

CELRC-TS-HE

January 23, 2014

MEMORANDUM FOR CELRC-PM-PM (Buczak)

SUBJECT: HTRW Report for Jackson Park

1. Enclosed is the HTRW investigation report for the Jackson Park Great Lakes Fishery and Ecosystem Restoration (GLFER) project. The investigation was performed as part of the Planning and Design Analysis phase of the project. The investigation was based on a database search, HTRW reports for adjacent properties, reports from USACE Louisville District, review of additional existing information, and a site visit.
2. Review of the database search identified a LUST located on the proposed project site. The LUST has been identified as an unleaded gas leak which was reported in 1990. It's owned by the Southern Shore Yacht Club. IEPA is recommending corrective action. The latest correspondence was sent to the Southern Shore Yacht Club in April 2009 and IEPA is waiting for a response. As of January 14, 2014, the Southern Yacht Club has not performed any corrective action. The gas leak may have transported into the water near the boat docks which is within a few hundred feet of the LUST's location. Because of the lack of action to resolve the LUST situation, it is recommended that the area surrounding the club, including the lagoon which may have been impacted by the LUST, be removed from the project footprint.
3. The Bobolink Meadow area identified locations with PAHs in the surface soil. Mitigation to remove material is recommended in order to reduce risk. Due to the history of the fill material, USACE, Louisville District is referring Jackson Park to the PRP program. EPA will determine the responsible organization for remedial actions at the park. Because of the risk of liability, it is recommended that no project activities occur on the Bobolink Meadow area.
4. A future project could be developed in the two areas after the PRP and LUST issues are resolved and the site investigation requires no further action.
5. If there are any questions regarding this investigation, please contact Christel Johnson at (312) 846-5512, christel.d.johnson@usace.army.mil.

Jay A. Semmler, P.E.
Chief, Hydraulic & Environmental
Engineering Section

Johnson/5512

TS-D-HE

TS-DH

**HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) AND NON-
HTRW INVESTIGATION**

**CONTINUING AUTHORITIES PROJECT (CAP)
JACKSON PARK, CHICAGO ILLINOIS
GREAT LAKES FISHERY & ECOSYSTEM RESTORATION STUDY**

Hydraulic and Environmental Engineering Section (TS-DH)
U.S. Army Corps of Engineers, Chicago District

January 2014

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HTRW INVESTIGATION
JACKSON PARK, CHICAGO, ILLINOIS**

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INTRODUCTION

The purpose of this report is to discuss the environmental investigation for Jackson Park, located in Chicago, Illinois. This investigation is authorized under Section 506, Great Lakes Fishery & Ecosystem Restoration (GLFER) Study, Continuing Authorities Project (CAP). This report identifies environmental issues and presents appropriate measures to resolve these issues. The methods used in performing the investigation are described in detail. Conclusions and recommendations regarding potential impacts due to environmental issues associated with the project site are provided.

AUTHORITY

Engineer Regulation (ER) 1165-2-132, Hazardous, Toxic, and Radioactive Waste Guidance for Civil Works projects, requires that a site investigation be conducted as early as possible to identify and evaluate potential environmental problems. According to ER 1165-2-132, certain environmental issues that do not comply with the federal, state, and local regulations are also discussed in this report.

No environmental investigation can wholly eliminate uncertainty regarding the potential for environmental issues associated with a project area. Performance of the investigation is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental issues in connection with a project area, and this practice recognizes time and cost constraints.

GUIDANCE

Supplemental guidance was provided by the Standard Practice for Environmental Assessments: Phase I Environmental Site Assessment Process (Designation: E 1527-13) prepared by the American Society for Testing of Materials (ASTM). These standards include a records review, site visit, interviews, and report preparation. This report followed many of the ASTM E 1527-13 guidelines but not to the same level of detail described by the ASTM E 1527-13 guidance.

Hazardous, Toxic, and Radioactive Waste

The objective of ER 1165-2-132 is to outline procedures to facilitate early identification and appropriate consideration of environmental problems. This investigation, therefore, identifies potential environmental problems and discusses resolutions and/or provides recommendations regarding the problems identified.

Non-Hazardous, Toxic, and Radioactive Waste

According to ER 165-2-132, environmental issues that do not comply with federal, state and local regulations should be discussed in the investigation. For example, solid waste is an environmental issue considered. Petroleum releases from Leaking Underground Storage Tanks (LUSTs) are regulated under the Illinois Administrative Code (IAC), Title

35, Part 731 - Underground Storage Tanks, Part 732 - Petroleum Underground Storage Tanks, and Part 742 - Tiered Approach to Corrective Action Objectives (TACO). Environmental problems identified during the investigation are discussed in this report, along with resolutions and/or recommendations for resolving the issue.

LAWS AND REGULATIONS

Federal

The definition of HTRW according to ER 1165-2-132, page 1, paragraph 4(a) is as follows: “Except for dredged material and sediments beneath navigable waters proposed for dredging, for purposes of this guidance, HTRW includes any material listed as a ‘hazardous substance’ under the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9601 et seq. (CERCLA). (See 42 U.S.C. 9601(14).) Hazardous substances regulated under CERCLA include ‘hazardous wastes’ under Sec. 3001 of the Resource Conservation and Recovery Act, 42 U.S.C. 6921 et seq.; ‘hazardous substances’ identified under Section 311 of the Clean Air Act, 33 U.S.C. 1321, ‘toxic pollutants’ designated under Section 307 of the Clean Water Act, 33 U.S.C. 1317, ‘hazardous air pollutants’ designated under Section 112 of the Clean Air Act, 42 U.S.C. 7412; and ‘imminently hazardous chemical substances or mixtures’ on which EPA has taken action under Section 7 of the Toxic Substance Control Act, 15 U.S.C. 2606; these do not include petroleum or natural gas unless already included in the above categories. (See 42 U.S.C. 9601(14).)”

As stated in the definition of hazardous substance in the Environmental Statutes, 1988 Edition, the term does not include petroleum, including crude oil or any fraction thereof, which is not otherwise specifically listed or designated as a hazardous substance under the definition. Underground Storage Tanks (USTs) are federally regulated under 40 CFR Part 280, which includes technical standards and corrective action requirements for owner and operators of USTs.

State

The Illinois State regulations were examined to determine which regulations governed the state specific hazardous waste disposal, release, and cleanup requirements. Illinois regulates USTs under Illinois Administrative Code, Title 35, Subtitle G, Chapter I, Subchapter D, Part 731, Underground Storage Tanks. The definition of a regulated substance under this regulation means any “hazardous substance” or “petroleum.” Hazardous substance UST is defined as an UST system that contains a “hazardous substance,” or any mixture of “hazardous substances” and “petroleum” which is not a petroleum UST system. Petroleum UST means any UST system that contains petroleum or a mixture of petroleum with minimal quantities of other regulated substances. Owners and operators of petroleum or hazardous substance UST systems must comply with the requirements of Part 731 except for USTs excluded under Section 731.110(b) and UST systems subject to RCRA corrective action requirements under 35 Ill. Adm. Code

724.200, 724.296, 725.296 or 725 Subpart G.

SITE DESCRIPTION

The site is located in the city of Chicago, Cook County, Illinois. The park is owned and operated by the Chicago Park District (CPD) and is one of the largest parks on the south side of Chicago. The park is approximately 156 acres and is within 300 feet of Lake Michigan. Jackson Park is located between 56th Street and 67th Street and Lake Shore Drive and Stony Island Avenue. See Figures 1 through 3.

Figure 1: Jackson Park, Chicago, Illinois Vicinity Map

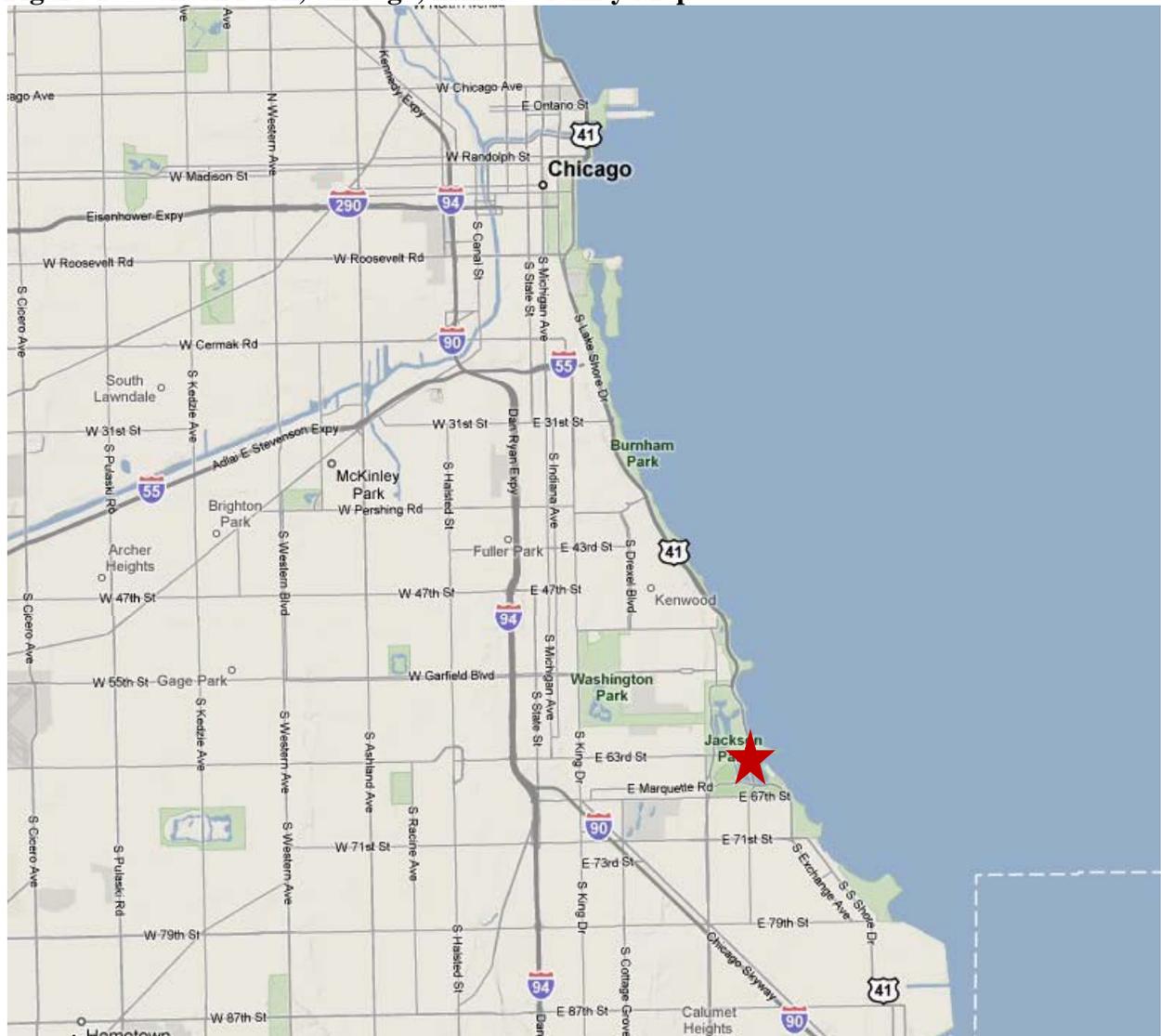
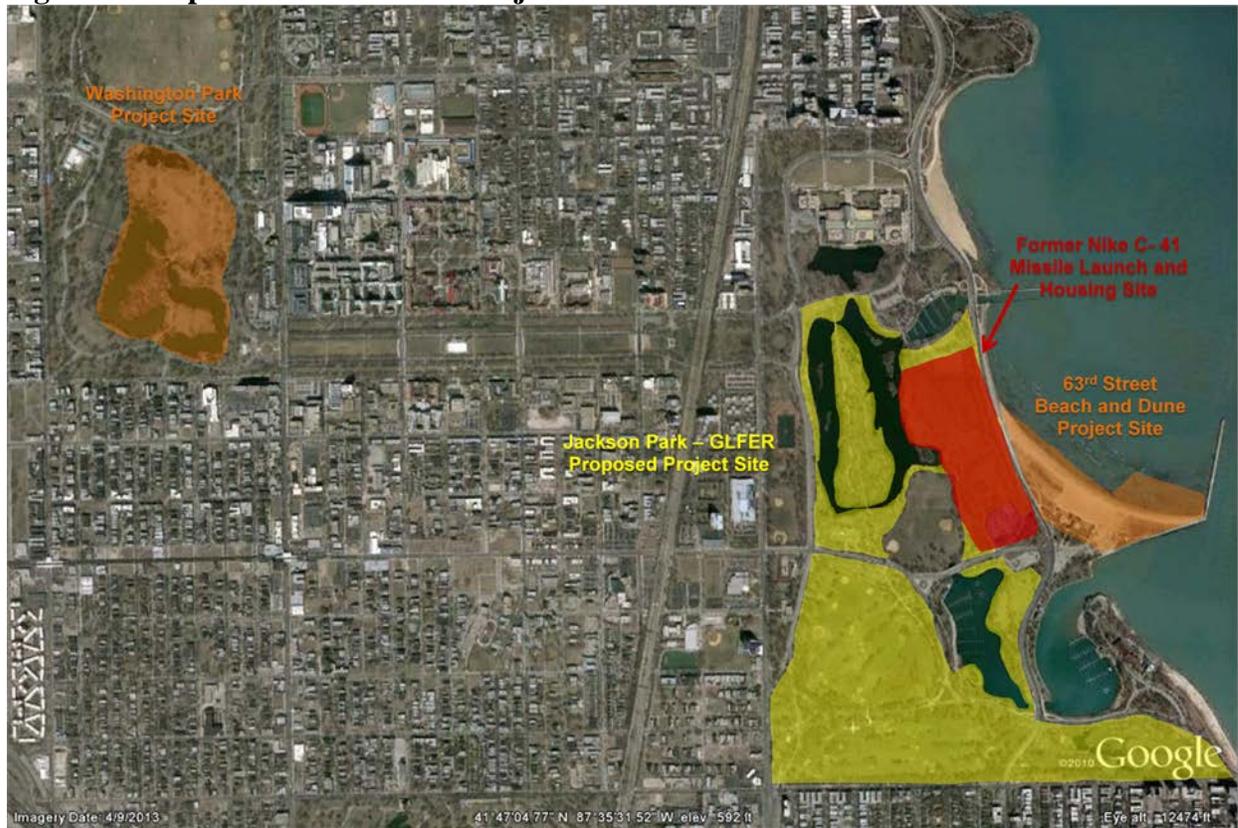


