DECISION DOCUMENT

Safeguard Storage Baldwin Site
Voluntary Cleanup Program
Baldwin, Nassau County
Site No. V00523
December 2014

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

DECLARATION STATEMENT - DECISION DOCUMENT

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Voluntary Cleanup Program
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December 2014

Statement of Purpose and Basis

This document presents the remedy for the Safeguard Storage Baldwin Site, a voluntary cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and applicable guidance.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Safeguard Storage Baldwin Site and the public's input to the proposed remedy presented by the Department.

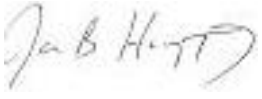
Description of Selected Remedy

During the course of the investigation certain actions, known as interim remedial measures (IRMs), were undertaken at the above referenced site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) oralternatives analysis (AA). The IRM(s) undertaken at this site are discussed in Section 6.2.

Based on the implementation of the IRM(s), the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment; therefore No Further Action is the selected remedy. The remedy may include continued operation of a remedial system if one was installed during the IRM and the implementation of any prescribed institutional controls/engineering controls (ICs/ECs) that have been identified as being part of the proposed remedy for the site.

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.



December 1, 2014

Date

James B. Harrington, P.E.
Director, Remedial Bureau A

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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 resulted in threats to public health and the environment that were addressed by actions known as interim remedial measures (IRMs), which were undertaken at the site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or alternative analysis (AA). The IRMs undertaken at this site are discussed in Section 6.2. Contaminants include hazardous wastes and/or petroleum.

Based on the implementation of the IRM(s), the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment. The IRM(s) conducted at the site attained the remediation objectives identified for this site, which are presented in Section 6.5, for the protection of public health and the environment. No Further Action is the selected remedy. A No Further Action remedy may include continued operation of any remedial system installed during the IRM and the implementation of any prescribed controls that have been identified as being part of the remedy for the site. This DD identifies the IRM(s) conducted and discusses the basis for No Further Action.

The Voluntary Cleanup Program (VCP) is a voluntary program. The goal of the VCP is to enhance private sector cleanup of brownfields by enabling parties to remediate sites using private rather than public funds and to reduce the development pressures on "greenfields." 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 repositories:

Baldwin Public Library
2385 Grand Ave.
Baldwin, NY 11510
Phone: 516-223-6228

Freeport Memorial Library
144 West Merrick Road
Freeport, NY 11520
Phone: 516-373-3274

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, 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 Safeguard Storage Site is located in suburban Nassau County near the Baldwin-Freeport border. It sits on a small man-made island in Milburn Creek that is accessible by a small bridge off the south side of Atlantic Avenue. The 2.7 acre island is in the Incorporated Village of Freeport.

Site Features: The main site feature is one large two-story steel building. The remainder of the site is either paved or grass covered. The island is surrounded by bulkhead.

Current Zoning and Land Use: The site is currently in use as a self-storage facility and is zoned commercial. The surrounding parcels are currently in use as commercial businesses and residential properties. The nearest residential property is 70 feet across the boat canal (i.e., Milburn Creek).

Past Use of the Site: Prior to the current use as a self-storage facility, records indicate the site was initially used as a boat yard in 1941. In 1974, the existing building was constructed and used as an indoor tennis facility. Beginning in 1983, the site was used to manufacture emergency lighting fixtures. The use of solvents during this period for cleaning and painting operations is believed to have led to site contamination.

Site Geology and Hydrogeology: The depth to water ranges from 2 to 5 ft. below the surface, and is affected by the tides. This groundwater is saline and is not drinkable. The uppermost soils from grade to 12 ft. deep are a mix of dredge spoils (fill) from when the island was constructed, creek bottom sediments, buried marsh, and sands.

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, at a minimum, alternatives (or an alternative) that restrict(s) the use of the site to commercial use (which allows for industrial use) as described in DER-10, Technical Guidance for Site Investigation and Remediation were/was evaluated.

A comparison of the results of the investigation 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 Remedial Investigation (RI) Report.

