HALEY ALDRICH

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REPORT ON

PRE-DESIGN INVESTIGATION WORK PLAN
SENECA FALLS FORMER MGP SITE,
SITE NO. 8-50-010
SENECA FALLS, NEW YORK

by Haley & Aldrich of New York
Rochester, New York

for New York State Department of Environmental Conservation
Albany, New York

File No. 34507-974
October 2015

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14 October 2015
File No. 34507-974

New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C, 11th Floor
625 Broadway
Albany, New York 12233-7014

Attention: Mr. Douglas MacNeal, P.E.

Subject: Pre-Design Investigation Work Plan
Seneca Falls Former MGP Site, Site No. 8-50-010
Seneca Falls, New York

Dear Mr. MacNeal:

Rochester Gas & Electric Corporation (RG&E) retained Haley & Aldrich of New York (Haley & Aldrich) to prepare this Pre-Design Investigation (PDI) Work Plan for the Seneca Falls Former Manufactured Gas Plant (MGP) Site located in Seneca Falls, New York (Figure 1). The goal of the PDI is to provide data to support the Remedial Design (RD) for the upland portion of the Site and pre-characterize soil and sediment in preparation for future remediation construction waste disposal.

Background

The Former MGP Site is bordered to the east by residential properties (181-185 Fall Street), to the south by the Seneca River and Canal (a Class C surface water), to the west by a gasoline filling station (193 Fall Street), and to the north by Fall Street. The northern portion of the Site (the Upland Area) which includes a paved vehicle parking area and building slab is separated from the southern portion of the Site (the Lowland Area) by a steep slope. The residential property which abuts the Upland Area to the east, 185 Fall Street, is currently vacant and owned by New York State Electric & Gas Corporation (NYSEG).

The Site is located in a mixed residential and commercial portion of Seneca Falls Village and is currently vacant. The Site and adjacent properties are zoned 'Highway Commercial", which includes various commercial uses. Residential use within this zoning designation is allowed for properties where residential use pre-dated the current zoning ordinance.

Based on the outcome of Remedial Investigation (RI) activities completed in 2007, 2008, and 2009, Haley & Aldrich prepared a Feasibility Study (FS) report to identify and evaluate remedial alternatives to address potential exposure pathways to MGP-related materials that were identified during the RI. The potential exposure pathways included the following:

- On-site (Upland and Lowland Areas): Complete exposure pathways to surface soil were identified for current and future scenarios: an on-site utility worker, trespasser, or RG&E/NYSEG employee occasionally visiting the Site. A complete exposure pathway to surface soil was identified for a future construction worker under the scenario that a new building is constructed at the Site. Complete exposure pathways to subsurface soil were identified for current and future utility workers, and for a future construction worker under the scenario that a new building is constructed at the Site.

- Off-site Residence at 185 Fall Street: Complete exposure pathways to surface soil and subsurface soil were identified for a current and future resident or construction worker.

- For the Seneca River and Canal: Complete exposure pathways to sediment were identified for current and future trespassers and boaters.

To address the current and future exposure pathways, the NYSDEC-approved FS recommended In-Situ-Solidification/Stabilization (ISS) of impacted soil in the Upland Area, capping of impacted soils in the Lowland Area, excavation and off-site treatment/disposal of surface and subsurface soil at 185 Fall Street, dredging of impacted Seneca River and Canal sediments, institutional controls, and monitored natural attenuation (MNA) of impacted groundwater. This recommended remedial alternative was approved by NYSDEC in a Record of Decision (ROD) issued on 31 March 2015.

The objectives of the PDI field activities described in this Work Plan include the following:

- Develop a comprehensive Site plan with ground surface topography, underground utilities, and the limits of federal and state wetlands to support the Remedial Design and future remediation construction;

- Collect Upland Area soil samples and Seneca River and Canal sediment samples (if accessible) for waste characterization purposes and disposal facility pre-approval; and,

- Collect Upland Area soil samples for ISS bench scale testing and geotechnical parameter testing to support the Remedial Design.

Pre-Design Investigation Scope of Work

Specific field and reporting tasks to fulfill the PDI objectives are described below.

