half of Area 1 (Figure 2-1). The maximum lead concentration in soil was 1,540 mg/kg detected at B-10 [0-1 feet (ft)] (Figure 2-1). The total surface area of lead concentrations greater than background is approximately 20,000 square feet (sf) (Figure 2-2).

At locations where both surface and subsurface samples were collected, lead concentrations decreased with depth. The depth of lead concentrations greater than background is between 1 and 2 ft below ground surface (bgs) in the southwestern portion of Area 1 and is greater than 2 ft bgs, but less than 16 ft bgs in the southeastern portion of Area 1. The depth of soil with lead concentrations that exceed background is assumed to be fairly shallow based on the source of the contamination (i.e., fill material deposited in the southern portion of Area 1 to fill in low areas of the topography). Depths are estimated to extend to 1.5 ft bgs in the western half of the area and up to 3 ft bgs in the eastern half of the entire 20,000 sf area. The total volume of soil with lead concentrations greater than background is estimated to be 45,000 cubic feet or 1,667 cubic yards (cy).

Lead in the surface soil is not migrating in significant quantities to surface water bodies. Surface water and sediment sampling in Little Bay did not detect concentrations of metals higher than those found in Little Neck Bay.

The mobility of metals in soil depends on many factors including soil type, oxidizing/reducing conditions, pH, and organic content. Infiltration rates and depth to groundwater are also important factors affecting transport of metals in the subsurface. Regardless, lead was detected in only one of the five site-wide monitoring wells sampled in 2011. The detection occurred in well MW-4R at an estimated concentration

[1] The background concentrations were calculated using the 95% upper tolerance limits for 90% coverage.

of 0.0018 milligrams per liter (mg/L). By comparison, the New York State Class A Groundwater standard is 0.025 mg/L. These results indicate that metals, including lead, are not leaching in significant quantities to the groundwater.

2.5.4 Materials to be Remediated

The soils in Area 1 with lead concentrations above background will be remediated by implementing Alternative 4. The Selected Remedy consists of excavation of the soil, off-site disposal of the soil, and backfill of the excavation. The removal of contaminated soil will eliminate the potential future residential exposure pathway, thus eliminating unacceptable risk from exposure to Area 1.

2.6 Current and Potential Future Site and Resource Uses

Area 1 is currently open space and is not used for a specific purpose. Area 2 is primarily open space and includes the remains of former Building 624. Area 2 is not used for a specific purpose. Area 3 includes Buildings 610, 611, and 612 that are primarily used for government office space, and the hillside lawn to the north, south, and east of these structures. Area 4 is primarily open space and includes Building 625 which is not currently used, and a small parking area for a local ambulance service. Area 5 includes Buildings 614 and 615 that are primarily used for government office space and storage, and adjacent parking areas. Future site use is not expected to change; however, the US Coast Guard has an approved planning proposal to increase its operational presence at Fort Totten and the location of the new facilities, which conceptually include duty housing units, may be close to the ball field area and thus close to Areas 1,2, 4, and possibly Area 3.

The Fort Totten CGS FUDS is supplied by municipal water. No current or foreseeable use of groundwater has been identified, and potential salt water intrusion and low well yield would preclude future use of the groundwater for potable or non-potable purposes. As stated previously in Section 2.2.2, a qualitative risk evaluation of the 2012 groundwater sampling results indicated that risk from exposure to groundwater is not of concern. The final RI report (USACE, 2014a) recommended no-action for groundwater because there is no current exposure and no potential for future exposure.

2.7 Summary of Site Risks

Human Health Risk Assessments and ecological risk assessments were performed for Fort Totten CGS FUDS as part of the RI (USACE, 2005), updated in the SRI (USACE, 2006), and conducted again as part of the Final Remedial Investigation Report (USACE, 2014a). The results are summarized below.

Findings of the Human Health Risk Assessment

The human health risk assessment (HHRA) was performed in a manner consistent with USEPA CERCLA guidance. Carcinogenic and non-carcinogenic risks were calculated for each exposure scenario. Consistent with standard practice, risks associated with exposure to lead in soil were evaluated using USEPA blood lead models for both adults and children. The HHRA evaluated potential exposures to soil for Current Commercial/Industrial Workers (adults), Trespasser/Recreational Receptors (adolescents and adults), Future Outdoor Commercial/Industrial Workers (adults), Future Indoor Commercial/Industrial Workers (adults), Future Construction Workers (adults), Future Recreational Receptors (children and adults), and Future Residents (children and adults).

The results of the HHRA are detailed in the Final RI Report (USACE, 2014a). In general, cancer risks and non-cancer hazard indices (HIs) for all current and future land use receptors at all five exposure areas are within or below the acceptable risk range (10^{-6} to 10^{-4}) and below the threshold non-cancer screening HI and/or the target organ-based segregated HI of 1. There were two exceptions where calculated risks were above the aforementioned thresholds. These occurred in Area 3 where a finding of unacceptable risk was driven by a single sample deemed to not be representative of site soils and in Area 4 where unacceptable risk resulted from samples determined not to be representative of site soils.

Risks associated with exposure to lead were evaluated using USEPA lead biokinetic uptake models for both adults and children. The probability percentage of blood lead concentrations greater than 10 µg/dL was below the 5 percent acceptable risk margin for all five exposure areas except for the Future Child Resident in Area 1. This is described in further detail below.

The Adult Lead Model (ALM) was used to evaluate potential lead uptake and estimated blood lead levels (PbBs) for the outdoor worker, indoor worker and construction worker scenarios. The child lead model [Integrated Exposure Uptake Biokinetic Model (IEUBK)] was used to determine the total lead uptake resulting from exposure to site soils and other non-site related sources, such as drinking water, inhalation of dust and airborne lead, and diet. To evaluate lead uptake from soil associated with future residential land uses, the IEUBK model was run using default values for all parameters except the soil lead concentration, for which the exposure point concentration provided in the final RI Report (USACE, 2014a) was used.

The IEUBK and ALM provide estimates of blood lead levels (PbB) that may result from chronic exposures to lead. The estimated concentrations calculated from the models were compared to a PbB of 10 micrograms per deciliter (µg/dL). USEPA considers a PbB equal to or greater than 10 µg/dL to be a level at or above which children's health is at risk (USEPA, 2015).

The adult blood lead concentration from exposure to both surface and subsurface soil is below 10 µg/dL. The probability percentage of fetal blood lead concentration greater than 10 µg/dL is also below the 5 percent acceptable risk margin for both surface soil and subsurface soil. The future child resident blood lead model indicates that the blood lead level for children exposed to surface and subsurface soil through residential exposure is below a blood lead level of 10 µg/dL; however, the probability percentage of the child blood lead concentration greater than 10 µg/dL is above the 5 percent acceptable risk margin for surface and subsurface soil (13.2 percent and 11.1 percent, respectively).

2.7.1 Findings of the Ecological Screening Level Risk Assessment

A SLERA was conducted to evaluate the potential for chemical constituents of concern detected in surface soil in upland exposure areas to adversely affect ecological receptors. The SLERA was performed in a manner consistent with USEPA, CERCLA, and NYSDEC guidance. The results indicated that:

- Concentrations of SVOCs in Area 1 are not likely to result in actionable population level effects to ecological receptors.
- Concentrations of metals in Area 1 are not likely to result in actionable population level effects to ecological receptors.

2.7.2 *Areas Requiring Remedial Action Based on Risk*

Based on the results of the HHRA and SLERA discussed above, no further action was determined for Areas 2 – 5. The only area and media requiring remedial action is Area 1 due to concentrations of lead in soil that result in unacceptable risk to human health. This finding is consistent with USEPA's Office of Solid Waste and Emergency Response (OSWER) Directive 9200.4-27P. The directive recommends that actions be taken at sites with lead-impacted soil to significantly minimize or eliminate exposure to soil lead levels such that a typical child or group of children would have an estimated risk of no more than 5 percent of exceeding a 10 µg/dL blood lead level (USEPA, 1998).

2.8 Remedial Action Objective

Remedial action objectives were developed for the purpose of evaluating the applicability of remedial technologies and the effectiveness of remedial alternatives. These objectives consist of media-specific goals for protecting human health and the environment, and for meeting ARARs in a cost-effective manner.

Area 1 poses an unacceptable health risk with respect to soil if the area is used for residential purposes in the future. There are no current unacceptable human health risks. The unacceptable risk is posed by exposure to lead in soil.

The remedial action objective established herein is based on site-specific information, including the nature and extent of chemical constituents, existing site conditions, and future land use plans. Remedial action objectives typically focus on controlling exposure of receptors (for example, children at Area 1) to chemicals of concern via exposure routes such as dermal contact, ingestion, and inhalation. The RAOs also focus on controlling the release of hazardous substances into the environment.

The following RAO was developed for Area 1.

- Prevent or reduce the potential for a child's ingestion of soils with total lead concentrations significantly above background concentrations.

Based on the RAO, a remedial goal (RG) was established that is an acceptable exposure level that is protective of human health and the environment. The RG is to reduce lead (Pb) contamination in surface and subsurface site soil so that the average Pb concentration does not exceed the average surface soil background concentration with 95 percent confidence. Because the average Pb concentration for the background surface soil may be greater than the NYSDEC Residential Use SCO of 400 mg/kg for Pb in soil, 6 NYCRR Part 375-6.8(a) and (b) is not selected as an ARAR.[2]

The selection of this RG was based on the following:

- The RG is feasible.
- The RG ensures the average Pb concentration in soil at the site will not be significantly greater than the average Pb background concentration with 95 percent confidence.

2.9 Description of Alternatives

Four remedial action alternatives were developed and evaluated based on the following CERCLA criteria: protection of human health and the environment; compliance with ARARs; long-term effectiveness and permanence; implementability; reduction of toxicity, mobility, or volume through treatment; short-term effectiveness; and cost. The four alternatives are:

- Alternative 1: No Action;
- Alternative 2: Land Use Controls (LUCs);
- Alternative 3: Soil Cover Cap with LUCs; and
- Alternative 4: Removal, Off-Site Disposal, Backfill.

2.10 Comparative Analysis of Alternatives

The four alternatives have been evaluated using the nine evaluation criteria outlined in the National Contingency Plan, 40 CFR Section 300.430, and the United States Environmental Protection Agency *Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA* (USEPA, 1988). The criteria include:

Threshold Criteria

- Overall protection of human health and the environment
- Compliance with ARARs

Primary Balancing Criteria

- Long-term effectiveness and permanence
- Reduction of toxicity, mobility, or volume through treatment

[2] The average lead background concentration is not statistically different with 95 percent confidence from the NYSDEC Residential SCO of 400 mg/kg.

- Short-term effectiveness
- Implementability
- Cost

Modifying Criteria

- State Acceptance
- Community Acceptance

The criterion of cost is assessed by estimating relative costs for the alternatives. For an alternative to be eligible for selection, it must meet the threshold criteria. If these criteria are met, the primary balancing criteria are evaluated to provide the best balance of trade-offs among alternatives. Table 2-1 presents a summary of the alternatives, how well they satisfy the evaluation criteria, and how they compare to one another.

2.11 Principal Threat Wastes

There are no principal threat wastes at Area 1. EPA defines principal threat wastes as those source materials considered to be highly toxic or highly mobile that generally cannot be reliably contained or would present a significant risk to human health or the environment should exposure occur (USEPA, 1991). The lead in Area 1 soil represents a low to moderate threat because of 1) relatively low mobility and 2) relatively low concentrations. The selected remedy, Alternative 4, will effectively prevent human contact with the soils, thus eliminating threats to human health.

2.12 Selected Remedy

Based on the Administrative Record for the Fort Totten CGS FUDS, and the evaluation of comments received by interested parties during the public comment period, USACE has selected No Further Action for Areas 2 through 5 and Alternative 4 as the remedy for the Area 1 soil.

2.12.1 Summary of the Rationale for the Response Action

The selected remedy is protective of human health through the removal and off-site disposal of site contaminants, does not have any significant implementability concerns, and has minor impacts on worker safety, the community, and the environment that can be managed. The preferred remedy was selected over the other alternatives because it is expected to achieve the RAO in a timely fashion, allows for site closure, and is cost-effective.

2.12.2 Description of the Response Action

This alternative involves removal of soil with lead concentrations greater than background (Figure 2-2). Excavation confirmation sampling will be conducted. Then the area will be backfilled with certified clean fill and topsoil, and revegetated in accordance with the restoration plan provided as part of the remedial action work plan. For estimating purposes, the soil will be removed by excavation to a depth of 1.5 ft in the western portion of the area to be addressed and to a depth 3 feet in the eastern portion of the area to be addressed. The contaminated soil volume is estimated at approximately 1,667 cy measured in situ (bank cubic yard). Assuming a 20 percent increase in volume from fluffing (assuming a combination of sand, gravel and loam) and an approximate weight of 2,600 pounds per loose cubic yard (Department of Army, 2000), the total mass of waste material to be excavated will be approximately 2,600 tons. Conventional earthmoving equipment such as excavators, loaders, and dump trucks will be used for excavation of the soil. A summary of the site activities is presented below.

Pre-Design Investigation/Work Plans/Reporting: A pre-design investigation will be conducted to determine the extent of the soil with lead concentrations above background. The investigation results will be used to determine the planned extent of the excavation. Site-specific work plans will be prepared prior to excavation activities that will include a quality assurance planning component, health and safety component, work plan, a Community Air Monitoring Plan (CAMP) and field procedures. A Remedial Design will be completed. The plans will be reviewed and approved by USACE and coordinated with NYSDEC prior to remedial activities. The estimated time for completion of these plans is three months. This includes incorporation of review comments and revisions. After the remedial action has been completed and the final inspection conducted by USACE and coordinated with NYSDEC, a Remedial Action Report (also known as a Final Engineering Report) will be completed. The report will include site drawings, sample data, copies of all manifests, certification of clean backfill materials, photo documentation of the remedial action, and a detailed narrative of the work completed.

Site Set-Up: Site set-up for the excavation, off-site disposal, and backfilling at Area 1 will consist of setting up of a decontamination station and equipment/materials staging areas. The only water needs of the remedial activities will be for decontamination and dust suppression. Therefore, water will be trucked to the site and stored in a tank. Electrical power during construction will be supplied by portable generators. Construction activities will be conducted during daylight hours, so lighting will not be required.

Excavation: It is assumed that one excavator and one loader will be used to excavate and load the soil into dump trucks. The soil will then be transported to a permitted disposal facility. It is assumed that the excavation will proceed at the rate of approximately 400 cy per day, assuming that the disposal facility can receive wastes at this rate. A water truck will be required on site during excavation activities for decontamination and dust suppression purposes. Air monitoring for dust generation will be performed in accordance with the CAMP. The decontamination liquids generated from equipment cleaning will be stored in a storage tank for disposal. A storm water pollution prevention plan (SWPPP) will be prepared as part of the Remedial Action Work Plan.

