(Fact Sheet Begins Next)

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DEC's Division of Environmental Remediation (DER) now distributes information about contaminated sites *electronically by email*.

If you would like to continue to receive information about the contaminated site featured in this fact sheet:

You must sign up for the DER email listserv:

www.dec.ny.gov/chemical/61092.html

DER cannot register your email address - only the email address owner can do so. If you already have signed up for the listserv for the county in which the site is located, you need do nothing.

Why You Should Go "Paperless":
Get site information faster and share it easily;
Receive information about all sites in a chosen county - read what you want, delete the rest;
It helps the environment and stretches your tax dollars.

If "paperless" is not an option for you, call or write to the DER project manager identified in this fact sheet. Indicate that you need to receive paper copies of fact sheets through the Postal Service. Include the site name in your correspondence. The option to receive paper is available to individuals only. Groups, organizations, businesses, and government entities are assumed to have email access.

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NEW YORK STATE | Department of Environmental Conservation

December 2016

FACT SHEET

Brownfield Cleanup Program

Receive Site Fact Sheets by *Email.* See "For More Information" to Learn How.

Site Name: New 470 Project
DEC Site #: C224242
Address: 12 Eckford Street
Brooklyn, NY 11222

Have questions? See "Who to Contact" Below

Cleanup Action to Begin at Brownfield Site

Action is about to begin that will address the contamination related to the New 470 Project site ("site") located at 12 Eckford Street, Brooklyn, NY under New York State's Brownfield Cleanup Program (BCP). Please see the map for the site location.

Documents related to the cleanup of this site can be found at the location(s) identified below under "Where to Find Information."

The cleanup activities will be performed by New 470 LLC ("applicant(s)") with oversight provided by the New York State Department of Environmental Conservation (NYSDEC).

Additional site details, including environmental and health assessment summaries, are available on NYSDEC's website at:

http://www.dec.ny.gov/cfmx/extapps/derexternal/haz/details.cfm?pageid=3&progno=C224242

Highlights of the Upcoming Cleanup Activities
The goal of the cleanup action for the site is to achieve cleanup levels that protect public health and the environment. The cleanup action for the site includes:

1. Excavation
Excavation and off-site disposal of contaminant source areas, including:
- Grossly contaminated soil;
- Soil exceeding the hazardous criteria for lead; and
- Removal of any Underground Storage Tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination.

Approximately 1,600 cubic yards of contaminated soil (soil above restricted-residential soil cleanup objectives [SCOs] in the upper 2 feet) will be removed from the site to allow installation of the cover system. Clean fill will be brought in to complete the backfilling of the excavation and establish the designed grades at the site, where necessary. The site will be re-graded to accommodate installation of a cover system. Additional excavation related to site development is not part of the remedy.

2. Cover System
A site cover will be required to allow for restricted-residential use of the site in areas where the upper two feet of exposed surface soil exceeds the applicable SCOs. The site cover may consist

of paved surface parking areas, sidewalks, or a soil cover. Where a soil cover is to be used it will be a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. In areas where building foundations or building slabs preclude contact with soil, the requirements for a site cover will be deferred until such time that they are removed.

3. Soil Vapor Extraction
Soil Vapor Extraction (SVE) will be implemented to remove Volatile Organic Compounds (VOCs) from below the ground. VOCs will be physically removed from the soil by applying a vacuum to wells that have been installed into the soil above the water table. The vacuum draws air and VOCs through the soil where they are collected in the SVE well.

Four SVE wells will be installed and screened from 3 feet below the ground surface to a depth of approximately 7 feet. The air stream with VOCs extracted from the ground will be treated by passing it through activated carbon, which removes the VOCs prior to the air being discharged to the atmosphere. The operation of the components of the remedy will continue until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.

4. Vapor Mitigation
Any buildings constructed on-site will be required to have a Sub-Slab Depressurization System (SSDS), or a similar engineered system, to mitigate the migration of vapors into the building from soil and/or groundwater.

