REMEDIAL INVESTIGATION WORK PLAN

FORMER B + L GLASS PLANT - SUNTRU STREET SITE
NYSDEC SITE NO. 828225

Prepared For:

BAUSCH + LOMB

HELPING PEOPLE SEE BETTER TO LIVE BETTER

170 YEARS

1400 N. Goodman Street
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OCTOBER 2023

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ACRONYM	Definition
AOC	area of concern
ASTM	American Society for Testing and Materials International
bgs	below ground surface
B+L	Bausch + Lomb Corporation
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
BNA	Base/Neutral Acid
BTEX	benzene, toluene, ethylbenzene, xylene
CAMP	Community Air Monitoring Plan
CFR	Code of Federal Regulations
CSM	Conceptual Site Model
COC	Contaminant of concern
COPC	Contaminants of potential concern
EC	electroconductivity survey
EM	electromagnetic induction
ESA	Environmental Site Assessment
GPR	ground-penetrating radar
HFM	historical fill material
ID	inner diameter
IDW	investigation derived waste
MDL	method detection limit
MGP	manufactured gas plant
NAPL	non-aqueous phase liquid
NES	NES, Inc.
NYCRR	New York Codes, Rules and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PAH	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyls
RAA	remedial alternatives analysis
OD	outer diameter
OSHA	Occupational Health and Safety Administration

ACRONYM	Definition
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyls
PID	photoionization detector
PSHEP	Project Safety, Health, & Environment Plan
QAPP	Quality Assurance Project Plan
REC	recognized environmental conditions
RF	radio frequency
RG&E	Rochester Gas and Electric Corporation
RI	Remedial Investigation
RIWP	Remedial Investigation Work Plan
ROD	Record of Decision
PID	photoionization detector
SCO	soil cleanup objective
SCR	Site Characterization Report
Site	Former Glass Plant – Suntru Street Site
SOP	standard operating procedure
SPT	standard penetration testing
SVOC	semivolatile organic compound
TAL	target analyte list
TCL	target compound list
TCLP	Toxicity Characteristic Leaching Procedure
USCS	Unified Soil Classification System
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

CERTIFICATION STATEMENT

I, Nathan Kranes, certify that I am currently a New York State-registered Professional Geologist and that this RI-Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with DER Technical Guidance for Site Investigation and Remediation (DER-10, May 2010).

August 30, 2023

Date

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1.0 INTRODUCTION

This Remedial Investigation Work Plan (RIWP) was prepared on behalf of Bausch and Lomb (B+L) (the Requestor) for the Former Glass Plant Site (the Site) NYSDEC Site No. 828225 located at the northern end of Suntru Street, an access road located off Bausch Street in the City of Rochester, Monroe County, New York. The property address is 10 Bausch Street (Tax Parcel No. 106.45-1-32) and is currently owned by Bausch and Lomb Corporation (B+L). The Applicant will implement the RIWP after the Site is enrolled in the New York State Brownfield Cleanup Program (BCP), pursuant to the forthcoming Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC).

The objective of the Remedial Investigation (RI) is to characterize the nature and extent of environmental impacts at the Site and to provide sufficient information to evaluate remedial alternatives, as required. This RIWP was developed in accordance with the process and requirements identified in the NYSDEC Division of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation (May 2010).

2.0 SITE BACKGROUND

2.1 Site Location and Description

The Former B + L Glass Plant – Suntru Street Site (Site) (**Figure 1**) is located at the northern end of Suntru Street, an access road located off Bausch Street in the City of Rochester, Monroe County, New York. The property address is 10 Bausch Street (Tax Parcel No. 106.45-1-32) and is currently owned by Bausch and Lomb Corporation (B+L). The parcel of property is approximately 7.8 acres in size and is bordered to the west by the Genesee River and a New York state-owned parcel (Tax Parcel No. 106.53-1-9), to the north by a railroad bridge, to the east by the Genesee River gorge wall, and to the south by Suntru Street and the former Rochester Gas and Electric (RG&E) East Station manufactured gas plant (MGP; Tax Parcel No. 106.53-1-10; New York State Department of Environmental Conservation [NYSDEC] Site No. 828204) (**Figure 2**). The property is zoned "M-1 Industrial", and the Site is currently vacant and surface features include the former glass manufacturing facility building footprint and slab, unpaved areas, and partially wooded areas.