Confirmation Sampling: Soil screening using X-ray fluorescence will be conducted concurrently with excavation. The screening will be used to determine the limits of excavation based on the soil RG. Confirmation samples for total lead will then be collected using an incremental sampling approach and analyzed at an off-site analytical laboratory. The confirmation sample data will document that the arithmetic average lead concentration of soil remaining for exposure is not greater than background.

Waste Characterization: Soils will be characterized via laboratory analysis to determine if they must be disposed of as a hazardous or non-hazardous waste.

Waste Transportation and Disposal: It is assumed that 100 percent of the soil removed from Area 1 will be non-hazardous (as defined under the Resource Conservation and Recovery Act) and will be disposed as such. In addition, it is assumed that the decontamination water will be non-hazardous, so it can be disposed of in the New York City (NYC) Sanitary Sewer System, subject to NYC approval.

Site Restoration: Certified clean soil fill will be obtained and used to replace the excavated soil to match the surrounding grade. Samples of the topsoil and fill will be analyzed at an off-site laboratory prior to placement to verify that the fill is suitable for use at the site. The fill soil will be compacted in 6-inch lifts to minimize the formation of depressions. Finally, 6 inches of topsoil will be placed over the backfill and the area will be revegetated in accordance with the restoration plan provided as part of the remedial action work plan. Erosion mats or temporary barriers will be used as necessary to prevent erosion.

2.12.3 Monitoring Well Closure

In addition to the response activities described above, all monitoring wells related to previous investigations will be properly closed.

2.12.4 Summary of Estimated Response Costs

The recommended Alternative 4 will cost approximately $450,935. The cost detail is provided in Table 2-2. The final cost may be higher or lower based on the extent of excavation identified in the pre-design investigation to achieve the remedial goal and the contractor bid(s) received for the work. This is greater than the cost of Alternative 2 ($206,130) and Alternative 3 ($282,635); however, only Alternative 4 provides a permanent solution that will result in site closure. It is estimated it will take one year to implement the remedy.

2.12.5 Outcome of the Removal Action

Alternative 4 mitigates the risks to human health through removal of contaminated soil. The remedy will be complete within approximately one year of completion of the decision document, subject to the availability of funds.

2.13 Statutory Determinations

Under CERCLA Section 121, selected remedies must be protective of human health and the environment, comply with ARARs (unless a waiver is justified), be cost-effective, and use permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. In addition, CERCLA includes a preference for remedies that employ treatment that permanently and significantly reduces the volume, toxicity, or mobility of hazardous wastes as a principal element. The following sections discuss how the selected remedy meets these statutory requirements.

2.13.1 Protection of Human Health and the Environment

This alternative will leave the Area 1 soil below the RG, thereby protecting human receptors and achieving the RAO.

2.13.2 Compliance with Applicable or Relevant and Appropriate Requirements

There are no Applicable or Relevant and Appropriate Requirements (ARARs) for the selected remedy of removal, off-site disposal, and backfill of the Area 1 soil.

2.13.3 Cost-Effectiveness

The selected remedy for Area 1 soil is cost-effective. The overall effectiveness of the selected remedy was determined to be proportional to its costs and, hence, to represent a reasonable value for the money to be spent.

The cost-effectiveness of the selected Area 1 (Alternative 4) was evaluated based on the data currently available for the Area 1 soil and the following considerations: (1) lead concentrations in soil are not anticipated to decrease with time; therefore, alternatives 2 and 3 will need to be conducted in perpetuity; and (2) Alternative 4 is the only alternative that will achieve closure of the site.

2.13.4 Utilization of Permanent Solutions and Alternative Treatment Technologies to the Maximum Extent Practicable

The selected remedy for Area 1 provides a permanent solution for prevention of exposure to contaminated soil. The permanent solution will be achieved upon removal of the contaminated soil from the site. Alternative treatment technologies were evaluated in the FS, but none were retained due to either their inability to address lead in soil or because the technology was excessive for the level of contamination.

2.13.5 Preference for Treatment as a Principal Element

As noted above, numerous treatment technologies were evaluated in the FS, but none were retained and incorporated into alternatives due to either their inability to address lead in soil or because the technology was excessive for the level of contamination. As a result, none of the alternatives retained in the FS incorporated treatment of lead in soil.

2.14 Documentation of Significant Changes

The Proposed Plan (USACE, 2015) was issued for all of Fort Totten CGS FUDS in June 2015. The Proposed Plan identified Alternative 4: Removal, Off-Site Disposal, and Backfill as the Preferred Alternative for soil remediation. The public comment period ran from July 17, 2015 to August 28, 2015. USACE reviewed all written and verbal comments submitted during the public comment period. It was determined that no significant changes to the remedy, as originally identified in the Proposed Plan, were necessary or appropriate.

3.0 RESPONSIVENESS SUMMARY

The Proposed Plan (USACE, 2015) for Fort Totten CGS FUDS was issued in June 2015 for public comment. A public meeting was held on June 30, 2015 at the Bay Terrace Jewish Center. The public comment period ran from June 18, 2015 to August 28, 2015.

Attachment A includes copies of the public notice for the meeting, the material presented at the meeting, the official transcript of the meeting, applicable newspaper articles, a letter from the USCG regarding management/institutional controls for the property, and a letter from NYSDEC accepting the Proposed Remedy for Area 1 at Fort Totten CGS FUDS.

3.1 Summary of Comments and Responses to Comments

Following are comments received from the public with responses provided by the USACE on the Proposed Plan for Area 1of the Fort Totten CGS FUDS; these responses elaborate further on those presented at the Public Meeting:

1. Minutes of Public Meeting held on June 30, 2015, Bayside, New York, during which the public was provided an opportunity to comment on the Proposed Plan for Area 1 (Attachment A). Mr. Jacobowitz stated "…then my comment would be, you know, mentioning what was in the process with the groundwater being a problem. Groundwater doesn't sit still, it goes into the bay, it goes all around. What's the remedy for I mean, you're just saying it's safe if you don't drink it. But we got bays, we have people that have wells."

RESPONSE: *Thank you Mr. Jacobowitz. Both groundwater and Little Bay were evaluated during the investigations. The groundwater beneath the Fort Totten CGS FUDS migrates to the west and discharges to Little Bay. There are no private wells in the area where the groundwater beneath the Fort Totten CGS FUDS is migrating or discharging. The results of the RI and risk assessment concluded that there is no risk to human health or the environment from groundwater discharging to the bays.*

2. Minutes of Public Meeting (Attachment A). Mr. Branzetti stated "…But most important, you guys didn't do anything about marking the area for the people in the neighborhood not to do anything and not to come near it. Let me go on, because I went and planted trees with Boy Scouts and Girl Scouts in that contaminated soil and area. We had, it's my Parks Day with the City Parks Department, and we went and we planted trees and everything there. We wouldn't have planted anything there if the thing was roped up or anything. It's still not roped off, you don't have any kind of fencing, any kind of signage."

RESPONSE: *Thank you Mr. Branzetti. Based on the risk assessment performed as part of the RI, there is no current or future unacceptable risk to recreational users or outdoor workers from exposure to the soils in Area 1. The only unacceptable risk from exposure to Area 1 soils is to potential future child residents.*

3. Minutes of Public Meeting (Attachment A). Mr. Schreiber stated "And my other question, where you talk about risk assessment concluded, there's no unacceptable risk to human health, what's the, what are some of the -- without getting too technical -- what are some of the criteria for that risk assessment? What goes into that?"

RESPONSE: *Thank you Mr. Schreiber. The human health risk assessment (HHRA) is completed using a four-step process. The four steps include: Data Evaluation, Exposure Assessment, Toxicity Assessment, and Risk Characterization. The data evaluation documents the selection of chemicals that are evaluated in the HHRA. The exposure assessment identifies the human populations that could access the Site under current and possible future land use. The HHRA evaluated potential exposures to Area 1 soil for Current Outdoor Workers, Current Trespasser, Future Outdoor Workers, Future Indoor Workers, Future Construction Workers, Future Recreational Receptors, and Future Residents. The toxicity assessment identifies the toxicological attributes of the chemicals assessed in the HHRA. The risk characterization identifies the methodology that is used to calculate and summarize the health risks. The results of each of these steps are presented in the Final Remedial Investigation Report (USACE, 2014a).*

4. Minutes of Public Meeting (Attachment A). Ms. Johnson stated "So regardless of when it was determined that that soil in Area 1, I think it is that you're talking about, was determined that it could be harmful and that's why you're doing a remedy, what Joe had mentioned about there were people working in that soil, do those people, were they exposed to anything and should they be seeking some kind of remedy?"

RESPONSE: *Thank you Ms. Johnson. There is no current or future unacceptable risk to recreational users or outdoor workers from exposure to Area 1. Short duration activities such as recreational use or tree planting activities would not result in an unacceptable risk; therefore, these people would not need to seek treatment due to exposure to Area 1 soils.*

5. Minutes of Public Meeting (Attachment A). Mr. LoPinto stated "So at some point we would like to make sure that we go back and review the restrictions that were put into the Army property, and if this property does come up for disposal and is transferred to whomever, that certain deed restrictions be put in there, in particular for those areas where it was found to be not a problem but there were still some chemicals that were there." "Such as no residential, such as no growing of vegetable gardens, things like that."

RESPONSE: *Thank you Mr. LoPinto. The USCG has issued a letter to USACE* (Attachment A) *indicating that a description of remaining site impacts will be recorded in the Coast Guard's Shore Asset Management Environmental Liability Module. This record will memorialize their location and concentrations in the event of a future property transfer or if a construction project would disturb site soils. If there are planned changes to the current land use, the USCG will notify NYSDEC to coordinate the management of soils. If the USCG should transfer the Fort Totten property in the future, all relevant reports depicting the environmental condition of the property would be provided to the designated property transfer agent, consistent with Federal policies regarding property transfers.*
The NYSDEC has issued a letter (Attachment A) *indicating their intent to issue an Environmental Notice for the Fort Totten FUDS property. The expected notice, when issued, will advise site owners and prospective purchasers of the property that:*

1. *While the controlled portions of the property have been found suitable for continued use as an Active Coast Guard Station, it has not been determined suitable for all uses;*
2. *Groundwater should not be used for potable purposes without testing and treatment, as necessary, and approval by the appropriate regulatory agencies;*
3. *No long-term occupancy housing facilities or long-term occupancy dormitories should be constructed on the property;*
4. *The institutionally controlled portions of the property must be further assessed (and remedied, as determine appropriate) if the property is sold and/or the current use of the site changes from an Active Coast Guard Station, and;*
5. *The Change of Use provisions of 6 NYCRR Part 375-1.11(d) will remain in effect for the controlled property until such time as the Environmental Notice is rescinded.*

6. Minutes of Public Meeting (Attachment A). Ms. Shepard stated "So at the moment what does the Coast Guard use the area for?"

RESPONSE: *Thank you Ms. Shepard. Area 1 is open space that is not currently used for any designated purpose.*

7. Minutes of Public Meeting (Attachment A). Ms. Shepard stated "My other question, so basically you're going to move a lot of dirt. Where to?"

RESPONSE: *Thank you Ms. Shepard. The contaminated soil will be transported and disposed at an appropriately licensed facility. The specific facility has not been identified at this point, but our prospective contractor will be required to identify the facility prior to commencement of the work.*

8. Minutes of Public Meeting (Attachment A). Ms. Shepard stated "You also don't know where you're getting the new dirt from either?"

RESPONSE: *Thank you Ms. Shepard. The source of the topsoil and backfill has not been identified. Testing of the backfill and topsoil will be conducted before the material is used to ensure that the material meets criteria for unrestricted use.*

8. Minutes of Public Meeting (Attachment A). Mr. Harris stated "So I mean, I would like to harvest the trees that were there and replant them."

RESPONSE: *Thank you Mr. Harris. Area 1, and the trees that currently are planted in Area 1, are the on USCG property. Permission would have to be obtained from the USCG for transplanting trees from Area 1. Another consideration is that the soil in the root balls of any trees dug from Area 1 may contain elevated levels of lead which would be transported with the trees to their new location. For this reason alone, transplanting of any trees from Area 1 is strongly discouraged.*

9. Minutes of Public Meeting (Attachment A). Mr. Branzetti stated "Yeah, but if you, another point is that I go there and I see, not the trees, but a couple of nice plants, oh, I'd like to see this in my yard, in my garden. I go and dig up one of those plants and bring it to my house and put it in my yard next to my vegetable garden or anything, how is that going to affect you."

RESPONSE: *Thank you Mr. Branzetti. Area 1, and the vegetation in Area 1, is USCG property. Permission would have to be obtained from the USCG for transplanting trees or other plants from Area 1. Another consideration is that the soil in the root balls of any plants dug from Area 1 may contain elevated levels of lead which would be transported with the plants to their new location. For this reason alone, transplanting of any trees or other plants from Area 1 is strongly discouraged.*

10. Minutes of Public Meeting (Attachment A). Mr. LoPinto stated "In your evaluation for Area 1, you note that the concentrations are higher than the background."

RESPONSE: *Thank you Mr. LoPinto. Lead concentrations in soil in Area 1 are higher than background. The background lead concentration in shallow soils is 522 mg/kg. The background lead concentration in deep soils is 449 mg/kg. Lead was detected in Area 1 soils at concentrations up to 1,540 mg/kg.*

11. Minutes of Public Meeting (Attachment A). Mr. LoPinto stated "Did you do a health assessment for that area also?.. And what did it find?"

RESPONSE: *Thank you Mr. LoPinto. A risk assessment was conducted for Area 1. The risk assessment assessed current and potential future risks to a variety of receptors. The human health risk assessment evaluated potential exposures to soil for Current Outdoor Workers, Current Trespasser, Future Outdoor Workers, Future Indoor Workers, Future Construction Workers, Future Recreational Receptors, and Future Residents. The risk assessment indicated the risk was acceptable to all receptors, except the potential future child resident. The child blood lead model for Area 1 indicates that the blood lead level for children exposed to surface and subsurface soil is above the allowable blood lead level of 10 µg/dL. The probability percentage of the child blood lead concentration greater than 10 µg/dL for surface and subsurface soil are 13.2 percent and 11.1 percent, respectively.*

An ecological screening level risk assessment was also performed for Area 1. The results indicated that there are no contaminants that are likely to result in actionable population level effects to ecological receptors.

12. Minutes of Public Meeting (Attachment A). Mr. Branzetti stated "Now, when is the last time the other parts of the property surrounding that have been tested, like the ball fields where the kids are playing?"

RESPONSE: *Thank you Mr. Branzetti. The USCG collected soil samples from the ball fields in 1996. Fifteen samples were collected and analyzed for the USEPA Priority Pollutant List compounds (126 compounds). The samples were collected from five separate areas at three different depths within the ball*

fields. The New York State Department of Health (NYSDOH) reviewed the data and determined that no contaminants were detected in the soil at levels that would pose a health concern for users of the ball field (NYDOH, 1996).

The only unacceptable risk identified to exposure to Area 1 soils was for a future child resident. There is no unacceptable risk from current or future recreational users of Area 1.