TASK 1 – UPDATED SITE SURVEY

Haley & Aldrich will perform a wetlands survey along the Seneca River and Canal to flag federal and state wetlands, if any, in the vicinity of the proposed remediation. Haley & Aldrich will then contract with a New York licensed land surveyor to obtain an updated comprehensive survey of the Site and adjacent site features necessary to support the Remedial Design. The survey will include topography, property lines, ordinary high water and wetlands associated with the Seneca River and Canal, Fall Street right-of-way as well as underground and overhead electrical lines. The outcome of the wetlands

delineation will be documented in a wetland and stream delineation report (with supporting figures, photos and data forms) describing the delineation methodology, and the number, size, and characteristics of the wetlands and streams identified within the boundaries of the Site and 193 Fall Street Lowland Area where remediation construction is planned.

TASK 2 – SOIL SAMPLING

Haley & Aldrich will to obtain soil and sediment samples to the support the Remedial Design and facilitate future remediation construction activities. The PDI samples will include the following:

- Waste Characterization Soil Samples: Up to six samples of representative soil from the Upland Area of the Site and the vacant 185 Fall Street property will be collected for pre-characterization laboratory testing to establish acceptance by a disposal facility. The samples will be collected from up to five test pits (TP-15-01 through TP-15-05) completed in the Upland Area of the Site and 185 Fall Street backyard area (Figure 2). Waste characterization soil samples will be submitted to TestAmerica Analytical Laboratory for chemical analysis of waste characterization parameters including TCLP volatiles, TCLP semi-volatiles, TCLP RCRA metals, PCBs, reactive cyanide, reactive sulfide, flashpoint, percent solids, paint filter (free liquids) and pH/corrosivity.

- Waste Characterization Sediment Samples: If accessible from the shoreline at the time of field work, five additional samples (SE-15-01 through SE-15-05) will be collected from the Seneca River and Canal sediment for pre-characterization laboratory testing (Figure 2). Waste characterization sediment samples will be submitted to TestAmerica Analytical Laboratory for chemical analysis of waste characterization parameters including TCLP volatiles, TCLP semi-volatiles, TCLP RCRA metals, PCBs, reactive cyanide, reactive sulfide, flashpoint, percent solids, paint filter (free liquids) and pH/corrosivity

- Bench Scale Samples: Approximately 15 gallons of soil for ISS bench scale testing will be collected from the four test pits (TP-15-01 through TP-15-04) completed on the Upland Area of the Site (Figure 2). The soil will be shipped to Timely Engineering Soil Test, LLC (Timely) in Tucker, Georgia for ISS bench scale testing.

- Geotechnical Samples: Two soil samples will be collected from two of the four test pits completed on the Upland Area of the Site for geotechnical laboratory testing including unit weight and grain size distribution to be used during remedial design. The locations of the representative samples will be selected at the time of field work.

The five test pits will be logged in the field to provide further information regarding subsurface conditions. Note that one test pit (TP-15-03) is planned for inside the below ground gas holder, monitoring well MW-08-02 may be damaged or destroyed in the process. Test pit methodology, field sample collection, and community air monitoring will be completed in accordance with the NYSDEC-approved Preliminary Site Assessment Work Plan dated September 2007 and Remedial Investigation Work Plan dated June 2009. Sediment samples will be collected with manual coring methods in accordance with the methodology described in the Remedial Investigation Work Plan dated June 2009.

TASK 3 – DESIGN PHASE BENCH SCALE TESTING

Haley & Aldrich will submit soil samples to Timely to complete bench scale testing using soil obtained from the Upland Area of the Site to determine an effective mix design (reagent type(s) and additive rate) for the ISS. The purpose of the design phase bench scale testing is to demonstrate feasibility and information to the remedial contractor bidders about reagent needs. The bench scale treatability testing program will include the following:

- Measure the moisture content, unit weight, and bulk density of the homogenized untreated soil samples;
- Prepare trial batches of 3:1 granulated ground blast furnace slag (GGBFS) to Portland Type I/II cement at additive rates of 5%, 7.5% and 12%;
- Measure grout viscosity and slump for the three trial batches, which is useful to understand field mixing properties and field quality control;
- Unconfined compression strength of the three trial batches at 7 and 28 days curing (a total of six compression tests); and,
- Permeability testing of the three trial batches at 28 days curing (a total of three permeability tests).