2.2 Site History

According to the Phase I Environmental Site Assessment (ESA) prepared by Leader Professional Services, Inc. (May 2002), initial development of the Site likely started around 1850 with the development of the property use for the use of two raceways and possibly ferry slips. Multiple fill periods took place on the property by the previous landowners, including the infilling of the raceways, prior to purchase of the property by B+L. According to the Phase I ESA, the two raceways were present at the Site from at least 1851 to 1869, and then were filled in sometime between 1869 and 1875. Another single raceway was present on the east portion of the Site between 1880 and 1890. The second raceway on the Site was filled by 1900, and the Site property appeared to remain undeveloped, with the RG&E Gas Plant in operation on the adjoining property south. The Phase I ESA also suggest that additional general fill periods occurred at the Site prior to 1850 and again prior 1910 to create the elevated river flat area for general development during this time frame. The first glass manufacturing facility was constructed by B+L in 1910 and was later reconstructed and expanded after a 1914 fire. The glass manufacturing facility was operated until the mid-1980s for the manufacture of glass lenses for military and commercial uses. The manufacturing process used thorium and radioactive potassium as well as non-radioactive metals.

Following cessation of operations, the facility was decommissioned in December 1994. An Asbestos/metals Survey (Paradigm, 1993) was prepared to evaluate the decontamination activities and disposal requirements of the building prior to the demolition of the glass plant. The former Glass Plant building interior was cleaned and decontaminated prior to demolition in 1995. Hazardous waste profiles were prepared for the following materials prior to removal and disposal from 1993 to 1994: chromium oxide, lead oxide, baghouse dust (includes iron oxide, arsenic, barium, lead), cerium hydrate, floor sweepings and debris, pit clean-out materials, sodium carbonate, wash water, and used wash water filters.

According to the Phase I ESA, a radiological investigation and limited removal activities were conducted in association with the plant decommissioning. Integrated Environmental Services, a division of NES Inc. ("NES"), conducted the Decontamination and Final Release Survey of the Bausch & Lomb Glass Plant Batch Room in December 1994. The waste removed consisted of thorium contaminated concrete, sheet metal, miscellaneous debris and radioactive potassium (NES 1995).

Following decontamination activities, the building was demolished and building materials were removed from the site for disposal according to regulations. A Radiological Assessment of the surface soils at the property was conducted in 1995 and is documented in the Final Project Report for the Decontamination and Release of the Bausch & Lomb Batch Room Report (NES, 1995).

2.3 Surrounding Property Land Use

The Site is vacant and is presently zoned M-1 for industrial use. Industrial and Commercial Properties primarily line the east side of the Site along Saint Paul Street. The surrounding area has mixed zoning with R-1 Low Density Residential zoning to the north and east and CCD-R Center City Riverfront zoning to the south.

2.4 Proposed Development Plan

The Site is currently vacant and zoned for Industrial Use. There is interest in this property from NYS Empire State Development to use the B+L parcel for a park with a rezoned use of Restricted Residential. This parcel would support the development of the City of Rochester's "ROC the Riverway" project, in conjunction with the NYS Parks, which would require B+L to sell the property to the City of Rochester or NYS.

2.5 Geology and Hydrogeology

2.5.1 Regional Geology and Hydrogeology

The Site is located within the Interior Lowlands Physiographic Province which is characterized by generally flat to gently dipping sedimentary rocks overlain by glacial and post-glacial sedimentary deposits (Van Diver 1985). This Physiographic Province encompasses all northwestern New York in the vicinity of Lake Ontario. The Lowlands Province is bounded by the Appalachian Plateau Province to the south, the Adirondack Highlands Province to the east and the Canadian Shield to the north. Sedimentary rocks observed within the Lowlands Province of northwestern New York are part of the Niagaran Provincial Series which includes the Medina, Clinton and Lockport Groups. This Series consists of approximately 400 feet of fossiliferous dolomite, limestone, shale and sandstone deposited in shallow epeiric seas during the Silurian (439-408 Ma.) (Brett et al, 1995). In the Rochester vicinity, sedimentary rocks of the Lockport Group through the Clinton Group are observed and are present in a homoclinal structure known as the Niagara Escarpment with a generally east-northeast strike and south-southwest dip of approximately 55 feet per mile (Kappel and Young, 1988).

2.5.2 Site Geology and Hydrogeology

The overburden at the Site is composed of fill overlying unconsolidated alluvial deposits, which overlies bedrock. Fill at the Site is a complex mixture of demolition debris, imported excavation materials, coal cinder and ash, reworked fill/alluvial deposits. The unconsolidated alluvial deposits consist of sands, silts and clays and are reportedly difficult to distinguish from reworked fill.

Bedrock depths are reportedly between 8 to 47 feet below grade at the site. In general, the bedrock surface slopes from the exposed cliff surface to the river. Approximately one to three feet of weathered bedrock is present below the fill and alluvial deposits and consists of the Rochester Shale and Irondequoit Limestone formations, which are in turn underlain by several other bedrock formations.

