

DECISION DOCUMENT

Former Globe Woolen Mills
Brownfield Cleanup Program
Utica, Oneida County
Site No. C633084
March 2019



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

DECLARATION STATEMENT - DECISION DOCUMENT

Former Globe Woolen Mills
Brownfield Cleanup Program
Utica, Oneida County
Site No. C633084
March 2019

Statement of Purpose and Basis

This document presents the remedy for the Former Globe Woolen Mills 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 Former Globe Woolen Mills 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:

The elements of the proposed remedy and the institutional and engineering controls are listed below:

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and 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 remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;

- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals;
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and
- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing

2. Excavation

Approximately 30 cubic yards of grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u); non-aqueous phase liquids; soil with visual waste material or non-aqueous phase liquid; and soils that create a nuisance condition, as defined in Commissioner Policy CP-51 Section G, in the vicinity of the former maintenance shop and former underground storage tank (UST) will be excavated and disposed of off-site.

To facilitate replacement of the deteriorated parking lot, which will also serve as the site cover system (see remedial element 4), the existing asphalt pavement and a layer of contaminated soil beneath the pavement ranging in depth from 2” to 24” across the site will be excavated and transported off-site for disposal. Approximately 6,750 cubic yards of additional contaminated soil will be removed as part of this effort.

3. Backfill

On-site soil which does not exceed the above excavation criteria may be used below the cover system described in remedy element 4 to backfill the excavation to the extent that a sufficient volume of on-site soil is available and to establish the design grades at the site but cannot be used below the water table. On-site soil which does not exceed the above excavation criteria or the protection of groundwater SCOs for any constituent may be used anywhere beneath the cover system, including below the water table, to backfill the excavation or re-grade the site. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in if needed to replace the excavated soil or complete the backfilling of the excavation and to establish the designed grades at the site.

4. 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 will exceed the applicable soil cleanup objectives (SCOs). 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. 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 already exist or 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.

5. Vapor Intrusion Evaluation

Additional soil vapor intrusion investigations will be conducted on-site for Building 2 and Building 4. A soil vapor investigation will be conducted along the western site perimeter boundary with Stark Street, and the northern site perimeter with Court Street to evaluate whether the chlorinated organic vapors are migrating off-site and represent a potential soil vapor intrusion concern for off-site buildings.

6. Vapor Mitigation

Building 1, Building 6, and the Office Building will be required to have a sub-slab depressurization system, or other acceptable measures, to mitigate the migration of vapors into the building from soil and/or groundwater.

7. Institutional Controls

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

- 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 restricted residential 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.

8. 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 Paragraph 7, above.

Engineering Controls: The cover system discussed in Paragraph 4 and the sub-slab depressurization system discussed in Paragraph 6.

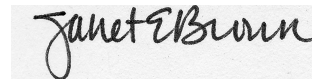
This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
 - a provision for removal or treatment of any source areas located under buildings if the buildings are demolished;
 - descriptions of the provisions of the environmental easement including any land use, and/or 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 that should a building foundation or building slab be removed in the future a cover system consistent with that described in Paragraph 4 above will be placed in any areas where the upper two feet of exposed surface soil exceed the applicable 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/or engineering controls.
- b) an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, optimization, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:
- procedures for operating and maintaining the remedy;
 - monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above;
 - compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
 - maintaining site access controls and Department notification; and
 - providing the Department access to the site and O&M records.

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.

3/22/2019



Date

Janet Brown, Director
Remedial Bureau C

DECISION DOCUMENT

Former Globe Woolen Mills
Utica, Oneida County
Site No. C633084
March 2019

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:

Utica Public Library
303 Genesee St.
Utica, NY 13501
Phone: 315-735-2279

Receive Site Citizen Participation Information by Email

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 email 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 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 site is located in downtown Utica’s “Brewery District,” a mixed-use neighborhood with restaurants, various retail and commercial uses, and single-family homes.

Site Features: The site is improved with seven one-, two-, three-, and four-story buildings with full and partial basements totaling approximately 159,287 square feet. One of these buildings, the former dye building connected to Building 4, located in the central southwest portion of the site, is currently excluded from the BCP. The remainder of the site is improved with asphalt-paved parking areas. The buildings are comprised of primarily brick sub- and superstructures with wood timber structural framing.

Current Zoning and Land Use: The site is currently zoned as Planned Development-Extraordinary District. This District permits a variety of uses provided they are complimentary to the uses of the site and surrounding context. Building 1 and the Office Building are currently used primarily for commercial offices and a bank. The other on-site buildings are used for storage or are currently vacant.