5. Placement of an environmental easement on the property to restrict the site to restricted-residential uses and to ensure implementation of the Site Management Plan (SMP), and;

6. Implementation of a SMP for long-term maintenance of the engineering and institutional controls.

Additional Details
There have been several environmental investigations done at this site. A summary of the findings of those investigations follows:

Soil and groundwater were analyzed for VOCs, Semi-Volatile Organic Compounds (SVOCs), metals, Polychlorinated Biphenyls (PCBs), and pesticides.

Soil: Soil samples were compared to the restricted-residential soil cleanup objectives (SCOs). No VOCs, PCBs, or pesticides were found above SCOs. Several heavy metals such as arsenic (maximum of 39 parts per million [ppm], compared to the SCO of 16 ppm), lead (14,000 ppm vs. 400 ppm), and mercury (7.6 ppm vs. 0.81 ppm) were found in the shallow soil across the site.

Shallow soil was also contaminated above the SCOs with SVOCs in a class of contaminants called Polycyclic Aromatic Hydrocarbons (PAHs) (for example, benzo(b)fluoranthene). The highest PAH concentration found during the investigations was benzo(b)fluoranthene at 21 ppm (1 ppm SCO). PAHs are typically associated with incomplete combustion of coal or oil. Soil with heavy metal and PAH contamination of this nature is consistent with historic fill. No

source area for the VOCs was found in on-site soil, but based on the groundwater and soil vapor results, a source area may be present at the boundary with the off-site portion of Lot 1.

Groundwater: Groundwater samples were compared to Class GA Ambient Water Quality Standards. PAHs were the only SVOCs detected slightly above standards. Naturally-occurring metals were also detected above standards in several samples, and a pesticide was found in a single water sample from the off-site portion of Lot 1. There were no PCBs in any samples.

On-site groundwater samples contained methyl tert butyl ether (MTBE) at concentrations of up to 48 parts per billion (ppb), above the standard of 10 ppb. Although on-site groundwater samples did not contain chlorinated VOCs, samples from the off-site portions of Lot 1 had VOCs 1,1,1-trichloroethane (1,1,1-TCA) at a maximum concentration of 43 ppb, 1,1-dichloroethane at 740 ppb, and trichloroethene (TCE) at 7.6 ppb. All three of these VOCs have a standard of 5 ppb.

Soil Vapor: Soil vapor was analyzed for VOCs, and the primary contaminants of concern for the site include 1,1,1-TCA, tetrachloroethene (PCE), and TCE. The highest levels of these VOCs were measured in the northeastern part of the site in the northern part of former Lot 30, with 1,1,1-TCA at 37,300 micrograms/cubic meter (ug/m3), PCE at 956 ug/m3, and TCE at 1,120 ug/m3. Because these soil vapor concentrations were measured near the site boundary, off-site soil vapor may be a concern for the residential buildings adjacent to the site.

Special Resources Impacted/Threatened: None.

Next Steps

After the applicant completes the cleanup activities, they will prepare a Final Engineering Report and submit it to NYSDEC. The Final Engineering Report will describe the cleanup activities completed and certify that cleanup requirements have been achieved or will be achieved.

When NYSDEC is satisfied that cleanup requirements have been achieved or will be achieved for the site, it will approve the Final Engineering Report. NYSDEC will then issue a Certificate of Completion to the applicant(s).

The applicant(s) would be able to redevelop the site after receiving a Certificate of Completion. In addition, the applicant(s):

- Would have no liability to the State for contamination at or coming from the site, subject to certain conditions; and
- Would be eligible for tax credits to offset the costs of performing cleanup activities and for redevelopment of the site.

A fact sheet that describes the content of the Final Engineering Report will be sent to the site contact list. The fact sheet will identify any institutional controls (for example, deed restrictions) or engineering controls (for example, a site cap) necessary at the site in relation to the issuance of the Certificate of Completion.

Background

Location: The site is located at 12 Eckford Street in an urban area in Greenpoint,

Brooklyn. The approximately 21,630-square foot site is bounded by a former commercial building currently being used as a construction office for the site and residential buildings to the north; residential buildings to the east; Newton Street to the southeast; Eckford Street to the west; and Manhattan Avenue to the southwest.

Site Features: Currently, the site is vacant and unpaved. The buildings on-site have been demolished.