Overburden groundwater is typically encountered six to 20 feet below ground surface (bgs) and flows westerly toward the Genesee River. The Genesee River, a Class B waterway, flows north adjacent to the Site, eventually discharging to Lake Ontario.

2.5.3 Surface Waters and Wetlands

The Site is located along the east bank of the Genesee River between the Upper and Lower Falls. The Genesee River flows to the north and discharges to Lake Ontario approximately 5.8 miles from the site. The mean discharge of the Genesee River Station #04231600, located approximately 2 miles upstream of the Former MGP Site, is 6,670.

While the Genesee River is located directly adjacent to the Site to the west, neither the land bordering the River nor any other portions on the Site contain Federal or NYS listed wetlands.

2.6 Summary of Previous Environmental Investigation

Previous environmental investigations were conducted at the Site to determine the potential impact from historical operations and to evaluate the nature and extent of contamination. As discussed above, these investigations include a Phase I Environmental Site Assessment (Leader Professional Services, 2002) and a Phase II Site Characterization (S2C2 Inc., 2011). As noted above in the Section **2.2 Site History**, additional investigations and reports were also completed at the Site prior to the cessation of operations, the facility decommissioning in December 1994. An Asbestos/metals Survey (Paradigm, 1993) and the Final Project Report for the Decontamination and Release of the Bausch & Lomb Batch Room (NES, 1995) provide documentation of decommissioning. Descriptions for each investigation are presented below.

Additionally, RG&E has also completed several field investigations and collected numerous soil and groundwater samples to delineate MGP impacts on the B+L Site from historical MGP operations at the adjacent RG&E East Station site. A summary of the data, combined with data collected by B+L during the Phase II Site Characterization is presented in comparison to Restricted Residential and Industrial Use Soil Cleanup Objectives (SCOs) as presented in 6 New York Codes, Rules and Regulations (NYCRR) Part 375 Environmental Remediation Programs guidance (NYSDEC 2006). A set of figures showing analytical data results exceeding Restricted Residential and Industrial Use SCOs can be found for reference in **Appendix A**.

2.6.1 Asbestos/ Metals Survey October 18-20, 1993

Paradigm Environmental Services, Inc. conducted an asbestos and metals inspection at the Bausch & Lomb Glass Plant, Rochester, NY from October 18 - 20, 1993 to identify and test potential materials suspected to contain asbestos and identify and test areas of the Plant for potential process related metal contamination. The inspection identified twenty-four approximate locations for potential asbestos containing materials within the plant. Four locations were selected to collect random wipe samples to analyze for process related metals including arsenic, barium, cadmium, chromium, lead, nickel, and selenium. All samples were transported to the Paradigm laboratory for analysis.

The Asbestos/Metals Survey report results indicated that asbestos containing material was present in several locations. In summary eight samples were found to be asbestos containing. The asbestos containing materials are presented in the report, but these materials generally included pipe insulation, multiple transite panels, and some mudded joint packing material. The report also detailed the approximate quantities of the asbestos containing materials. The random wipe samples collected from four locations all exceeded the Method Detection Limit (MDL) except for one wipe sample which did not exceed the MDL for selenium.

2.6.2 Radiological Investigation and Limited Removal Activities, 1994 - 1995

A Radiological Assessment of the surface soils at the property was conducted in 1995 and is documented in the Final Project Report for the Decontamination and Release of the Bausch & Lomb Batch Room Report (NES, 1995). The documents and reports detailing the radiological investigation and limited removal activities were conducted in association with the plant decommissioning in the early 1994 and 1995 and are summarized by the following text from the Phase I ESA:

Integrated Environmental Services, a division of NES Inc. ("NES"), conducted the Decontamination and Final Release Survey of the Bausch & Lomb Glass Plant Batch Room in December 1994. Four unaffected areas were also surveyed for unrestricted release of radioactive waste. A final release survey was performed in the Batch Room at the close of decontamination activities to verify that decontamination efforts were successful. The following items were noted:

- All building surface decontamination efforts were successful, according to the final release survey. Surface contamination release level results complied with applicable guidelines of the New York Department of Labor Industrial Code and United States Nuclear Regulatory Commission.
- No personnel exposure to ionizing radiation in excess of 10% of New York State standards was noted.
- Radioactive waste was packaged for disposal at Envirocare of Utah, Inc., pending sample analysis. The waste consisted of thorium contaminated concrete, sheet metal, miscellaneous debris and radioactive potassium (NES 1995).