Past Use of the Site: Around 1872, the Globe Woolen Company constructed a wool mill complex on the site and the adjacent properties. The original mill complex included four large mills, five storehouses, an office building, a wool sorting building, two dye houses, a dry house, other (smaller) processing buildings, and a variety of power generation buildings and structures. Most of the buildings were constructed between 1872 and 1873 after an earlier mill complex on the site dating from 1847 was destroyed by fire in 1871. A pond, which may have been a settling pond, was present on a large portion of the site, along half of the eastern and southern borders. The site was operated as a wool mill until its final closure and shut down in 1953. Afterwards, the site was acquired by a number of local Utica families, who still own the site. The buildings were converted to offices, college classrooms, and storage areas. From 1968 to 1988 the State University of New York occupied the property buildings for Upper Division College Education activities. Since 1988, the buildings at the property have been utilized principally as office space, a training center, and a warehouse. A 10,000-gallon underground storage tank (UST) located adjacent and to the south of the Boiler Room was removed in 1994.

Site Geology and Hydrogeology: Groundwater is found 5 to 8 feet below the ground surface and flows in a northerly direction. The remedial investigation revealed that non-native or urban backfill materials were found across the site overlying native sediment/soils at depths up to 12 feet below the ground surface. Bedrock was not encountered during the remedial investigation but is expected to be around 60 feet below the ground surface.

A site location map is attached as Figure 1. A site layout plan is attached as Figure 2.

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 restricted-residential use (which allows for commercial use and 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 under the Brownfield Cleanup Agreement is a Volunteer. The Applicant does not have an obligation to address off-site contamination. However, the Department has determined that this site does pose a significant threat to public health or to the environment due to the elevated concentrations of chlorinated volatile organic compounds (CVOCs) identified in sub-slab soil and indoor air. The Department will seek to identify any parties (other than the Volunteer(s)) known or suspected to be responsible for contamination at or emanating from the site, referred to as Potentially Responsible Parties (PRPs). The Department will bring an enforcement action against the PRPs. If an enforcement action cannot be brought, or does not result in the initiation of a remedial program by any PRPs, the Department will evaluate the off-site contamination for action under the State Superfund. The PRPs are subject to legal actions by the State for recovery of all response costs the State incurs or has incurred.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

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 a site 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:

- air
- groundwater
- soil
- soil vapor
- indoor air
- sub-slab 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: <http://www.dec.ny.gov/regulations/61794.html>

6.1.2: RI Results

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:

arsenic	dibenz[a,h]anthracene
benzo(a)anthracene	indeno(1,2,3-cd)pyrene
benzo(a)pyrene	benzene
benzo(b)fluoranthene	trichloroethene (TCE)
benzo[k]fluoranthene	cis-1,2-dichloroethene
chrysene	

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

- groundwater
- soil
- soil vapor intrusion
- indoor air

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: Summary of Environmental Assessment

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:

Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), pesticides, formaldehyde, cyanide, and pH. Soil vapor and indoor air were analyzed for VOCs. Based upon investigations conducted to date, the primary contaminants of concern include VOCs (solvent and petroleum related), SVOCs (polycyclic aromatic hydrocarbons [PAHs]), and metals (including arsenic and mercury).

Subsurface Soil: Several solvent and petroleum-related VOCs were detected in most of the Phase II Environmental Site Assessment (ESA) and Remedial Investigation (RI) borings. Photoionization detector (PID) readings up to 202 parts per million (ppm) and free product with a strong petroleum odor were noted in the soil core at MW-3, which is located in the immediate vicinity of the former underground storage tank (UST) in the north central portion of the site. Numerous SVOCs consisting primarily of PAHs were detected in most soil samples. PAH compounds were found exceeding restricted-residential soil cleanup objectives (SCOs) primarily at depths of 0-1 foot below ground surface (fbgs) across the site. Concentrations of benzo(b)fluoranthene found on-site (up to 17.1 ppm) exceeded the restricted residential SCO of 1 ppm. Concentrations of indeno(1,2,3-cd)pyrene found on-site (up to 5.87 ppm) exceed the restricted-residential SCO of 0.5 ppm. Arsenic was detected up to 58 ppm in shallow soils at 0-1 fbgs, exceeding the SCO for restricted residential use and protection of groundwater (both 16 ppm). Mercury was detected up to 1.2 ppm in soils 6-9 fbgs, which exceeded the restricted-residential use SCO of 0.81 ppm. Data collected to date does not indicate any off-site impacts in soil related to this site.