Figure 2: Jackson Park, Chicago, Illinois Map



Figure 3: Proposed Jackson Park Project Site



PROJECT DESCRIPTION

The goal of this project is to restore aquatic and buffering habitats and address invasive species issues. The methods proposed to be used in completing this ecosystem restoration project include:

- Creating a mudpuppy habitat
- Removing invasive plant species
- Installing a fish community separator
- Removal of invasive fish species
- Introducing native pond species
- Creating vernal pools
- Geomorphic contouring
- Improving pond quality and habitat structure

GENERAL METHODS

This assessment relies primarily on the location of regulated sites within the immediate vicinity of the project area identified in the database search, previous investigations for adjacent projects, reports from another district, information gathered during a site visit, and reviewing additional existing information. The following sections contain

information that was gathered in accordance with ER 1165-2-132. The information was obtained from:

- Database search performed by Environmental Data Resources, Inc.
- HTRW Investigations from adjacent USACE, Chicago District projects
- Reports from USACE, Louisville District
- Review of other existing information
- Observations made during a site visit on October 15, 2013.

DATABASE SEARCH

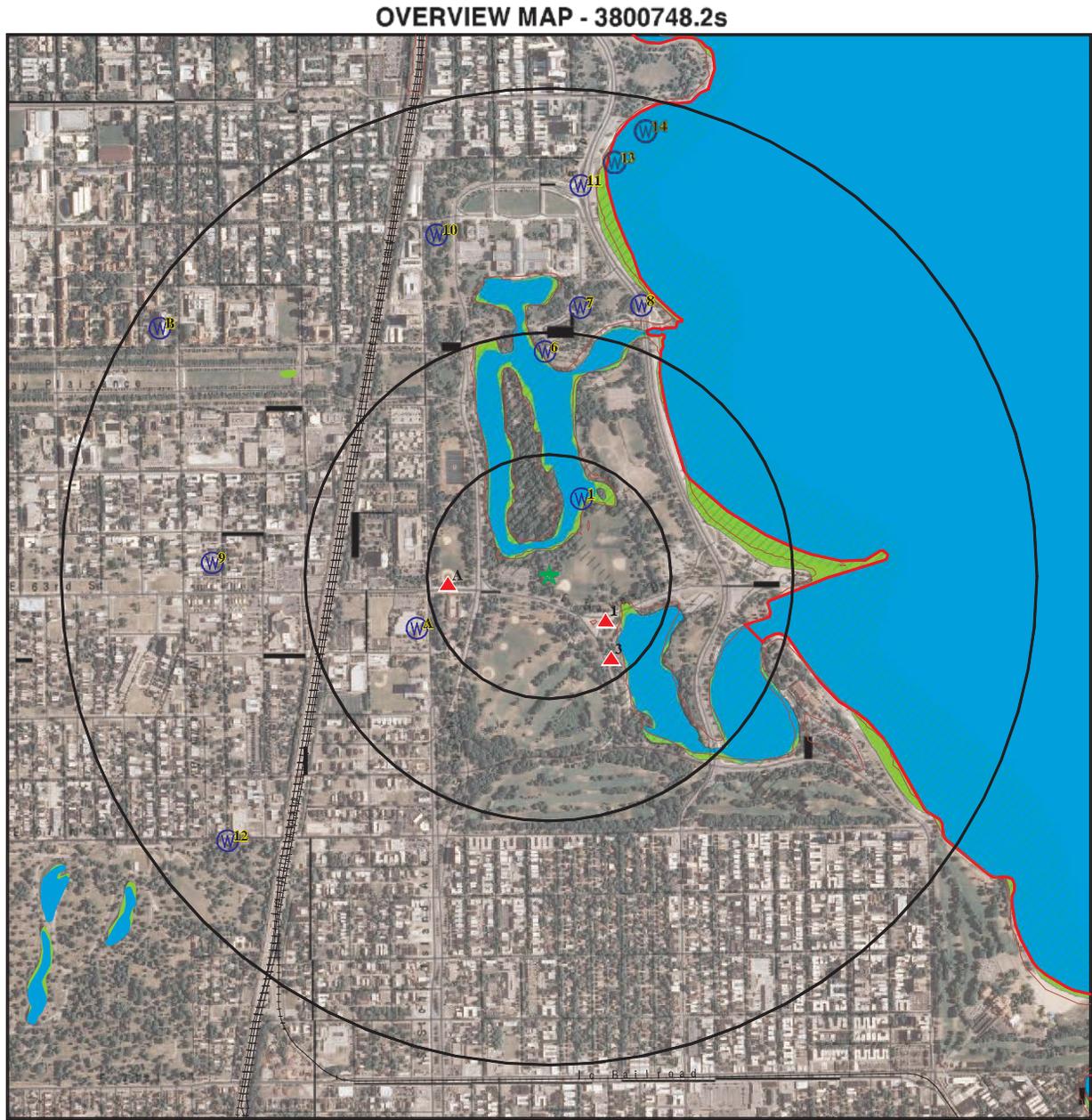
A search of available environmental records was conducted utilizing the Environmental Database Resources, Inc. (EDR) online. EDR searched federal and state databases using the minimum search distances issued in the ASTM E 1527-13 guidelines. Table 1 notes the recommended ASTM search distance for federal and state databases. The search was centered roughly near the middle of the park. The radius was expanded by 1 mile to accommodate the large size of the site.

Table 1: Minimum Search Distance for Federal and State Database Searches

Database	Approximate Minimum Search Distance (mi)
Federal NPL Site List	1.0
Federal CERCLIS List	0.5
Federal CERCLIS NFRAP site list	Property and Adjoining Properties
Federal RCRA CORRACTS Facilities List	1.0
Federal RCRA non-CORRACTS TSD Facilities List	0.5
Federal RCRA Generators List	Property and Adjoining Properties
Federal ERNS List	Property Only
State Equivalent NPL	1.0
State Equivalent CERCLIS	0.5
State Landfill/Solid Waste Disposal Site Lists	0.5
State LUST Lists	0.5
State registered UST List	Property and Adjoining Properties

The EDR overview map displaying the project area and the search results are given in Figure 4. The site location was verified using online maps.

Figure 4: EDR Overview Map



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- ▲ County Boundary
- ▲ Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

<p>SITE NAME: Jackson Park ADDRESS: Hayes Drive and Richard Drive Chicago IL 60637 LAT/LONG: 41.781 / 87.5817</p>	<p>CLIENT: U.S. Army Corps of Engineers CONTACT: Christel Johnson INQUIRY #: 3800748.2s DATE: December 03, 2013 3:23 pm</p>
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CERCLIS

The Comprehensive Environmental Response, Compensation, and Liability, Information System (CERCLIS) contains data on any potential waste site that has been reported by states, municipalities, private companies, or private persons pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The CERCLIS database indicates the stages of evaluation and remediation that have been completed for any given site. The CERCLIS database includes the National Priority List (NPL), which identifies over 1,200 sites for priority cleanup under the Superfund program, and the CERCLIS-No Further Remedial Action Planned (NFRAP) List, which includes a listing of sites that have been removed from CERCLIS, for various reasons. The database search located no CERCLIS sites within the search distance.

RCRIS

The Resource Conservation and Recovery Information System (RCRIS) lists sites which generate, transport, store, and/or dispose of waste defined by the Resource Conservation and Recovery Act (RCRA). The RCRIS database includes RCRA Corrective Action Report (CORRACTS), which identify waste handlers with RCRA corrective action activity; RCRA treatment, storage, and disposal facilities (TSDFs), and RCRA conditionally exempt small quantity generators (CESQGs), RCRA small quantity generators (SQGs), and large quantity generators (LQGs) facilities. The database search located no RCRA sites within the search distance.

ERNS

The Emergency Response Notification System (ERNS) database lists information on reported releases of oil and other substances. The database search located no ERNS sites within the search distance.

SHWS

The State Hazardous Waste Sites (SHWS), or State Oversight List, are the state equivalent to CERCLIS and NPL. These sites may or may not have already been listed on the federal CERCLIS list. The database search located no SHWS sites within the search distance.

SWF/LF

The IEPA records the state's Solid Waste Facilities/Landfill sites (SWF/LF). These sites may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites. The database search located no SWF/LF sites within the search distance.

UST/LUST

The Illinois State Fire Marshall maintains a listing of registered underground storage tanks (UST), as required by RCRA Subtitle I. The IEPA maintains a listing of leaking underground storage tank reports (LUST). The database search located two UST and two LUST facilities. See Tables 2 and 3 for a summary of information obtained from the database search.

Table 2: UST Search Results

Database	EDR Map ID	Site Name	Proximity to Site (miles)	Address	Status
UST	3	Southern Shore Yacht Club	0.209	6401 S Richards Dr	CLOSED – 2 Gasoline Tanks: 1 Removed 7/23/1990
UST	A4	Jackson Park Service Yard	0.223	1625 E 63 rd St	CLOSED – 2 Gasoline Tanks: 1 Removed 11/15/1988

The UST database search was cross referenced with the Illinois State Fire Marshal's online search located at <http://webapps.sfm.illinois.gov/ustsearch/>. Information from both database searches compiles the summary items in Table 2. Locations are listed in order of proximity to the project site.

A total of 4 UST's were identified in Table 2. Both locations have been placed in a closed status by the Illinois State Fire Marshal. The Southern Shore Yacht Club is also identified as a LUST. See Table 3. Additional information is given for the status of the Southern Shore Yacht Club below. Jackson Park Service Yard removed one tank and the second tank is exempt from registration. The tank location is ¼ mile west of the proposed project site. Due to the nature of the proposed construction activities and the location of the UST, the probability of encountering the UST is minimal and should not interfere with the proposed project site.

Table 3: LUST Search Results

Database	EDR Map ID	Site Name	Proximity to Site (miles)	Address	Status
LUST	1	Southern Shore Yacht Club	0.209	6401 S Richards Dr	Gas Leak Reported 1990 Corrective Action Required
LUST	A2	US Army Corps of Engineers	0.223	Jackson Park and Hayes Ave	NFA/NFR: 11/17/2003

The LUST database search was cross referenced with IEPA's online search located at <http://epadata.epa.state.il.us/land/ust/Search.asp>. Information from both database searches compiles the summary items in Table 3. Locations are listed in order of proximity to the project site.

The first location listed in Table 3 is next to the marina on the west side of the Jackson Park south lagoon. See Figure 5 for location. It is possible leaked contaminants have migrated to the lagoon. IEPA was contacted in January 2014 and stated corrective action is recommended for the unleaded gas leak that occurred in 1990. Southern Shore Yacht Club sent their Corrective Action Plan to IEPA and it was last reviewed in April 2009. As of January 14, 2014, the Southern Shore Yacht Club has not forwarded additional information to IEPA and this LUST incident is still under review.

The second location identified is the former Nike C-41 Missile Site, which is addressed later in this report. The tank is allegedly located in the launch area but has not been found in recent investigations. Residual soil contamination in relation to the site has been investigated and is discussed later in this report. IEPA issued a No Further Remediation (NFR) letter in November 2003 in regards to the LUST.

Figure 5: LUST South Shore Yacht Club



SRP's and Brownfields

The Site Remediation Program (SRP) database lists all voluntary remediation projects administered through the pre-notice site clean-up program (1989 to 1995) and the site remediation program (1996 to present). The Brownfields database lists sites that have received grants under the Illinois Municipal Brownfields Redevelopment Grant Program for site investigation and cleanup activities. The database search located no SRP sites and no Brownfield sites within the search distance.

FINDS

The FINDS database (facility index system/facility registry system) contains facility information and pointers to other sources that contain more detail. The EDR report includes the following FINDS databases in the report: PCS (Permit Compliance System), FATES (FIFRA and TSCA Enforcement System), FTTS (FIFRA/TSCA Tracking System which tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA and TSCA, AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (Statement Environmental Laws and Statutes), ACES (Illinois – Agency Compliance and Enforcement System), and PADS (PCB Activity Data System).