SECTION 5: ENFORCEMENT STATUS

The voluntary cleanup agreement is with a Volunteer. If the Volunteer elects not to complete the remedial program under the VCP, the Department will make a determination if the site poses a significant threat to human health and the environment. If the site is determined to pose a significant threat, the Department will approach the potentially responsible parties (PRPs) to implement the remedy. PRPs are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

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:

- groundwater
- surface water
- soil
- sediment
- 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:

	1,1,1-TRICHLOROETHANE
CHLOROETHANE	1,1-DICHLOROETHANE

Based on the investigation results, comparison to the SCGs, and the potential public health and environmental exposure routes, certain media and areas of the site required remediation. These media were addressed by the IRM(s) described in Section 6.2. More complete information can be found in the RI Report and the IRM Construction Completion Report.

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.

The following IRM(s) has/have been completed at this site based on conditions observed during the RI.

Soil Excavation and Application of Hydrogen Release Compound (HRC)

In 2011, under the Voluntary Cleanup Program, on-site soils near the former eastern drywell which were shown to exceed commercial SCOs, as defined by 6 NYCRR Part 375-6.8, were excavated and transported off-site for disposal. About 42 tons of soil were removed to a depth of 8 ft. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) for commercial use was brought in to complete the backfilling of the excavation prior to repaving.

As part of this IRM, in-situ chemical reduction (ISCR) was implemented to treat contaminants in groundwater. Prior to backfilling the eastern drywell excavation, Hydrogen Release Compound (HRC®) was applied in the excavation to reduce the residual volatile organic compounds in the groundwater. The excavation work and the application of HRC® have been effective in reducing soil and groundwater contamination in the area of the former drywell.

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:

Remediation at the site is complete. Remedial actions have successfully achieved soil cleanup objectives for commercial use. Remaining contamination in the soil, groundwater, and soil vapor will be managed under a Site Management Plan.

Based on investigations conducted of the site, the primary contaminants of concern include the volatile organic compounds 1,1,1-Trichloroethane (TCA), and its breakdown products 1,1-Dichloroethane (DCA) and Chloroethane. Investigations of the entire site also found other volatile organic, semi-volatile organic, petroleum, and metals, contamination in the surface soils, subsurface soils, groundwater, soil vapor, sediments and surface water. These other contaminants have either been remediated from the site or are not sufficiently present in frequency and concentration for remedial action. The contaminants of concern are discussed below for each environmental media.

Soil - Soils contaminated with TCA and DCA were found in and around one dry well located on the eastern side of the property.

In 2004, a clean out of this dry well was done by the Volunteer under the direction of the Nassau County Department of Health with the USEPA. During this drywell closure, soil was removed to a depth of 11.5 ft., resulting in about 6 tons of waste. Based on the results of that work, in 2005, about 12.5 tons more of contaminated soils were removed by the Volunteer in the same location to a depth of 13.5 ft. All waste was trucked off-site for proper disposal.

Additional soil was excavated later during the IRM that was undertaken by the Volunteer in 2011. Prior to the clean out and soil removal actions, soil contaminant concentrations exceeded SCOs of 500 parts per million (ppm) for TCA and 240 ppm for DCA. Following the IRM, the range of remaining contaminant concentrations are 130 ppm to 0.007 ppm for TCA, and 190 ppm to 0.088 ppm for DCA. The post-IRM excavation endpoint soil sample concentrations are below the commercial SCOs.

Groundwater - The groundwater at the site is tidally influenced by water in the adjacent canals and nearby Great South Bay. The daily tidal cycle causes the groundwater to be saline and the presence of this saltwater makes the on-site groundwater non-potable. TCA, DCA and Chloroethane are found in the on-site shallow groundwater. The maximum contaminant concentrations are found near the former drywell and near the southern end of the island. Historical high concentrations are TCA at 390 ppb, DCA at 2,300 ppb, and Chloroethane at 3,600 ppb. Groundwater analytical results over time indicate a reduction of contaminants. Deep groundwater samples collected below the former drywell to 90 ft. indicate that vertical transport of contamination is not occurring.