Groundwater: The Phase II ESA detected benzene in groundwater at 63 parts per billion (ppb), exceeding the applicable Ambient Groundwater Quality Standards and Guidance value of 1 ppb, at monitoring well TW-5, which is located in the immediate vicinity of the former UST in the north central portion of the site. Benzo(b)fluoranthene was also detected during the Phase II ESA in groundwater at 1.1 ppb, exceeding the applicable groundwater standard of 0.002 ppb. The RI groundwater samples detected low levels of VOCs and SVOCs, but all below groundwater

standards. Arsenic, barium, chromium, lead, and selenium were detected at concentrations exceeding the applicable groundwater standards in most of the unfiltered samples. However, none of these were detected in the filtered groundwater samples, with the exception of one detection of selenium, in one filtered sample, at a concentration of 14.3 ppb vs the standard of 10 ppb. A petroleum-related product sheen was identified in the groundwater in the vicinity of the former UST. Data collected to date does not indicate any off-site impacts in groundwater related to this site.

Soil Vapor and Indoor Air: Soil vapor intrusion (SVI) investigations were conducted in all on-site buildings. Chlorinated VOCs (CVOCs), including trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), and tetrachloroethene (PCE) were detected in sub-slab soil vapor of Building 1 and the Office Building. TCE, cis-1,2-DCE, and PCE were also detected in indoor air of Building 1, at 9.7 micrograms per cubic meter (ug/m³), 7.9 ug/m³, and 5.2 ug/m³, respectively, and in the indoor air of the Office Building at 3.0 ug/m³, 1.1 ug/m³, and 3.3 ug/m³, respectively. The indoor air level of TCE in both Building 1 and the Office Building exceeded the New York State Department of Health (NYSDOH) Air Guideline of 2.0 ug/m³ for TCE. Based on a comparison of these results to the Decision Matrices in NYSDOH's "Guidance for Evaluating Soil Vapor Intrusion (SVI) in New York State," mitigation is recommended for both buildings.

Low levels of TCE and PCE were detected in the sub-slab vapor and indoor air samples of Building 6, but were below their respective indoor air guidelines of 2 ug/m³ and 30 ug/m³; although the results indicate that monitoring is recommended when compared to the NYSDOH SVI Decision Matrices sub-slab. The results of the soil vapor intrusion sampling for Building 4 and the Boiler Room indicate that no further action is needed to address soil vapor intrusion. However, since Building 4 is a large building and only one sub-slab and indoor air sample were collected, additional investigations will be conducted. TCE, cis-1,2-DCE and PCE were not detected in the indoor air of Building 2, however, sub-slab vapor samples were not collected since the basement slab has a partial dirt floor; therefore, additional soil vapor intrusion investigations will be conducted.

Even though the CVOCs were detected in some sub-slab vapor and indoor air samples, CVOCs were not detected in groundwater and only one CVOC (cis-1,2-DCE) was detected in most soil boring samples at low levels above unrestricted SCOs and slightly above the residential SCO in one sample. In an attempt to address these non-correlating results, the NYSDEC/NYSDOH requested a supplemental investigation with the installation of two additional soil borings: one within Building 1 because of the previously-identified sub-slab and indoor air exceedances, and one off-site, downgradient of that same building. Both soil samples were below the unrestricted use and restricted residential use SCOs for the analyzed VOCs. Based on these findings, the source of the VOCs appears to be under Building 1. The remedy includes additional soil gas sampling along the western site perimeter with Stark Street and on the northern perimeter along Court Street to evaluate whether chlorinated organic vapors detected in Building 1, the Office Building, and Building 6 are migrating off-site and represent a potential soil vapor intrusion concern for off-site buildings. Additional soil gas sampling along the eastern site boundary was deemed not necessary because chlorinated organics were detected at low levels but did not exceed standards in either soil or groundwater in monitoring well MW-5 and MW-11, nor the adjacent soil borings which are located along the eastern site boundary.

6.4: Summary of Human Exposure Pathways

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*.