Twenty FINDS were reported and all noted as orphan sites. Orphan sites are locations and/or facilities that have poor or inadequate address information but are identified as potential adjacent property targets. A summary of the results are located in Table 4.

Table 4: FINDS Search Results

Database	EDR ID	Site Name	Proximity to Site (miles)	Address	Status
FINDS	1008135494	Chicago Park District	ORPHAN	W 14 th and Albany Ave	Location is 16 miles north of project site
FINDS	1005636014	Park View Wet Wash Laundry	ORPHAN	1727 AT 21 st St	Location Closed: 08/25/2008
FINDS	1004479985	CHA – Washington Park Homes	ORPHAN	41 st and Cottage	Location Closed: 02/02/2011
FINDS	1008135792	Berger Park Cultural Center	ORPHAN	6205 to 6247 N Sheridan Ave	Location is 17 miles north of project site

Database	EDR ID	Site Name	Proximity to Site (miles)	Address	Status
FINDS	1008138502	Hamilton Park	ORPHAN	73 rd & Stewart	Location is 4 miles west of project site
FINDS	1008137000	Rosenblum Park	ORPHAN	75 th and S Jefferey	Location is 3 miles south of project site
FINDS	1008127517	Chicago Park District 9 th St Yard	ORPHAN	9 th St & S Columbus	Location is 8 miles north of project site
FINDS	1008139243	CC Jackson Association Inc	ORPHAN	1404 W Bryn Mahr St	Location is 17 miles north of project site
FINDS	1008109725	Chicago Park District Garfield Park	ORPHAN	100-300 N Central Park	Location is 17 miles northwest of the project site
FINDS	1008123182	Chicago Park District	ORPHAN	Chicago Park District	Location is 7 miles north of the project site (425 E McFetridge Dr)
FINDS	1008135861	John Gorken c/o Chicago Park	ORPHAN	Foot of Monroe and Lake Shore	Location is 8 miles north of the project site
FINDS	1008221584	Theater Park	ORPHAN	Fullerton & Lake Shore Dr	Location is 14 miles north of the project site
FINDS	1005624171	Chicago Park District Lincoln Park	ORPHAN	2045 N Lincoln Parkwest	Location is 12 miles north of the project site
FINDS	1008118588	Chicago Park District Burnham Park	ORPHAN	E McFetridge to E 56 Lake Michigan	Location is 7 miles north of the project site
FINDS	1004477995	CHA-Washington Park Homes	ORPHAN	Phase HR-2	Location Closed: 02/02/2011
FINDS	1010038502	North Park University	ORPHAN	5148 N Spalding	Location is 12 miles from the project site
FINDS	1004694357	Marina City Marina	ORPHAN	300 N State St B	Location is 9 miles from the project site
FINDS	1008151599	CHA-Washington Park Homes Phase HR	ORPHAN	Various	Location is closed: 02/04/2011

Database	EDR ID	Site Name	Proximity to Site (miles)	Address	Status
FINDS	1005899110	CHA- Washington Park Apartments	ORPHAN	Various	Location is closed: 08/25/2008
FINDS	1008124700	Bradley Park	ORPHAN	9729 S Yales	Location is 7 miles southwest from the project site

All twenty identified FINDS facilities are either out of the proximity of the search parameter or have been closed. None of the FINDS facilities appears to be a risk for the proposed project site.

Other Databases

Various other databases were searched that include supplemental information to the above databases, including: CERCLA consent decrees, National Priority list deletions, engineering and institutional control registries, NPL Liens, PCB Activity Database, oil and gas pipelines, electric transmission lines, sensitive receptors, flood zone data, and the national wetlands inventory. The database search revealed no additional sites.

ADJACENT PROPERTIES - HTRW INVESTIGATIONS

The 63rd Street Dune and Beach project is approximately ¼ mile from the proposed Jackson Park site and Washington Park is within 2 miles of the proposed Jackson Park project site. Both projects required HTRW investigations and recommendations for each are below.

63rd Street Dune and Beach HTRW Investigation

The HTRW report for the 63rd Street Dune project was completed in January 2009. See Figure 6 for location proximity to the Jackson Park proposed project site. The Nike C-41 Missile Launch site was identified in the HTRW report through the EDR database search results for Formerly Used Defense Site (FUDS). The FUDS is located directly below the Bobolink area of Jackson Park. At the time of the 63rd St Dune HTRW investigation, the USACE Louisville District performed sampling analysis for soil and water characterization.

The 63rd St Dune HTRW report concluded the proposed work had little potential for encountering HTRW or non-HTRW contamination. See Attachment B for details. The work included removing invasive species, planting native seeds and shrubs, placing submerged cobble and boulder structures, and installing signage and trails. With little digging involved, there was little risk of encountering buried issues.

Figure 6: 63rd Street Dune and Beach Project Site



Washington Park HTRW Investigation

Washington Park is located approximately 2 miles west of the project site. The HTRW investigation was conducted in November 2010 and concluded the results of the investigation suggests that it's unlikely that HTRW or non-HTRW issues exist on or adjacent to the project site that will impact implementation of project. The proposed work included creating wetlands, clearing shrubs and grass, herbicide application, tree removal, removing invasive species and the installation of native fish.

Due to its proximity to Washington Park, the Nike C-41 Missile launch site was not identified in the HTRW investigation. See Figure 7 for location.

Figure 7: Washington Park Proposed Project Site



FORMERLY USED DEFENSE SITE (FUDS)

The Department of Defense (DoD) is responsible for environmental restoration of properties that were formerly owned by, leased to or otherwise possessed by the United States and under the jurisdiction of the Secretary of Defense. Such properties are known as Formerly Used Defense Sites (FUDS). The Army is the executive agent for the program and the U.S. Army Corps of Engineers manages and directs the program's administration. The scope and magnitude of the FUDS program are significant, with more than 10,000 properties identified for potential inclusion in the program. Information about the origin and extent of contamination, land transfer issues, past and present property ownership, and program policies must be evaluated before DoD considers a property eligible for Defense Environment Restoration Account (DERA) funding under the FUDS program.

Nike C-41 Missile Launch Site Overview

The former Nike C-41 property consisted of two areas, both within Cook County, Illinois. The southern area, previously the Launch and Housing Area, was located in Jackson Park, west of Lakeshore Drive near 62nd Street. The northern area was the Radar Control Area and located in Burnham Park, east of Lakeshore Drive on Promontory Point near 55th Street. See Figure 8. The properties were leased by the Army from the Chicago Park District between 1951 and 1971. The property was returned to the Chicago Park District in 1971. See Figure 8 for Nike C-41 Project Site.

Figure 8: Nike C-41 Missile Launch Site



Sampling - Bobolink Meadow

Preliminary site assessments were conducted and identified polynuclear aromatic hydrocarbons (PAHs), semivolatile organic compounds (SVOCs), and volatile organic carbons (VOCs) as a concern and recommended a Site Inspection (SI) to investigate soil, sediments, and/or surface water at the former Nike C-41 launch site area.

The SI was completed in 2008 and recommended focusing on benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene for the soil pathway. The SI also recommended focusing on trichloroethene for potential impacts to groundwater from missile magazines.

Three potential hotspots were identified based on comparisons to residential screening levels. Table 5 lists the site contaminants identified. No site contaminants were identified in groundwater or surface water samples of the Bobolink Meadow area. Additional information is located in Attachment D.

Table 5: Contaminants at Nike C-41 Site

Analyte	Surface Soil	Subsurface Soil	Sediment
Metals			
Lead	X	X	X
Sodium	X	X	
Volatile Organic Compounds			
Acetone			X
Trichloroethene		X	
Semivolatile Organic Compounds			
Carbazole		X	
Dibenzofuran		X	
2-Methylnaphthalene		X	X
3-Methylphenol			X
4-Methylphenol			X
Benzo(a)pyrene Equivalents			
Benzo(a)anthracene	X	X	
Benzo(a)pyrene	X	X	
Benzo(b)fluoranthene	X	X	
Benzo(k)fluoranthene	X	X	
Chrysene	X	X	
Dibenz(a,h)anthracene	X	X	
Indeno(1,2,3-cd)pyrene	X	X	
High Molecular Weight Polynuclear Aromatic Hydrocarbons			
Benzo(a)anthracene	X	X	X
Benzo(a)pyrene	X	X	X
Benzo(b)fluoranthene	X	X	X
Benzo(g,h,i)perylene			X
Benzo(k)fluoranthene		X	X
Chrysene			X
Dibenz(a,h)anthracene	X	X	X
Indeno(1,2,3-cd)pyrene	X	X	X
Pyrene			X
Low Molecular Weight Polynuclear Aromatic Hydrocarbons			
Acenaphthene			X
Acenaphthylene			X
Anthracene			X
Fluoranthene			X
Fluorene			X
Naphthalene			X
Phenanthrene		X	X

During the Remedial Investigation (RI) conducted in November 2012, a Risk Characterization was completed. Based on the results, PAHs were the only Chemical of Potential Concern (COPCs) identified in surface soil based on carcinogenic effects. Samples SB2, SB4, and SB7 are of hot spots of concern for COPCs and are shown in bold lettering. See Figure 9.

Subsurface soil data was evaluated using a hypothetical utility or construction worker scenario. The risk associated with subsurface soil and the utility or construction worker scenario is less than the USEPA's acceptable excess cancer risk range and is not considered as a concern.

Mitigation through soil removal actions was recommended for the three locations identified as hot spots to reduce site risk.

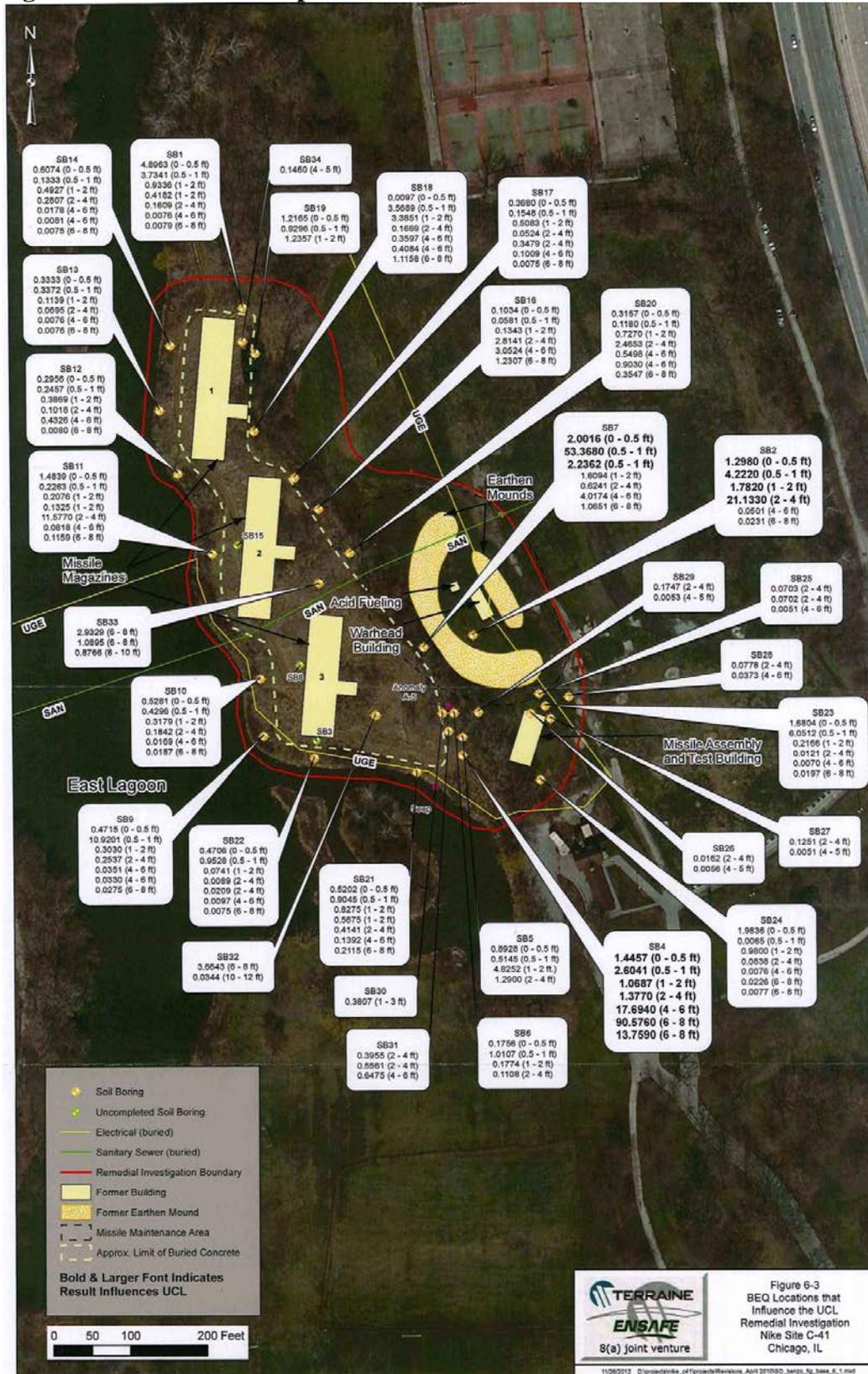
Potentially Responsible Party

Historical background information is available regarding material that was placed in Jackson Park in 1893, 1951 and the early 1970's as fill. It is also believed additional fill was placed during the eighties. The origin of the fill material is not known. Organic-rich and coal fragments were identified in the soil samples. Some of the fill placed on-site is believed to have been transported from stockyards that used to exist in south Chicago. The material may have contributed to the identified PAHs and SVOCs in the samples. The Bobolink Meadow is part of Chicago Park District's burn management plan and a prescribed burn was conducted in 1994. PAHs and SVOCs can be created by burning organic material.

