nationalgrid

Donald Campbell
Project Manager

August 8, 2011

Mr. Scott Deyette
Project Manager
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7014

Re: Supplemental Site Characterization Work Plan
Skillman Street Holder Station Site
Brooklyn, New York
Site No. 224068
Index No. A2-0552-0606

Dear Mr. Deyette:

National Grid is submitting for your review and approval the following work plan to conduct Supplemental Site Characterization (SSC) activities at the Skillman Street Former Holder Station Site in Brooklyn, New York (Site). The current conditions of the property are shown in Figure 1.

This SSC letter work plan was developed in response to with New York State Department of Environmental Conservation's (NYSDEC's) request for additional characterization of upgradient groundwater on August 1, 2011. The term upgradient refers to the current groundwater flow condition, which appears to be influenced by Metropolitan Transit Authority (MTA) groundwater extraction wells located on Marcy Avenue between Ellery Street and Lafayette Avenue. Based on topography and nearby historical streams, the current upgradient direction is believed to have been the downgradient direction prior to the installation of the groundwater extraction wells.

When the SSC work is completed and analytical data have been validated, a Site Characterization (SC) report will be prepared that incorporates the SC and SSC findings.

The remaining portion of this letter provides the proposed SSC work plan in detail.

1.0 Supplemental Site Characterization

This SSC Work Plan proposes the installation of two soil borings and two monitoring wells. The purpose of these borings and wells is to evaluate the presence or absence of BTEX and chlorinated solvents to the west (upgradient) of the Site. During the implementation of the SC, BTEX and chlorinated solvents were encountered adjacent to and upgradient of the Site in groundwater at SSMW-02, SSMW-06, and SSGP-06. The locations of the proposed soil borings and monitoring wells are provided in Figure 1. The SSC will be conducted in accordance with the NYSDEC-approved Site Characterization Work Plan dated July 2007, that includes the Health and Safety Plan, Quality Assurance Project Plan, and Field Sampling Plan.

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1.1 Soil Boring Installation

Two soil borings (SSGP-17 and SSGP-18) are proposed within street ROWs east of the Site (Figure 1). The proposed soil borings will be installed with a Geoprobe® drill rig in general accordance with drilling methods and procedures in the FSP and SC Work Plan. Actual drilling locations will be determined based upon the subsurface utility clearance activities. The intersection of Franklin and Flushing Avenues is a major utility corridor for Consolidated Edison. If the borings can not be installed at the proposed locations, they will be installed at the closest possible upgradient location. Each location will be cleared using manual or vacuum clearance methods to a depth of 5 feet or 1 foot below the estimated depth of any nearby known utility, whichever is deeper. Soil samples will be collected and logged continuously to termination depth of 40 feet below ground surface (bgs) at each boring.

One soil sample will be selected for chemical analysis from each boring at the depth interval indicating the greatest degree of contamination to evaluate the magnitude of the observed impacts. The greatest degree of contamination will be identified by field screening of the borings with a PID, and by visual and olfactory observations. If no impacts are observed at a particular on-site boring location, a soil sample will be obtained for analysis at the apparent observed water table. Each sample will be analyzed for volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) by EPA Method 8270C (Table 1).

Following the collection of subsurface soil samples, the borings will be completed as monitoring wells. Drilling equipment (i.e., drilling rods, and macro-core sampler) will be decontaminated between each sample location. Soil cuttings and decontamination fluids will be contained within United States Department of Transportation (USDOT) 55-gallon drums and disposed of at a National Grid-approved disposal facility.

A Community Air Monitoring Plan (CAMP) will be implemented at the Site during intrusive field activities.

1.2 Monitoring Well Installation and Development

Two monitoring wells (SSMW-07 and SSMW-08) are proposed to evaluate the groundwater conditions at the water table (Figure 1). Monitoring wells will be screened across the water table which is anticipated to be encountered at approximately 12 feet bgs.

At the proposed monitoring well locations, the Geoprobe® drill rig will advance casing with an expendable point to the required termination depth of the monitoring well. Each monitoring well will be constructed of with an approximate 10-foot length of pre-packed 2.5-inch outer diameter (OD), 1.5-inch inner diameter (ID), 0.010-inch slotted, monitoring well screens. Each pre-pack screen will be finished with 1.5 in ID poly vinyl chloride (PVC) riser pipe to the surface. One to 2 feet above the top of the screen will be backfilled with chemically inert silica sand. A

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bentonite seal will be placed above the pre-packed screen and sand pack. The bentonite seal will be a minimum of 24-inches thick. The remainder of the annular space will be filled with a bentonite cement grout up to the ground surface. The grout will be temmied from the bottom up to the top. The grout will be allowed to set for a minimum of 48 hours prior to developing the monitoring wells. The top of the casing will be finished using flush-mount casings with keyed-alike locks. A concrete surface pad will be sloped to channel water away from the well casing.