2.6.3 Phase I ESA Report (May 2002)

Leader Professional Services, Inc. conducted a Phase I ESA Report in May 2002. The objective of the Phase I ESA was to evaluate the current and historical operations at the Site as well as the surrounding properties and to identify and quantify areas and substances on or near the property (i.e., recognized environmental conditions (RECs) as defined in the ASTM Standard), which may pose an environmental liability or hazard associated with the Site.

The Phase I ESA consisted of historical and regulatory records review, a Site reconnaissance, and interviews with current owners and/or occupants of the Site. State and Federal regulatory agency database file records were reviewed to identify reported spills, hazardous activities, and adjacent properties of concern. The Site reconnaissance consisted of a walkthrough of the Site and surrounding properties.

In **Section 9.2 Findings** the report concluded that there were no on-Site RECs directly observed on the property. However, the report concluded "Possible areas of concern on-Site including former piping systems and wastewater discharge points along the riverbank; septic tank system; former dust collector and sand blast house at southwest side of building; a laboratory at the southwest corner of the plant; and stormwater trenches."

The report also concluded that there were historical on-Site RECs related to use and practices on the property prior to the B+L Glass Plant operations in addition to the off-site RECs that warrant further investigation.

A summary of the RECs from the report include:

- Three raceways with ferry slips were present at the site and were filled on at least two separate instances prior to 1900. Since coal gasification activities occured at the site, coal-related wastes may have been used to fill the raceways and could be an environmental concern to the property.
- While noting that the former Glass Plant was decontaminated prior to the 1995 demolition and the Final Project Report for the Decontamination and Release of the Bausch & Lomb Batch Room (NES, 1995) included documentation of proper disposal of hazardous waste materials including chromium oxide, lead oxide, baghouse dust (includes iron oxide, arsenic, barium, lead), cerium hydrate, floor sweepings

and debris, pit clean-out materials, sodium carbonate, wash water, and used wash water filters. The report noted that no subsurface investigation or sampling activities were conducted. The report noted possible areas of concern on-Site include former piping systems and wastewater discharge points along the riverbank; septic tank system; former dust collector and sand blast house at southwest side of building; a laboratory at the southwest corner of the plant; and stormwater trenches.

- Two facilities on the adjoining property south present historic environmental concerns. The former C.D. Brown and Company Tannery is shown on the 1911 and 1926 Sanborn Fire Insurance Maps. A coal carbonization manufactured gas plant ("MGP") facility was first constructed at the RG&E East Station property in 1872. Citizens Gas Works is depicted on the adjoining property south on an 1875 plat map. Several large coal gasification ASTs, tar and oil ASTs, and associated structures are depicted on the RG&E property from 1892 to 1971, according to fire insurance maps reviewed.

2.6.4 Final Report for the Closure of the Legacy Thorium Slurry Pits at the Bausch & Lomb Glass Plant Report August 18, 2008

Additional radiological surveying and remedial activities were conducted at the Site between 2007 and 2008 to evaluate the extent of possible thorium contamination remaining above naturally occurring levels in the excavated areas of the former thorium slurry pits. The site work was performed in accordance with the NYSDEC approved work plan dated April 9, 2008. Subsurface soils were excavated from a legacy thorium slurry operation to measure and test the soils for the presence of residual Th-232. The results of the survey showed that the excavated soils and the samples were indistinguishable from area background concentrations. The report concluded that the excavated soils pose no health risk to workers or to the public and were returned to the excavation, with NYSDEC approval, as part of the final step of this remedial effort. The report was reviewed and found to be acceptable by NYSDEC (email September 10, 2008).

2.6.5 Phase II Environmental Site Characterization Report (August 2011)

S_2C_2 Inc. (S2C2) conducted a field investigation and prepared a Phase II Site Characterization Report (SCR) for the Site between 2009 and 2011. The initial Technical Approach was based on the Technical Approach – Phase II Site Investigation memorandum dated October 2009. This technical approach identified four primary Areas of Environmental Concern (AOCs) based on the RECs in the Phase I which include the following:

- Historic Fill associated with the initial development of the Genesee River flats area prior to construction of the Glass Plant in 1910.
- Former Raceways – filled prior to construction of the Glass Plant
- Operation areas associated with the Former Glass Plant
    - Former Sand Blast Room/Dust Collectors
    - Former Laboratory
    - Former Septic Tank
    - Former Discharge Pipes to Genesee River
- Off-site sources including the coal gas production that occurred at the adjacent RG&E property.

During the Phase II field investigation, the technical approach was modified based on new information collected in the field and the knowledge that RG&E was planning to investigate MGP impacts on the southern portion of the B+L property. Additional borings were added to investigate process areas of the former Glass Plant and to investigate the Lower Terrace and pipe discharge areas. The technical approach to investigate the area with MPG impacts was scaled back (removal of 4 borings), due to the anticipated RG&E work in these locations.