Due to the origins of the unknown fill material, it is unclear if the Nike C-41 Missile Launch site contributed to the identified PAHs/SVOCs on the project site. In December 2012, the U.S. Army Corps of Engineers, Louisville District drafted a letter to IEPA stating the Nike C-41 will be referred to the Potentially Responsible Party (PRP) program. The contamination cannot be confirmed or denied due to DoD activities and the hot spot areas within the Bobolink Meadow were reported to the PRP program for review.

The PRP program is conducted by the EPA and will consist of an investigation to identify PRP's through document review, site investigation and sampling, interviews, and other related research efforts. Additional information regarding the referral to the PRP program by the U.S. Army Corps of Engineers, Louisville District is in Attachment F.

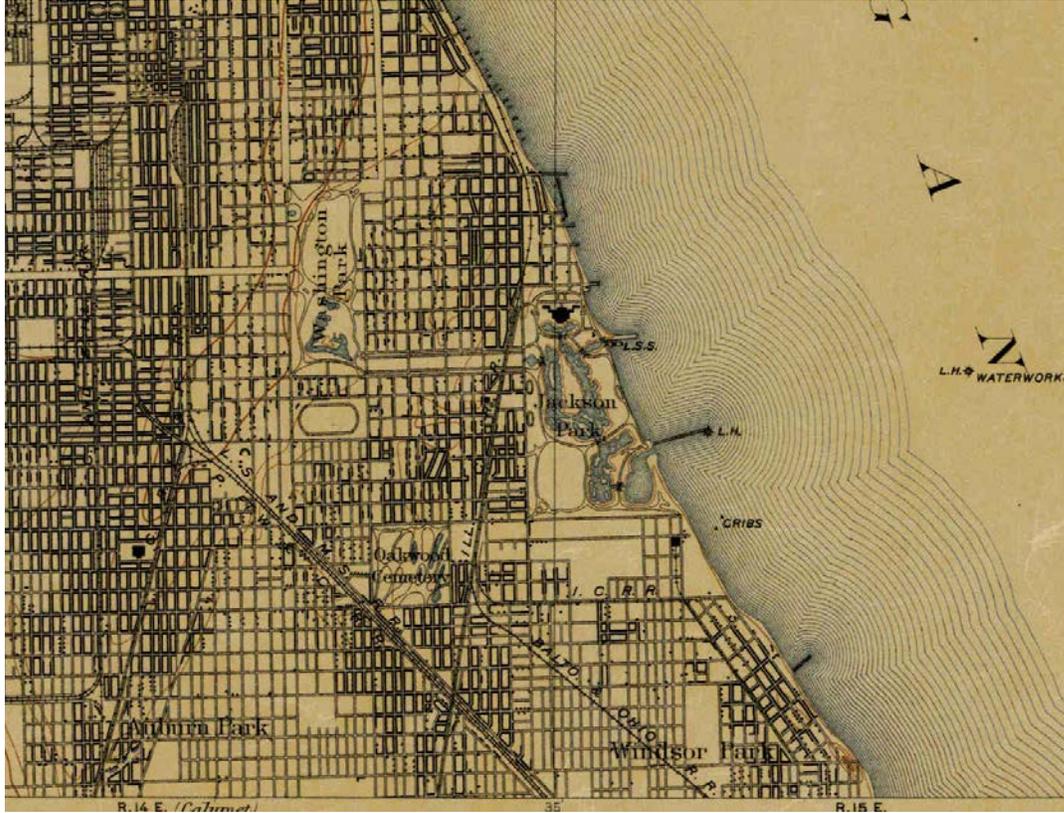
Figure 9: Location of Samples at Nike C41 Site



REVIEW OF EXISTING INFORMATION

Jackson Park currently contains several recreational features which include tennis courts, basketball courts, a golf course, outdoor areas, lagoons, gymnasium, and three harbors. Historical maps indicated Jackson Park dates back to 1901. See Figure 10.

Figure 10: Map of Jackson Park - 1901



SITE VISIT

A site visit was conducted in October 15, 2013. The purpose of the visit was to acquaint USACE personnel with the site and investigate the current conditions. The weather conditions on the day of the visit were cloudy and 60°F.

The project area is located between Stony Island and Lake Shore Drive and between 57th Street and 67th Street. Examination of the project area revealed a large outdoor park and golf course. Several people were utilizing the location for fishing and recreational purposes. Some debris was located throughout the park area. Heavily vegetated areas appear to have been used for overnight sleeping. See Figures 11 through 13.

Figure 11: Looking southeast between Marquette Drive and 67th Street



Figure 12: Between Lake Shore Drive and Richards Drive



Figure 13: Looking north between Richards Drive and Cornell Avenue



FINDINGS AND CONCLUSIONS

In order to generate this report for the Jackson Park, Chicago, Illinois – Great Lakes and Fishery Ecosystem Restoration, five methods were employed:

Database Review

Review of a database search provided by Environmental Data Resources (EDR) identified a Leaking Underground Storage Tank (LUST) near the project site. The Southern Shore Yacht Club is the owner of the LUST which contained gasoline and is required by IEPA to perform corrective action. No remedial action has been performed by the Southern Shore Yacht Club as of January 2014. Due to the onsite location of the LUST and potential transport of leached material into the adjacent bodies of water, it is possible there are residual amounts of gasoline onsite that may affect project construction. See Attachment A for details.

HTRW Investigations from adjacent USACE, Chicago District projects

Both 63rd Street Beach and Washington Park HTRW investigations were reviewed due to the proximity and the natures of the site. Both investigations concluded no foreseen potential of onsite conditions that would affect project construction. See Attachments B and C for details.

Reports from USACE, Louisville District

Several reports generated by USACE, Louisville District were reviewed in regards to the Former Nike C-41 Missile Site. Three samples of surface soil contained PAHs and the recommendation is removal of the material to reduce risk at the site. Historical information suggests the onsite material originates from fill brought onsite by the Chicago Park District and is not due to activity from the Nike C-41 site. Referral to the PRP program has been submitted and EPA will investigate. Until further investigation and corrective action occurs, the Bobolink Meadow area remains a risk.

Review of Existing Information

Existing information on this project revealed the site is a golf course, large outdoor recreational park with tennis courts, basketball courts, and a gymnasium. The park has been in existence since 1893. The Nike C-41 Missile site was active from 1951 to 1971.

Site Visit

The park contains heavily vegetated areas with some small amounts of debris throughout the park. No obvious environmental issues were visible.

Recommendations

Because of the uncertain regulatory status and the existing issues, it is recommended that the former Nike site, known as Bobolink Meadow, be eliminated from the project. A future project could be developed in this area after the PRP issues are resolved and the site requires no further action.

Because of the uncertainty associated with the LUST at the Yacht club, it is also recommended to avoid that area of the park including the lagoon, since the available evidence suggests that the leak may have spread toward the water. If the Yacht club addresses the LUST and/or provides documentation of the extent of contamination and any remediation activities that have been conducted, the area could be added back to the project. See Figure 14 for locations of LUST and Bobolink Meadow areas.

Figure 14: Bobolink Meadow and LUST



No investigation can wholly eliminate uncertainty regarding the potential for environmental issues associated with a project area. Performance of the investigation is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental issues in connection with a project area.

REFERENCES

35 Illinois Administrative Code. Environmental Regulations for the State of Illinois.

American Society for Testing of Materials. Publication E 1527-13. Standard Practice for Environmental Assessments: Phase I Environmental Site Assessment Process.

Department of the Army. U.S. Army Corps of Engineers. ER 1165-2-132. Hazardous, Toxic, and Radioactive Waste (HTRW) Guidance for Civil Works Projects. June 1992.

Department of the Army. U.S. Army Corps of Engineers. Formerly Used Defense Sites. <http://www.usace.army.mil/missions/environmental/formerlyuseddefensesites.aspx>

Illinois 2004 Section 303(d) List (IEPA 2004a). Publication IEPA/BOW/04-005. Bureau of Water, Springfield, Illinois. November 2004.

Illinois Water Quality Report 2004 (IEPA 2004b). Publication IEPA/BOW/04-006. Bureau of Water, Springfield, Illinois. May 2004.



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
P.O. BOX 59
LOUISVILLE, KENTUCKY 40201-0059
<http://www.lrl.usace.army.mil/>

CELRL-PM-M

13 August 2013

MEMORANDUM FOR Great Lakes and Ohio River Division, ATTN: CELRD-PDM/Patty Bertsch, 550 Main Street, Cincinnati, Ohio 45202-3222

SUBJECT: Defense Environmental Restoration Program – Formerly Used Defense Sites (DERP-FUDS) Determination of Potentially Responsible Party (PRP) and Project Closeout (PCO) for the former Nike Site C-41 Jackson Park, Cook County, Illinois, Hazardous, Toxic and Radioactive Waste (HTRW) Project E05IL325802

1. Reference ER 200-3-1, Environmental Quality, Formerly Used Defense Sites (FUDS) Program Policy, Department of the Army, U.S. Army Corps of Engineers, Washington, D.C. 20314, 10 May.
2. This memorandum, documents the Project Closeout for FUDS HTRW Project E05IL325802.
3. A PCO Report reviewing the project history and justification for closure is included at Enclosure 1.
4. The US Army Corps of Engineers determination of Potentially Responsible Party (PRP), 13 November 2012, is included in Enclosure 2.
5. Inventory Project Report (INPR) for this HTRW Project, dated March 2010 is included in Enclosure 3.
6. No further DoD action will be conducted for HTRW Project E05IL325802. The project is therefore closed in the DERP-FUDS program.

3 Encls

1. PCO Report
2. PRP Determination
3. INPR

CF:
CELRL-PM-ME, Valerie Doss
CENWO-PM-H,

A handwritten signature in black ink, appearing to read "Charles F. Grant".

FRED GRANT, P.E.
Chief, Military Project Management Branch
Planning, Program and Project Management

PROJECT CLOSEOUT SUMMARY REPORT

HTWR Project E05IL325802
Former Nike C-41 Jackson Park
Cook County, Illinois
13 August 2013

I. Introduction

This Project Closeout Report documents closure of response actions conducted for the Hazardous, Toxic, and Radioactive Waste (HTRWP) Project E05IL325802 at the Formerly Used Defense Site (FUDS) Property E05IL3258, Nike C-41 Jackson Park, Cook County, Illinois. The project was conducted in accordance with Engineer Regulation 200-3-1, dated 10 May 2004.

II. Property Identification

The former Nike C-41 property consisted of two distinct areas, both within Cook County, Illinois. The southern area that had been the Launch and Housing Area was located in Jackson Park, west of Lakeshore Drive near 62nd Street at N41° 47' 03", W 87° 34' 48". The northern area that had been the Radar Control Area, or Integrated Fire Control (IFC) Area, was located about one mile north of the Launch Area in Burnham Park, east of Lakeshore Drive on Promontory Point near 55th Street at N 41° 47' 43", W 87° 34' 34".

III. Reference Data and Project History

Inventory Project Report (INPR) (Reference A)

An INPR dated 8 March 2010, approves project 02 after-the-fact. The HTRW project was erroneously shown in the FUDS Management Information System (FUDSMIS) as approved on 12 January 2006. After the project was erroneously shown in FUDMIS as approved, a Site Inspection (SI) was completed in September 2008, confirming the presence of contaminant levels above the appropriate regulatory criteria. A Remedial Investigation (RI) was recommended. The INPR authorizes the completion of the RI.

Site Investigation (SI) (Reference B)

A SI was completed on 9 September 2008. The SI recommended no further action of the air pathway. For the soil, groundwater and surface water pathways, further action was recommended. The SI recommended focusing on benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene for the soil pathway. The SI recommended focusing on trichloroethene for potential impacts to groundwater from the missile magazines. Due to the occasional shallow groundwater discharge into the East Lagoon, it was recommended to sample the sediment and surface water in the East Lagoon.

Remedial Investigation (RI) (Reference C)

A RI was completed on 30 November 2012. The RI was conducted to establish background concentrations of chemicals in soils, further investigate soil in the soil boring SB23 Area, Anomaly A-5 Area, Missile Magazine Area, sediment and surface water in the East Lagoon, and groundwater.

During the RI it was found that fill material was placed in Jackson Park during construction for the 1893 World's Columbian Exposition. Additional fill material was placed onsite in the early

1950s during the construction of the Nike facility including approximately 1.8 acres of fill material placed along the shore of the East Lagoon to extend the Nike C-41 site to the west. Some, if not all of the material used to fill the 1.8 acres of the East Lagoon was probably onsite fill material generated during excavation for construction of the three underground Nike missile magazines that were approximately 25 feet below ground surface.