13. Minutes of Public Meeting (Attachment A). Mr. Branzetti stated "I just want to make sure that the kids that are playing, that are playing on the side where their brothers or sisters are playing baseball, they're playing on the side with mommy and they're digging up that soil and stuff into their pails and everything, you know, that this is not going to, you know, affect them, that we're going to have a safe area for these kids to be at."

RESPONSE: *Thank you Mr. Branzetti. There is no unacceptable risk to current or future recreational users of Area 1.*

14. Minutes of Public Meeting (Attachment A). Mr. LoPinto stated "And then after the remediation is complete is there a report?"

RESPONSE: *Thank you Mr. LoPinto. The remedial action details will be documented in a Remedial Action Report.*

15. Minutes of Public Meeting (Attachment A). Mr. Branzetti stated "There was garbage in Area 2 being dumped over there. Could that have affected some of your testing? There's groups that were dumping all their, everything that, all their trash and everything into that." "Two years ago."

RESPONSE: *Thank you Mr. Branzetti. Area 2 was last sampled in 2011. Any dumping of trash conducted after 2011 would not have affected the results. If trash was dumped prior to 2011, it does not appear to have impacted the sampling data in that the risk assessment for Area 2 did not result in a finding of unacceptable risk.*

16. Email from Mr. Warren Schreiber, Co-President, Presidents Co-op & Condo Council; President, Bay Terrace Community Alliance; President, Bay Terrace Cooperative Section I; July 30, 2015 (Attachment E). "Please be advised that Community Board 7 and other organizations representing the surrounding area, support Fort Totten soil remediation Alternative number four. We thank the Army Corps of Engineers for its attention to this matter and look forward to the work commencing."

RESPONSE: *Thank you for your letter Mr. Schreiber. We acknowledge your support for Alternative 4.*

17. Comment on July 4th, 2015 Bayside Times article by Lucille Kernahan from Bay Terrace (Attachment D). "Select Option 4. The job would be completed and done. Other options would require annual maintenance and shut down of the area each year. Undoubtedly, the maintenance costs would increase over the years, despite present figure put forth."

RESPONSE: *Thank you for your comment Ms. Kernahan. We acknowledge your support for Alternative 4.*

3.2 State Acceptance

Definition: This criterion considers whether the State agrees with, opposes, or has no comment on the Selected Alternative.

Analysis: In their letter dated March 22, 2016, the NYSDEC indicated "New York State Department of Environmental Conservation in consultation with the New York State Department of Health (DOH), has reviewed the Decision Document for Operable Unit 2 (OU2) of the Fort Totten site and agrees that the remedy put forth is acceptable for the current use of the facility as an active Coast Guard Station."

3.3 Community Acceptance

Definition: This criterion considers whether the local community agrees with the Selected Alternative. Comments received during the Public Comment Period are an important indicator of community acceptance.

Analysis: The Proposed Plan for Area 1 was made available during the public comment period, which commenced on June 18, 2015 and closed on August 28, 2015. A public meeting was held to solicit public comment on the Proposed Plan at the Bayview Terrace Jewish Center, Bayside, New York, on June 30, 2015. Comments received from the public during the meeting are documented in Section 3.1 above.

After the public meeting, an email dated July 30, 2015was received from Mr. Warren Schreiber, Co-President, Presidents Co-op & Condo Council; President, Bay Terrace Community Alliance; President, Bay Terrace Cooperative Section I. The email indicated the organizations support Fort Totten soil remediation Alternative 4 (Attachment E).

After the public meeting, Ms. Kernahan commented on a July 4th, 2015 article in the Bayside Times by indicating her support for Alternative 4 (Attachment D).

4.0 REFERENCES

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TABLES

Table 2-1
Evaluation of Alternatives
Engineer School, Fort Totten
Queens, New York

Criterion	Alternative 1 No Action	Alternative 2 Land Use Controls	Alternative 3 Soil Cover Cap and Land Use Controls	Alternative 4 Removal, Off-Site Disposal, Backfill
Protection of Human Health and the Environment	This alternative would not satisfy this criterion, because the contaminants continue to persist in the environment.	Implementation of this alternative would reduce the potential human health risks from direct contact and incidental ingestion.	The soil cover cap would reduce the potential human health risks from direct contact, incidental ingestion, or inhalation of lead in soil.	Implementation of this alternative would remove the contaminants to a disposal facility. It would reduce the potential human health risks from direct contact, incidental ingestion, or inhalation of soils exceeding the RG.
Compliance with ARARs	There are no ARARs.	There are no ARARs.	This alternative would comply with the ARARs.	There are no ARARs.
Long-Term Effectiveness and Permanence	This alternative would not be an effective, long-term solution.	This alternative would provide long-term protection only as long as the LUCs and the security fence remained in place.	This alternative would reduce the direct exposure to lead in soil, minimizing future risks to human health. Since this remedy is likely to provide a permanent solution, this alternative would be effective in the long term.	Since this remedy is likely to provide a permanent solution, this alternative would be effective over the long term.
Reduction of Toxicity, Mobility, or Volume (TMV) Through Treatment	This alternative does not include treatment; therefore, it will not reduce the TMV of lead in soil through treatment.	This alternative does not include treatment; therefore, it will not reduce the TMV of lead in soil through treatment.	This alternative does not include treatment; therefore, it will not reduce the TMV of lead in soil through treatment.	This alternative does not include treatment; therefore, it will not reduce the TMV of lead in soil through treatment.

Table 2-1
Evaluation of Alternatives
Engineer School, Fort Totten
Queens, New York

Criterion	Alternative 1 No Action	Alternative 2 Land Use Controls	Alternative 3 Soil Cover Cap and Land Use Controls	Alternative 4 Removal, Off-Site Disposal, Backfill
Short-Term Effectiveness	Because no action would occur, there would be no impact to the local community beyond the potential impacts to human health identified in the SRI2.	No significant risks are posed to the local community or to workers. During fence construction, engineering controls would be instituted to minimize noise and fugitive dust concerns. Workers would be protected from risks from being exposed to lead and other contaminants in the soil through the use of appropriate personal protective equipment (PPE) and implementation of proper safety practices.	No significant risks are posed to the local community or to workers. During soil cover cap construction and site restoration activities, engineering controls would be instituted to minimize noise and fugitive dust concerns. Workers would be protected from risks from being exposed to lead and other contaminants in the soil through the use of appropriate personal PPE and implementation of proper safety practices.	No significant risks are posed to the local community or to workers. During excavation and site restoration activities, engineering controls, and PPE would be used to minimize noise and fugitive dust concerns. There would be perimeter air and dust monitoring. The waste would be transported to a permitted disposal facility.
Implementability	There would not be any implementability concern.	This alternative is implementable. No technical difficulties are anticipated in fencing and deed restrictions. The uncertainty associated with the volume of contaminated soil that must be removed to obtain an average lead concentration in soil that is not significantly elevated relative to the average background concentration will be addressed during the pre-design investigation.	This alternative is implementable. No technical difficulties are anticipated in constructing the soil cover cap or restoring the area. The uncertainty associated with the volume of contaminated soil that must be removed to obtain an average lead concentration in soil that is not significantly elevated relative to the average background concentration will be addressed during the pre-design investigation.	This alternative is implementable. No technical difficulties are anticipated in sampling, excavating, transporting, backfilling, or restoring Area 1 to its pre-existing surface condition. The uncertainty associated with the volume of contaminated soil that must be removed to obtain an average lead concentration in soil that is not significantly elevated relative to the average background concentration will be addressed during the pre-design investigation.

Table 2-1
Evaluation of Alternatives
Engineer School, Fort Totten
Queens, New York

Criterion	Alternative 1 No Action	Alternative 2 Land Use Controls	Alternative 3 Soil Cover Cap and Land Use Controls	Alternative 4 Removal, Off-Site Disposal, Backfill
Cost	Total Cost: $0 Capital Cost: $0 30-year O & M Cost: $0	Total Cost: $206,130 Capital Cost: $73,435 30-year O & M Cost: $132,695	Total Cost: $282,635 Capital Cost: $156,527 30-year O & M Cost: $126,107	Total Cost: $450,934 Capital Cost: $450,934 30-year O & M Cost: $0

Table 2-2
Cost Analysis – Alternative 4 Removal, Off-Site Disposal, Backfill
Engineer School, Fort Totten
Queens, New York

Item	Rate	Unit	Quantity	Total	Present Worth Cost	Comments
Capital Costs						
Pre-Design Investigation						
Data and sample collection and analysis	$ 16,182	LS	1	$ 16,182	$ 16,182	Vendor estimates and Watermark project experience. Includes workplan, 10 cores 10 ft deep, 30 soil samples, sample analysis, and data validation and management.
Report	$ 15,000	LS	1	$ 15,000	$ 15,000	Watermark project experience.
Pre-Design Investigation Costs Total					**$ 31,182**	
Construction Costs						
Mobilization	$ 5,600	LS	1	$ 5,600	$ 5,600	Watermark project experience.
Site Services (portable toilets, Administrative)	$ 560	mo	1	$ 560	$ 560	Vendor Estimates.
Utility Locating Services	$ 2,016	LS	1	$ 3,000	$ 3,000	Watermark project experience.
Erosion and Sediment Control	$ 7	LF	500	$ 3,360	$ 3,360	Watermark project experience.
Site Preparation	$ 12,318	LS	1	$ 12,318	$ 12,318	Watermark project experience.
Excavation	$ 13,440	LS	1	$ 13,440	$ 13,440	Watermark project experience.
Air Monitoring	$ 336	week	1	$ 336	$ 336	Vendor estimate.
Confirmation Sampling	$ 10,040	LS	1	$ 10,040	$ 10,040	Watermark project experience.
Waste Disposal Characterization	$ 567	LS	1	$ 567	$ 567	Watermark project experience.
Transportation and Disposal of Soil	$ 58	ton	2600	$ 151,424	$ 151,424	Vendor estimate.
Backfill	$ 17	ton	2,022	$ 33,973	$ 33,973	Watermark project experience.
Topsoil	$ 34	ton	578	$ 19,413	$ 19,413	Watermark project experience.
Site Restoration and Demob	$ 5,040	LS	1	$ 5,040	$ 5,040	Watermark project experience.
Remedial Action Report	$ 10,000	LS	1	$ 10,000	$ 10,000	Watermark project experience.
Construction Costs Total					**$ 269,072**	

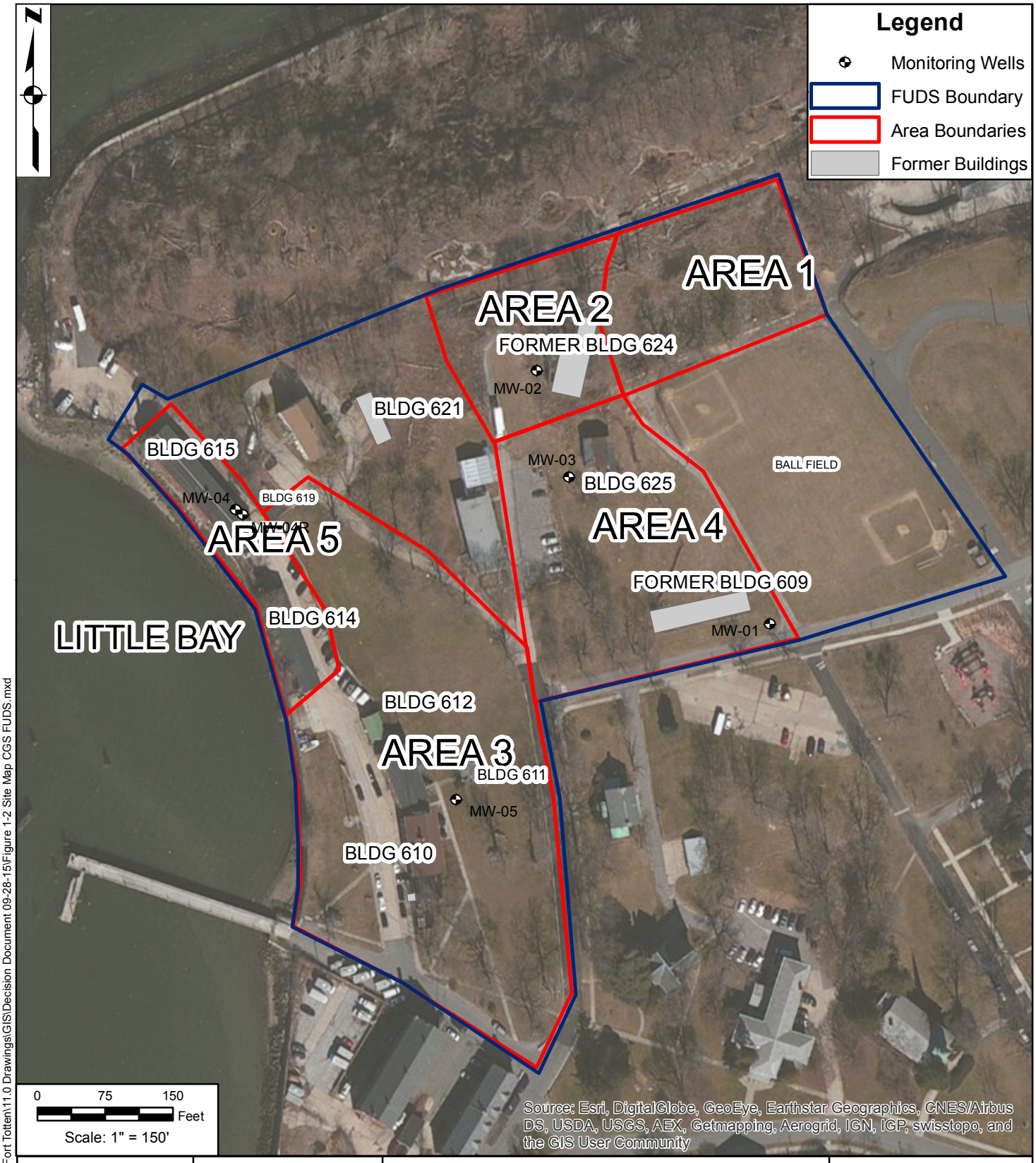
Table 2-2
Cost Analysis – Alternative 4 Removal, Off-Site Disposal, Backfill
Engineer School, Fort Totten
Queens, New York

Item	Rate	Unit	Quantity	Total	Present Worth Cost	Comments
Construction Management/Engineering Fees						
Engineering	8%	%	$ 269,072	$ 21,526	$ 21,526	Percentage of Construction/Capital Costs. Based on "A Guidance to Developing and Documenting Cost Estimates During Feasibility Study" EPA 540-R-00-002.
Contingency	30%	%	$ 269,072	$ 80,722	$ 80,722	Percentage of Construction/Capital Costs. Based on "A Guidance to Developing and Documenting Cost Estimates During Feasibility Study" EPA 540-R-00-002.
Oversight/Construction Management	10%	%	$ 269,072	$ 26,907	$ 26,907	Percentage of Construction/Capital Costs. Based on "A Guidance to Developing and Documenting Cost Estimates During Feasibility Study" EPA 540-R-00-002.
Project Management	8%	%	$ 269,072	$ 21,526	$ 21,526	Percentage of Construction/Capital Costs. Based on "A Guidance to Developing and Documenting Cost Estimates During Feasibility Study" EPA 540-R-00-002.
Construction Management/Engineering Fees Total					**$ 150,680**	
Total Capital Costs					**$ 450,934**	
Total Cost for Alternative					**$ 450,934**	

