DECISION DOCUMENT

70 Nardozzi Place Brownfield Cleanup Program New Rochelle, Westchester County Site No. C360159 October 2018



Prepared by Division of Environmental Remediation New York State Department of Environmental Conservation

DECLARATION STATEMENT - DECISION DOCUMENT

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Statement of Purpose and Basis

This document presents the remedy for the 70 Nardozzi Place site, a brownfield cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the 70 Nardozzi Place site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the selected remedy are as follows:

1. Green Remediation

Green remediation principles and techniques will be implemented to the extent feasible in the site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedystewardship over the long term;
- Reducing direct and indirect greenhouse gas and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials; and
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.

2. Cover System

A site cover will be required to allow for commercial use of the site in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used it will be a minimum of one foot of soil placed over a demarcation layer,

with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d).

Substitution of other materials and components may be allowed where such components are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs. Since the site is overlain with up to 20 feet of fill material consisting of incinerator waste, cover system components consisting of these hardscape materials will also include a suitable venting system located beneath to alleviate the potential build-up of soil gases/vapors (including carbon disulfide, hydrogen sulfide, and methane) and provide a controlled migration pathway.

3. Institutional Control

Imposition of an institutional control in the form of an environmental easement for the controlled property which will include the following:

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3);
- allow the use and development of the controlled property for commercial use or industrial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- require compliance with the Department-approved Site Management Plan.

4. Site Management Plan

A Site Management Plan is required, which includes the following:

a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed in Item 3 above. Engineering Controls: The cover system discussed in Item 2 above.

This plan includes, but may not be limited to the following:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any occupied

buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;

- a provision for evaluation of the potential for soil vapor contamination to migrate off-site and potentially enter off-site buildings via soil vapor intrusion
- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Item 2 above will be placed in any areas where the upper one foot of exposed surface soil exceeds the applicable soil cleanup objectives (SCOs);
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and engineering controls.

b. a Monitoring Plan to assess the performance and effectiveness of the passive sub-slab venting system. The plan includes, but may not be limited to the following:

- monitoring of sub-slab gas venting system to assess the performance and effectiveness;
- a schedule of monitoring and frequency of submittals to the Department;
- monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

October 15, 2018

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George Heitzman, Director _____ Remedial Bureau C

Date

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SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repository:

New Rochelle Public Library Attn: Larry Sheldon 1 Library Plaza New Rochelle, NY 10801 Phone: 914-813-3749

Receive Site Citizen Participation Information by E-Mail

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county e-mail listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The 70 Nardozzi Place site is located in an urban area along the easterly side of the New England Thruway (I-95), approximately 800 feet south of Exit 15, at 70 Nardozzi Place in the City of New Rochelle, Westchester County, New York. The site consists of one tax parcel that is approximately 3.46 acres in size.

<u>Site Features</u>: The site was never developed and currently remains vacant. There are utility rights of way on the property, but no utilities now.

<u>Current Zoning and Land Use</u>: The site is located within a commercially zoned area of New Rochelle. The site borders the Weyman Avenue Urban Renewal Area, which was designated for redevelopment by the municipality following closure of the municipal waste incinerator and had participated in the Volunteer Cleanup Program (VCP). The surrounding properties are currently used for commercial and recreational purposes, consisting of an Ashely Home Store and parking lot to the west; a Costco retail facility and parking lot to the east; a Home Depot, Safavieh Furnishings, and associated parking lots to the north; and the Pelham Country Club golf course to the south.

<u>Past Use of the Site</u>: The Weyman Avenue municipal waste incinerator operated from the 1920s to the 1970s on the now Costco parcel, during which time the subject site was impacted by the city's incinerator operations and ash disposal practices. Since then, the site has never been developed and is considered vacant.

Investigation activities were conducted on the site beginning in 2004 and continued between 2008 and 2018. The investigation included soil, groundwater, and soil vapor sampling. During the investigation, ash and fill material were encountered at depths of up to 20 feet below the original grade of the site.

<u>Site Geology and Hydrogeology</u>: The soils on-site consist of fill underlain by meadow mat and gray sand. The fill consists of clayey and sandy silt with gravel, wood, glass, ash, brick, concrete and other material. Bedrock was not encountered in borings advanced to 20 feet below ground surface (bgs). The depth to ground water on this site varies from 2 to 8 feet below grade. Groundwater flows along the length of the site towards the southwest. Long Island Sound and its

inlets and perennial creeks lie within a half-mile of the site.