More fill was placed onsite in the early 1970s during the closure of the Nike facility when the Chicago Park District (CPD) demolished the aboveground Nike C-41 structures and placed a few inches of soil over the former Nike C-41 Launch Area. No specific information was available regarding the source or nature of the fill material; the Jackson Park Advisory Council Website's timeline notes that "vast amounts of manure from the Stockyards and 200,000 cubic feet of dirt by railroad" were brought to the area during preparation for the 1893 World's Columbian Exposition. Site and background soil sample results indicate SVOCs/PAHs are typically detected from 0 to 4 feet bgs, indicating the fill material in the Site area and beyond the study area could be the source of SVOCs/PAHs, as opposed to a site-related source.

Soil boring logs identified fill material across a large portion of the Nike C-41 site. Organic-rich soil and coal fragments, both of which would contain naturally occurring levels of many PAHs and SVOCs, were identified. As shown on the cross sections in Section 3 of the RI, boring logs indicated the fill is typically from 0 to 4 feet thick, although bricks and other debris were noted as deep as 8 feet in some areas. The CPD's website states that the Bobolink Meadow, which encompasses much of the RI study area, is included in the CPD's burn management program and a prescribed burn was conducted in 1994 to promote the growth of native indigenous prairie grasses and flowers in the Bobolink Meadow; PAHs and many SVOCs can be created by burning organic material.

Jackson Park (including the former Nike Site C-41) is within a major metropolitan area and is subject to PAH and metals contamination influenced by numerous anthropogenic (nearby roads and industrial activities) and natural activities (weathering, flooding, and wind dispersion). PAHs were detected in most of the surface and subsurface soil and sediment samples analyzed, including background soils. Additionally, given the amount of disturbance on the site since the 1890s, the fact that fill material from offsite has been placed onsite on several occasions, onsite material has been moved within the Site, and the CPD has conducted at least one prescribed burn at the Bobolink Meadow, the presence of PAHs would not be unexpected and it is not possible to identify a specific source of PAHs on the Site. The presence of PAHs, SVOCs, and metals in soil and sediment appear to be residual components of the fill material and likely do not indicate a release from operations at the former Nike Site C-41.

Potentially Responsible Party (PRP) letter (Reference D)

In a letter dated 12 December 2012, the U.S. Army Corps of Engineers indicated to the Illinois Environmental Protection Agency that the intent of the Government was to close Project 02 and move Nike C-41 into the PRP program.



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
P.O. BOX 59
LOUISVILLE, KENTUCKY 40201-0059
<http://www.lrl.usace.army.mil/>

CELRL-PM-M

13 August 2013

MEMORANDUM FOR Great Lakes and Ohio River Division, ATTN: CELRD-PDM/Patty Bertsch, 550 Main Street, Cincinnati, Ohio 45202-3222

SUBJECT: Defense Environmental Restoration Program – Formerly Used Defense Sites (DERP-FUDS) Determination of Potentially Responsible Party (PRP) and Project Closeout (PCO) for the former Nike Site C-41 Jackson Park, Cook County, Illinois, Hazardous, Toxic and Radioactive Waste (HTRW) Project E05IL325802

1. Reference ER 200-3-1, Environmental Quality, Formerly Used Defense Sites (FUDS) Program Policy, Department of the Army, U.S. Army Corps of Engineers, Washington, D.C. 20314, 10 May.
2. This memorandum, documents the Project Closeout for FUDS HTRW Project E05IL325802.
3. A PCO Report reviewing the project history and justification for closure is included at Enclosure 1.
4. The US Army Corps of Engineers determination of Potentially Responsible Party (PRP), 13 November 2012, is included in Enclosure 2.
5. Inventory Project Report (INPR) for this HTRW Project, dated March 2010 is included in Enclosure 3.
6. No further DoD action will be conducted for HTRW Project E05IL325802. The project is therefore closed in the DERP-FUDS program.

3 Encls

1. PCO Report
2. PRP Determination
3. INPR

CF:
CELRL-PM-ME, Valerie Doss
CENWO-PM-H,

A handwritten signature in black ink, appearing to read "Charles F. Grant".

FRED GRANT, P.E.
Chief, Military Project Management Branch
Planning, Program and Project Management

PROJECT CLOSEOUT SUMMARY REPORT

HTWR Project E05IL325802
Former Nike C-41 Jackson Park
Cook County, Illinois
13 August 2013

I. Introduction

This Project Closeout Report documents closure of response actions conducted for the Hazardous, Toxic, and Radioactive Waste (HTRWP) Project E05IL325802 at the Formerly Used Defense Site (FUDS) Property E05IL3258, Nike C-41 Jackson Park, Cook County, Illinois. The project was conducted in accordance with Engineer Regulation 200-3-1, dated 10 May 2004.

II. Property Identification

The former Nike C-41 property consisted of two distinct areas, both within Cook County, Illinois. The southern area that had been the Launch and Housing Area was located in Jackson Park, west of Lakeshore Drive near 62nd Street at N41° 47' 03", W 87° 34' 48". The northern area that had been the Radar Control Area, or Integrated Fire Control (IFC) Area, was located about one mile north of the Launch Area in Burnham Park, east of Lakeshore Drive on Promontory Point near 55th Street at N 41° 47' 43", W 87° 34' 34".

III. Reference Data and Project History

Inventory Project Report (INPR) (Reference A)

An INPR dated 8 March 2010, approves project 02 after-the-fact. The HTRW project was erroneously shown in the FUDS Management Information System (FUDSMIS) as approved on 12 January 2006. After the project was erroneously shown in FUDMIS as approved, a Site Inspection (SI) was completed in September 2008, confirming the presence of contaminant levels above the appropriate regulatory criteria. A Remedial Investigation (RI) was recommended. The INPR authorizes the completion of the RI.

Site Investigation (SI) (Reference B)

A SI was completed on 9 September 2008. The SI recommended no further action of the air pathway. For the soil, groundwater and surface water pathways, further action was recommended. The SI recommended focusing on benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene for the soil pathway. The SI recommended focusing on trichloroethene for potential impacts to groundwater from the missile magazines. Due to the occasional shallow groundwater discharge into the East Lagoon, it was recommended to sample the sediment and surface water in the East Lagoon.

Remedial Investigation (RI) (Reference C)

A RI was completed on 30 November 2012. The RI was conducted to establish background concentrations of chemicals in soils, further investigate soil in the soil boring SB23 Area, Anomaly A-5 Area, Missile Magazine Area, sediment and surface water in the East Lagoon, and groundwater.

During the RI it was found that fill material was placed in Jackson Park during construction for the 1893 World's Columbian Exposition. Additional fill material was placed onsite in the early

1950s during the construction of the Nike facility including approximately 1.8 acres of fill material placed along the shore of the East Lagoon to extend the Nike C-41 site to the west. Some, if not all of the material used to fill the 1.8 acres of the East Lagoon was probably onsite fill material generated during excavation for construction of the three underground Nike missile magazines that were approximately 25 feet below ground surface.

More fill was placed onsite in the early 1970s during the closure of the Nike facility when the Chicago Park District (CPD) demolished the aboveground Nike C-41 structures and placed a few inches of soil over the former Nike C-41 Launch Area. No specific information was available regarding the source or nature of the fill material; the Jackson Park Advisory Council Website's timeline notes that "vast amounts of manure from the Stockyards and 200,000 cubic feet of dirt by railroad" were brought to the area during preparation for the 1893 World's Columbian Exposition. Site and background soil sample results indicate SVOCs/PAHs are typically detected from 0 to 4 feet bgs, indicating the fill material in the Site area and beyond the study area could be the source of SVOCs/PAHs, as opposed to a site-related source.

Soil boring logs identified fill material across a large portion of the Nike C-41 site. Organic-rich soil and coal fragments, both of which would contain naturally occurring levels of many PAHs and SVOCs, were identified. As shown on the cross sections in Section 3 of the RI, boring logs indicated the fill is typically from 0 to 4 feet thick, although bricks and other debris were noted as deep as 8 feet in some areas. The CPD's website states that the Bobolink Meadow, which encompasses much of the RI study area, is included in the CPD's burn management program and a prescribed burn was conducted in 1994 to promote the growth of native indigenous prairie grasses and flowers in the Bobolink Meadow; PAHs and many SVOCs can be created by burning organic material.

Jackson Park (including the former Nike Site C-41) is within a major metropolitan area and is subject to PAH and metals contamination influenced by numerous anthropogenic (nearby roads and industrial activities) and natural activities (weathering, flooding, and wind dispersion). PAHs were detected in most of the surface and subsurface soil and sediment samples analyzed, including background soils. Additionally, given the amount of disturbance on the site since the 1890s, the fact that fill material from offsite has been placed onsite on several occasions, onsite material has been moved within the Site, and the CPD has conducted at least one prescribed burn at the Bobolink Meadow, the presence of PAHs would not be unexpected and it is not possible to identify a specific source of PAHs on the Site. The presence of PAHs, SVOCs, and metals in soil and sediment appear to be residual components of the fill material and likely do not indicate a release from operations at the former Nike Site C-41.

Potentially Responsible Party (PRP) letter (Reference D)

In a letter dated 12 December 2012, the U.S. Army Corps of Engineers indicated to the Illinois Environmental Protection Agency that the intent of the Government was to close Project 02 and move Nike C-41 into the PRP program.

IV. Rationale for Project Closure

The RI indicated the presence of PAHs, SVOCs, and metals in the soil and sediment were potential residual components of fill material placed before and after DoD operations and there was no confirmed release from operations at the former Nike C-41 Jackson Park site. Therefore, the contamination cannot be confirmed or denied due to DoD activities. The area of concern will be reported to the PRP program for review.

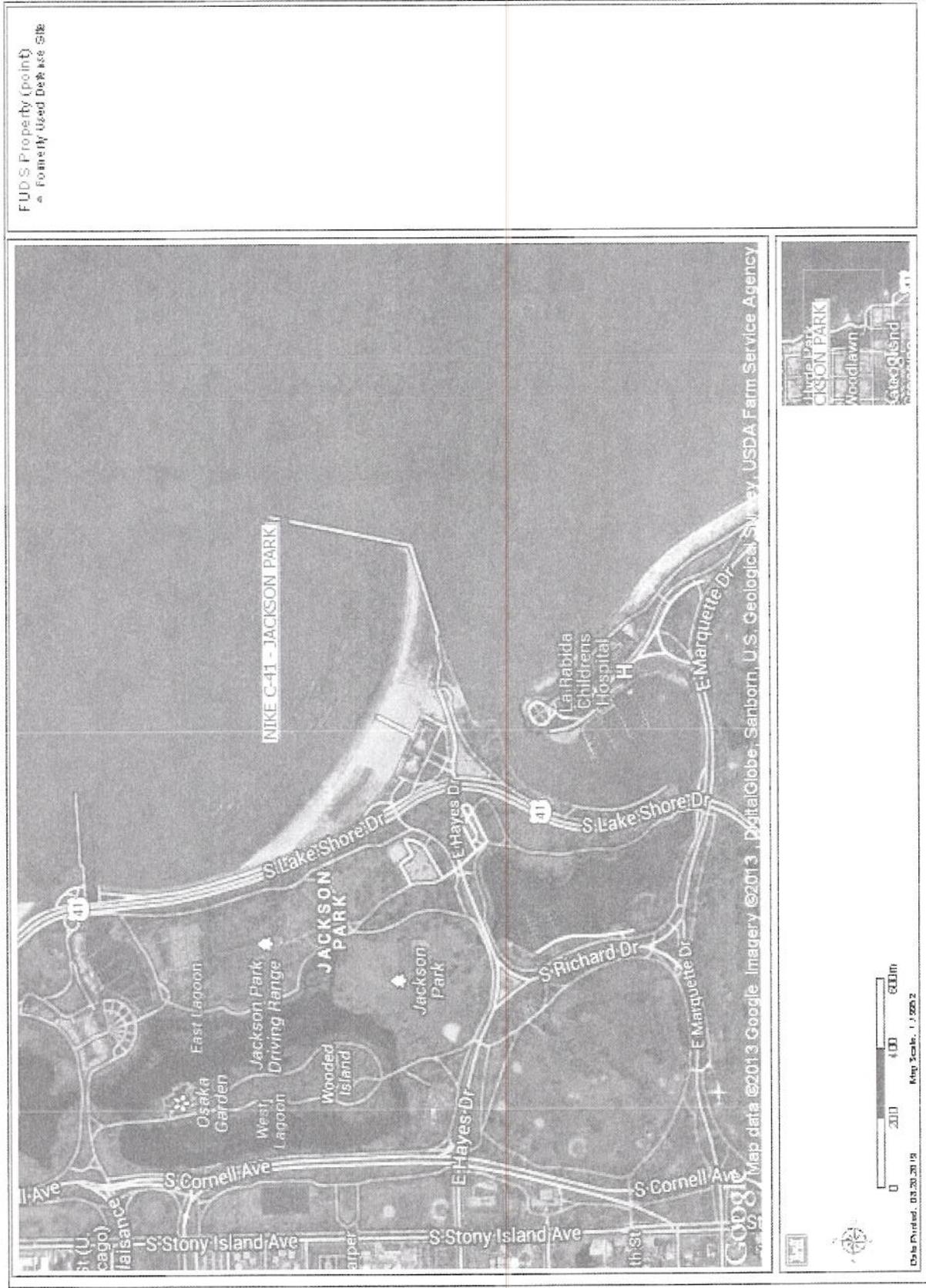
VI. Recommendation

There is no further Department of Defense action required for the Former Nike C-41 Jackson Park, Cook County, Illinois, HTRW Project E05IL325802. The project is recommended for closeout in the DERP-FUDS Program.