FIGURES

J:\01 Projects\10404 - Balt HTRW\03 - Fort Totten\11.0 Drawings\GIS\Feasibility Study 6-19-2013\Figure 1-1 Site Locus Map.mxd

PROJECT NO: 10404-03	NOTES AND SOURCES:	SITE LOCUS MAP	FIGURE 1-1
PREPARED FOR: USACE			
DATE: 09/28/2015		Decision Document Fort Totten Coast Guard Station Formerly Used Defense Site Queens, New York	Watermark Engineering • Construction • Operations
DRAWN BY: SDP			
CHK'D BY: KT			
APP'D BY: LJP			



J:\01 Projects\10404 - Balt HTRW\03 - Fort Totten\11.0 Drawings\GIS\Decision Document 09-28-15\Figure 1-2 Site Map CGS FUDS.mxd

PROJECT NO: 10404-03	NOTES AND SOURCES:	Site Map of Fort Totten CGS FUDS	FIGURE 1-2
PREPARED FOR: USACE			
DATE: 09-28-15		Decision Document Fort Totten Coast Guard Station Formerly Used Defense Site Queens, New York	Watermark Engineering • Construction • Operations
DRAWN BY: SDP			
CHK'D BY: KT			
APP'D BY: LJP			

Legend

- Soil Samples
- Area 1 Boundary

FLA-12		
Date	8/1/1998	8/1/1998
Depth	0-0.5 ft	14-15 ft
Lead	222	2.8

FLA-09			
Date	8/1/1998	8/1/1998	8/1/1998
Depth	0-0.5 ft	0-0.5 ft (FD)	20-21 ft
Lead	352	266	12.5

FLA-46	
Date	7/1/2000
Depth	0-0.17 ft
Lead	168

B-11				
Date	6/21/2004	6/21/2004	6/21/2004	6/21/2004
Depth	0-1 ft	0-1 ft (FD)	1-2 ft	1-2 ft (FD)
Lead	1160	1020 J	1060	753

FLA-49	
Date	7/1/2000
Depth	0-0.17 ft
Lead	448

FLA-10		
Date	8/1/1998	8/1/1998
Depth	0-0.5 ft	16-18 ft
Lead	566	3.6

FLA-11		
Date	8/1/1998	8/1/1998
Depth	0-0.5 ft	16-18 ft
Lead	700	155

FLA-47	
Date	7/1/2000
Depth	0-0.17 ft
Lead	649

FLA-51	
Date	7/1/2000
Depth	0-0.17 ft
Lead	236

FLA-48		
Date	7/1/2000	7/1/2000
Depth	0-0.17 ft	0-0.17 ft (FD)
Lead	595	714

B-10			
Date	6/21/2004	6/21/2004	6/21/2004
Depth	0-1 ft	0-1 ft (FD)	1-2 ft
Lead	1540	642	26

FLA-50	
Date	7/1/2000
Depth	0-0.17 ft
Lead	550

FLA-52	
Date	7/1/2000
Depth	0-0.17 ft
Lead	252

FLA-13		
Date	8/1/1998	8/1/1998
Depth	0-0.5 ft	17-17.5 ft
Lead	743	7.9

N

0 20 40 80 Feet

Scale: 1" = 40'

Watermark
175 Cabot Street • Lowell • MA • 01854
Ph. 978·452·9696 Fax 978·453·9988

Decision Document
Fort Totten Coast Guard Station
Formerly Used Defense Site
Queens, New York

NOTES AND SOURCES:.

1. All concentrations are reported in milligrams per kilogram (mg/kg).

2. J - Reported concentration is estimated.

PROJECT NO: 10404-03

PREPARED FOR: USACE

DATE: 09/28/2015

DRAWN BY: SDP

CHK'D BY: KT

APP'D BY: LJP

AREA 1 LEAD CONCENTRATIONS IN SOIL

FIGURE 2-1

J:\01 Projects\10404 - Balt HTRW\03 - Fort Totten\11.0 Drawings\GIS\Feasibility Study 6-19-2013\Figure 1-3 Area 1 Lead Concentrations.mxd

Legend

- Soil Samples
- Area 1 Boundary
- Area Addressed By Feasibility Study Alternatives (Approximate Extent of Lead Concentrations Greater than 400 mg/kg)

FLA-12		
Date	8/1/1998	8/1/1998
Depth	0-0.5 ft	14-15 ft
Lead	222	2.8

FLA-09			
Date	8/1/1998	8/1/1998	8/1/1998
Depth	0-0.5 ft	0-0.5 ft (FD)	20-21 ft
Lead	352	266	12.5

FLA-46	
Date	7/1/2000
Depth	0-0.17 ft
Lead	168

B-11				
Date	6/21/2004	6/21/2004	6/21/2004	6/21/2004
Depth	0-1 ft	0-1 ft (FD)	1-2 ft	1-2 ft (FD)
Lead	1160	1020 J	1060	753

FLA-49	
Date	7/1/2000
Depth	0-0.17 ft
Lead	448

FLA-10		
Date	8/1/1998	8/1/1998
Depth	0-0.5 ft	16-18 ft
Lead	566	3.6

FLA-11		
Date	8/1/1998	8/1/1998
Depth	0-0.5 ft	16-18 ft
Lead	700	155

FLA-51	
Date	7/1/2000
Depth	0-0.17 ft
Lead	236

FLA-47	
Date	7/1/2000
Depth	0-0.17 ft
Lead	649

FLA-48		
Date	7/1/2000	7/1/2000
Depth	0-0.17 ft	0-0.17 ft (FD)
Lead	595	714

B-10			
Date	6/21/2004	6/21/2004	6/21/2004
Depth	0-1 ft	0-1 ft (FD)	1-2 ft
Lead	1540	642	26

FLA-50	
Date	7/1/2000
Depth	0-0.17 ft
Lead	550

FLA-52	
Date	7/1/2000
Depth	0-0.17 ft
Lead	252

FLA-13		
Date	8/1/1998	8/1/1998
Depth	0-0.5 ft	17-17.5 ft
Lead	743	7.9

N

0 20 40 80 Feet

Scale: 1" = 40'

Watermark
175 Cabot Street • Lowell • MA • 01854
Ph. 978·452·9696 Fax 978·453·9988

Decision Document
Fort Totten Coast Guard Station
Formerly Used Defense Site
Queens, New York

NOTES AND SOURCES:.

1. All concentrations are reported in milligrams per kilograms (mg/kg)

2. J - Reported concentration is estimated.

PROJECT NO: 10404-03

PREPARED FOR: USACE

DATE: 09/28/15

DRAWN BY: SDP

CHK'D BY: KT

APP'D BY: LJP

AREA TO BE ADDRESSED BY ALTERNATIVES

FIGURE 2-2

J:\01 Projects\10404 - Balt HTRW\03 - Fort Totten\11.0 Drawings\GIS\Feasibility Study 6-19-2013\Figure 2-1 Area to Be Addressed by Alternatives.mxd

ATTACHMENT A

Public Meeting Notices

OBITUARIES

OBITUARIES

OBITUARIES

CLEANING SERVICES

ATTORNEYS

AUTOS FOR SALE

AUTOS WANTED

PUBLIC NOTICES

PUBLIC NOTICES

PUBLIC NOTICES

PUBLIC NOTICES

Availability of Proposed Plan for Fort Totten Coast Guard Station, Queens, New York

The U.S. Army Corps of Engineers (USACE) invites the public to comment on the Proposed Plan for remedial activities at the Fort Totten Coast Guard Station (also known as the Engineer School/Fort Totten), which is being addressed as part of the Formerly Used Defense Site (FUDS) Program. A portion of the site, identified as Area 1, contains lead in soil above background concentrations.

USACE has evaluated the following options for addressing the lead in soil in Area 1:

- Alternative 1 - No Action
- Alternative 2 - Land Use Controls
- Alternative 3 - Soil Cover Cap with Land Use Controls
- Alternative 4 - Removal, Off-site Disposal, and Backfill

USACE proposes Alternative 4 - Removal, Off-site Disposal, and Backfill as the preferred remedial alternative. This alternative includes a pre-design investigation to determine the extent of soil with lead concentrations above background levels, excavation of soil, collection and analysis of confirmatory soil samples, disposal of excavated soil at a permitted disposal facility, and site restoration. The USACE has determined that the preferred alternative is protective of human health and the environment, by removing Area 1 soils above background concentrations of lead.

Risk assessments completed by USACE identified no unacceptable risks at site Areas 2, 3, 4 & 5, therefore, USACE proposes no further action for those areas. However, the New York State Department of Environmental Conservation (NYSDEC) has indicated their intention to emplace an Environmental Notice, as a State-issued institutional control, due to several sampling locations that exceed NYSDEC soil clean up objectives.

Remedial activities at the site have been conducted under the FUDS program. USACE has coordinated this plan with the New York State Department of Environmental Conservation, who has indicated that the proposed remedy is acceptable for the current use of the facility as an active Coast Guard Station.

Public Meeting

The USACE held a meeting that was open to the public on June 30, 2015 at 7 pm, to present the information provided in the Proposed Plan. The meeting was held at the Bay Terrace Jewish Center, 13-00 209th Street, Bayside, New York. The public did have an opportunity to provide comments in writing or verbally at the June 30th meeting. However, USACE ordered publication of a notice announcing the June 30th meeting that was not published. The newspaper issued a letter of apology for that omission. USACE can hold another public meeting regarding this matter, if requested.

Public Comment Period

The USACE invited the public to review and comment on the Proposed Plan during the public comment period, originally set as from June 18, 2015 through July 24, 2015. USACE is now extending the public comment period through August 28, 2015, since this public notice is now being published. Although Alternative 4 is the Preferred Alternative at the present time, comments are welcome on all of the alternatives listed above.

Copies of the Proposed Plan, along with other site documents, are available on the project web site: http://www.nan.usace.army.mil/FortTotten, and at the Bay Terrace Library, 18-36 Bell Blvd., Bayside, New York, 11360. Public Comments will be accepted in writing and must be postmarked no later than August 28, 2015.
Oral comments from the June 30th, 2015 meeting will be entered into the record. Please send all written comments or requests to the U.S. Army Corps of Engineers, New York District, Attn: Mr. Gregory J Goepfert, Project Manager, CENAN-PP-E, Room 1811, 26 Federal Plaza, New York, NY 10278.

