# DECISION DOCUMENT

NM - Fort Edward MGP
Voluntary Cleanup Program
Fort Edward, Washington County
Site No. V00472
March 2013

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

# DECLARATION STATEMENT - DECISION DOCUMENT

NM - Fort Edward MGP
Voluntary Cleanup Program
Fort Edward, Washington County
Site No. V00472
March 2013

**Statement of Purpose and Basis**

This document presents the remedy for the NM - Fort Edward MGP 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 NM - Fort Edward MGP site and the public's input to the proposed remedy presented by the Department.

**Description of Selected Remedy**

The elements of the remedy are as follows:

1. Green remediation principles and techniques will be implemented to the extent feasible in the 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 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;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. All off-site soils which exceed residential SCOs, as defined by 6 NYCRR Part 375-6.8, will be excavated and transported off-site for disposal. Approximately 500 cubic yards of soil will be removed and treated prior to disposal using thermal desorbtion, if necessary. Clean fill meeting the requirements of DER-10, Appendix 5 will be brought in to replace the excavated soil and restore the off-site properties.

3. A site cover currently exists and will be maintained to allow for restricted residential use

of the site. Any site redevelopment will maintain a site cover, which may consist either of structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable (SCOs). Where a soil cover is required it will be a minimum of two feet of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

4. 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 and engineering controls in accordance with Part 375-1.8(h)(3);
- allows the use and development of the controlled property for restricted-residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- requires compliance with the Department approved Site Management Plan.

5. 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:

i. Institutional Controls: The Deed Restriction discussed above;

ii. Engineering Controls: The soil cover discussed in Paragraph 3. 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 environmental easement including any land use or groundwater use restrictions;
- 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.

**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.

3/1/2013

Date

George W. Heitzman, P.E.
Acting Director, Remedial Bureau C

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Fort Edward, Washington County
Site No. V00472
March 2013

## 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 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 repository:

Fort Edward Free Library
23 East Street
Fort Edward, NY 12828
Phone: 518-747-6743

### 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 Fort Edward-Canal Street former manufactured gas plant (MGP) site is located at 22 Canal Street, in the Village of Fort Edward, Washington County. The site is approximately 1.6 acres in area and is bounded by Canal Street to the west, residential properties to the north and south and undeveloped land to the east.

Site Features: The site is currently vacant and not fenced.

Current Site and Surrounding Area Zoning/Use: The current site zoning is residential. The surrounding area includes residential and commercial properties. The area is served by public water and sewer systems.

While the property is zoned as Residential (R-1), which is established for single-family residential development, the current property owner, National Grid, has indicated that they plan to apply for a variance or have the property rezoned to restricted residential use.

Past Use of the Site: Historic MGP operations at the site were primarily located on the western portion of the property and were in operation from about 1900 to 1924. The primary buildings and structures associated with the former MGP operation consisted of a single gas works building at the west end of the site along Canal Street (subsequently converted for residential use) and a 33,000 cubic foot gas holder located along the northern property line east of the gas works. The former gas house building and holder concrete pad are no longer present on the site.

Site Geology and Hydrogeology: Fill material consisting of silty sand with some brick, ash and slag exists where the former MGP building was, but not across the entire site. The fill is underlain by brown silty sand which is approximately 4 to 5 feet in thickness. The silty sand is underlain by fine sand, then medium to coarse sand. The sand layer extends to approximately 25 to 28 feet below ground surface where silty clay is encountered. Groundwater is encountered at 5 to 7 feet below ground surface at the site, and generally flows to the south.

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 restricted-residential use (which allows for commercial use and industrial use) as described in DER-10, Technical Guidance for Site Investigation and Remediation were/was evaluated.

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 voluntary cleanup agreement is with a responsible party. The agreement requires the party to address on-site and off-site contamination. Accordingly, no enforcement actions are necessary.

The Department and Niagara Mohawk/National Grid entered into a Voluntary Cleanup Order D0-0001-0011 on January 25, 2002 to address 24 former MGP sites under the Voluntary Cleanup Program. The Order obligates the responsible parties to implement a full remedial program.