Current Zoning and Land Use: The site is zoned as M1-2/R6A (light manufacturing and residential uses) and is currently vacant. This zoning is consistent with the proposed use of the site. The surrounding area is developed primarily with residential and commercial properties.

Past Uses of the Site: The site formerly comprised Lots 30, 32, 33, and a portion of Lot 1. Former Lots 30, 32, and 33 have now been merged into Lot 33. According to historic Sanborn fire insurance maps, the site was undeveloped between 1887 and 1905. By 1916, Lot 1 was developed as an unspecified factory building, and former Lot 33 was developed with a barrel shed, a carriage garage, and a cooperage with an office. By 1942, Lot 1 was developed with a sash and door storage and a woodworking shop associated with the north-adjacent I. Feldman & Son Inc. sash and door manufacturer. Former Lot 30 was developed with a two-story building used for window sash storage. A gasoline tank was shown on the southwestern portion of former Lot 32. Former Lot 32 was labeled as “barrels, boxes, and automobile”. Former Lot 33 was developed with a cooperage and an office. By 1951, Lot 1 was developed with a metal container manufacturer and an enameling works with a baking oven and spray booths and former Lot 30 was labeled “to be: garage”. Former Lot 1 was developed with a new factory building in 1963 and with a spray booth and storage on the eastern portion by 1965. By 1965, former Lot 30 was developed as a garage and as a factory by 1978. By 1983, former Lot 32 was used for freight storage, and for motor freight storage between 1986 and 1991.

Site Geology and Hydrogeology: The stratigraphy of the site from the surface down consists of approximately 6-12 feet of historic fill, characterized by sand, gravel, and silt with concrete, asphalt, brick, and ash. Below the historic fill is a native sand, gravel, and silt stratum to a depth of at least 20 feet below grade. Bedrock was not encountered during the investigations. Groundwater was encountered between approximately 10 and 12.5 feet below grade and flow is generally from east to west beneath the site.

Brownfield Cleanup Program: New York's Brownfield Cleanup Program (BCP) encourages the voluntary cleanup of contaminated properties known as "brownfields" so that they can be reused and redeveloped. These uses include recreation, housing, business or other uses.

A brownfield site is any real property where a contaminant is present at levels exceeding the soil cleanup objectives or other health-based or environmental standards, criteria or guidance adopted by DEC that are applicable based on the reasonably anticipated use of the property, in accordance with applicable regulations.

For more information about the BCP, visit: http://www.dec.ny.gov/chemical/8450.html

FOR MORE INFORMATION

Where to Find Information

Project documents are available at the following location(s) to help the public stay informed.

Greenpoint Library
107 Norman Avenue
Brooklyn, NY 11222
phone: 718-349-8504

Brooklyn Community Board 1
435 Graham Avenue
Brooklyn, NY 11211
phone: 718-389-0009
(bk01@cb.nyc.gov)

Who to Contact
Comments and questions are always welcome and should be directed as follows:

Project-Related Questions
Larry Alden
NYS Dept. of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233-7016
Tel: 518-402-9767
Email: larry.alden@dec.ny.gov