Drilling equipment (i.e., drilling rods, auger, and casing) will be decontaminated between each sample location. Soil cuttings and decontamination fluids will be contained within USDOT 55-gallon drums and disposed of at a National Grid-approved disposal facility.

A Community Air Monitoring Plan (CAMP) will be implemented at the Site during intrusive field activities.

The monitoring wells will be developed in accordance with the FSP and RI Work Plan. Purge waters will be contained within USDOT 55-gallon drums and disposed of at a National Grid-approved disposal facility.

1.3 Groundwater Sampling and Gauging

Monitoring wells SSMW-07 and SSMW-08 will be purged and sampled after a minimum of two weeks following completion of well development using low-flow groundwater sampling procedures in accordance with the FSP and SC Work Plan.

Prior to sampling, one synoptic round of groundwater level measurements will be recorded for the newly installed and existing monitoring wells.

Each groundwater sample will be analyzed for VOCs via EPA Method 8260B and SVOCs via EPA Method 8270C (Table 1).

Purge waters will be contained within USDOT 55-gallon drums and disposed of at a National Grid-approved disposal facility.

1.4 Survey

The sample locations will be surveyed by a New York State Licensed Land Surveyor. The elevation of each sample location will be determined to ±0.02 foot and will be tied into the Site benchmark. All locations and elevations will be referenced to the New York State Plane Eastern Zone North American Datum 1983 and North American Vertical Datum 1988.

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1.5 Data Validation and Management

The soil and groundwater samples will be analyzed by TestAmerica-Connecticut which is a NYSDOH environmental lab approval program accredited laboratory. TestAmerica will provide analytical results in a New York State Category B data deliverable format. The data will be validated in accordance with New York State Analytical Service Protocols (ASP) and a data usability summary report (DUSR) will be prepared documenting the adequacy of the analytical data obtained from the laboratory and discussing any pertinent data excursions or limitations on the use of the data.

2.0 Schedule and Reporting

We anticipate field sampling activities will start on August 22, 2011. The soil boring and well installation and well development activities are expected to take three days. Groundwater will be sampled at least two weeks following well development. The data will be included in the SC report.

If you have any questions or require additional information, please feel free to contact me at (718) 963-5453 or by e-mail at donald.campbell@us.ngrid.com.