Soil Vapor and Indoor Air - A soil vapor intrusion investigation was conducted in 2007 for the on-site building. Results of the sub-slab and indoor air samples indicate the air within the site building has not been impacted. Site-related contaminants in sub-slab soil vapor were detected below levels of concern.

Sediment - Canal sediment samples collected from the adjacent canal bottom did not contain any contaminants of concern.

Surface Water - The surface water at the site is tidally influenced by water in the adjacent canals and nearby Great South Bay. The daily tidal cycle causes the surface water to be saline which makes it non-potable. Surface water samples, collected in the adjacent saltwater canal, contained TCA at 6.7 ppb in one of four samples.

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*.

People are not expected to contact contaminated soil because buildings and pavement cover most of the site. People may contact contaminated soils if they dig below surface materials. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply system that is not affected by this contamination.

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 contaminated groundwater.

RAOs for Environmental Protection

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

Soil

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.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

Based on the results of the investigations at the site, the IRM that has been performed, and the evaluation presented here, the Department has selected No Further Action as the remedy for the site. This No Further Action remedy includes the implementation of ICs as the selected remedy for the site. The Department believes that this remedy is protective of human health and the environment and satisfies the remediation objectives described in Section 6.5.

The elements of the IRM already completed and the institutional controls are listed below:

1. In 2011, under the Voluntary Cleanup Program, on-site soils near the former eastern drywell which were shown to exceed commercial SCOs, as defined by 6 NYCRR Part 375-6.8, were excavated and transported off-site for disposal. About 42 tons of soil were removed to a depth of 8 ft. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) for commercial use was brought in to complete the backfilling of the excavation prior to repaving.

As part of this IRM, in-situ chemical reduction (ISCR) was implemented to treat contaminants in groundwater. Prior to backfilling the eastern drywell excavation, Hydrogen Release Compound (HRC®) was applied in the excavation to reduce the residual volatile organic compounds in the groundwater. The excavation work and the application of HRC® have been effective in reducing soil and groundwater contamination in the area of the former drywell.

2. Green Remediation

Green remediation principals 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 remedy stewardship 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;
•Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.

3. Institutional Control

Imposition of an institutional control in the form of a deed restriction for the controlled property that:

•requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional controls in accordance with Part 375-1.8(h)(3);
•allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
•restricts 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
•requires 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 Control Plan that identifies all use restrictions for the site and details the steps and media-specific requirements necessary to ensure the following institutional controls remain in place and effective:

Institutional Controls: The Deed Restriction discussed in Paragraph 3 above.

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;
•descriptions of the provisions of the deed restriction including any land use and groundwater use restrictions;
•maintaining site access controls and Department notification; and
•the steps necessary for the periodic reviews and certification of the institutional controls.

b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
•monitoring of groundwater to assess the performance and effectiveness of the remedy; and
•a schedule of monitoring and frequency of submittals to the Department.