Following the completion of the Phase II field investigation, the AOCs were refined based on historical photos and a newly identified, detailed floor of the Former Glass Plan which included piping diagrams and room layouts. These AOCs were identified as follows:

- AOC-A: Former Raceways
- AOC-B: Bio-Cell
- AOC-C: Compressor Rooms
- AOC-D: Batch Room
- AOC-E: Homo Furnace
- AOC-F: Lehr/Tank Furnace
- AOC-G: Transformers/Electrical Platforms and Rooms
- AOC-H: Historic Fill
- AOC-I: Septic Tank
- AOC-J: Pit Area
- AOC-K: Upper Terrace
- AOC-L: Lower River Terrace – Discharge Pipes
- AOC-M: Offsite Coal Gasification Plant
- AOC-N: Former Buildings
- AOC-O: Prangborn Dust Collector
- AOC-P: Underground Piping

A description of each AOC is presented in **Section 3.2** and a summary of the findings and conclusions with recommendations for each AOC are summarized in **Table 2**.

2.6.6 RG&E Remedial Investigation Off-Site

There were various off-site investigations as found in the Remedial Investigation Report RG&E East Station Former MGP Site that involve the Bausch & Lomb Property. The off-site overburden investigation involves 3 investigations that include off-site test pit excavations, off-site TarGOST, and off-site soil borings and monitoring wells. The data collected from these investigations have been included in Appendix A, the findings, and conclusions regarding the MGP impacts are also discussed in the text and references to the work completed can be found in the RG&E Record of Decision (ROD) in **Appendix B**

2.6.7 RG&E Pre-Design Investigation and RG&E Remedial Actions

As discussed above, due to the presence of MGP-related impacts at the B+L Property and the New York state-owned property, both properties will be included in the RG&E pre-design investigation (PDI), remedial design, and remedial action along with the RG&E East Station MGP property and adjacent river sediments. A series of investigations have been conducted to determine the nature and extent of contamination at the RG&E Site. Contaminants of concern identified in soil, sediment, and groundwater include volatile organic compounds (VOCs), specifically benzene, toluene, ethylbenzene, and xylenes, referred to collectively as benzene, toluene, ethylbenzene, xylene (BTEX); semivolatile organic compounds (SVOCs), specifically polycyclic aromatic hydrocarbons (PAHs); metals, specifically arsenic, lead, and mercury; cyanide; and coal tar.

The selected remedy for the RG&E Site will include excavation of impacted soil at both the RG&E Site, the B+L Property, and the New York state-owned parcel; excavation of impacted sediment adjacent to all properties; installation and operation of non-aqueous phase liquid (NAPL) recovery systems; monitored natural attenuation

(MNA) in groundwater; installation of a cover system consisting of clean soil; institutional controls in the form of environmental easements for the Site; and development of a Site Management Plan (SMP). A total of 28 soil borings will be installed to bedrock at the RG&E Site, with a total of 17 soil borings will be installed at the B+L Property (**Figure 3**). The green areas on **Figure 3** show the preliminary excavation areas of the proposed remedial actions planned to address MGP and petroleum impacted soil on the B+L Site. As part of the PDI soil borings will be installed to gather information on subsurface materials and to sample subsurface soil for geotechnical characteristics and analytical parameters which will be used in developing the remedial design.

3.0 PRELIMINARY CONCEPTUAL SITE MODEL

A preliminary conceptual site model (CSM) has been developed for the B+L Site to illustrate potential pathways through which impacts can be transmitted and the potential receptors of those impacts. Due to the nature of the property, the complexity of impacts from multiple historical operations from the two adjoining properties, and the long historical industrial developmental use of the area, the conceptual model is simplified but helpful to address data gaps from previous investigations. The conceptual site model may be revised following a review of the data collected during this RI.

3.1 Contaminants of Potential Concern

A preliminary set of Contaminants of Potential Concern (COPCs) have been identified for the Site based on historical industrial operations on both parcels and past sampling and laboratory analyses of soil, sediment and groundwater samples on the Site, the contaminants of Concern (COCs) adjacent RG&E Site, and areas in the River. These COPCs include the following:

CPOCs in soil include the following:

- Metals including: arsenic, barium, cadmium, copper, cyanide, lead, manganese, mercury, silver and zinc.
- SVOCs, particularly polynuclear aromatic hydrocarbons (PAHs) associated with past MGP operations including: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-c,d)pyrene, phenanthrene and pyrene
- Two detection of polychlorinated biphenyls (PCBs) in soil identified in a former transformer area.