## 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
- soil

### 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:

COAL TAR
BENZENE
TOLUENE
ETHYLBENZENE
XYLENE (MIXED)
BENZ(A)ANTHRACENE
BENZO(A)PYRENE
BENZO(B)FLUORANTHENE
BENZO[K]FLUORANTHENE
Chrysene
DIBENZ[A,H]ANTHRACENE
indeno(1,2,3-cd)pyrene
PYRENE
CYANIDES(SOLUBLE CYANIDE SALTS)
LEAD

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

- soil

## 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.

IRM Soil Removal

Based on the results of the Site Characterization, a portion of the site was shown to exhibit elevated levels of PAHs, metals and Total Cyanide, as well as coal tar-impacted soils and piping. An IRM was conducted in 2009 and 2010, which removed approximately 2,700 tons of soil to depths between 2 and 8 feet below ground surface. The clay tile pipe containing coal tar was removed to the eastern property boundary, where it continued off-site. Coal tar-impacted soils (peat-lined trench) were removed to the southern property boundary, where the impacts continued off-site. In the areas excavated a demarcation layer was placed at the bottom of the excavation and then backfilled with soil meeting the requirements for residential use as set forth in 6 NYCRR Part 375-6.8(d). The entire excavation area was seeded, fertilized and mulched. A 400 square foot gravel parking area was constructed adjacent to Canal Street along the western boundary.

## 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.

The primary contaminants of concern at the site include benzene, toluene, ethylbenzene, xylenes (BTEX) and polycyclic aromatic hydrocarbons (PAHs). The investigation findings are presented in the Interim Remedial Measure (IRM) Pre-Design Report.

Soil: The Interim Remedial Measure (IRM) Construction Completion Report and Adjacent property Investigation Report both indicated that coal tar containing these contaminants of concern (COCs) is present on adjacent properties to the east and south of the site. To the east, the coal tar was found within a 4 inch clay tile pipe. To the south, the coal tar was found within a peat lined trench. The maximum concentrations detected in soil on-site ranged from non-detect to 5,800 ppm total PAHs. Subsurface soil impacts were encountered at depths ranging from 2 to 14 feet below ground surface. Surface soil impacts on-site ranged from non-detect to 41 ppm total PAHs. BTEX analyses were all below detection limits for both surface and subsurface soils on-site. In off-site subsurface soils, PAH and BTEX analyses were all below detection limits.

Groundwater: During the groundwater monitoring program at the site, no impacts to groundwater from the contaminants of concern were identified.

### 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*.

Direct contact with the low-level residual contamination in soil is unlikely as contaminated soils are covered with clean backfill. People could come in contact with contamination in the vicinity of the clay tile conduit extending on the off-site property east of the site and on the property to the south by digging or otherwise disturbing the soil in these areas.

### 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:

**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 or surface water contamination.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

## 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.

The selected remedy is referred to as the Off-Site Excavation remedy.

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

1. Green remediation principles and techniques will be implemented to the extent feasible in the 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;
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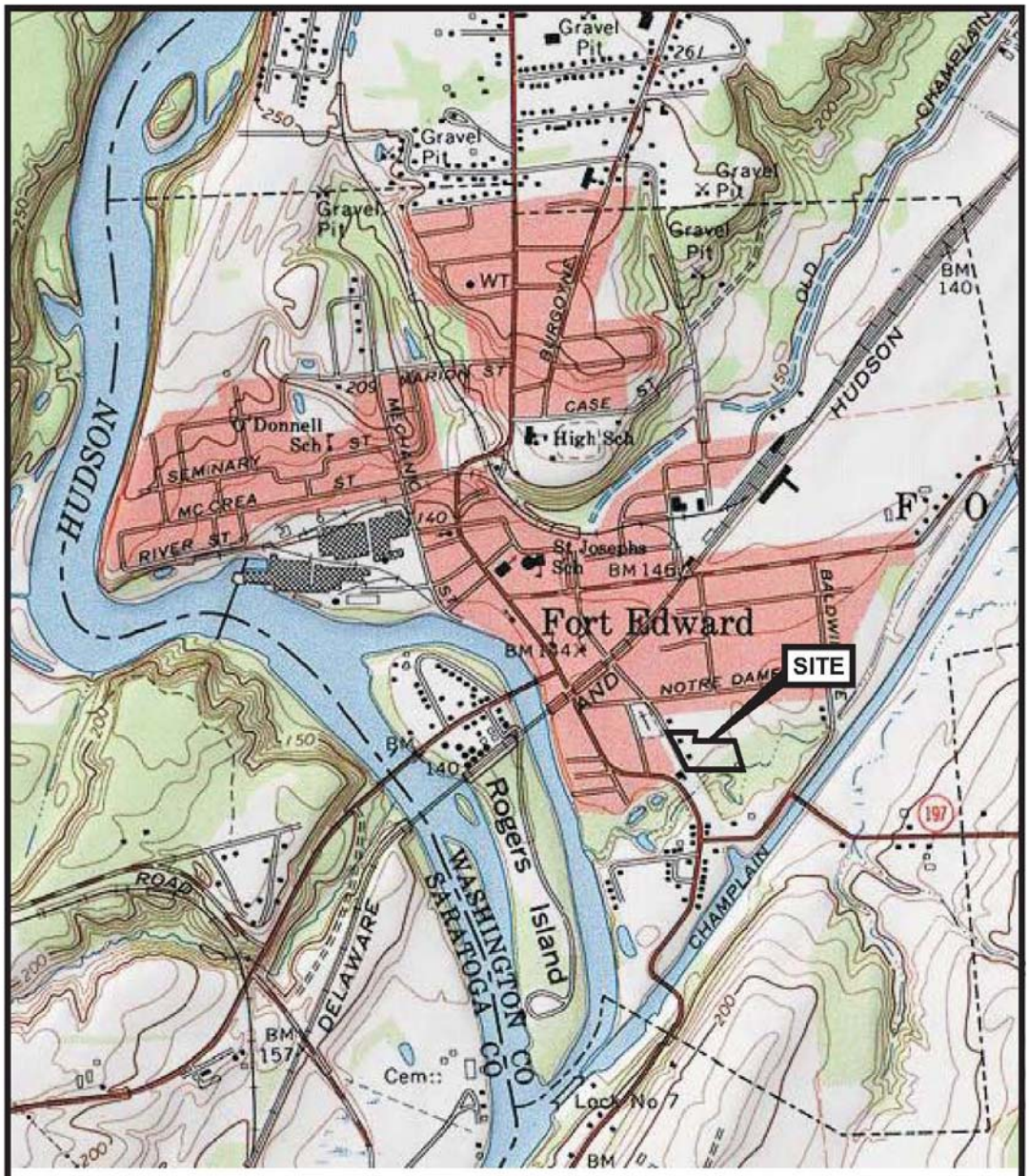
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification;
- and the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.