The surrounding properties are on a municipally-supplied water system.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to commercial use (which allows for industrial use) as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

SECTION 5: ENFORCEMENT STATUS

The Applicant(s) under the Brownfield Cleanup Agreement is a/are Volunteer(s). The Applicant does not have an obligation to address off-site contamination. However, the Department has determined that this site does not pose a significant threat to public health or the environment; accordingly, no enforcement actions are necessary.

SECTION 6: SITE CONTAMINATION

6.1: <u>Summary of the Remedial Investigation</u>

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at asite and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in Section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor

6.1.1 : Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: <u>http://www.dec.ny.gov/regulations/61794.html</u>

6.1.2 : <u>RI Results</u>

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

acenaphthene	barium
benzo(a)anthracene	copper
benzo(a)pyrene	lead
benzo(b)fluoranthene	magnesium
benzo[k]fluoranthene	manganese
chrysene	mercury
dibenz[a,h]anthracene	sodium
indeno(1,2,3-CD)pyrene	zinc
naphthalene	iron
phenanthrene	vinyl chloride
antimony	trichloroethene (TCE)
arsenic	

The contaminant(s) of concern exceed the applicable SCGs for:

- groundwater
- soil
- soil vapor intrusion

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Decision Document.

There were no IRMs performed at this site during the RI.

6.3: <u>Summary of Environmental Assessment</u>

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

Nature and Extent of Contamination: Based upon investigations conducted to date, the primary contaminants of concern include semi-volatile organic compounds (SVOCs) and metals.

Soil - Numerous test pits and soil borings were completed between 2004 and 2018 to delineate the nature and extent of contamination on the site. The investigations identified SVOCs and metals contamination in deeper soils at numerous locations across the site at concentrations exceeding commercial use soil cleanup objectives (SCOs). SVOCs identified in the on-site soils include benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, benzo(a)anthracene. and indeno(1,2,3-c,d)pyrene at maximum concentrations of 46 parts per million (ppm), 61 ppm, 51 ppm, 12 ppm and 29 ppm, respectively. The commercial use SCOs for these compounds are 5.6 ppm, 1.0 ppm, 5.6 ppm, 0.56 ppm, and 5.6 ppm, respectively. Metals detected in the on-site soil include arsenic, barium, copper, lead, mercury, and zinc at maximum concentrations of 57 ppm, 1,670 ppm, 16,400 ppm, 5,890 ppm, 5.9 ppm, and 13,500 ppm, respectively. The commercial use SCOs for these metals are 16 ppm, 400 ppm, 270 ppm, 1,000 ppm, 2.8 ppm, and 10,000 ppm, respectively. VOCs were not detected in any of the soil samples. Based on the results of the onsite soil investigation, it is unlikely that soil contamination is migrating off-site.

Groundwater - On-site groundwater was investigated through the installation of temporary well points and monitoring wells. Groundwater investigations were conducted in 2008 and 2018. No VOCs were detected above ambient water quality standards in any of the groundwater samples collected on-site in 2008 or 2018. No PCBs were detected in the on-site groundwater in 2018. No pesticides were detected above standards in any of the groundwater samples collected in 2018. SVOCs identified in on-site groundwater in excess of standards include naphthalene, acenaphthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-c,d)pyrene at maximum concentrations of 76 parts per billion (ppb), 42 ppb, 59 ppb, 2.2 ppb, 1.3 ppb, 1.7 ppb, 2.9 ppb, and 0.8 ppb, respectively. The ambient water quality standards for these compounds are 10 ppb, 20 ppb, 50 ppb, 0.002 ppb, 0.002