CPOCs in groundwater include the following:

- Metals including: aluminum, arsenic, barium, total chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, nickel, selenium, and sodium.
- VOCs including: acetone*, benzene, chloroform, ethylbenzene, styrene, toluene, trichloroethylene, and xylenes
- SVOCs, particularly polynuclear aromatic hydrocarbons (PAHs) associated with past MGP operations including: 2,4-dimethylphenol*, acenaphthene*, benzo(a)anthracene*, benzo(a)pyrene, benzo(b)fluoranthene*, benzo(k)fluoranthene*, bis(2-ethylhexyl) phthalate, chrysene*, indeno(1,2,3-c,d)pyrene*, naphthalene*, phenanthrene*, phenol, pyrene*,

3.2 Areas of Concern

As described in previous sections, 16 AOCs were identified based on extensive historical document review, direct field information collected during the Phase II Site Characterization and historical design documents provided by B+L showing the layout of the Former Glass Plant operations and utilities. The details provided below were summarized from the Phase II Environmental Site Characterization Report (S2C2, August 2011).

3.2.1 AOC-A: Former Raceways

Based on historical photos, two raceways from the Genesee River were present at the Site from at least 1851 to 1869. These raceways were filled sometime between 1869 and 1875. Another single raceway was present on

the Site from at least 1881. This raceway was filled prior to 1900. The fill contents in the former raceways may present an environmental concern to the property and as such the raceways were indicated as an AOC.

During the investigation, multiple techniques were used to evaluate the location of these former raceways including desktop mapping using GIS overlays with historical maps and landmarks, geophysical field investigations using terrain conductivity, EM31 geophysical surveying, and electrical conductivity (EC) surveying methods (EC borings). Based on the results of this investigation, the report concluded that former raceways channels could not be distinguished from surrounding fill and soil, and recommended that no further action is warranted for AOC-A.

3.2.2 AOC-B: Bio-Cell

The Bio-Cell is located within the upper terrace at the Site on the former Bausch & Lomb parking lot for the Glass Plant facility. The Bio-Cell contains VOC impacted soil removed as part of an interim remedial measure for an adjacent NYSDEC Brownfield Site (NYSDEC Site No C828159 - 690 St. Paul Street). During the Phase II, one soil boring completed west of the Bio-Cell (SB-19) to evaluate the potential impacts of the soils in the Bio-Cell on the soil quality adjacent to the Bio-Cell. Field screening using a photoionization detector (PID) and analytical result and from the boring showed no VOC impacts. A single soil sample was submitted for analysis of PCBs, Base/Neutrals and Acids (BNAs) and metals for the Phase II SC. Soil sample SB-19 (0.5-1) indicated the presence of a number of PAHs and metals with a concentration of benzo(a)pyrene (2.0 mg/kg) slightly over the Industrial RSCO.

In addition to the SC work conducted by B+L, RG&E completed additional borings in the Bio-Cell area as part of their off-Site work in 2013 and 2014. Multiple borings were completed in the area and the data from these borings is provided in **Appendix A**.

Based on the results of the SC investigation and the 2013/2014 RG&E Off-Site investigation it does not appear that the imported VOC impacted soils from the adjacent BCP Site within the Bio-Cell have caused VOC impacts on the B+L property soil underneath or adjacent to the Bio-Cell. Since there are no documented historical uses for this area other than parking and the Bio-Cell, and the analytical data results show no VOC impacts to surrounding soil, no additional samples are recommended.

3.2.3 AOC-C: Compressor Rooms

Two compressor rooms were identified in the 1966 Bausch & Lomb Glass Plant drawing in the northwest corner of the main facility building. Soil boring SB-22 was advanced adjacent to the former compressor rooms. The soil boring was advanced to four feet depth below ground surface and one soil sample was collected at the near surface, below the concrete slab. The soil core collected at this location was described as concrete, silt, brick, and black coal clinker. Soil sample SB-22 (0.5-1) indicated the presence of a number of PAHs, PCBs, and metals with concentrations of benzo(a)pyrene (7.3 J mg/kg), arsenic (405 mg/kg), and lead (6,340 EJ mg/kg) over Restricted Residential RSCOs.

During the 1993 Asbestos/metals survey a wipe sample was collected from the main compressor room and analyzed for metals. This sample showed arsenic and lead concentrations of 22.1 and 135.9 ug/wipe, respectively. Based on the results of the Phase II investigation, the SC report concluded that it is likely that the deeper soil impacts observed at this location were not the result of activities associated with the compressor rooms and are more appropriately classified with AOC-H (Historic Fill), AOC-G (Transformers/Electrical Rooms), and/or AOC-F (Lehr/Tank Furnace Area). Shallow soil will likely require additional sampling to evaluate nature and extent of impacts in AOC-C.