Access to the site is unrestricted. However, contact with contaminated soil or groundwater is unlikely unless they dig below the ground surface. Contaminated groundwater at this site is not used for drinking or other purposes. The site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater and soil may move into the soil vapor (air spaces within the soil), which in turn may move into the overlying buildings and affect the indoor air quality. The process, which is similar to the movement of radon gas from the subsurface into indoor air of buildings, is referred to as soil vapor intrusion. Soil vapor intrusion sampling was conducted for all on-site buildings. Impacts were identified in indoor air quality in two on-site buildings and the potential for indoor air impacts were identified in a third building. Sub-slab depressurization systems (systems that ventilate/remove the air beneath the building) are recommended for these three buildings to prevent the indoor air quality from being affected by the contamination in soil vapor beneath each building. No further actions were recommended for the Boiler Room building, and additional soil vapor intrusion investigations are recommended for the two remaining buildings. Investigations are also recommended to determine if there is a potential soil vapor intrusion concern for off-site buildings.

6.5: Summary of the Remediation Objectives

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:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOS for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Remove the source of groundwater contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater 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 residential remedy.

The elements of the selected remedy, as shown in Figure 3, are as follows:

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and 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 remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;

- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals;
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and
- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing

2. Excavation

Approximately 30 cubic yards of grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u); non-aqueous phase liquids; soil with visual waste material or non-aqueous phase liquid; and soils that create a nuisance condition, as defined in Commissioner Policy CP-51 Section G, in the vicinity of the former maintenance shop and former underground storage tank (UST) will be excavated and disposed of off-site.

To facilitate replacement of the deteriorated parking lot, which will also serve as the site cover system (see remedial element 4), the existing asphalt pavement and a layer of contaminated soil beneath the pavement ranging in depth from 2” to 24” across the site will be excavated and transported off-site for disposal. Approximately 6,750 cubic yards of additional contaminated soil will be removed as part of this effort.

3. Backfill

On-site soil which does not exceed the above excavation criteria may be used below the cover system described in remedy element 4 to backfill the excavation to the extent that a sufficient volume of on-site soil is available and to establish the design grades at the site but cannot be used below the water table. On-site soil which does not exceed the above excavation criteria or the protection of groundwater SCOs for any constituent may be used anywhere beneath the cover system, including below the water table, to backfill the excavation or re-grade the site. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in if needed to replace the excavated soil or complete the backfilling of the excavation and to establish the designed grades at the site.

4. 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 will exceed the applicable soil cleanup objectives (SCOs). 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. 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 already exist or 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.

5. Vapor Intrusion Evaluation

Additional soil vapor intrusion investigations will be conducted on-site for Building 2 and Building 4. A soil vapor investigation will be conducted along the western site perimeter boundary with Stark Street, and the northern site perimeter with Court Street to evaluate whether the chlorinated organic vapors are migrating off-site and represent a potential soil vapor intrusion concern for off-site buildings.

6. Vapor Mitigation

Building 1, Building 6, and the Office Building will be required to have a sub-slab depressurization system, or other acceptable measures, to mitigate the migration of vapors into the building from soil and/or groundwater.

7. Institutional Controls

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

- 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 restricted residential 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.