ATTACHMENT B

Presentation

Engineer School / Fort Totten Coast Guard Station – Proposed Plan

Gregory J. Goepfert

Project Manager

U. S. Army Corps of Engineers

New York District

June 30, 2015

US Army Corps of Engineers

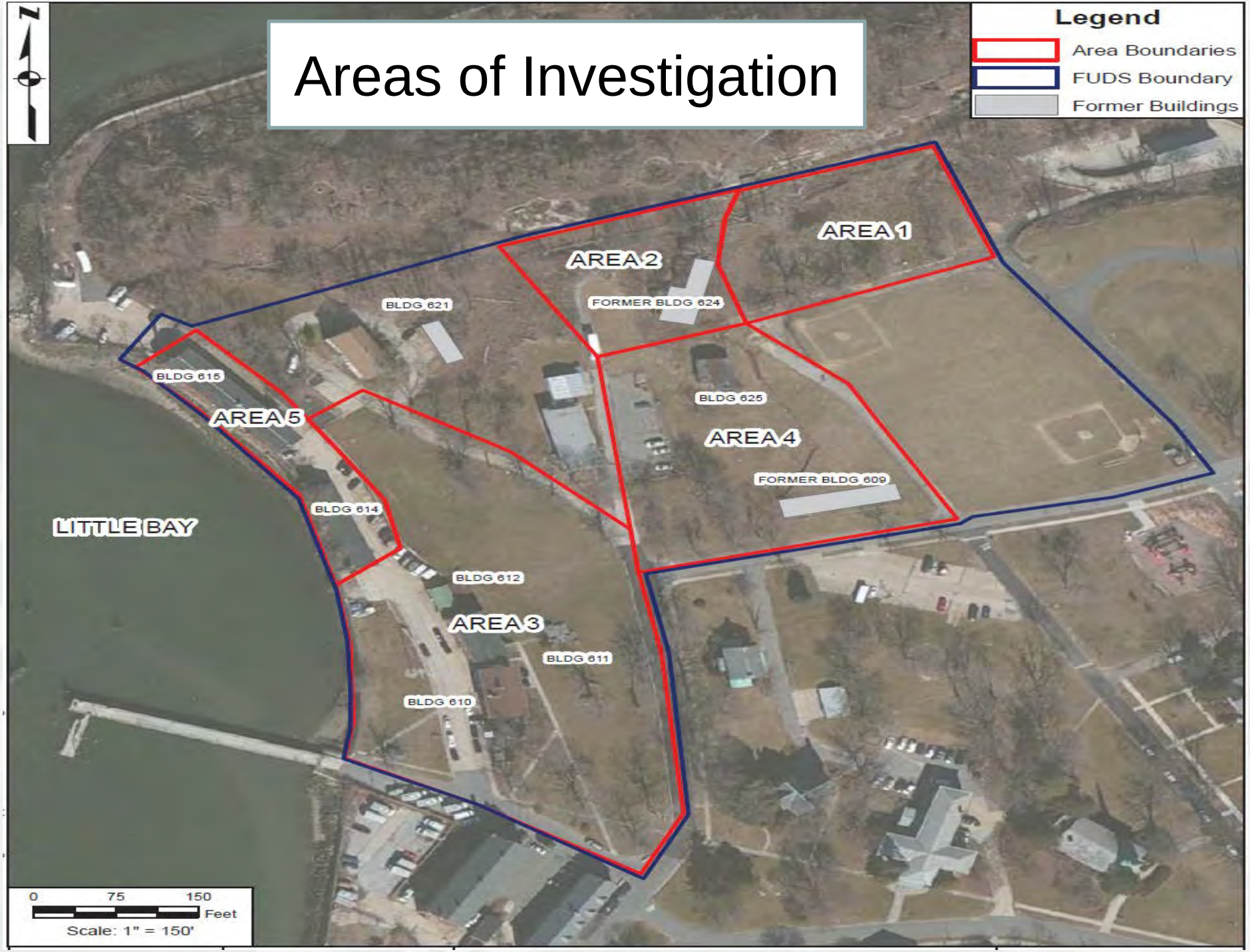
BUILDING STRONG®

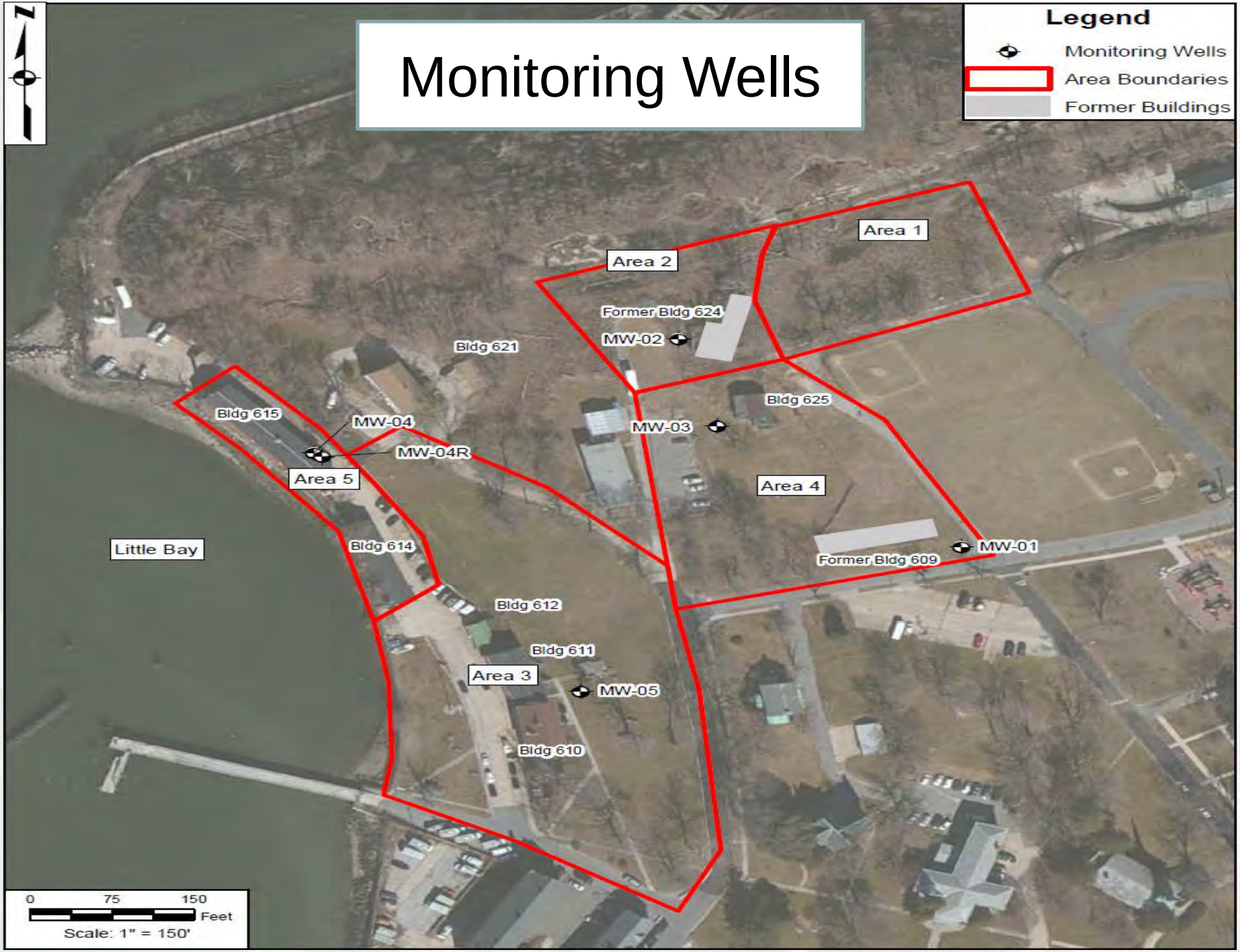
Purpose

- Present Proposed Plan for the upland area of the Coast Guard Station property at Ft. Totten.
- Also known as Engineer School / Fort Totten – Formerly Used Defense Site (FUDS)
- Solicit public input on Proposed Plan.
- Verbal and written comments accepted tonight.
- Written comments can be provided anytime through July 24, 2015.

Environmental Investigations

- Numerous investigations of the Coast Guard property between1988 and 2013.
- 345 soil samples at various depths & groundwater sampled from 5 monitoring wells.
- Final Remedial Investigation Report issued April 2014 – summarized all previous investigations and documents risk assessment.
- Property was divided into five areas (called Areas 1-5) for investigation management and reporting.


Areas of Investigation
Legend
Area Boundaries
FUDS Boundary
Former Buildings
AREA 1
AREA 2
AREA 3
AREA 4
AREA 5
BLDG 621
FORMER BLDG 624
BLDG 615
BLDG 625
FORMER BLDG 609
BLDG 614
LITTLE BAY
BLDG 612
BLDG 611
BLDG 610
0
75
150
Feet
Scale: 1" = 150'


Monitoring Wells
Legend
Monitoring Wells
Area Boundaries
Former Buildings
N
Area 1
Area 2
Former Bldg 624
MW-02
Bldg 621
Bldg 625
MW-03
Bldg 615
MW-04
MW-04R
Area 5
Area 4
Little Bay
Bldg 614
Former Bldg 609
MW-01
Bldg 612
Bldg 611
Area 3
MW-05
Bldg 610
0
75
150
Feet
Scale: 1" = 150'

Area 1

- In northern portion of Ft. Totten, between the ball fields and the fortifications.
- Army placed fill soil in a low spot to eliminate standing water. Soil came from excavation of parking lots associated with vehicle maintenance shops at Ft. Totten.
- The fill soil contains lead at concentrations greater than Ft. Totten background.
- Soil removal and replacement with clean fill is proposed to prevent or reduce the potential of a child's ingestion of soils with total lead concentrations above background.

Area 2 (Building 624)

- Workshop, and later used for pesticide storage.
- 51 soil samples collected.
  Depth range of 0-2 inches up to 20 feet.
- Low concentrations of pesticides, metals, polycyclic aromatic hydrocarbons (PAHs), and volatile organic compounds (VOCs) identified.
- Risk assessment concluded that there is no unacceptable risk to human health.
- No further action proposed.

Area 3 (Buildings 610, 611, 612)

- Transformer south of Building 610. (suspected of containing PCBs).
- 106 soil samples collected. Depth range of 0-2 inches up to 17.5 feet.
- PCBs not detected.
- A single soil sample identified an arsenic concentration, believed to be associated with wood preservative for a nearby outdoor deck; a risk assessment considering remaining data representative of Area 3 resulted in a finding of no unacceptable risk to human health.
- No further action proposed.

Area 4 (Building 625)

- Concrete pad supported electrical transformers suspected of containing PCBs.
- 64 soil samples collected. Depth range of 0-2 inches up to16 feet.
- PCBs not detected. Coal, coal ash, asphalt found at every location where compounds identified as polycyclic aromatic hydrocarbons (“PAHs”) were detected- indicative of historic urban fill.
- No human health risk under current property use; unacceptable risk for hypothetical future resident (not an expected future property use).
- Recommendation: No further action is proposed.

Area 5 (Building 615)

- Torpedo and mine repair facility. Mercury in guidance systems was disposed of into floor drains.

- Floor drains removed in 1998.
- 60 soil samples collected. Depth range of 0-2 inches up to 7 feet; indoor air tested for mercury (results within regulatory limits).
- PAHs and metals present. VOCs in a few samples.
- Mercury-impacted soils outside building removed in 2006, 2007- excavation limited by underground structures & active utilities.

Area 5 (Building 615)

- Risk assessment concluded that there is no unacceptable risk to human health.
- Screening level ecological risk assessment indicated metals, including mercury, are not likely to result in actionable population level effects to ecological receptors.
- No further action proposed.

Site-Wide Groundwater

- Five monitoring wells sampled in 2011. Two wells (MW-4R and MW-5) had elevated PAHs, sodium, and chloroform above NYS Class A groundwater guidance criteria.
- Both wells resampled in 2012 for PAHs only. Only two PAHs detected at very low concentrations (not of concern from a risk perspective).
- Site groundwater not used for consumption; City water is available for use.
- No further action proposed.

The CERCLA Process

Removal Actions

Time-critical removal
- Action memorandum

Non-time critical removal
- Engineering evaluation/ cost analysis
- Public comment
- Action memorandum

Preliminary Assessment

Historical record search

Site Inspection

Is contamination present?

Remedial Investigation

What are the contaminants? Where are they located?

Feasibility Study

Develop and evaluate cleanup options

Proposed Plan and Public Comment Period

Present preferred cleanup strategy for public review and comment

Record of Decision

Document selected cleanup alternative after consideration of public comments

Remedial Design

Engineering plan for the cleanup

Remedial Action

Implement the cleanup

Next Steps

- Public Comment period on the Proposed Plan ends July 24, 2015.
- All public comments (written and verbal) will be addressed in the Responsiveness Summary provided as part of the Decision Document.
- The Decision Document documents the alternative selected and is signed by the District Engineer *(anticipated Fall 2015).*
- U. S. Army Corps of Engineers to award contract for implementation of the remedy *(anticipated late 2015).*
- Remedy complete *(anticipated mid-2016).*
- Property close out (FUDS Program).

ATTACHMENT C

Transcript of Public Meeting

U.S. ARMY CORPS OF ENGINEERS

FORMERLY USED DEFENSE SITE PROGRAM

PUBLIC MEETING

Re:

PROPOSED PLAN

FORT TOTTEN COAST GUARD STATION

June 30, 2015

7:04 p.m.

Transcribed by
Donna C. Gilmore, a
Notary Public within
and for the State of
New York.

A P P E A R A N C E S:

Gregory Goepfert,
U.S. Army Corps of Engineers
Katie Thomas,
Watermark
Dean Brammer,
U.S. Army Corps of Engineers New England District
Marilyn Bitterman,
District Manager, Community Board #7
Jack Bitterman
Bridget Boyd,
New York State Department of Health
Jim Kerr,
U.S. Coast Guard
Warren Schreiber,
Vice Chair Community Board #7
Joseph Branzetti,
Friends of Fort Totten Parks
Robert LoPinto, PE
Co-Chair Fort Totten RAB
Meg Panettiere,
Bay Terrace Community Alliance member
Larry Pannell,
Watermark
Gary Jacobowitz,
Bay Terrace CO-OP 1
Jon Greco,
New York State Department of Environmental Conservation
Daniel Rossman,
NYS Assemblyman Braunstein's office
Mac Harris,
Fire Department City New York
Sylvia Johnson,
Bay Terrace Community Alliance
Richard A. Forman,
NYS DOE High School principal
Laura Shepard,
Queens Chronicle

MR. GOEPFERT: Well, good evening, everyone. Thanks for coming.

My name is Greg Goepfert, if I haven't met you already. I'm from the Army Corps of Engineers. I'm stationed in New York, the New York district, at 26 Federal Plaza, Downtown Manhattan. I'm the project manager for Fort Totten. I'm also the team leader for Formerly Used Defense Sites in New York and New Jersey.

Tonight we're here to present you the Proposed Plan for Fort Totten, Engineer School/Fort Totten. Many of you have been involved with this process for many years, but this is actually one of the last events under a Formerly Used Defense Site Program, the last action that we will be proposing to take. So tonight, because it's a Proposed Plan meeting, we have a transcriber to transcribe the meeting, to take any of your comments or questions and to put them in writing so they can become part of the permanent record for our final decision packet for the site. So I have a short presentation I'd like to give you to

go over what we're planning to do.

So as I said, you know, the important thing is for you to understand what we are proposing to do at Fort Totten, the part of the site that's the Formerly Used Defense Site, which is the 9.6 acre property that is now known as the Coast Guard Station. We need to solicit any input that you might have on this plan, or any questions or any comments that you would have, and we will accept any verbal or written comments tonight and we'll accept comments in writing up through July 24th, after which we'll compile those comments and questions, give appropriate responses and make that part of the record for our final decision process and final decision document.

For many of you who are familiar with the history of the Fort Totten site, Formerly Used Defense Site, there have been numerous investigations performed over the period from 1988 through 2013, approximately 345 samples and more -- and I'm talking about the upland area right

now, referring to the upland area of Fort Totten -- 345 soil samples at various depths and groundwater that's been sampled from five monitoring wells.

We issued a Final Remedial Investigation Report that was issued in April of 2014, which is a compilation of many of the previous reports that were made along the way, and that summarized all the previous investigation work that had been done.

For ease of management the property was divided into five distinct areas for management and reporting. The five distinct areas are shown on this figure. Areas 1, 2, 3 and 5 -- 4 and 5.

Area 1 is the area that we'll be speaking about this evening. It is the area commonly referred to as the Fill Area. But I will be talking about the other areas in the sense of what the ultimate outcome of the investigations were.

On this slide you can see I basically show the five monitoring wells where we

took groundwater samples from. So they're roughly in each of the areas that were investigated.

So as I said before, for Area 1, that's in the northern portion of Fort Totten, just a little bit north of the ball fields, commonly known as the ball fields. The Army had placed some fill in a low spot and we found that that fill that was placed had some concentrations of lead that need to be addressed. So we would like to go ahead and clean up the soil that has been impacted with lead and replace it with clean material, clean unrestricted material. And basically, the area we're talking about is about 20,000 square foot. That comes out to about a half an acre of property by about 2 foot deep. And once we scrape off that area, we will have really not much else to do in the way of the Formerly Used Defense Program.

Now in the proposed plan that was presented previously and posted and many of you I see have copies of, we did have

to do what they call an Alternatives Analysis. And the Alternative Analysis ranges from doing nothing, which basically in the short run costs no money, versus doing a removal of the soils, you know, and that will be the most costly endeavor, which is, runs about $400,000 more or less to get done.

The other two alternatives we examined were putting up a fence around the area and implementing land use controls and some kind of administrative restriction that we would have to continue to administer, and then the other possibility was doing, well, just the controls by themselves or the controls, the administrative controls plus a landfill cover, or a landfill cap, I should say. I would even scratch that word "landfill," it's not a landfill per se, but a cap system, and that would be an intermediate cost item. But again, we would still have to do some maintenance in the sense of going out there, doing some kind of a certification every year. It would still

be an ongoing maintenance effort for the Army Corps under the proposed plan.

So we thought that the wholesale removal of the lead-containing soil would be the best option. The amount of lead that we're seeing exceeds the background amount of concentrations of lead that are indigenous to this area, by way of what has been done with fill in this area. So it really was something that the Army would take responsibility for because it is documented that the reason the issue exists is because the Army put it there. So we're going to take care of it.

Now, as far as the other areas are concerned, Area 2, Building 624 was a workshop and was later used for pesticide storage. And if anybody would like me to go back and see where this building is I'd be more than happy to do it. This is at the north-northwestern end of the property. We collected 51 soils. We found low concentrations of pesticides, metals, a class of compounds called polycyclic aromatic hydrocarbons, and what

that translates to is basically like coal and coal ash, that type of thing. That's where these compounds are more commonly, you know, derived from. And VOCs, the VOCs that we were seeing is very low levels of compound, such as acetone, which is a common laboratory solvent, it's a solvent that's used in some paints, it's more commonly used in nail polish remover. So, you know, it's a common item, but again, there were very low levels found in the soils. Our risk assessments came to the conclusion that there's no unacceptable risk to human health, and in Area 2, based on those, that study, we are proposing no action.