3.2.4 AOC-D: Batch Room

The batch room was used to mix/create raw materials for manufacturing glass lenses. Soil boring SB-26 was advanced to twelve feet below ground surface at the suspected location of this former room. A single soil sample was collected directly beneath the concrete slab (SB-26 0.5-1) to verify soil quality in this area. Soil sample SB-26 (0.5-1) indicated the presence of several PAHs and metals with concentrations detected slightly above Restricted Residential RSCOs.

During the 1993 Asbestos/Metals Survey three wipe samples were collected within this room and analyzed for metals. These wipe samples indicated the presence of arsenic (1,330-4,600 ug/wipe), barium (1,234 – 5,703 ug/wipe), cadmium (20.3 – 175 ug/wipe), chromium (8.4 - 134.1 ug/wipe), lead (629.6 – 7,140 ug/wipe), nickel (1,185 – 2,210 ug/wipe), and selenium (36.8 – 116 ug/wipe). These results are elevated compared to samples collected in non-operation areas. Although former operations in this room included the use of a number of different metals, it does not appear that former operations in the batch room have significantly impacted soil quality directly beneath the concrete slab.

During the RG&E Off-Site investigation work, one boring was advanced in this location (TG-14-06C) and soil samples were collected from 11 - 12 and 19 – 20.5 ft bgs and were analyzed for VOCs, SVOCs and metals. No metals or VOCs were detected in concentrations exceeding Restricted Residential RSCOs and one SVOC was detected slightly above Restricted Residential RSCOs at this location.

Bases on the conclusions in the SC Report and the results from the RG&E boring, it is unlikely likely that activities associated with the compressor rooms have impacted the area and additional investigation is not recommended within the suspected former compressor rooms.

3.2.5 AOC-E: Homo Furnace

The former homo furnace is located south of the Batch Room adjacent to the Pit Area. The homo furnace was powered by an electrical connection and was likely used to process small batches of glass. No soil borings were advanced at this AOC during the SC Investigation. Soil sampling was recommended to evaluate the soil for potential historical impacts.

3.2.6 AOC-F: Lehr/Tank Furnace

The Lehr/Tank Furnace AOC was located in the northwest corner of the main facility building. The tank furnace was used to melt the batch and was powered by natural gas possibly with an electric assist. The tank furnaces are typically heated to temperatures of 1,100 to 1,500°C. Molten glass was removed from the furnace and cooled. The Lehrs were used as a further stage in the cooling process as a temporary reheating step to remove stress points. The Lehrs was likely powered by electric or natural gas power source. Soil borings SB-08, and SB-22 were located adjacent to the Lehrs/Tank Furnace AOC. Soil sample SB-22, discussed above, indicated the presence of benzo(a)pyrene, arsenic, and lead over the Restricted Residential RSCOs. Soil sample SB-08 (0.5-1) indicated the presence of a number of PAHs and metals with only a benzo(a)pyrene (1.9 mg/kg) concentration exceeding the Industrial RSCO.

During the 1993 Asbestos/Metals Survey four wipe samples were collected within this AOC and analyzed for metals. These wipe samples indicated the presence of arsenic (207 – 4,050 ug/wipe), barium (406 – 4,580 ug/wipe), cadmium (8.6 – 63.6 ug/wipe), chromium (5.1 – 45.0 ug/wipe), lead (880.4 – 9,083 ug/wipe), nickel (21.0 – 394 ug/wipe), and selenium (2.0 -135 ug/wipe). A wipe sample collected from the floor, located adjacent to the former lehrs unit indicated the highest results for all metals from this area. Former operation in this room included the use of a number of different metals, which may have impacted soil quality as shown in soil results

from borings SB-22. Lead concentrations in soil collected at SB-22 (405 mg/kg), were elevated compared to background lead concentrations and could be associated with a localized metals hot-spot in this area.

Further investigation of lead impacts at this AOC is recommended to determine the horizontal and vertical extent of metal impacts adjacent to soil boring SB-22.

3.2.7 AOC-G: Transformers/Electrical Platforms and Rooms

Former transformer pads, electrical platforms and rooms were identified from the 1966 site plan. Soil borings SB-11, SB-22, and SB-23 were located adjacent to former electrical transformer pads or electrical rooms. Soil samples collected from soil borings at these locations were analyzed for PCBs as well as BNAs and metals. While there were other metals and SVOC results exceeding Restricted Residential RSCOs that were typical of what are observed in other locations on the Site, the SC Report only discussed PCB results to evaluate the potential for PCB impacts from the former transformers. PCBs were only detected in one soil sample collected from SB-11 (0.5-1). A total PCB concentration of 0.22 J mg/kg, which is below the Restricted Residential RSCO of 1 mg/kg was reported in this location. Based on these sampling results, it does not appear that former electrical transformers/rooms have impacted soil quality. Arsenic and Lead were also detected in concentrations exceeding Restricted Residential RSCOs in these locations and barium was detected in concentrations exceeding Restricted Residential RSCOs in SB-23, These observations are consistent with other soil exceedances on the Site. Of the identified electrical areas, soil borings were collocated adjacent to all but one of these areas, an electrical shop located within the main facility building. Therefore, an additional boring will be advanced and surface soil samples will be collected in this area to evaluate the extent of impacts.