The treatability study report will be provided as part of the Remedial Design documents.

Schedule

We anticipate beginning the PDI field tasks immediately following NYSDEC approval of this Work Plan. RG&E prefers to complete the PDI field tasks during the Fall 2015. If you have any questions or require additional information, please call Douglas Allen (Haley & Aldrich) at 603.391.3320 or Jeremy Wolf (RG&E) at 585.724.8548.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

Douglas C. Allen, P.G.
Senior Project Manager

Colin Sweeney
Vice President

Enclosures:
References
Figure 1 – Project Locus
Figure 2 – Proposed PDI Sampling Locations

c: RG&E; Attn: Jeremy Wolf

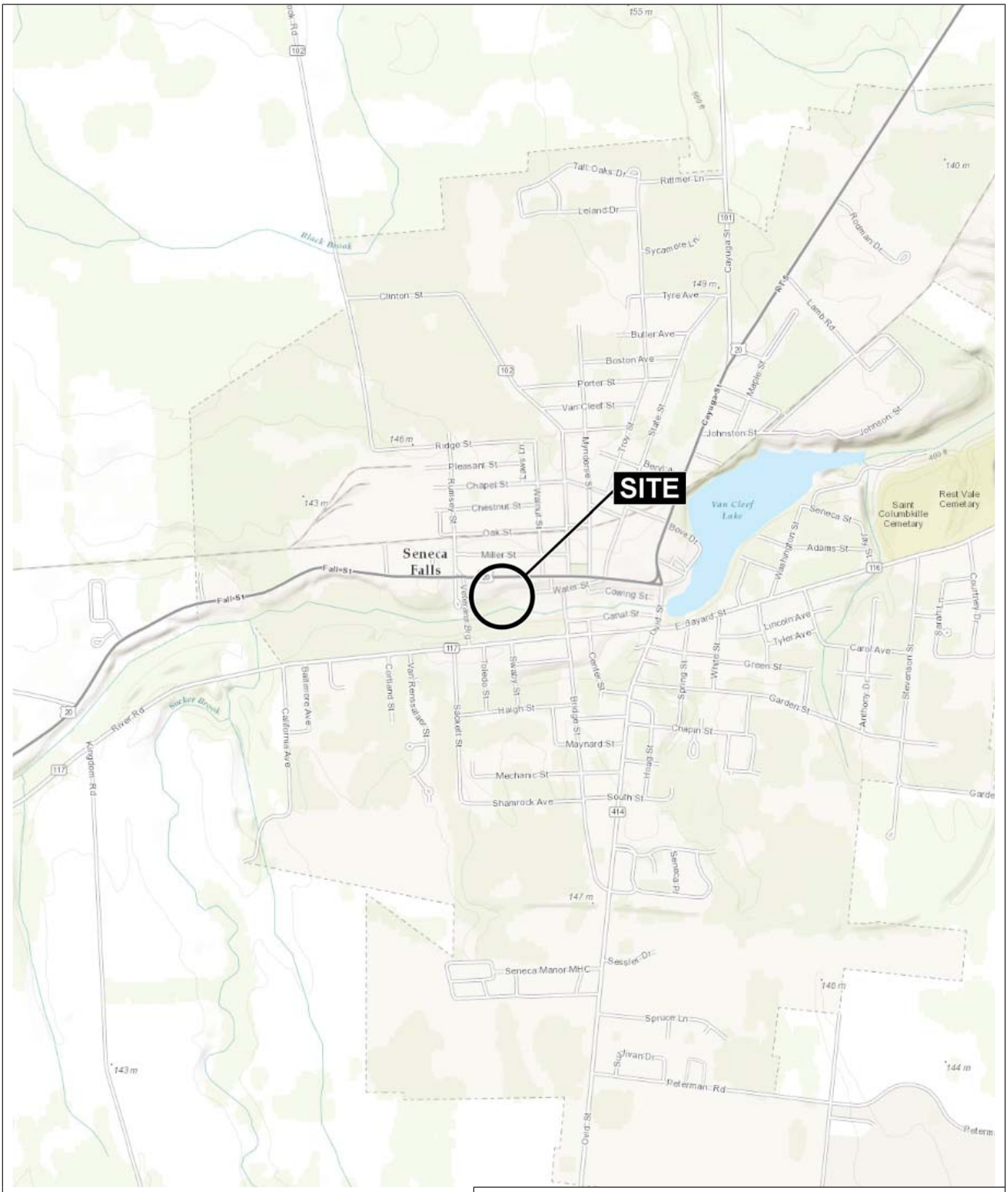
References

Haley & Aldrich of New York, 2007. Preliminary Site Assessment Work Plan, September 2007.