VII. References

- A. Inventory Project Report, Former Nike C-41 Jackson Park, Cook County, Illinois, 08 March 2010, Project No. E05IL325802, FRMD File No. E05IL3258--_01.08_0505_a
- B. Site Investigation, Former Nike C-41 Jackson Park, Cook County, Illinois, 9 September 2008, Project No. E05IL325802, FRMD File No. E05IL325802_01.09_0500_a
- C. Remedial Investigation, Former Nike C-41 Jackson Park, Cook County, Illinois, 30 November 2012, Project No. E05IL325802, FRMD File No. E05IL325802_03.10_0500_a
- D. Potentially Responsible Party letter, Former Nike C-41 Jackson Park, Cook County, Illinois, 12 December 2012, Project No. E05IL325802, FRMD File No. E05IL325802_01.08_0502_a

Figure 1. Aerial Photo of Nike C-41 Jackson Park





DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
P.O. BOX 59
LOUISVILLE KY 40201-0059

<http://www.irl.usace.army.mil/>

13 November 2012

MEMORANDUM FOR: David Dierken (CELRL-PM-M-E) and Chris Karem (CELRL-ED-E)

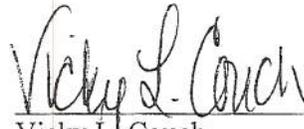
SUBJECT: Former Nike Missile Site C-41 Potentially Responsible Party

The Former Nike Missile Site C-41 (Site) is located along the Lake Michigan Shoreline in downtown Chicago, Illinois and was activated in March 1955 and deactivated in June 1971. From 1951 to 1971, the Army leased 88 acres from the Chicago Park District (CPD) in two parcels. When the Lease was terminated in 1971 pursuant to the Notice of Cancellation of Lease (Lease Termination), the Site was returned to CPD and is now being utilized as Burnhan and Jackson Parks. The Government provided funds to CPD in amount of \$213,586.62 as "full settlement of the cost of site restoration of the premises being relinquished by the Government." The CPD agreed to assume custody and care of the premises and relieve the Government from any further responsibility therefore. Moreover, CPD further agreed that it would, for "itself, its successors and assigns, remise, release and forever discharge the Government, its officers, agents, and employees of and from all manner of actions, liability, and claims against the Government, its officers, agents, and employees, which they ever had, now have, or ever will have, upon or by reason of any matter, cause or thing whatsoever, particularly arising out of said lease and the occupation by the Government of the aforementioned property."

Based upon investigations of the Former Launch Area to date, it is unknown if the potential contamination identified in the former Launch Area at Anomaly A-5 is associated with the former Nike Missile Site C-41 operations or CPD's activities both prior to and post the Government's leasehold interest. According to the Preliminary Assessment, dated December 2005, records indicate the presence of fill material prior to the construction of the Launch Area. It has been reported that CPD's fill activities to prepare for the Chicago World's Fair may be a source of the contaminants identified at Anomaly A-5. Improper disposal of demolition debris or wastes during site demolition (after the Government's leasehold interest at the Site) is an additional potential source of the contaminants identified at Anomaly A-5, although evidence of improper demolition practices was not uncovered during completion of the PA.

Additionally, pursuant to the Formerly Used Defense Sites Supplemental Guidance, dated 5 Sep 2007, the restoration clauses such as the one cited herein was reviewed and is believed to be a valid. Therefore, it is recommended a PRP INPR be prepared addressing the potential liability of CPD.

POC for this memorandum is Vicky Couch. If you have any questions, please call extension 6657 or email Vicky Couch at vicky.l.couch@usace.army.mil.

Handwritten signature of Vicky L. Couch in black ink.

Vicky L. Couch
Assistant District Counsel

Cc: Brooks Evens
Valerie Doss
Chris Inlow



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DIVISION, GREAT LAKES AND OHIO RIVER
CORPS OF ENGINEERS
550 MAIN ST.
CINCINNATI, OH 45202

CELRD-PDM (200-1c)

8 March 2010

MEMORANDUM FOR Commander, Louisville District

SUBJECT: Defense Environmental Restoration Program -- Formerly Used Defense Sites (DERP-FUDS) Inventory Project Report (INPR) for Nike C-41-- Jackson Park, Chicago, Illinois, Property No. E05IL3258

1. Reference CELRL-ED-E-C memorandum, 1 July 2008, SAB (Encl).
2. HTRW project E05IL325802 is approved "after-the-fact." Due to Potentially Responsible Party (PRP) concerns, future actions at this property shall be coordinated with Office of Counsel.
3. Please ensure that a copy of this revised INPR is posted to the Project Information Retrieval System (PIRS) and the FUDS Records Management Database (FRMD).

Encl
as

CF:
CELRL-ED-E-C



MICHAEL B. WHITE, P.E.
Director of Programs



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
P.O. BOX 59
LOUISVILLE KY 40201-0059
<http://www.lri.usace.army.mil>

JUL 1 2008

CELRL-ED-E-C

MEMORANDUM FOR Commander, Great Lakes and Ohio River Division,
ATTN: CELRD-PDM/Patty Bertsch, 550 Main Street, Cincinnati, Ohio 45202-3222

SUBJECT: Defense Environmental Restoration Program – Formerly Used Defense Sites
(DERP-FUDS) Inventory Project Report (INPR) for Nike C-41 – Jackson Park, Chicago, Illinois,
Property No. E05IL3258

1. Reference ER 200-3-1, Environmental Quality, Formerly Used Defense Sites (FUDS) Program Policy, Department of the Army, U.S. Army Corps of Engineers, Washington, D.C., 20314, 10 May 2004.
2. Nike C-41 consisted of two distinct properties, a northern Radar Control or Integrated Fire Control (IFC) Area in Chicago's Jackson Park and a southern Launch and Housing Area in Chicago's Burnham Park. The INPR for this property has been revised to add HTRW project E05IL325802, which was erroneously shown in the FUDS Management Information System (FUDSMIS) as approved on 12 January 2006. Consequently, this revised INPR seeks after-the-fact approval of this project.
3. Offices of Counsel and Real Estate have reviewed this revised INPR and concur that the property was formerly used by DoD and that the INPR revision supports a decision for recommending the project described in item 5.b. below. Office of Counsel, however, opines a release of claims lease clause, supported by a monetary compensation from the Government to the owner for restoration at the Property, relinquishes the Government from liability at the Property. Office of Counsel further recommends that any future projects be evaluated against the release of claims clause for the Property.
4. A revised Property Survey Summary Sheet with property map and aerial photos is included at Enclosure 1. The Findings and Determination of Eligibility (FDE), dated 19 July 1993, can be found at Enclosure 2. An INPR checklist, Worksheet B-3, is included at Enclosure 3. An Executive Summary of the 2005 Preliminary Assessment (PA) is included at Enclosure 4.
5. The following is a summary of the projects at this property:
 - a. E05IL325801 (CON/HTRW) - This CON/HTRW project, which was authorized on 17 September 1993, was to locate, remove, and dispose of three underground storage tanks (USTs), contaminated soils, tank fluids, necessary testing, and site restoration. Two of the tanks were

CEI,RL-ED-E-E

SUBJECT: Defense Environmental Restoration Program -- Formerly Used Defense Sites (DERP FUDS) Revised Inventory Project Report (INPR) for Nike C-41 -- Jackson Park, Chicago, Illinois, Property No. E05IL3258

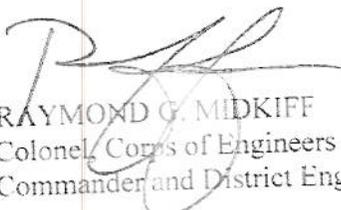
thought to be located in the northern Control Area and the other tank was thought to be in the southern Launch Area. A subsurface investigation of potential UST locations was conducted in November and December 2002 based upon a geophysical survey conducted in 1998, but no USTs were found at either the Control or Housing and Launch Areas of the Property. A geophysical anomaly did, however, exhibit evidence of a petroleum release at the Launch Area. The *Final UST Investigation Summary Report* was prepared in October 2004, summarizing the efforts performed. Since no USTs were found, A No DoD Action Indicated (NDAI) Category IV declaration was entered in the FUDSMIS on 30 March 2005. Regulatory concurrence with this determination was obtained on 20 September 2006.

b. E05IL325802 (HTRW) -- This HTRW project was erroneously shown in the FUDS Management Information System as approved on 12 January 2006. Since a Site Inspection (SI) has already been performed confirming the presence of DoD-related CERCLA-regulated contaminant levels above the appropriate regulatory criteria and a Remedial Investigation (RI) is beginning, this revised INPR seeks after-the-fact approval of this project. A Project Summary Sheet can be found at Enclosure 5.

6. The Illinois Environmental Protection Agency (IEPA) concurs that HTRW project E05IL325802 is appropriate.

7. I request that you review and approve this revised INPR under the DERP-FUDS Program. If you have any questions, please contact Kari Meier at 502-315-6316.

5 Enclosures


RAYMOND G. MIDKIFF
Colonel, Corps of Engineers
Commander and District Engineer

**PROPERTY SURVEY SUMMARY SHEET
FOR
DERP-FUDS PROPERTY NO. E05IL3258
FEDERAL FACILITY ID NO. IL9799F8123**

**Nike C-41 – Jackson Park
Chicago, Cook County, Illinois
18 June 2008**

PROPERTY NAME: Nike C-41, also known as Nike Site C-41 and Nike Battery C-41; currently Jackson Park and Burnham Park at Promontory Point (two Chicago, Illinois, recreational parks).

PROPERTY LOCATION: The former Nike C-41 property consisted of two distinct areas, both within Sections 12 and 13 of Township 38 North, Range 14 East of the 3rd Principal Meridian in the city of Chicago, Cook County, Illinois. The southern area that had been the Launch and Housing Area is located in Jackson Park, west of Lakeshore Drive near 62nd Street at N 41° 47' 03", W 87° 34' 48". The northern area that had been the Radar Control Area, or Integrated Fire Control (IFC) Area, is located about one mile north of the Launch Area in Burnham Park, east of Lakeshore Drive on Promontory Point near 55th Street at N 41° 47' 43", W 87° 34' 37".

The site is within the 2nd Congressional District of Illinois and U.S. Environmental Protection Agency (USEPA) Region 5. A site vicinity map and aerial site photos are attached.

PROPERTY HISTORY: The Nike system was created in response to the former Soviet Union's efforts to design and deploy long-range bombers. The Nike C-41 site was operated by the Department of the Army from 1955 to 1971 as part of the guided missile defense system protecting the Chicago metropolitan area from air attack.

The Government began lease acquisition of the property for construction of Nike C-41 from the Chicago Park District (CPD) on 28 August 1951. Prior to Government usage, the properties were used as city recreational park lands. Initially Nike C-41 consisted of 2.56 acres for the IFC Area and 5.87 acres for the Launch and Housing Area. Subsequent expansions for construction, safety, and line-of-site requirements brought the total acreage leased to 88.4 acres. The final Government lease termination for both areas was dated 19 July 1971 and returned control of the property to the CPD. Payment was provided by the Army to the CPD for physical site restoration.

Operationally, Nike C-41 was activated in March of 1955 and deactivated in June of 1971. The Control Area contained elements required for tracking incoming targets as well as elements for guiding missiles to their target. In addition to ancillary structures, the IFC Area included a guard house, missile battery control building, low and high power acquisition radar, target and missile tracking radar, generator building, and radar collimation mast assembly. The Launch Area was used to assemble, maintain, store, and prepare missiles for firing. Structures present at the

Launch Area included six missile launchers, underground missile storage magazines, missile fueling area, missile assembly and test building, acid storage shed, and other ancillary structures. The Housing Area contained the administrative building, barracks, mess hall, storage sheds, garage, and officers' quarters. Using the liquidated damages funds provided by the Army at lease termination, the CPD demolished the Nike C-41 above ground structures and filled in the underground magazines, returning the property to public recreational use. The property continues to be used as city recreational park land to this day.

In July of 1993, the U.S. Army Corps of Engineers (USACE), Chicago District, prepared an Inventory Project Report (INPR) for the Former Nike Site C-41. The INPR included a Findings and Determination of Eligibility (FDE) concluding the site was formerly used by the Department of Defense (DoD) and thus eligible for the Defense Environmental Restoration Program - Formerly Used Defense Sites (DERP-FUDS). Also included in the 1993 INPR was a Project Summary Sheet recommending a containerized hazardous, toxic, and radioactive waste (CON/HTRW) project to locate and remove underground fuel storage tanks (USTs). The tanks were installed and used by the Army from 1951 through 1971 to fuel back-up electrical generators and for facility heating. There was no intervening use of the tanks by the CPD. Since the CPD was only interested in returning the land to recreational use, they limited their physical restoration activities to demolishing the above ground structures and filling in the underground missile pits.

CON/HTRW project E05IL325801 was authorized on 17 September 1993. The USACE subsequently conducted geophysical surveys in 1995, 1997, and 1998. In 2002, based on the results of the geophysical surveys, the USACE initiated the second phase of the CON/HTRW project, the removal of the USTs and associated contamination. During the 2002 CON/HTRW investigation, no evidence of USTs or residual contamination was identified in the former Control Area and no USTs were identified in the former Launch or Housing Areas. However, in the Housing Area approximately 60 cubic yards of soil contaminated by fuel oil UST piping was removed.