ppb, 0.002 ppb, and 0.002 ppb, respectively. Metals identified in on-site groundwater in 2008 in excess of standards include antimony, barium, iron, lead, magnesium, manganese, mercury, and sodium at maximum concentrations of 6.5 ppb, 1,850 ppb, 46,400 ppb, 1,020 ppb, 62,300 ppb, 1,260 ppb, 2.3 ppb, and 129,000 ppb, respectively. The ambient water quality standards for these metals are 3 ppb, 1,000 ppb, 500 ppb, 25 ppb, 35,000 ppb, 500 ppb, 0.7 ppb, and 20,000 ppb, respectively. Groundwater samples collected in 2018 for metals analysis were analyzed both filtered (laboratory) and unfiltered. Metals identified in the unfiltered samples in excess of standards include antimony, arsenic, barium, copper, iron, lead, magnesium, manganese, and sodium at maximum concentrations of 6.2 ppb, 25.3 ppb, 1,510 ppb, 255 ppb, 31,700 ppb, 89 ppb, 40,400 ppb, 838 ppb, and 134,000 ppb, respectively. Metals identified in the filtered samples in excess of standards include antimony, barium, iron, magnesium, manganese, and sodium at maximum concentrations of 5 ppb, 1,170 ppb, 1,340 ppb, 37,200 ppb, 707 ppb, and 124,000 ppb, respectively. A comparison of the unfiltered and filtered metals analyses found fewer metals in excess of standards in the filtered samples, indicating that a reduced fraction of the metals found in the on-site groundwater are dissolved. Based on the unfiltered and filtered results, contaminants are sorbed to sediments and unlikely to be transported offsite.

Soil Vapor - Soil vapor samples were collected at ten locations across the site in 2016. Primary contaminants identified in the on-site soil vapor included benzene, toluene, ethylbenzene, and xylene, collectively known as BTEX, and chlorinated VOCs (tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, and vinyl chloride) at maximum concentrations of 49 micrograms per cubic meter (μ g/m3), 7,600 μ g/m3, 26 μ g/m3, 85 μ g/m3, 8.1 μ g/m3, 31 μ g/m3, 22 μ g/m3, and 110 μ g/m3, respectively. Other contaminants detected in the on-site soil vapor included methyl ethyl ketone (MEK), carbon disulfide, and methane at maximum concentrations of 53 μ g/m3, 63 μ g/m3, and 2.3% (by volume), respectively. Based on the proposed passive sub-slab depressurization system, vapor intrusion off-site is unlikely.

6.4 : <u>Summary of Human Exposure Pathways</u>

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

The site is partially fenced and persons who enter the site could contact contaminants in the soil by walking on the soil, digging, or otherwise disturbing the soil. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by the contamination. Volatile organic compounds in the soil or groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. There is currently no on-site building; therefore, the inhalation of site contaminants in indoor air due to soil vapor intrusion does not represent a concern for the site in its current condition. However, the potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development. An evaluation is needed to determine if there are potential soil vapor intrusion concerns for off-site buildings.

6.5: <u>Summary of the Remediation Objectives</u>

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

<u>Groundwater</u>

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with contaminated groundwater.

RAOs for Environmental Protection

• Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.

<u>Soil</u>

RAOs for Public Health Protection

• Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

• Prevent migration of contaminants that would result in groundwater or surface water contamination.

Soil Vapor

RAOs for Public Health Protection

• Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

The selected remedy is a Track 4: Restricted use with site-specific soil cleanup objectives remedy.

The selected remedy is referred to as the Cover System remedy.

The elements of the selected remedy, as shown in Figure 2, are as follows:

1. Green Remediation

Green remediation principles and techniques will be implemented to the extent feasible in the site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedystewardship over the long term;
- Reducing direct and indirect greenhouse gas and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials; and
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.

2. Cover System

A site cover will be required to allow for commercial use of the site in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used it will be a minimum of one foot of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d).

Substitution of other materials and components may be allowed where such components are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs. Since the site is overlain with up to 20 feet of fill material consisting of incinerator waste, cover system components consisting of these hardscape materials will also include a suitable venting system located beneath to alleviate the potential build-up of soil gases/vapors (including carbon disulfide, hydrogen sulfide, and methane) and provide a controlled migration pathway as shown in Figure 3.

3. Institutional Control

Imposition of an institutional control in the form of an environmental easement for the controlled property which will include the following:

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3);
- allow the use and development of the controlled property for commercial use or industrial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and

- require compliance with the Department-approved Site Management Plan.
- 4. Site Management Plan

A Site Management Plan is required, which includes the following:

a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed in Item 3 above. Engineering Controls: The cover system discussed in Item 2 above.

This plan includes, but may not be limited to the following:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Item 2 above will be placed in any areas where the upper one foot of exposed surface soil exceeds the applicable soil cleanup objectives (SCOs);
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and engineering controls.
- b. a Monitoring Plan to assess the performance and effectiveness of the passive sub-slab venting system. The plan includes, but may not be limited to the following:
 - monitoring of sub-slab gas venting system to assess the performance and effectiveness;
 - a schedule of monitoring and frequency of submittals to the Department;
 - monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.