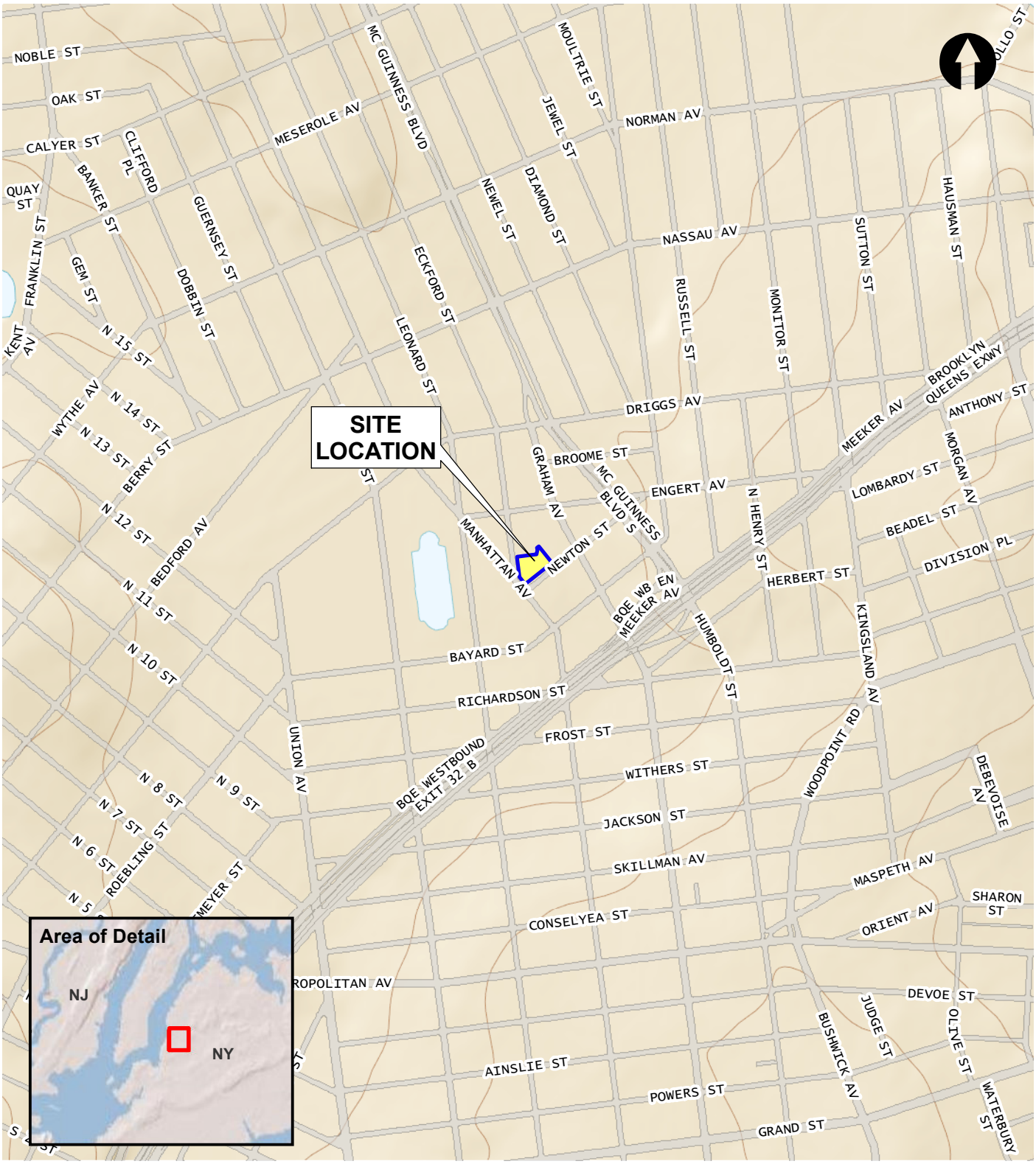
Site-Related Health Questions
Runey Ghosh
New York State Department of Health
Bureau of Environmental Exposure Investigation
Empire State Plaza, Corning Tower, Room 1787
Albany, NY 12237
Tel: 518-486-1443
Email: BEEI@health.ny.gov

We encourage you to share this fact sheet with neighbors and tenants, and/or post this fact sheet in a prominent area of your building for others to see.

Receive Site Fact Sheets by Email
Have site information such as this fact sheet sent right to your email inbox. NYSDEC invites you to sign up with one or more contaminated sites county email listservs available at the following web page: http://www.dec.ny.gov/chemical/61092.html. It's quick, it's free, and it will help keep you *better informed*.

As a listserv member, you will periodically receive site-related information/announcements for all contaminated sites in the county(ies) you select.

Note: Please disregard if you already have signed up and received this fact sheet electronically.



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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SCALE IN FEET

12 Eckford Street (a.k.a. 470 Manhattan Avenue)
Brooklyn, New York

SITE LOCATION

AKRF

AKRF Engineering, P.C.
440 Park Avenue South, New York, NY 10016

DATE
8/2/2016

PROJECT NO.
12306

FIGURE
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