In the former Launch Area, the 2002 investigation found no evidence of USTs; however, trace petroleum odors and soil staining in the vicinity of geophysical anomaly A-5 led to identification of a LUST incident and subsequent excavation of approximately 110 cubic yards of contaminated soil. Confirmation sampling revealed elevated levels of polynuclear aromatic hydrocarbon (PAH) compounds remained at the location. The Illinois EPA (IEPA) and USACE, Louisville District, agreed that the anomaly A-5 area should be retained for further investigation during a follow-on CERCLA HTRW project.

USACE, Louisville District, contracted with Parsons Corporation to perform a Preliminary Assessment (PA) at the former Nike C-41 property in 2004. The Final PA was issued in December of 2005. The PA included review of information provided by USACE, historical aerial photographs, CPD records, Environmental Data Resources (EDR) report, interviews with former Nike missile personnel, and information from local municipal and state agencies. The PA investigation assessed whether the property poses little or no potential threat to human health and the environment or whether further investigation is required. In summary, the PA concluded a potential for soil contamination exists at the site and is suspected to be related to potential

discharges from the underground missile magazine sumps. Therefore, it recommended a Site Inspection (SI), consisting of site-wide investigation of soil, sediments, and/or surface water. The following two areas of concern (AOC) were specifically identified for further investigation:

- AOC 1: Magazines and Lagoon. Sediment and surface water samples near the storm water discharge pipes and drop boxes adjacent to the north magazine. Investigation would be based on the potential for surface discharge of the magazine sumps.
- AOC 2: Anomaly A-5. Additional soil sampling to determine if elevated levels of contaminants at anomaly A-5 are indicative of a release from the southernmost magazine. Investigation would be based on soil contamination found in a 2002 investigation associated with CON/HTRW project E05IL325801.

PROPERTY VISIT: No property visit was conducted as part of this Inventory Project Report (INPR) revision. As part of the PA investigation, Parsons Corporation personnel conducted a site reconnaissance on 23 June 2004 and a follow-up visit on 28 September 2004. Their site visits included interviews of persons knowledgeable about the property. Since the PA, a SI was conducted by Terraine-Ensafe, Joint Venture. Field Work was conducted from December 2006 through April 2007. A Remedial Investigation (RI) is currently underway.

CATEGORY OF HAZARDS: CON/HTRW and HTRW. No evidence has been found to support a BD/DR, PRP/HTRW, or MMRP project.

PROJECT DESCRIPTION: The following is a summary of the recommended projects for this property:

E05IL325801 (CON/HTRW) – This CON/HTRW project, which was authorized on 17 September 1993, was to locate, remove, and dispose of three USTs, contaminated soils, tank fluids, necessary testing, and site restoration. Two of the tanks were thought to be located in the northern Control Area and the other tank was thought to be in the southern Launch Area. A subsurface investigation of potential UST locations was conducted in November and December 2002 based upon a geophysical survey conducted in 1998, but no USTs were found at either the Control or Housing and Launch Areas of the Property. A geophysical anomaly did, however, exhibit evidence of a petroleum release at the Launch Area. The *Final UST Investigation Summary Report* was prepared in October 2004, summarizing the efforts performed. Since no USTs were found, a No DoD Action Indicated (NDAI) Category IV declaration was entered in the FUDS Management and Information System (FUDSMIS) on 30 March 2005. Regulatory concurrence with this determination was obtained on 20 September 2006.

E05IL325802 (HTRW) – This HTRW project was erroneously shown in the FUDSMIS as approved on 12 January 2006. Since a Site Inspection has already been performed confirming the presence of DoD-related CERCLA-regulated contaminant levels above the appropriate regulatory criteria and a RI is beginning, this revised INPR seeks after-the-fact approval of this project. A Project Summary Sheet can be found at Enclosure 5.

AVAILABLE STUDIES AND REPORTS: A list of the available studies and reports for this Property is available from CELRL.

DISTRICT POINT OF CONTACT: Kari Meier CELRL-ED-E-C, (502) 315-6316, and Walter Perro, Project Manager, CELRL-PM-M-E, (502) 315-6832.

LEAD REGULATOR: Mr. Paul Lake, IEPA Remedial Project Manager, Bureau of Land, (217) 785-7728.

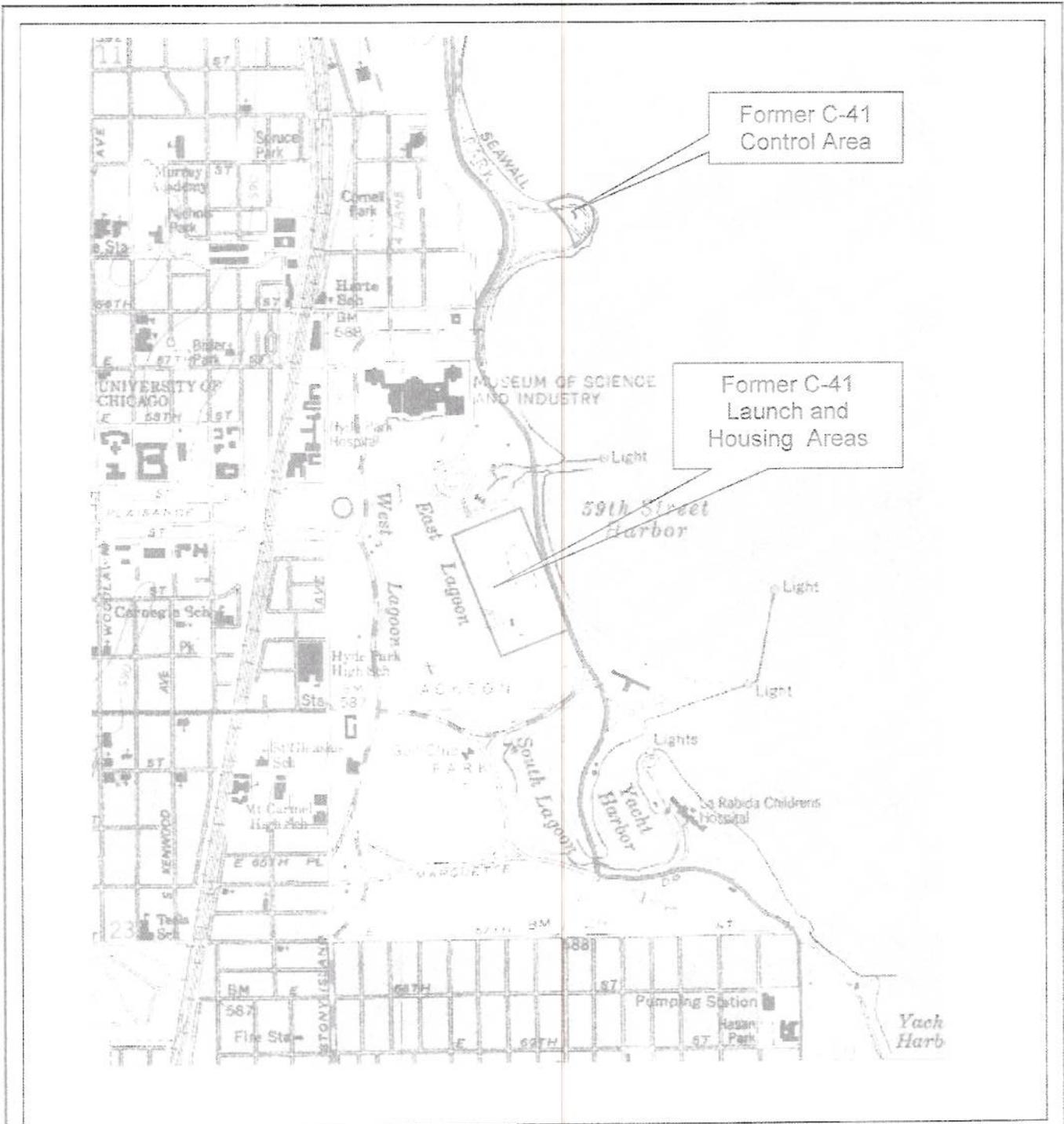


FIGURE 1
GENERAL PROPERTY LOCATION MAP
NIKE C-41 - JACKSON PARK
CHICAGO, COOK COUNTY, ILLINOIS



FIGURE 2
LAUNCH AREA LAYOUT
NIKE C-41 - JACKSON PARK
CHICAGO, COOK COUNTY, ILLINOIS

DEFENSE ENVIRONMENTAL RESTORATION PROGRAM
FORMERLY USED DEFENSE SITES
FINDING AND DETERMINATION OF ELIGIBILITY
Former Nike Site C-41, Chicago, Cook County, Illinois
Site Number E05IL325800

FINDINGS OF FACT

1. The United States of America acquired by lease from the Chicago Park District for value, a total of 88.40 acres for the establishment of Nike Site C-41. The Control Area, located at the Lake Front and 55th Street, consisted of 2.56 acres and was acquired on 25 May 1954. The Launch and Housing Area, located at the East Lagoon and 62nd Street, consisted of 5.87 acres and was acquired on 28 August 1951. Due to various additions for launch pits, revisions for construction, and use restrictions for safety and line of sight, the area was increased to 88.40 acres between 1954 and 1957. The 14.42 acre safety area was jointly used by the Army and the Chicago Park District.
2. The Department of the Army operated Nike Site C-41 as a part of the guided missile defense system for the Chicago, Illinois metropolitan area from 1951 through 1971. Over 30 structures, including six missile launching pits, administrative facilities, control towers and other miscellaneous support buildings were constructed on the site. Changes in the lease occurred concerning area, terms and termination dates.
3. The leases were terminated 24 August 1954, 22 December 1958, 12 May 1964 and 19 July 1971. The 88.40 acres remain under the ownership of the Chicago Park District and are being used for public recreation. There were no intervening owners, no recapture clauses and no mineral rights clauses. At termination, the Army paid liquidated damages to the Chicago Park District for restoration.

DETERMINATION

Based upon the foregoing findings of fact, the site has been determined to have been formerly used by the Department of Defense. It is therefore eligible for the Defense Environmental Restoration Program - Formerly Used Defense Sites, established under 10 U.S.C. 2791, et seq.

19 July 1973
Date


JOHN W. MORRIS
Colonel, U.S. Army
Commander and Division Engineer

Worksheet B-3. Inventory Project Report (INPR) Checklist
 (Use space at bottom of this worksheet for continuation)

Checklist Preparer:		Date: 21 August 2006	
Name: James S. Beaujon		Title: Geologist	
District: Nashville	Phone Number: (615) 736-7629		
Email address: james.s.beaujon@usacc.army.mil			
Property information:			
Property Name: Nike C-41 Jackson Park & Burnham Park		Property #: E051L3258	
Previous Names, if any: aka Nike Battery C-41, Promontory Point			
Former Service: Army			
Property Location (Section, Township, Range): Sections 12 & 13 of T38N, R14E of the 3 rd Principal Meridian			
Street: Launch and Housing (L&H) Area – west of Lake Shore Dr. near 62 nd St. Integrated Fire Control (IFC) Area – east of Lake Shore Dr. on Promontory Point			
City: Chicago	Zip Code: 60637	County: Cook	State: IL
Latitude (D/M/S): L & H – N41° 47' 03" IFC – N41° 47' 43"		Longitude (D/M/S): L & H – W87° 34' 48" IFC – W87° 34' 37"	
Current Use (residential, commercial, etc.): Recreational (city park)			
Primary Property Owner Information (address multiple owners in Comments):			
Name: Chicago Park District, Lakefront Region			
Address (if other than above):			
Street: 541 N. Fairbanks Court			
City: Chicago		Zip Code: 60611	
Phone Number: (312) 742-5369		County: Cook	State: IL

Indicate the status of the following checklist items in determining the completeness of the INPR. Provide a narrative in the comments section below to explain, and keyed to, the shaded boxes:

		Yes	No	N/A
Property Document Search:				
<input checked="" type="checkbox"/>	Were the following records available and used in the preparation of the INPR?			
1	Archive records	X		
2	Site maps, including facility as-built drawings	X		
3	Aerial or ground photographs	X		
4	Prior studies, documents, reports, property contamination records, or public/private sampling data	X		
5	Compliance orders issued to current or past owners/operators		X	
6	Real estate records, deeds, or property transfer records	X		
7	Local historical societies and public libraries	X		
8	EPA/State environmental records or reports	X		
9	EOD incident reports		X	
10	Other documentation	X		
Property Visit:				
<input checked="" type="checkbox"/>	Indicate whether the following have been contacted and interviewed to obtain information.			
11	Current landowner(s)	X		

Indicate the status of the following checklist items in determining the completeness of the INPR. Provide a narrative in the comments section below to explain, and keyed to, the shaded boxes:

		Yes	No	NA
12	Neighbors		X	
13	Previous landowner(s)		X	
14	Prior employee(s)	X		
15	Federal agencies, including regulatory agencies	X		
16	State agencies, including regulatory agencies	X		
17	Local agencies, including regulatory and law enforcement agencies	X		
18	Other available sources	X		
19	Was access to the property possible (right of entry provided by landowner)?	X		
20	Was the property physically visited?	X		
21	Was access sufficient to allow for a thorough property inspection?	X		
22	Was access sufficient to identify potential hazards?	X		
23	Did regulatory agencies accompany USACE on the property visit?		X	
24	Did the landowner accompany USACE on the property visit?		X	
25	Was there evidence of a release of hazardous material or use/disposal of military munitions during DoD control?		X	
26	Was there evidence of a release of potential DoD hazardous material into a public or private drinking water supply? ¹		X	
27	Is there evidence of a release into a public or private drinking water supply due to deterioration of the system through ordinary use? ¹		X	
28	Is there evidence of a release from products that are part of the structure of, and result in exposure within, residential buildings or businesses or community structures? ²		X	
29	Is some other program actively involved with the property (i.e., another Federal, state, or tribal program)?		X	
30	Is there evidence that activities by non-DoD parties at the property may be the source of potential contamination?		X	
31	Was information on hazards found at similar types of FUDS properties considered in identifying potential hazards at this property?	X		
32	Were site maps compared to actual conditions during the site visit?	X		
33	Were photographs taken?	X		
34	Were property owners advised to contact USACE if evidence of potential hazards is found later?	X		
35	Was a trip report of the property visit prepared?	X		
Property Eligibility Determination (refer to Chapter 3):				
36	Is the property Categorically Excluded?		X	
37	Are there release, hold harmless, "as-is", or indemnification clauses in deeds or property transfer documents that limit DoD liability?	X		

¹ This can be determined by reviewing public water supply sampling data. Provide discussion of how it was determined to be release due to DoD activities rather than by current or past owners/operators.