8. Site Management Plan

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

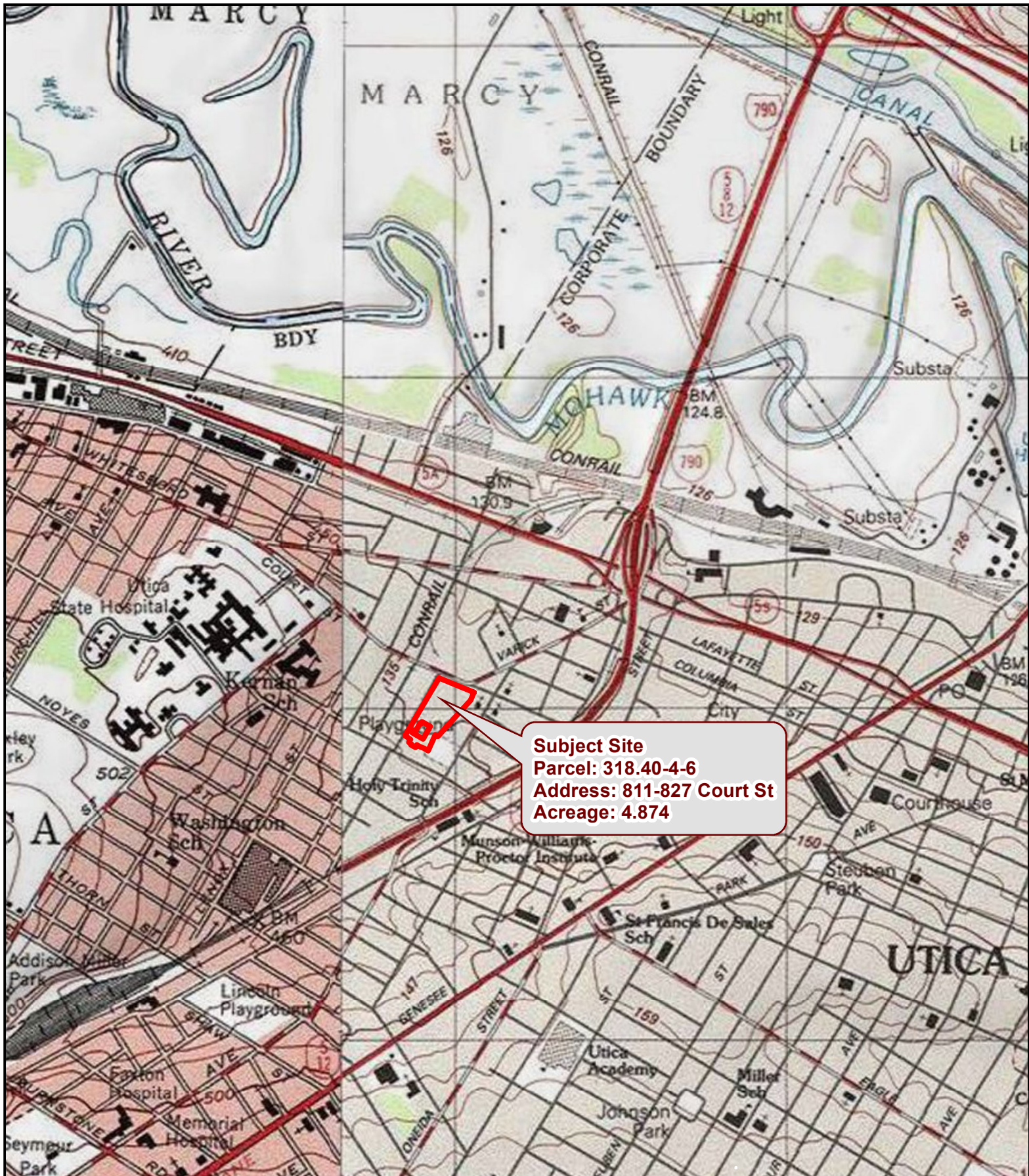
- b) an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed in Paragraph 7, above.

Engineering Controls: The cover system discussed in Paragraph 4 and the sub-slab depressurization system discussed in Paragraph 6.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
 - a provision for removal or treatment of any source areas located under buildings if the buildings are demolished;
 - descriptions of the provisions of the environmental easement including any land use, and/or 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 that should a building foundation or building slab be removed in the future a cover system consistent with that described in Paragraph 4 above will be placed in any areas where the upper two feet of exposed surface soil exceed the applicable 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/or engineering controls.
- b) an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, optimization, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:
- procedures for operating and maintaining the remedy;
 - monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above;
 - compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
 - maintaining site access controls and Department notification; and
 - providing the Department access to the site and O&M records.

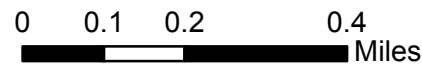


Subject Site
Parcel: 318.40-4-6
Address: 811-827 Court St
Acreage: 4.874



Department of
 Environmental
 Conservation

Figure 1
SITE LOCATION MAP
FORMER GLOBE WOOLEN MILLS
UTICA, NEW YORK



By: RKG

Date: 03/08/19



Subject Site
 Parcel: 318.40-4-6
 Address: 811-827 Court St
 Acreage: 4.874

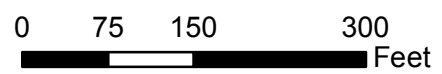
Parcel Excluded From the BCP

Approximate Site Boundary



Department of Environmental Conservation

**Figure 2
 SITE PLAN
 FORMER GLOBE WOOLEN MILLS
 UTICA, NEW YORK**



By: RKG

Date: 03/08/19



Figure 3
SELECTED REMEDY
FORMER GLOBE WOOLEN MILLS
UTICA, NEW YORK

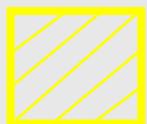
0 55 110 220
 Feet

By: RKG

Date: 03/08/19



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The existing pavement and 2-24" of contaminated soil beneath will be removed and disposed offsite. The pavement will be replaced with either new pavement or 24" of clean soil to serve as the site cover.

— Approximate Site Boundary

● Future Soil Gas Sampling Locations

⋯ Buildings to Install Subslab Depressurization Systems