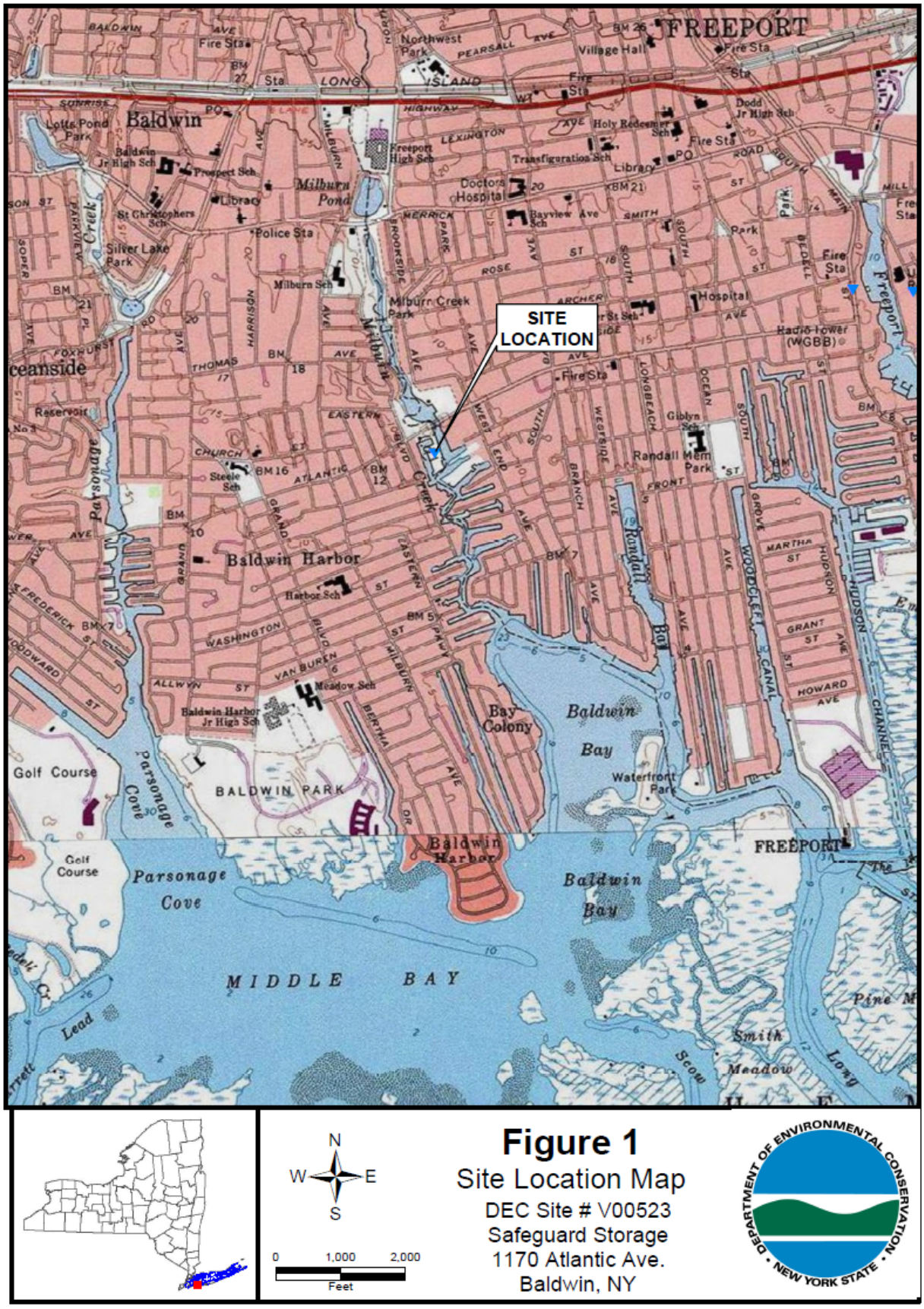
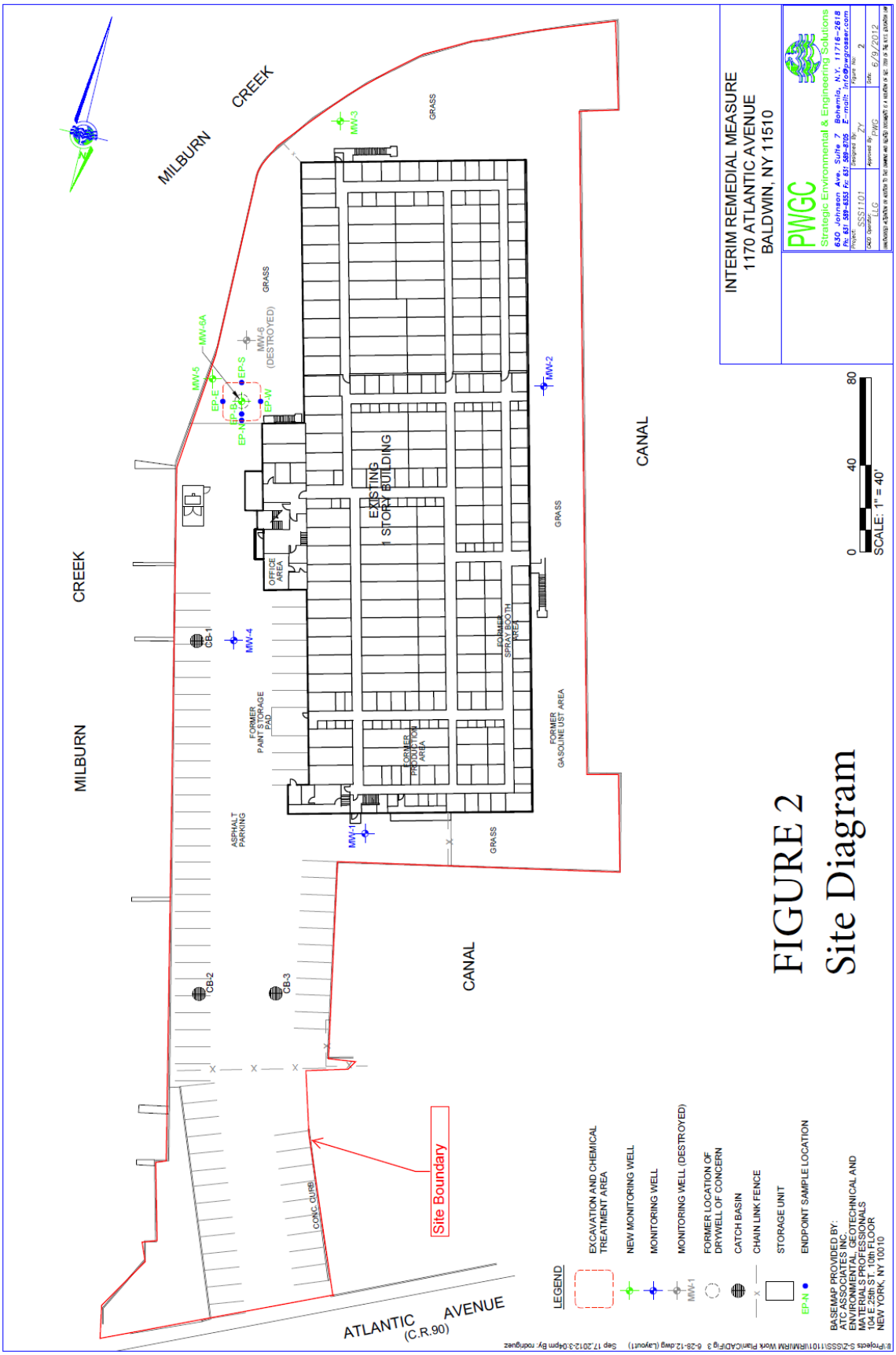