² This question is from the EPA Pre-CERCLIS Screening Assessment Checklist/Decision Form. EPA-540-F-98-039 "Improving Site Assessment: Pre-CERCLIS Screening Assessments."

Indicate the status of the following checklist items in determining the completeness of the INPR. Provide a narrative in the comments section below to explain, and keyed to, the shaded boxes:

		Yes	No	NA
38	Is there evidence of this property being a Third Party Site?		X	
39	Is the property eligible under FUDS?	X		
40	If necessary, has a " <i>Categorical Exclusion or Ineligible Property</i> " worksheet been prepared			X
FUDS Property Screening:				
41	Was a CERCLA Preliminary Assessment completed?	X		
42	Was a RAC Worksheet prepared for the property?		X	
Project Eligibility Determination (refer to Chapter 3):				
43	Have all typical hazards been investigated for possible occurrence at this type of property?	X		
44	Were hazards identified?	X		
45	Are identified hazards of DoD Origin?	X		
46	If identified hazards were of non-DoD origin, has the lead regulatory agency been informed? (Provide name, phone number, date)			X
47	Is the current owner under a RCRA or CERCLA clean-up order?		X	
48	Has the "right of first refusal" been exercised by an adjacent DoD installation?			X
49	Is there evidence of beneficial use?		X	
50	Are there other policy considerations against recommending a project?		X	
51	Are eligible FUDS projects recommended? (If yes, identify projects below)	X		
INPR Preparation and Review:				
52	Is the INPR prepared consistent with INPR Content Matrix (Table B-1)?	X		
53	Is the INPR Property Survey Summary Sheet consistent with Table B-2?	X		
54	Is the Project Summary Sheet(s) consistent with Table B-3?	X		
55	If appropriate, has a " <i>BD/DR Project Summary Sheet Checklist</i> " been prepared? (See Worksheet B-2)			X
56	If the INPR recommends a PRP/HTRW project, has the PRP District reviewed the INPR? (See Figure B-1)			X
57	If the INPR recommends a PRP/HTRW project, has the HTRW Center of Expertise reviewed the INPR? (See Figure B-1)			X
58	If the INPR recommends a MMRP or PRP/MMRP project, has the MM Center of Expertise reviewed the INPR? (See Figure B-1)			X
59	Was the draft INPR coordinated with Office of Counsel and Real Estate?	X		
60	Was the draft INPR shared with the Lead Regulatory Agency after internal USACE review?	X		

Narrative comments to explain above notations: (Key your comments to the checklist item number)	
4, 10, and 41. December 2005, Parsons Corporation, <i>Preliminary Assessment, Former Nike Site C-41.</i>	
9. No EOD reports are known to exist concerning this site.	
11 - 35. Property Visit Items. Property visits were conducted by Parsons personnel for the 2005 Preliminary Assessment (PA). A Site Investigation was conducted at the Launch Area in 2006-2007. A Remedial Investigation is underway.	
12. The PA does not indicate that any neighbors were interviewed.	
13. The Chicago Park District owned the property before and during Nike C-41 operations. They continue to own the property to this day.	
23 and 24. The PA does not indicate that any regulatory agencies or any representatives of the land owner accompanied the PA contractor during their site visits.	
37. Office of Counsel opines a release of claims lease clause relinquishes the Government from liability at the Property due to monetary compensation for restoration at the Property. Office of Council recommends any future potential actions following completion of the ongoing Remedial Investigation (RI) be re-evaluated for DoD liability and the potential for identification of a potentially responsible party (PRP)/HTRW project based on the existing release of claims clause and payment for restoration made by the Government to the CPD. Offices of Project Management and Environmental Engineering maintain that due to detected CERCLA-regulated substances released to the environment by DoD and the actions taken to date under the FUDS program, the ongoing effort is warranted to evaluate risks to human health and the environment posed by the remaining DoD-related CERCLA substances at this Property which is currently utilized as a recreational park. Identification of any future work under this project will result in the need to re-evaluate the release of claims clause and payment to the Parks Department for consideration of a PRP/HTRW project and the effectiveness of seeking cost recovery.	
42. A screening RAC is no longer required. The Military Munitions Site Prioritization Protocol (MRSPP) has replaced the RAC and it is only needed when a MMRP project is being recommended. No MMRP projects are recommended for this property.	
44, 45, and 51. A FUDS HTRW project is recommended based upon the PA results (Parsons, 2005). This HTRW project was erroneously shown in the FUDS Management Information System as approved on 12 January 2006. A Site Inspection (SI), awarded in FY06, confirmed CERCLA-related contaminants on the property related to DoD usage. A Remedial Investigation (RI) is currently underway to evaluate risks to human health and the environment posed by the remaining DoD related CERCLA substances at the Property, which is currently utilized a recreational park. Consequently, this revised INPR seeks after-the-fact approval of this project. A Project Summary Sheet can be found at Enclosure 5.	

**EXECUTIVE SUMMARY OF PRELIMINARY ASSESSMENT
FOR
DERP-FUDS PROPERTY NO. E05IL3258
FEDERAL FACILITY ID NUMBER IL9799F8123**

**Nike C-41 – Jackson Park
Chicago, Cook County, Illinois
18 June 2008**

In 2004 Parsons Corporation, under contract to the US Army Corps of Engineers - Louisville District, conducted a Preliminary Assessment (PA) of the property which had been leased for the Nike C-41 sites. The Final PA report titled *Former Nike Site C-41, City of Chicago, Cook County, Illinois, FUDS Project Number E05IL325802, Final Preliminary Assessment*, is dated December 2005.

The former Nike C-41 site consisted of two distinct areas both within Sections 12 and 13 of Township 38 North, Range 14 East of the 3rd Principal Meridian in the city of Chicago, Cook County, Illinois. The area that had been the Launch and Housing Area is located in Jackson Park, west of Lakeshore Drive. The area that had been the Radar Control Area, or Integrated Fire Control (IFC) Area, is located about one mile north of the Launch Area in Burnham Park, east of Lakeshore Drive on Promontory Point.

The PA included review of information provided by USACE, historical aerial photographs, Chicago Park District (CPD) records, Environmental Data Resources (EDR) report, interviews with former Nike missile personnel, and information from local municipal and state agencies. The PA investigation assessed whether the site poses little or no potential threat to human health and the environment or whether further investigations are required. In summary, a potential for soil contamination exists at the site and is suspected to be related to potential discharges from the underground missile magazine sumps. Therefore, a Site Inspection (SI) is recommended. The SI would consist of site-wide investigation of soil, sediments, and/or surface water, and specifically address two areas of concern (AOC). The AOCs for focused investigated are:

- AOC 1: Magazines and lagoon. Sediment and surface water samples near the storm water discharge pipes and drop boxes adjacent to the north magazine. Investigation would be based on potential for surface discharge of the magazine sumps.
- AOC 2: Anomaly A-5. Additional soil sampling to determine if elevated levels of contaminants at anomaly A-5 are indicative of a release from the southernmost magazine. Investigation would be based on soil contamination found in a 2002 CON/HTRW project E05IL325801.

**PROJECT SUMMARY SHEET
FOR
DERP-FUDS HTRW PROJECT NO. E05IL325802
FEDERAL FACILITY ID NO. IL9799F8123**

**Nike C-41 – Jackson Park
Chicago, Cook County, Illinois
18 June 2008**

PROJECT DESCRIPTION: Records indicate that the Army utilized the Nike C-41 property from 1955 until 1971 as part of the guided missile defense system protecting the Chicago metropolitan area. USACE, Louisville District, contracted with Parsons Corporation to perform a Preliminary Assessment (PA) at the former Nike C-41 site in 2004. The Final PA was issued in December of 2005. The PA included review of information provided by USACE, historical aerial photographs, Chicago Park District (CPD) records, Environmental Data Resources (EDR) report, interviews with former Nike missile personnel, and information from local municipal and state agencies. The PA investigation assessed whether the site poses little or no potential threat to human health and the environment or whether further investigation is required. In summary, the PA concluded a potential for soil contamination exists at the site and is suspected to be related to potential discharges from the underground missile magazine sumps. Therefore, it recommended a Site Inspection (SI), consisting of a site-wide investigation of soil, sediments, and/or surface water. The following two areas of concern (AOC) were specifically identified for further investigation:

- AOC 1: Magazines and Lagoon. Sediment and surface water samples near the storm water discharge pipes and drop boxes adjacent to the north magazine. Investigation would be based on potential for surface discharge of the magazine sumps.
- AOC 2: Anomaly A-5. Additional soil sampling to determine if elevated levels of contaminants at anomaly A-5 are indicative of a release from the southernmost magazine. Investigation would be based on soil contamination found in a 2002 investigation associated with CON/HTRW project E05IL325801.

PROJECT ELIGIBILITY: The Nike C-41 property was used as city recreational parkland prior to and following Army control of the site. During Army lease control of the Nike C-41 property from August 1951 until July of 1971, various operational activities of the Army could have resulted in contamination of the property. Early 1970's physical site restoration activities by the Chicago Park District (CPD) did not address environmental contamination that might have resulted from Army usage of the site. The 2002 CON/HTRW project, E05IL325801, indicated further investigation was required at AOC 2. The 2005 PA found there are reasonable concerns that the sump discharges from the Army's underground missile magazines may have resulted in contamination of AOC 1; thus further investigation is recommended.

POLICY CONSIDERATIONS: Office of Counsel opines a release of claims lease clause relinquishes the Government from liability at the Property due to monetary compensation for

restoration at the Property. Office of Council recommends any future potential actions following completion of the ongoing Remedial Investigation (RI) be re-evaluated for DoD liability and the potential for identification of a potentially responsible party (PRP)/HTRW project based on the existing release of claims clause and payment for restoration made by the Government to the CPD. Offices of Project Management and Environmental Engineering maintain that due to detected CERCLA-regulated substances released to the environment by DoD and the actions taken to date under the FUDS program, the ongoing effort is warranted to evaluate risks to human health and the environment posed by the remaining DoD-related CERCLA substances at this Property which is currently utilized as a recreational park. Identification of any future work under this project will result in the need to re-evaluate the release of claims clause and payment to the Parks Department for consideration of a PRP/HTRW project and the effectiveness of seeking cost recovery.

PROPOSED PROJECT: HTRW

PROPOSED ACTIVITIES: The INPR has been revised to add HTRW project E05IL325802. HTRW project 02 was erroneously shown in the FUDS Management Information System (FUDSMIS) as approved on 12 January 2006. Consequently, this revised INPR seeks after-the-fact approval of this project. Based on results from the PA, a Site Inspection (SI) was executed. It consisted of a site-wide investigation of soil, sediments, and/or surface water, and specifically addressed two areas of concern (AOC). Since DoD-related CERCLA-regulated contaminant levels were found to be above the appropriate regulatory criteria, a remedial investigation (RI) and risk evaluation are being conducted based upon recreational use of the property. This is less rigorous than residential risk, due to lower exposure. Depending upon the information from the risk evaluation, a Decision Document would then be prepared supporting a recommendation to perform a remedial action or request No Further Action (NFA). If a remedial action is performed, project phases may include Remedial Design (RD) and Remedial Action Construction (RA-C) or Remedial Action Operation (RA-O). A Long-Term Management (LTM) phase may be required for sampling and analysis of monitoring wells or maintenance of any installed remedial actions. Following the completion of any required LTM phase, a Five-Year Review may be required, followed by the preparation of closeout documents.

DISTRICT POINT OF CONTACT: Kari Meier, CELRL-ED-E-C, (502) 315-6316, and Walter Perro, Project Manager, CELRL-PM-M-E, (502) 315-6832.

LEAD REGULATOR: Mr. Paul Lake, IEPA Remedial Project Manager, Bureau of Land, (217) 785-7728.