Haley & Aldrich of New York, 2009. Remedial Investigation Work Plan, June 2009.

Haley & Aldrich of New York, 2015. Feasibility Study, January 2015.

New York State Department of Environmental Conservation, 2015. Record of Decision, March 2015.



MAP SOURCE: ESRI

SITE COORDINATES: 42°54'35"N, 76°48'14"W

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SENECA FALLS FORMER MGP
187 FALL STREET
, NEW YORK

PROJECT LOCUS

APPROXIMATE SCALE: 1 IN = 2000 FT
OCTOBER 2015

FIGURE 1

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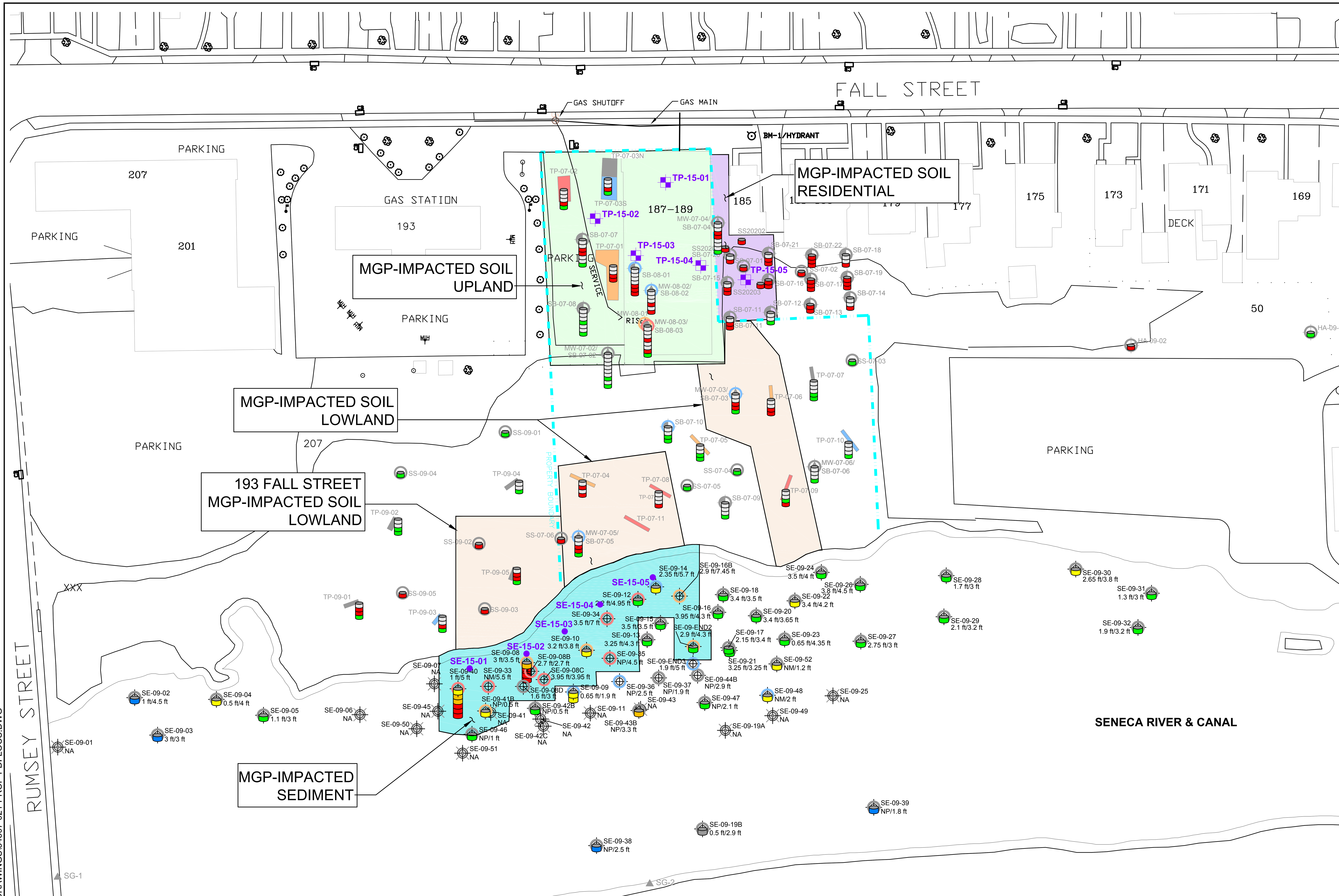