Gravel Pit
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Fort Edward
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SARATOGA CO
DELAWARE
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SOURCE: Map created with TOPO! ® ©2001 National Geographic (www.nationalgeographic.com/topo)
0
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SCALE, FEET
FORT EDWARD REMEDIAL ACTION WORK PLAN
FORMER MGP SITE
FORT EDWARD, NEW YORK
nationalgrid
GEI Consultants
SITE LOCATION MAP
Project 116820-1-1102
May 2012
Figure 1
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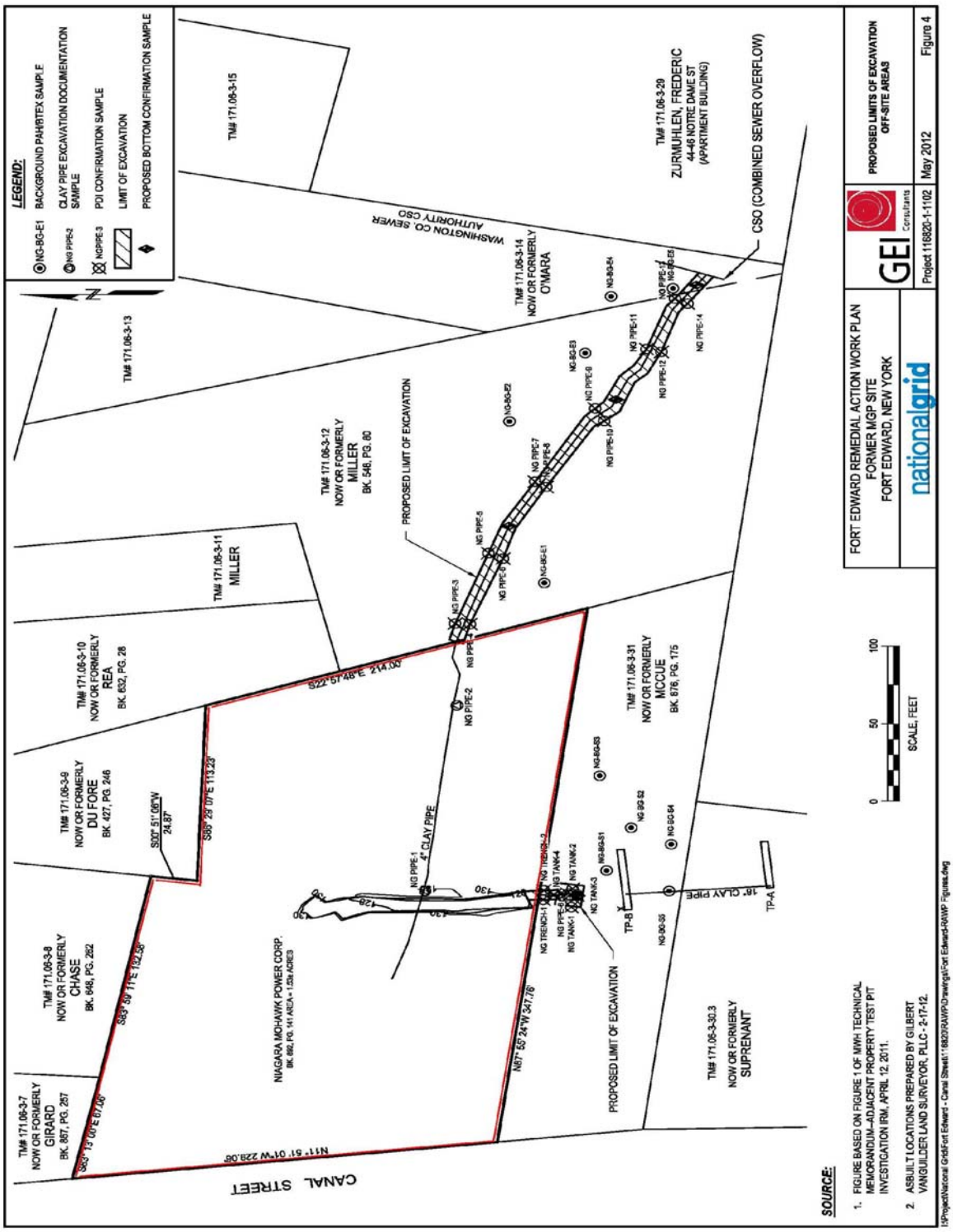
LEGEND:
NG-BG-E1 BACKGROUND PAH/BTEX SAMPLE
NG PIPE-2 CLAY PIPE EXCAVATION DOCUMENTATION SAMPLE
NGPIPE-3 PDI CONFIRMATION SAMPLE
LIMIT OF EXCAVATION
PROPOSED BOTTOM CONFIRMATION SAMPLE
N
TM# 171.06-3-15
TM# 171.06-3-13
TM# 171.06-3-14 NOW OR FORMERLY O'MARA
WASHINGTON CO. SEWER AUTHORITY CSO
TM# 171.06-3-29 ZURMUHLEN, FREDERIC 44-46 NOTRE DAME ST (APARTMENT BUILDING)
CSO (COMBINED SEWER OVERFLOW)
TM# 171.06-3-12 NOW OR FORMERLY MILLER BK. 548, PG. 80
PROPOSED LIMIT OF EXCAVATION
TM# 171.06-3-11 MILLER
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TM# 171.06-3-9 NOW OR FORMERLY DU FORE BK. 427, PG. 246