In Area 3 there's a series of buildings just south of Building 615 by the bay. The reason why this area was checked out is because there were some transformers that were south of Building 610, and I guess it was thought that at one time the dielectric fluid inside the transformer may have contained PCBs, or polychlorinated biphenyls, which

is a toxic liquid. We had samples, 106 samples collected at various depths. PCBs were not detected at this location. However, we did find one single sample with arsenic, and arsenic is known to be a component of, you know, wood preservative and this arsenate wood preservative may have been coming from this outdoor deck that's in the vicinity of where the sample was taken. But as it turns out, there was only one sample in 106 that showed this arsenic concentration. So therefore, once we took that sample out of the mix we found that there would be no unacceptable risk from concentrations of arsenic that we found in that site area at all. So therefore, in that area we, again, are proposing no action at this area as well.

Area 4, which is next to Building 625 also had a concrete pad where we suspected that there might have been PCBs.

64 samples were collected, soil samples. The depths ranged from 0 to 2 inches up to 16 feet. Again, we did not detect PCBs; however, at every location where we had

high PAH values we found coal, coal ash, asphalt in every one of those locations in the borings, in the soil borings. So that's certainly something that's indicative of the historic fill condition. Under the current property use as the Coast Guard Station, there's no unacceptable risk, but if that property was to be developed as it is, you know, residential capacity, there might be some risk. That's someone was living there, a family, you know, 24 hours a day, 7 days a week scenario. But again, the current use of the site there's absolutely no health risk under the current use. And so therefore, according to our processes and regulations and our program for the Formerly Used Defense Site Program, we, in the absence of current risk, we cannot take any actions and therefore recommendation is no action.

Area 5 is a building that focuses on Building 615, which is right next to the Little Bay. There was a torpedo and mine facility. I know Mr. LoPinto is well

versed in that particular site because he was very aware of when the floor drains were removed back in 1998, there were two 4-inch cast iron pipes that were removed, and that's where it was surmised that the mercury from some of the maintenance operations was discharged through those particular pipes.

We did 60 soil samples. We found some PAHs and metals in some of the soil samples, VOCs in a few samples, all pretty low concentrations. We did, as part of the investigation in 2006 and 2007, we removed about 40 cubic yards of soils that were impacted with mercury outside the building. And unfortunately, there's a lot of underground utilities and other, you know, underground structures there. There's a cesspool, and, you know, we cleaned out all the impacted soils as much as we possibly could. Like I said, it came out to about 40 cubic yards of material, and that equates to roughly about half a full dumpster of material.

So after that, after we did all this

activity in this building we found out that with the resultant samples that we had the risk assessment concluded no unacceptable risk to human health. We did an ecological screening also, including mercury, and that screening level risk assessment came out that there was no expected population effects to any of the ecology in the area. And again, no further action is proposed. And on top of this, I may have missed this on a prior slide, but we did do some indoor air testing inside this building as well, and those tests came out clear. There are workers in that building, I believe the police department is a tenant in that building, so we want to make sure that it's clear for its use, its current use.

As far as groundwater is concerned, as most of you well know, there's no groundwater use at Fort Totten. There's city water available at Fort Totten that's piped in, but there's no wells that are actively used, groundwater wells that are used at Fort Totten. So originally

there's wells, five wells were sampled in 2011 and there were some PAHs, sodium, which probably comes from salt intrusion, and chloroform, which was another substance that was found above the state's Class A groundwater standards, which the Class A groundwater guidance criteria really is, I believe all the waters of the state of New York are considered to be Class A, which means that possible use for potable water, so they're, you know, the state would like everyone to be able to drink any groundwater that's been pulled from the ground.

But based on that initial result we did a resampling in 2012. We found that only two PAHs, two PAH-type compounds were detected at low concentrations, and we found that was not a concern from a risk perspective. However, if water was ever needed to be used, groundwater was ever needed to be used out of Fort Totten, the state would be consulted for any possible treatment or, you know, restrictions that may be applicable based on what someone

might want to use the groundwater for.

The acronym that's on the top, I don't like to speak in acronyms, but the Comprehensive Environmental Response Cleanup and Liability Act is the overarching law that we use to govern our processes, starting from our preliminary assessments through investigations through recommendations as to what our plans should be to do remedial actions. And where we are right now, we're in the Proposed Plan and Public Comment Period section of this site, the upland area of Fort Totten. And after we're through this process of soliciting public comments, then we move on to putting together a document called a Record of Decision, which we make public for public review. Our district engineer usually signs off on that Record of Decision, and then once that decision is formally made, then we go and solicit a program for funding to actually do the work. So that's the real, the whole process itself.

So as I said, the next steps would be

we're looking for any public comments on our proposed plan by the 24th of July. All public comments will be addressed. The decision document will basically say what our plan is and will be formally signed off by our district engineer, and then the Corps will award a contract for implementing the remedy, the cleanup at Area 1, and we're hoping that we could do that later sometime this year, meaning 2015 --

MR. HARRIS: But you have up there 2016.

MR. GOEPFERT: Yes, anticipated in mid 2016, that's when the remedy, the cleanup would be finished, would be started. So that's where it would be, that would be the end of the process. The beginning would be getting the contractors and doing the design work upfront.

And then, as I had said before, what we're hoping for is that this action is actually the last step that we're going to be taking as the Formerly Used Defense Site portion of Fort Totten, which is the

9.6 acre Coast Guard Station. And when we get to a property close out, what that means is that it's not an abdication of responsibility for the site. What it is is it says that everything we knew of was looked at, everything we knew of was taken care of, we took the process through its necessary conclusion. If anything ever should show up that we missed in any way, then we reopen the site at some future time. If something shows up that was related to the Department of Defense operation of the property, we would come back and reexamine any of those issues that might be evidenced.

So you have any questions, comments?

MR. JACOBOWITZ: I have a question and a comment.

MR. GOEPFERT: Okay. Mr. --

MR. JACOBOWITZ: Gary Jacobowitz, Bay Terrace Co-op 1. I live right across the street from Fort Totten.

When you did all of these samples, I'm just curious as to the, I guess it's a bore, so what's the diameter of the

samples? You gave us the number, but, I mean, if you're boring into the ground, is it 1 inch, 2 inches, 10 inches, a foot? You know, what's the size of it?

MR. PANNELL: A lot of them are collected in one of two ways, either with a hand auger, which might be 3 inches diameter, or a drill rig with augers which might give you, say, a 6 inch diameter with a hole that would be sampled with a slit spoon that is 2 inches in diameter, so anywhere in that range.

MR. JACOBOWITZ: Okay. And then my comment would be, you know, mentioning what was in the process with the groundwater being a problem. Groundwater doesn't sit still, it goes into the bay, it goes all around. What's the remedy for that? I mean, you're just saying it's safe if you don't drink it. But we got bays, we have people that have wells.

MR. GOEPFERT: Right.

MR. JACOBOWITZ: There are wells in the neighborhood.

MR. GOEPFERT: Right. The material

that we, what we found is that we recognize that the groundwater moves, but we're not finding these items in the dissolved portion of the groundwater. So much of the solvents are being intrenched with the soils, and they're not dissolved in the groundwater. So that's what, that's why filtered and unfiltered samples were taken.

MR. HARRIS: Now, can I say a follow-up question to that?

What depth did you all do for the groundwater, the holes?

MR. GOEPFERT: Groundwater went from 6 foot down to 17 foot, I believe.

MR. HARRIS: All right. Because Fort Totten the water table is about 6 foot --

MR. GOEPFERT: Right.

MR. HARRIS: -- deep, so I just wondered.

MR. GOEPFERT: So yeah, between 6 and 7 feet.

Sir?

MR. BRANZETTI: Two things. In

relation to his question, did you guys test any of the fish in the bay or anything?

MR. GOEPFERT: Oh, this fish testing took place as part of a completely different effort from these upland, and that was, a decision was made on the bay back in 2003, and I have a copy of that which I can show you, and fish were tested and surface water was tested and Little Bay was tested.

MR. BRANZETTI: Okay. But most important, you guys didn't do anything about marking the area for the people in the neighborhood not to do anything and not to come near it.

Let me go on, because I went and planted trees with Boy Scouts and Girl Scouts in that contaminated soil and area. We had, it's my Parks Day with the City Parks Department, and we went and we planted trees and everything there. We wouldn't have planted anything there if the thing was roped up or anything. It's still not roped off, you don't have any

kind of fencing, any kind of signage. You already -- I'm sorry, I'm just, I'm annoyed --

MR. GOEPFERT: No, that's fine.

MR. BRANZETTI: You know about this now and you still haven't done anything, you haven't put fencing, signage, anything to cordon off that area. Why?

MR. GOEPFERT: Well, actually, for the reason why we're doing the work is really for a future use, which is potentially residential. Okay? The residential exposure that --

(Multiple voices.)

MR. SCHREIBER: They have to do it for residential.

MR. BRANZETTI: Understand that --

MR. GOEPFERT: That's the risk scenario that we look at.

MR. BRANZETTI: Yeah, but --

MR. GOEPFERT: For a risk scenario of someone spends --

MR. LoPINTO: Greg -- you said you did this through the parks department?

MR. BRANZETTI: Through the parks

department.

MR. LoPINTO: They don't own that property that he's talking about.

MR. BRANZETTI: It's my parks day. They brought us over there to that area.

MR. LoPINTO: No, they don't.

MR. BRANZETTI: It wasn't only the parks department. It was another group that had the accessibility, availability to do the planting there by the Coast Guard. They wanted to get all the weeding out. No matter what it was, the area should have been marked off.

MR. LoPINTO: Whoever did it are the owners of the property and they're responsible for doing that.

MR. BRANZETTI: Right. But I'm saying that once these guys found out that that soil was contaminated, that area, the ownership of that area should have had that whole thing marked off because --

MR. LoPINTO: Then you have to talk to the Coast Guard, because they own the property.

MR. HARRIS: Well, the tree planting

was done about three years ago --

MR. BRANZETTI: Yes.

MR. HARRIS: -- before they did the investigation. And it was done without the consent of the Coast Guard by the parks department, with the consent from the Bloomberg Million Tree program.

MR. BRANZETTI: So now that you found out about this, why wasn't any of this thing fenced off? That's my other --

MR. LoPINTO: You have to ask the Coast Guard. There's no one here from the Coast Guard, so they can't answer that question.

MR. HARRIS: What if the Coast Guard didn't know?

MR. GRECO: If I could, Greg, is it possible that we could make a commitment to putting some kind of signage or snow fencing with signage around that area?

MR. GOEPFERT: Yes, we can.

MR. GRECO: And I think that should cure from this point forward.

MR. BRANZETTI: Right, because you have people that, like I said, come in

that park, walk into that park, they go all over the place, whether it's weeds, they walk through the weeds, they go everywhere. You know, it's --

MR. GRECO: No, I think that's a great idea. I wasn't aware there was that much use by anyone outside of the Coast Guard. I knew there are ball fields there, but frankly, I thought they'd fallen into disuse.

MR. BRANZETTI: Yeah, no.

MR. GRECO: But yeah, if there's an issue like that we won't get to the cleanup until arguably this spring or --

MR. GOEPFERT: Right.

MR. GRECO: So we should do something.

MR. GOEPFERT: We will work with the Coast Guard to put some signage on it, in advance of any of the work that we do.

MR. SCHREIBER: Warren Schreiber, Bay Terrance Community Alliance.

So first of all, is it possible to submit comments online, and will it be possible at some time to view the comments online? Other government agencies do do

that.

MR. GOEPFERT: We could do that. I would prefer to get the comments in writing.

MR. SCHREIBER: Why?

MR. GOEPFERT: If you'd like to send me something in writing, if you want, would you rather e-mail it to me?

MR. SCHREIBER: Well, I mean, e-mail, fax, or maybe just some sort of mechanism where they can just be submitted online, and also some mechanism where they can be viewed online.

MR. GOEPFERT: I think we have a mechanism where it can be viewed online, and that's, we have a project website that I can post all the comments. That would be even in advance of the final document that's being issued.

MR. SCHREIBER: Okay. And my other question, where you talk about risk assessment concluded, there's no unacceptable risk to human health, what's the, what are some of the -- without getting too technical -- what are some of

the criteria for that risk assessment? What goes into that?

MR. GOEPFERT: Well, generally with a risk assessment you're looking at exposure for the actual activities that may be going on there, whether somebody is living there, whether someone is a commercial worker, an occasional worker, a trespasser, someone who is doing recreation at the site. It goes through a whole litany of potential use scenarios. Okay? That's all part of the conceptual model that's in the investigation report. And then once that's done then it's a comparison of known standards of today that can be, that are basically, you know, developed by regulatory agencies and used for screening. And there's a screening done and then there's a look at what the concentrations of materials in question are in relation to those screening materials, screening criteria in view of what future use or current use of a property might be. Generally, that's what a risk assessment does.

MR. SCHREIBER: Okay. Thank you.

MR. GOEPFERT: Yes, ma'am. What is your name?

MS. JOHNSON: Sylvia Johnson.

So regardless of when it was determined that that soil in Area 1, I think it is that you're talking about, was determined that it could be harmful and that's why you're doing a remedy, what Joe had mentioned about there were people working in that soil, do those people, were they exposed to anything and should they be seeking some kind of remedy?

MR. GOEPFERT: Actually, the level that we're talking about is -- well, the short answer is no, because they're not actually living there, they wouldn't have been exposed to that for the period of time that would have caused harm.

MS. JOHNSON: I like a short answer.

MR. LoPINTO: Greg.

MR. GOEPFERT: Sir. Bob.

MR. LoPINTO: I'd like to talk about your last dot.

At one point Coast Guard was going to

get rid of the property and now I understand that's not currently being considered, or it may happen, you just don't know?

MR. KERR: I think -- I'm Jim Kerr, I'm with the US Coast Guard. The current plan is to hold onto the property. We haven't done any development thinking or, but the plan is to hold onto --

MR. LoPINTO: However, if the Coast Guard -- I just want to bring this up -- if the Coast Guard were to determine that they were to relinquish control of the property it would go through the same process that the rest of Fort Totten, the old Army-owned property went through.

MR. KERR: It would go through the fallow property process --

MR. LoPINTO: Disposal, which first would see if there's uses that might be available that could be put there, you know, we went through this when they did the, the city went through it when they did the old Fort Totten. When that document eventually deeded the property to

the city, that deed has restrictions. So at some point we would like to make sure that we go back and review the restrictions that were put into the Army property, and if this property does come up for disposal and is transferred to whomever, that certain deed restrictions be put in there, in particular for those areas where it was found to be not a problem but there were still some chemicals that were there --

MR. KERR: So --

MR. LoPINTO: Such as no residential, such as no growing of vegetable gardens, things like that.

MR. KERR: Right.

MR. LoPINTO: And that's in the current document for the Army site.

MR. GOEPFERT: The short answer to your question, and that is actually addressed in the Proposed Plan and there's a paragraph that talks about the state being interested in placing an environmental notice on the property, and the state actually, that's not the remedy

that the Corps has as far as its remedy --

MR. LoPINTO: Correct.