Sincerely,

Donald Campbell
Project Manager

Attachment

cc: T. Bell – National Grid
B. Callaghan – NYSDOH
D. Terry – GEI
M. Felter – GEI

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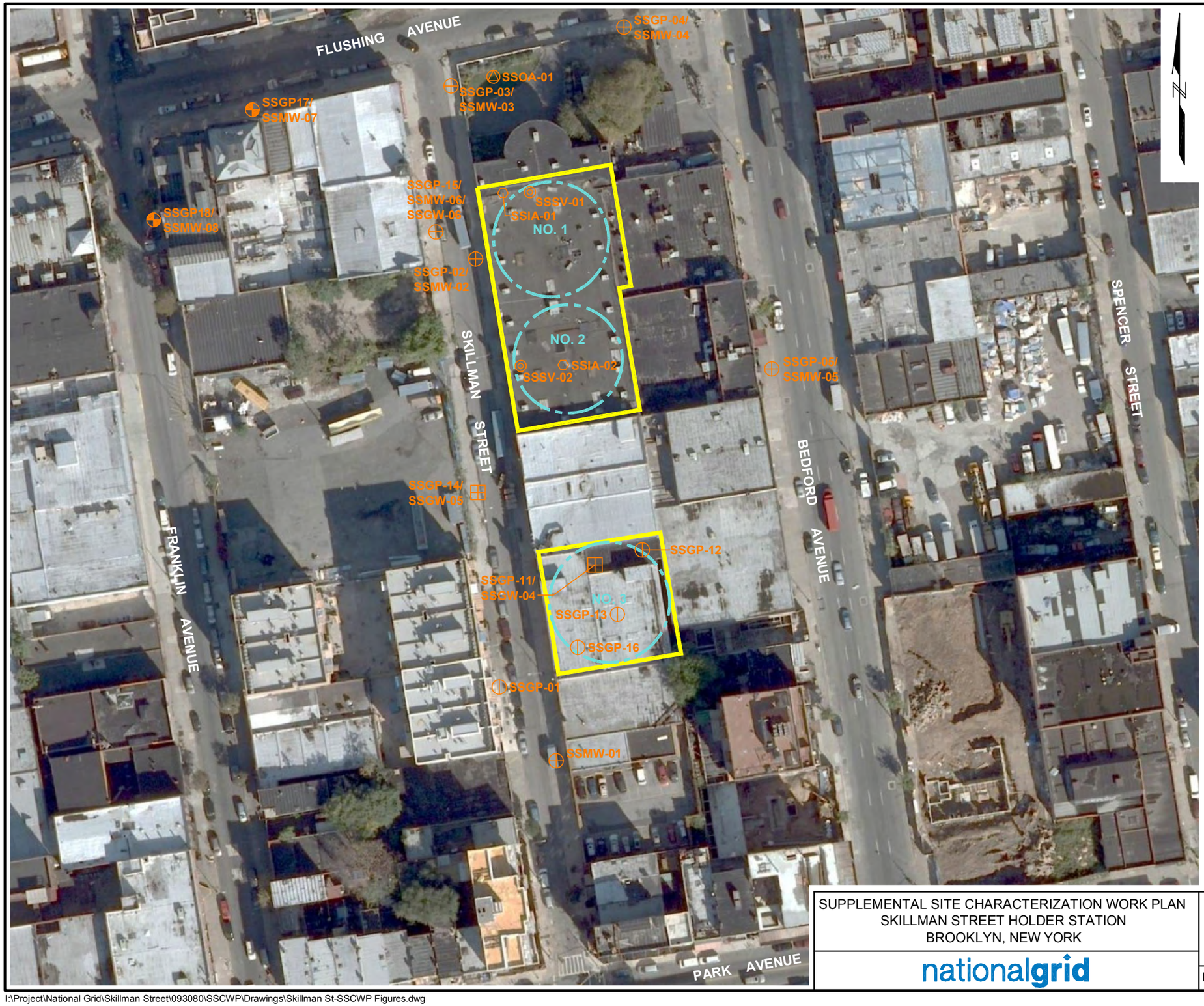
Table 1
Sample Descriptions, Rationale and Analysis
Skillman Street Former Holder Station
Supplemental Site Characterization
Brooklyn, New York

Sample I.D.	Sample Location	Sample Rationale	Number of Samples		VOCs (EPA 8260)	SVOCs (EPA 8270)
			Soil	Groundwater		
SSGP-17/ SSMW-07	Flushing Avenue right-of-way (ROW) within the sidewalk northwest of the Skillman Street Former Holder Station.	Soil boring and monitoring well located upgradient of the former holder footprint to provide background soil and groundwater information.	1	1	X	X
SSGP-18/ SSMW-08	Franklin Avenue ROW within the sidewalk west of the Skillman Street Former Holder Station.	Soil boring and monitoring well located upgradient of the former holder footprint to provide background soil and groundwater information.	1	1	X	X

Notes:
Chemical analysis test methods specified are from U.S. EPA SW-846 test methods
EPA - Environmental Protection Agency
VOC - volatile organic compounds
SVOC - semivolatile organic compounds



LEGEND:

SITE BOUNDARY(APPROXIMATE)

HISTORICAL GAS HOLDER LOCATION

SAMPLE LOCATIONS:

SSGP17/ SSMW-07	PROPOSED GEOPROBE® BORING/ MONITORING WELL
SSGP-03/ SSMW-02	GEOPROBE® BORING/ MONITORING WELL
SSGP-14/ SSGW-05	GEOPROBE® BORING/TEMPORARY GROUNDWATER SAMPLING POINT
SSGP-06	GEOPROBE® BORING
SSSV-01	SOIL VAPOR SAMPLE
SSOA-01	OUTDOOR AIR SAMPLE
SSIA-01	INDOOR AIR SAMPLE

SOURCES:

1. BING AERIAL IMAGERY © 2011 MICROSOFT CORPORATION (www.bing.com/maps) ACCESSED ON 06/24/11.
2. SURVEY OF SAMPLE LOCATIONS CONDUCTED BY GEI CONSULTANTS, INC. ON 5/31/11 AND 6/23/11. SURVEY BY NEW YORK STATE LICENSED LAND SURVEYOR NUMBER 050146. HORIZONTAL DATUM: NEW YORK STATE PLANE COORDINATE SYSTEM (NY EAST ZONE), VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM (NAVD)88.

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SCALE, FEET

SUPPLEMENTAL SITE CHARACTERIZATION WORK PLAN
SKILLMAN STREET HOLDER STATION
BROOKLYN, NEW YORK

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GEI Consultants

Project 093080-1-1101

PROPOSED SAMPLE LOCATIONS

August 2011 Figure 1

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