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S07° 51' 08"W 24.87'
S80° 29' 07"E 113.29'
NG PIPE-1 4" CLAY PIPE
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NG TRENCH-1
NG TRENCH-2
NG TANK-1
NG TANK-2
NG TANK-3
NG TANK-4
NG-BG-S1
NG-BG-S2
NG-BG-S3
NG-BG-S4
NG-BG-S5
TP-B
TP-A
18" CLAY PIPE
TM# 171.06-3-31 NOW OR FORMERLY MICCUE BK. 676, PG. 175
TM# 171.06-3-30.3 NOW OR FORMERLY SUPRENANT
PROPOSED LIMIT OF EXCAVATION
N87° 59' 24"W 347.76'
NIAGARA MOHAWK POWER CORP. BK. 662, PG. 141 AREA = 1.53± ACRES
S63° 59' 11"E 132.58'
TM# 171.06-3-8 NOW OR FORMERLY CHASE BK. 648, PG. 262
TM# 171.06-3-7 NOW OR FORMERLY GIRARD BK. 857, PG. 257
S83° 19' 00"E 87.06'
N11° 51' 01"W 228.08'
CANAL STREET
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100
SCALE, FEET
FORT EDWARD REMEDIAL ACTION WORK PLAN
FORMER MGP SITE
FORT EDWARD, NEW YORK
nationalgrid
GEI Consultants
PROPOSED LIMITS OF EXCAVATION OFF-SITE AREA3
Project 116820-1-1102
May 2012
Figure 4
SOURCE:
1. FIGURE BASED ON FIGURE 1 OF MWH TECHNICAL MEMORANDUM–ADJACENT PROPERTY TEST PIT INVESTIGATION RM, APRIL 12, 2011.
2. ASBUILT LOCATIONS PREPARED BY GILBERT VANGUILDER LAND SURVEYOR, PLLC - 2-17-12.
I:\Project\National Grid\Fort Edward - Canal Street\116820\RAWP\Drawings\Fort Edward-RAWP Figures.dwg