Figure 1

Site Location Map

DEC Site # V00523
Safeguard Storage
1170 Atlantic Ave.
Baldwin, NY


INTERIM REMEDIAL MEASURE
1170 ATLANTIC AVENUE
BALDWIN, NY 11510
PWGC
Strategic Environmental & Engineering Solutions
FIGURE 2
Site Diagram
SCALE: 1" = 40'
0
40
80
MILBURN CREEK
MILBURN CREEK
CANAL
CANAL
ATLANTIC AVENUE (C.R.90)
EXISTING 1 STORY BUILDING
OFFICE AREA
FORMER PAINT STORAGE PAD
FORMER PRODUCTION AREA
FORMER SPRAY BOOTH AREA
FORMER GASOLINE UST AREA
ASPHALT PARKING
CONC. CURB
GRASS
MW-1
MW-2
MW-3
MW-4
MW-5
MW-6A
MW-6 (DESTROYED)
EP-E
EP-S
EP-W
EP-N
CB-1
CB-2
CB-3
Site Boundary
LEGEND
EXCAVATION AND CHEMICAL TREATMENT AREA
NEW MONITORING WELL
MONITORING WELL
MONITORING WELL (DESTROYED)
FORMER LOCATION OF DRYWELL OF CONCERN
CATCH BASIN
CHAIN LINK FENCE
STORAGE UNIT
ENDPOINT SAMPLE LOCATION
BASEMAP PROVIDED BY:
ATC ASSOCIATES INC.
ENVIRONMENTAL, GEOTECHNICAL AND
MATERIALS PROFESSIONALS
104 E.25th ST. 10th FLOOR
NEW YORK, NY 10010