MR. GOEPFERT: -- but it's a remedy that's been coordinated with the environmental notice. And on top of that, just to be absolutely certain things are closed up nice and tight, we have a commitment from the Coast Guard in a letter dated May 22nd that says that they are entering all our investigation data in a database that they keep so that if the property use should ever change in the future, whoever gets custody of the property or whoever is in charge of transferring the property is cognizant of anything that may be left behind.

MR. LoPINTO: I just want everyone to understand that when you finish this you're still not finished until some document, if transfer is done or if not, that information is not only with the New York State DEC --

MR. GOEPFERT: So we're making a distinction --

MR. LoPINTO: -- but a number of other

agencies.

MR. GOEPFERT: We're making a distinction between what we, the Corps does under the FUDS, or Formerly Used Defense Site Program, versus the Federal Property Transfer process, which includes all those types of restrictions and things as well as what the state would like to do as part of their noticing of the property.

MR. LoPINTO: Thank you.

MR. GOEPFERT: I think the young lady in the back -- could you introduce yourself, please?

MS. SHEPARD: Sure. I'm Laura Shepard. I'm from the Queens Chronicle.

MR. GOEPFERT: Hi, Laura. Did you have a question?

MS. SHEPARD: Yeah, I did.

So at the moment what does the Coast Guard use the area for?

MR. KERR: We don't.

MS. SHEPARD: You don't. You just own it. How long has the Coast Guard owned it?

MR. KERR: I forget how long Fort

Totten was in operation. They moved from Fort Totten to Kings Point, they moved their Search and Rescue Station from Fort Totten to Kings Point, was that ten years ago?

MR. LoPINTO: About that.

MR. GOEPFERT: In 1968 the department of Army conveyed 9.6 acres of the property to the United States Coast Guard.

MS. SHEPARD: My other question, so basically you're going to move a lot of dirt. Where to?

MR. GOEPFERT: It will be taken to a licensed disposal facility. We haven't awarded the contract so I couldn't give you a definite answer at this point.

MS. SHEPARD: You also don't know where you're getting the new dirt from either?

MR. GOEPFERT: Correct. But I guarantee you our specifications will be for unrestricted material coming in.

MR. HARRIS: Can I say something? This is in regards to the trees.

As part of your report for Area 1

where they planted the trees, it says that there was what, 522 milligrams per kilogram for that area?

MR. GOEPFERT: Yeah. The --

MR. HARRIS: Of lead.

MR. GOEPFERT: -- the background numbers I believe was 522.

MR. HARRIS: The EPA guideline is 400 milligrams per kilogram for areas like playground areas and for residential areas 1200. So I mean, the only problem is if you ingest the dirt on a regular basis then you have a problem. But normally, there's lead in the environment, naturally in the environment. So I mean, I would like to harvest the trees that were there and replant them.

MR. LoPINTO: That's a parks issue.

MR. BRANZETTI: Yeah, that's for now a parks issue. But it's still an issue that after this was found out about, that nothing was done about that area, they just left it weeded because they figured if it was weeded nobody would go into it.

MR. GOEPFERT: There is actually --

MR. BRANZETTI: And even our group has been looking over the years, and Warren will tell you, we've been looking to get part of the Coast Guard to use their pier for a kayak launch and a bunch of other things for the community and stuff, and that was never mentioned, that that area is a problem.

MR. SCHREIBER: Well, I mean, we all know that the parks department, they're very dependable, responsible, but maybe they knew about this and just didn't tell you. Maybe it was their responsibility to let you know that, you know, or even to say, Gee, maybe you shouldn't be working here. And maybe that's a question to ask --

MR. LoPINTO: I'm going to guess the lower-level workers at the --

MS. BITTERMAN: They didn't know.

MR. LoPINTO: They didn't know.

MR. BRANZETTI: Maybe they didn't know, but I'm saying that once -- okay, they'd been planting there before they found out about or did the testing, but

after the testing, still nothing was put up, no signage, no nothing was put up there. You have people going in and out of that park, visitors coming from other countries and stuff walking through that park, biking through that park, walking through those weeds. I'm saying no, they're not digging up the ground and stuff, but still that area should be blocked off.

MR. SCHREIBER: Let me, okay, he raises a good point. So let's say I walk through there and I, somehow I pick up some of this lead contamination, I have this on my shoes and I'm walking through the rest of the property. I mean, how easily is that transferred, how far do I have to walk before there's no longer a problem with transference or is it not a problem at all?

MR. GOEPFERT: Honestly, I think the gentleman from the fire department summarized it, that ingestion which really becomes the issue.

MR. BRANZETTI: Yeah, but if you,

another point is that I go there and I see, not the trees, but a couple of nice plants, oh, I'd like to see this in my yard, in my garden. I go and dig up one of those plants and bring it to my house and put it in my yard next to my vegetable garden or anything, how is that going to affect you.

MR. GOEPFERT: Your point is well taken. As far as the issue about signage, I was out there, I don't know, a year or so ago, and I actually did witness signage on the trees out there. I don't know when your tree planting took place. But there was signage about pesticide application. Did you see those signs?

MR. BRANZETTI: That's a lot different, pesticide application, poison soil. So I just --

MR. GOEPFERT: I just want to mention that there was some signage.

MR. BRANZETTI: Pesticide, yes, they were spraying pesticide, actually, parks department, actually, to get rid of the weeds that were there.

MR. HARRIS: Yeah, that's what pesticide was sprayed.

MR. LoPINTO: Can I ask a question. In your evaluation for Area 1, you note that the concentrations are higher than the background.

MR. GOEPFERT: Correct.

MR. LoPINTO: Did you do a health assessment for that area also? Because you don't note it in here.

MR. GOEPFERT: Health assessment --

MR. GRECO: Risk assessment. There was a risk assessment.

MR. LoPINTO: Okay. And what did it find?

MR. GRECO: That's when it was determined that based on residential scenario.

MR. LoPINTO: On the residential scenario. So when you do a risk assessment, what it assumes, if I remember correctly, it's 40 years residential living at the site, constant living there, which would mean you're out in the yard, you're rolling in the, you're digging up,

putting in a garden. That risk assessment then moves forward to what your exposure would be, how much an average adult weighs, how much an average adult might ingest by touching it and whatever, and they do the same thing for a child, especially for lead because lead ingestion is more critical for children than for adults and they're a lower weight and whatever. So when that assessment was done it assumed this worst-case scenario of exposure. So your exposure would have been much less than the occasional worker or what have you. And I don't know if they even looked at that, you know, the others, and if they had a risk or not. But I would say that, based upon what you were talking about, the lead is in the soil. I would imagine that as you walk the soil particles came off your shoes, there wouldn't be many left. If you wash your clothes it would more than likely, because it's still in the particle form, come off your clothes. If you were -- lead is in other forms, lead can be in a

fume form if it's heated up high enough, but you're talking about particulate lead here. So I would say that looking at it from a statistical US EPA risk assessment, the evaluation of your exposures would prove that it was not a problem.

Would you agree, Jon?

MR. GRECO: I'm not a specialist, but you're onto something.

MR. LoPINTO: I mean, that's the way the assessments are done and a one-time, you know, exposure, unless you fell in a vat of lead probably wouldn't lead to any problem. I have clients that still work with lead, so...

MR. GOEPFERT: Notwithstanding the fact of the assessment, I understand your point that you're making. And going forward, we should have something just to let people know, or at least something that says, you know, this is Coast Guard property or the property of and please contact, if you want to get into this property.

MR. BRANZETTI: Now, when is the last

time the other parts of the property surrounding that have been tested, like the ball fields where the kids are playing?

MR. GOEPFERT: Oh, the ball fields were tested back in I believe it was 1996, and the health department has signed off on --

MR. BRANZETTI: So that's '96, that's --

MR. GOEPFERT: -- it, it's clean.

MR. BRANZETTI: -- twenty years ago.

MR. SCHREIBER: There was an original, there was what was known as the RAB, and matter of fact, Bob was part of it and he chaired that for a while, the Restoration Advisory Board, and working with the Coast Guard, Army Corps, New York State, and as you saw in the original slide they took so many soil samples and water samples --

(Multiple voices.)

MR. BRANZETTI: -- what I'm asking. You have the underground water running through that whole land there. What's to say that that water from the area that's

contaminated has not gone over now to underneath the ball fields. You haven't tested in 20 years. How about getting that tested?

MR. GRECO: The groundwater flow actually doesn't flow in the direction of the ball field, it goes out towards the bay. But even if that weren't the case, what's in the groundwater right now is arguably the groundwater is really uncontaminated at that Fort Totten. What he's found in a couple of samples were something called PAHs, which are a tarry substance, but those wells were drilled in a crumbling parking lot, and so we think we just got a little particulate matter from crumbling parking lot in the water sample. The water sample, I'm sure, if we go out and sample it today they're going to be fine.

MR. BRANZETTI: Okay. So if you go out and sample it today? How about going out and sampling it today or tomorrow?

MR. GRECO: We're trying to get, not to be argumentative, but we're trying to

get to the end of the process.

MR. BRANZETTI: Right, I understand that, but you still have to keep testing the other areas in the park, just to make sure that over 20 years from your last testing that something else hasn't now passed on and contaminated another part of the park.

MR. GRECO: It hasn't been 20 since we sampled the wells, and -- you know, part of the frustration at this site, I think, is that you look at it and we've been out here for a long time, and you say what are you really doing, you're digging up one area and you're saying the heck with the rest of it. There's really a lot of history. But the site itself starts as a discharge of mercury into Little Bay, and that's what put it on the map. When it came and got listed as a site in New York State Superfund, we listed it as the property boundary, the 9.6 acres that consists of the Coast Guard. Really, the 9.6 acres upland area is not what the problem was, the problem was the discharge

to the bay. We investigated that years ago and determined the discharge really wasn't that significant and we did sample two rounds of fish sampling, we did 400 borings out in the bay and we determined it was not --

UNIDENTIFIED VOICE: That's not what was killing all the fish there in the beginning each season?

MR. GRECO: No, it wasn't.

Then when we were done with that, we turned an eye towards well, now what do we do about the 8 acres that we've listed that wasn't the original problem. So we sampled areas of potential concern. Nobody had, really other than the ball field -- not the ball field -- the fill area, there were no actual areas that anyone suspected would be contaminated, but as due diligence we said well, they use pesticides here, they had a transformer there, we sampled those areas. We really didn't come up with much, other than refined PAHs, which is a fancy word for coal. We got little chips of coal,

and they used a lot of coal, they burned coal over the years. That coal, when they were done burning it they had coal ash. It's quite possible filled a lot of low areas with coal ash. So that's what we really have, it is a coal ash issue. And, but the rest of it, I mean, the lead is from actual disposal and they're going to address that.

And we will get signage out there, right, for between now and digging it up?

MR. GOEPFERT: We'll get signage.

MR. GRECO: But, so we can do that, but the rest of it really is not that significant. It is something and it's something that the state is going to keep this on our registry as what we call a Class 4, and it's really in the way of institutionally controlling it so anyone wants to use it they will see that it's listed and they will come to us and we'll tell them what's there, what uses may be acceptable and what uses may not be.

MR. BRANZETTI: I just want to make sure that the kids that are playing, that

are playing on the side where their brothers or sisters are playing baseball, they're playing on the side with mommy and they're digging up that soil and stuff into their pails and everything, you know, that this is not going to, you know, affect them, that we're going to have a safe area for these kids to be at.

MR. GRECO: You make a great point, and again, I wasn't aware that it was used that heavily and we'll see to it that we get that wrapped up.

MR. GOEPFERT: Yes, ma'am. Your name, again?

MS. JOHNSON: Sylvia Johnson.

You mentioned about putting up the signage, but you said that the signage you propose the signage would say this is Coast Guard property, contact the Coast Guard. But I think until you do the remedial action, I think that the signage should say more than that and that any restriction, you know, that it is containing lead or it is dangerous, there's a risk for being in that area, not

just contact.

MR. GOEPFERT: Your point is well taken.

MR. LoPINTO: The next potential meeting and next potential document?

MR. GOEPFERT: Actually, the next document that we're going to have out is the decision document.

MR. LoPINTO: And then after the remediation is complete is there a report?

MR. GOEPFERT: Well, there's no requirement for us to have a meeting, but --

MR. LoPINTO: No, no, a report.

MR. GOEPFERT: There will be a closeout report.

MR. LoPINTO: Okay. And then do we meet again before the final closure of the FUDS action?

MR. GOEPFERT: We are not required to, but we can.

MR. LoPINTO: Okay.

MR. BRANZETTI: One last question. There was garbage in Area 2 being dumped over there. Could that have affected some

of your testing? There's groups that were dumping all their, everything that, all their trash and everything into that.

MR. GOEPFERT: Again, I don't know when that happened or --

MR. BRANZETTI: Two years ago.

MR. GOEPFERT: I think that -- were we out there two years? I don't think two years ago. It was after that.

MR. PANNELL: The sampling that we did in Area 2 was May of 2011.

MR. GOEPFERT: May of 2011 is the sample, but thank you.

MR. PANNELL: And to expand on that, if I might, what I remember seeing out there was brush.

MR. BRANZETTI: No, this was, trust me, there was garbage, because I asked these guys to stop.

MR. PANNELL: I don't recall seeing anything like that.

MR. BRANZETTI: I just asked them, you know, stop throwing the garbage out in the woods there, you know, put it in a trash thing and, you know, call and come get it

picked up.

MR. GOEPFERT: Yes, ma'am?

MS. SHEPARD: Sorry. What is this area from and what body is this, exactly?

MR. GOEPFERT: I'm with the Army Corps of Engineers. You missed the initial introduction.

MS. SHEPARD: Okay.

MR. GOEPFERT: My name is Greg Goepfert, I'm the project manager for Fort Totten. This is a public meeting for the Proposed Plan for the area, Fort Totten, and I can give you more feedback information after the meeting.

MS. SHEPARD: Sounds good.

MR. GOEPFERT: Well, I appreciate everybody's concern and comments. And hopefully we answered them. If we haven't, we'll make sure we answer them in action, and we will be putting a notice in the newspaper. I'll probably let you know. We have a website that's our project website that we'll post the notice for the decision document.

MR. BRAMMER: The website is on the

Proposed Plan?

MR. GOEPFERT: The website is on the Proposed Plan. I also put our documents in the Bay Terrace Library if anybody ever wanted to look at the library record that we have there, and typically when I send out reports I do send them out to Ms. Bitterman, Mr. LoPinto, Mr. Schreiber gets them as well, fire department, police department, Coast Guard, department of health, DEC; everybody is given an opportunity to read whatever we produce.

So again, the next document that will be coming out will be the decision document. We will wait until the July 24th comment period is ended. We'll compile any of the comments we have, we'll answer them appropriately. That will be part of the record, the decision. And they'll be posted on our website as well, as Mr. Schreiber had requested, and we'll have the decision document signed by our commander probably, it will probably happen towards the end of this year, maybe mid fall time.

I thank you for coming.

(Time Noted: 7:58 p.m.)