LEGEND

- PROPERTY LINE
- MONITORING WELL
- SOIL BORING
- SURFACE SOIL SAMPLE
- TEST PIT
- STREAM GAUGE
- HAND AUGER LOCATION
- SEDIMENT LOCATION WITH THICKNESS OF SOFT SEDIMENT/DEPTH TO REFUSAL (SE-09-04, 0.5 ft/4 ft)
- UPLAND PROPERTY - AREA OF MGP-IMPACTED SOILS
- RESIDENTIAL PROPERTY - AREA OF MGP-IMPACTED SOILS
- LOWLAND PROPERTY - AREA OF MGP-IMPACTED SOILS
- RIVER - AREA OF MGP-IMPACTED SEDIMENTS
- PROPOSED PDI TEST PIT LOCATION
- PROPOSED PDI SEDIMENT SAMPLE LOCATION

NOTES

1. SOIL DOT COLOR IS BASED ON COMPARISON WITH SOIL CLEANUP OBJECTIVES.
2. SEDIMENT DOT COLOR IS BASED ON MAXIMUM TOTAL PAHs PER SAMPLE LOCATION.
3. SEDIMENT EXPLORATION LOCATION SE-09-19 WAS NOT COMPLETED.
4. NA: NOT AVAILABLE
   NM: NOT MEASURED
   NP: NOT PENETRABLE
5. ALL LOCATIONS AND DIMENSIONS APPROXIMATE.

SOIL TOWER LEGEND

- GROUND SURFACE
- 0 TO 1 FOOT BGS
- 1 TO 2 FEET BGS
- 2 TO 5 FEET BGS
- 5 TO 10 FEET BGS
- 10 TO 15 FEET BGS
- 15 TO 20 FEET BGS
- 20 TO 25 FEET BGS
- 25 TO 30 FEET BGS
- 30 TO 35 FEET BGS

SOIL TOWER COLOR LEGEND: COMPARED TO SOIL CLEANUP OBJECTIVES FOR COMMERCIAL OR RESIDENTIAL

- NO SAMPLE COLLECTED
- SAMPLE COLLECTED, NO EXCEEDANCE
- SAMPLE COLLECTED, ONE OR MORE EXCEEDANCES

SEDIMENT TOWER LEGEND

- TOP OF SEDIMENT
- 0 TO 0.5FOOT BGS
- 0.5 TO 1 FEET BGS
- 1 TO 1.5 FEET BGS
- 1.5 TO 2 FEET BGS
- 2 TO 2.5 FEET BGS
- 2.5 TO 3 FEET BGS

SEDIMENT TOWER COLOR LEGEND - TOTAL PAHs

- NON-DETECT TO 0.1 MG/KG
- 0.1 TO 1 MG/KG
- 1 TO 10 MG/KG
- 10 TO 100 MG/KG
- 100 TO 1000 MG/KG
- >1000 MG/KG

VISUAL/OLFACTORY OBSERVATIONS

- NO OBSERVED IMPACTS
- ODOR OR STAINING
- MINOR TLM/OLM BLEBS
- TLM/OLM PRESENT
- REFUSAL - NO SEDIMENT PRESENT

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SENECA FALLS FORMER MGP
187 FALL STREET
SENECA FALLS, NEW YORK

PROPOSED PDI SAMPLING LOCATIONS

SCALE: AS SHOWN
OCTOBER 2015

FIGURE 2

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