CERTIFICATION

STATE OF NEW YORK)
) ss
COUNTY OF SUFFOLK)

I, DONNA C. GILMORE, a Shorthand Reporter and Notary Public within and for the State of New York, do hereby certify:

THAT the foregoing transcript is a true and accurate transcript of my original stenographic notes.

IN WITNESS WHEREOF, I have hereunto set my hand this 15th day of July, 2015.

Donna C. Gilmore
_____
DONNA C. GILMORE

ATTACHMENT D

Newspaper Articles

Queens Tribune

U.S. Army Corps to Clean Fort Totten Soil

Posted on June 25, 2015 by tribune in This Week Bayside, This Week Eastern Queens, This Week Flushing

BY YVETTE BROWN
Staff Writer

A small section of Fort Totten is receiving remedial action due to contamination of lead in the soil, the United States Army Corps of Engineers announced.

There have been four alternatives set into motion to resolve the issue, all of which require the removal or covering of the soil to make sure no one is affected.

The U.S. Army Corps. of Engineers will undergo a project to remediate contaminated soil at Fort Totten. File photo

The lead contamination can only affect the community if it is in constant contact with the community or ingested in any way.

A representative of the U.S Army Corps of Engineers, Chris Gardner, explained that the lead contamination located next to the ball field most likely came from soil taken from under an old vehicle maintenance area to fill in spots that were ponding water, but he stressed that the soil is not toxic.

“The area is still mostly owned by the Coast Guard,” Gardner said. “They basically leveled it out, filled in spots [with soil] taken from under an old vehicle maintenance area and so that’s presumably where the lead came from.”

William Schreiber, president of the Bay Terrace Community Alliance Inc. and President of Co-op and Condo Council, spoke about the history behind the contamination.

He said the contamination goes back six or seven years and began with the contamination of mercury “The RAB (Restoration Advisory Board) along with Community Board 7 began talking about toxic chemicals in the soil, at that time, they were looking for carcinogens, then they started focusing on mercury contamination in the soil,” said Schreiber. “According to the studies, they found that everything was within acceptable levels and that left two areas, there was an area they remediated about six or seven years ago for a small amount of mercury and now they’re coming back.”

Schreiber said the mercury contamination could have come from the mercury vapor lamps used by the Army base. Fort Totten is used by the Army base, FDNY for EMT training, Fire Marshalls, contingents of Army Reserve, terrorism units, specialized units of the police department and has been a park since 2005.

The four alternatives include
* doing nothing at all for no cost,
* land use restrictions for a total of $206,130,
*soil cover caps for $282,635 or
*removal of the soil, off-site disposal and backfill for $450,934.

The alternatives, with the exception of the first and fourth alternative, allow for up to 30 years of protection from the contamination, while the first alternative requires no action and the last alternative requires full removal of the lead contaminated soil. While determining which alternative to go with, USACE must consider the overall protectiveness of human health and the environment, compliance with applicable or relevant and appropriate requirements, long term effectiveness and permanence, cost, state acceptance, community acceptance, short-term effectiveness and implementability. USACE has chosen the most effective alternative, which is the removal of the contaminated soil, but must consult with the community to assure their comfortability.

The USACE have encouraged the community to become involved with the decision of what Fort Totten should do. The public is able to submit comments about the proposed plans to the USACE up until July 24. The community is also encouraged to attend a meeting held by the USACE on June 30 at 7 p.m. located at “The Bay Terrace Jewish Center” 13-00 209 St., so that they can explain the proposed plan and all of the alternatives.

They are also accepting verbal and written comments at the meeting. The documents to write specific comments are available on the USACE website.

Reach Reporter Yvette Brown at (718) 357-7400 x128 or ybrown@queenstribune.com

Plan outlined for Totten remediation

by Laura A. Shepard, Chronicle Contributor | Posted: Thursday, July 2, 2015 10:30 am

The U.S. Coast Guard doesn't use its 9.6 acres at Fort Totten anymore, but the government will be cleaning it up.

Gregory Goepfert, project manager for the U.S. Army Corps of Engineers, announced plans for removing lead-contaminated soil during a meeting Tuesday in Bayside.

The area is near the northern part of the fort between the ballfields and the old fortifications.

"We would like to go ahead and clean up the soil that has been impacted and replace it with clean material," Goepfert said.

The 20,000-square-foot site would be refilled with clean soil from elsewhere. The endeavor will cost about $200,000.

Goepfert said the plan was preferable to alternatives like doing nothing, just fencing it off to the public or covering it with a landfill cap, but that would require additional maintenance in the future.

The Army Corps determined that it is the only one of five areas they tested at the fort that requires remediation.

The other four contained polycyclic aromatic hydrocarbons, likely from burning coal or coal ash, low levels of volatile organic compounds and traces of pesticides and metals. Analyzed soil samples do not pose a risk.

When the groundwater was tested, the corps didn't find concentrations of PAHs above state Class A requirements, so the water would be drinkable in an emergency.

The Army Corps will soon compile a document with public comments and submit its plan and bid for federal funding. If funded, the project could be completed by mid-2016.

Joe Branzetti, a member of the Friends of Fort Totten Park, told the Coast Guard representatives he was angry the community was never informed about the contamination and the site has been without fencing or signage, even though the Coast Guard knew about the problem.

Branzetti said that he's participated in tree plantings there with Girl Scout and Boy Scout troops, with the Parks Department's help. A representative from the Coast Guard said that was done without its knowledge.

The Army Corps emphasized that while lead, PAHs and VOCs may pose risks if people are exposed to high concentrations for long periods, unless someone actually ingests the soil, fort-goers who walk through the area are not at risk.

TIMES Ledger
SERVING QUEENS SINCE 1919

Army Corps presents Fort Totten lead remediation options to public

By Tom Momberg

The US Army Corps takes public comment on the proposed remediation of soil contamination from taces of lead.

The U.S. Army Corps of Engineers held a public meeting Tuesday to unveil options for remediation of soil containing traces of lead in a small area of Fort Totten behind the baseball field.

Project Manager Greg Goepsert identified five areas around the U.S. Coast Guard-controlled part of the fort that contain traces of lead, of which he said only the one behind the ball field had the potential need for remediation strategies.

The Army Corps put forward four options for a roughly 20,000-square-foot surface area where it said lead levels just barely exceeded background concentrations required for remediation. The minimum background concentration that has the potential to harm a child if ingested is about 523 milligrams per kilogram in shallow soil and 449 milligrams per kilogram in deep soil.

The area suggested for soil remediation has traces of lead from when fill was taken from surfaces of former and existing vehicle maintenance areas on the Army-owned part of the fort to fill areas with standing water.

The first alternative would be to do nothing and to spend no money, which New York District Army Corps Public Affairs Specialist Chris Gardner said is always the baseline consideration.

The second alternative would be to use land-use controls such as physical barriers or limitations on future land use, at an initial capital cost estimate of just over $73,400 and a 30-year maintenance cost of just under $132,700.

The third alternative would be to implement a soil cover cap by covering the affected area with additional topsoil and use land-use controls similar to the second alternative. The Army Corps estimated the construction time frame for the third option at a year and a half, with an initial capital cost of over $156,500 and a 30-year maintenance cost of about $126,100.

The fourth alternative, which seemed to be favored by the public, would be complete removal, off-site disposal and backfill of about 1,667 cubic yards of soil. Gardner said the fourth alternative would likely take just a few months over winter or spring of 2016, for a capital cost of nearly $451,000.

A public comment period will open July 18 and close July 24, during which any member of the public can send written comments, questions and concerns regarding the project and any of the remediation alternatives.

Gardner said the project team would take all public comments into consideration before it determines which option it would take for soil remediation, and send out requests for proposals to be returned by fall.

Fort Totten has had a history of chemical remediation ever since a 1988 site investigation, and the Army Corps said it would continue to maintain contamination concerns and hold the Department of Defense responsible as the fort continues to have more of a public presence.

“Right now, they seem to feel they have inspected every inch of Fort Totten,” said Warren Schreiber of Community Board 7 and president of the Bay Terrace Community Alliance. “I thought it was very positive that they came back and are committing to this once again.”

Written public comments should be mailed, postmarked within the public comment period window, to Greg Goepsert at the New York district of the U.S. Army Corps of Engineers, 26 Federal Plaza, CENAN-PP-E, Room 1811, New York, NY 10278.

Reach reporter Tom Momberg by e-mail at tmomberg@cnglocal.com or by phone at (718) 260–4573.

Reader Feedback

Lucille Kernahan from Bay Terrace says:

Select Option 4. The job would be completed and done.
Other options would require annual maintenance and shut down of the area each year. Undoubtedly, the maintenance costs would increase over the years, despite present figure put forth.
July 7, 10:38 am

ATTACHMENT E

Letters

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Office of the Director
625 Broadway, 12th Floor, Albany, New York 12233-7011
P: (518) 402-9706 | F: (518) 402-9020
www.dec.ny.gov

March 22, 2016

Mr. Gregory J. Goepfert
U. S. Army Corps of Engineers
26 Federal Plaza, Rm. 1811
New York, New York 10278-0900

RE: Record of Decision/Decision Document
Fort Totten Site, Site No. 241017
Uplands Area; Operable Unit 2

Dear Mr. Goepfert:

The New York State Department of Environmental Conservation (DEC), in consultation with the New York State Department of Health (DOH), has reviewed the Record of Decision (ROD)/Decision Document for Operable Unit 2 (OU2) of the Ft. Totten site and agrees that the remedy put forth is acceptable for the current use of the facility as an active coast guard station.

It should be noted that DEC believes this remedy is not necessarily protective for all other potential future uses of the property, and reclassification of the site on the state's Registry of Inactive Hazardous Waste Disposal Sites from a Class 2 to a Class 4 will not occur until such time as DEC places an Environmental Notice upon all or, at a minimum, select portions of the Fort Totten site as noted below.

More specifically, DEC believes that areas of the Ft. Totten site that have not been shown to meet our Soil Cleanup Objectives for Unrestricted and/or Residential Use (see 6 NYCRR Part 375-6.8(a) and (b)) will require an institutional control via an Environmental Notice which minimally will advise site owners and prospective purchasers of the property that:

1. While the controlled portions of the property have been found suitable for continued use as an Active Coast Guard Station, they have not been determined suitable for all uses;

2. Groundwater should not be used for potable purposes without testing and treatment, as necessary, as determined by the appropriate regulatory agencies;

3. No long-term occupancy housing facilities or long-term occupancy dormitories should be constructed on the property;

4. The institutionally controlled portions of the property must be further assessed (and remedied, as determined appropriate) if the property is sold and/or the use of the site changes from that of an active Coast Guard Station, and;

5. The *Change of Use* provisions of 6 NYCRR Part 375-1.11(d) will remain in effect for the controlled property until such time as the Environmental Notice is rescinded.

In consideration of the above, DEC supports the ROD/Decision Document as put forth by the U. S. Army Corps of Engineers.

Please feel free to contact Jonathan Greco, of my staff, at (518) 402-9694 if you have any questions regarding this matter.

Sincerely,

Robert W. Schick, P.E.
Director
Division of Environmental Remediation

ec: Michael Ryan, DEC
Robert Cozzy, DEC
Janet Brown, DEC
Jonathan Greco, DEC
Jane O'Connell, DEC
Krista Anders, DOH
Justin Deming, DOH
Bridget Boyd, DOH

U.S. Department of Homeland Security

United States Coast Guard

Commanding Officer
U. S. Coast Guard
Civil Engineering Unit
Providence

475 Kilvert Street, Suite 100
Warwick, RI 02886
Staff Symbol: ENV
401.736.1706
401.736.1703 (fax)
email: Michael.andrews@uscg.mil

5090

Certified Mail/Return Receipt Requested

MAY 22 2015

Mr. Gregory Goepfert
U.S. Army Corps of Engineers, New York District
Formerly Utilized Defense Sites (FUDS) Team Leader
26 Federal Plaza, Room 1811
New York, NY 10278

Re: Former U.S. Coast Guard Station Fort Totten, Queens, NY

Dear Mr. Goepfert,

The U. S. Coast Guard property at Fort Totten consists of 9.6 acres of land with several buildings that are currently leased to the New York City Police and Fire Departments. While the Coast Guard has no immediate plans to redevelop the property, the small boat station at Kings Point, NY may be relocated to Fort Totten in the future. Consequently, the residual soil contamination and status of the property as a Formerly Utilized Defense Site (FUDS) managed by the Army Corps of Engineers (USACE) will be a factor in the site redevelopment.

According to the USACE's *Supplemental Remedial Investigation #2 Report*, dated April 2014, no unacceptable risk remains for the low levels of polycyclic aromatic hydrocarbons (PAHs) and metals (including mercury) remaining in soils at Areas 2, 3, 4 and 5 of the Fort Totten FUDS. Based on the elevated contaminant concentrations in Area 1, USACE will be preparing a "Proposed Plan" to excavate the residual impacted soils in this area.

While soils in Areas 2, 3, 4 and 5 (including mercury levels at Area 5, adjacent to Building 615) pose no unacceptable risk to human health, the residual concentrations exceed the New York State Department of Environmental Conservation (NYSDEC) soil clean up objectives (SCOs). The SCOs are ordinarily applied under the FUDs program only in situations when risk assessments identify an unacceptable risk. To allay NYSDEC concern that there are PAHs and metals (including mercury) present in soils above SCOs at Areas 2 through 5, we assert that the following management/institutional controls will be utilized to track any residual environmental liabilities at the site, as follows:

A description of the existing contamination will be recorded in the Coast Guard's Shore Asset Management Environmental Liability (SAM EL) Module. This record will memorialize the locations and concentrations of the contamination in the event of a future property transfer or construction project that would disturb on site soils. In the event of planned changes to the current land use, the

Coast Guard will notify NYSDEC to coordinate the management of soils in Areas 2 through 5. In the event that the Coast Guard should transfer Fort Totten in the future, all relevant reports depicting the environmental condition of the property would be provided to the designated property transfer agent, as is common practice by agencies of the Federal Government.

It is anticipated that this correspondence will facilitate the continued progress of USACE toward addressing, and closing out, the remaining issues related to the Fort Totten FUDS.

Sincerely,

RACHEL MARINO
Environmental Branch Chief
By direction of the Commanding Officer

Copy: New York State Department of Environmental Conservation / Mr. Jonathan Greco
CG SILC LSC
CG SILC EMD
CG Sector New York

-----Original Message-----
From: Warren [mailto:warrennyc@gmail.com]
Sent: Thursday, July 30, 2015 11:56 AM
To: Goepfert, Gregory J NAN02
Subject: [EXTERNAL] Re: PROPOSED PLAN - ENGINEER SCHOOL/FORT TOTTEN - FORMERLY USED DEFENSE SITE

Mr. Goepfert:

Please be advised that Community Board 7 and other organizations representing the surrounding area, support Fort Totten soil remediation Alternative number four.

We thank the Army Corps of Engineers for its attention to this matter and look forward to the work commencing.

Sincerely,

Warren Schreiber
--

Warren Schreiber
Co-President, Presidents Co-op & Condo Council,
President, Bay Terrace Community Alliance,
President, Bay Terrace Cooperative Section I