3.2.8 AOC-H: Historic Fill

As presented in **2.2 Site History** and **Section 2.5.2 Site Geology**, the Site has had a long history of filling dating back to at least the mid-1800s. These filling episodes included, initial filling to allow for development along the Genesee River flats, filling of former Raceways, filling of the land prior to the construction of the former Glass Plant Facility, and lastly filling that occurred subsequent to demolition of the former Glass Plant Facility in 1994. As specified in NYDEC DER-10 a total of four borings/test pits are required per acre to characterize/delineate historic fill material (HFW). Based on the size of the B+L property (7.8 Acres) a total of approximately 32 borings would be required to satisfy the NYDEC HFM requirements.

A total of 21 electrical conductivity borings and three (3) soil borings were advanced through the HFM at the site. Based on field observations the following types of fill were identified in this investigation:

1. Non-historic fill (NHFM) – recent dumped debris
2. Non-historic fill – recent demolition debris
3. Non-historic fill – glass plant operations debris
4. Historic Fill Material – reworked soil with indications of demolition debris (i.e., brick)
5. Historic Fill Material - Coal ash/cinder
6. Historic Fill Material – emplaced soil

The NHFM includes recent dumped debris, demolition debris and glass plant operations debris. NHFM dumped debris was observed primarily within the upper terrace and is likely the result of illegal dumping. NHFM recent demolition debris is primarily located in the northwest corner of the facility adjacent to the former 3-story operation plant building location and is likely material moved to this area during building demolition activities. NHFM demolition debris related to Glass Plant Operations is primarily located along the retaining wall between the main terrace and Lower River Terrace and includes municipal trash (primarily glass bottles) and glass blanks produced by the former plant.

Historic Fill material identified on the site includes coal ash/cinder related to the burning of coal, reworked soil with indications of demolition debris, and emplaced soil. As described in the geology section, land surfaces at the site were predominantly created by importing fill. As a result, most of the overburden at the site is HFM. The reworked HRM material consists of what appears to be alluvial deposits (fine sand with silt and some gravel but also contains abundant brick debris) and the emplaced HFM consists of primarily sand silts and gravels that resemble till like material likely brought in from nearby locations above the gorge.

In general, soil samples collected within the HFM indicate the presence of primarily PAHs and metals with a limited presence of PCBs with analytical results exceeding the Restricted Residential RSCOs for a number of PAHs and metals. Site specific impacts are overprinted on general HFM quality as discussed in AOC specific sections.

3.2.9 AOC-I: Septic Tank

The Phase I Environmental Site Assessment (Leader 2002) identified a former septic tank system as an AOC. The estimated location of this system was identified in the Technical Approach Memo (S2C2, 2009) and is shown on Figure 2-6 in the SCR. Boring CON-14/SB-14 was located adjacent to the suspected location of the former Septic Tank. Subsequent GIS processing of a Bausch & Lomb piping diagram from the 1993 Asbestos/Metals Survey (Paradigm) indicates an extensive piping system for water, steam, gas, air, and drains. Based on mapping in the Phase II SC Report the report concluded that interior drain lines with what appeared to be settling tanks are located adjacent to the cafeteria and locker rooms and are likely sanitary sewer lines. The Phase II concluded that a septic tank may be located west of the main plant near the transformer platform and high voltage area.

Soil boring SB-23 was advanced adjacent to the interpreted location of this possible septic tank. A total of three soil samples were collected from this boring and analyzed for BNAs, PCBs, and metals. Soil samples indicated the presence of PAHs and metals with benzo(a)pyrene (7.6 mg/kg), dibenz(a,h)anthracene (1.4 J mg/kg) and arsenic (55 mg/kg) over the Industrial RSCOs. Based on these results, it appears that the samples collected are more representative of historic fill conditions than AOC specific impacts associated with a former septic tank. Additional borings are not required in this location.

3.2.10 AOC-J: Pit Area

The Pit Area, located in the southwest corner of the facility is a sunken concrete structure with an unknown use. No soil samples were collected from this AOC. An additional boring in this location is required to evaluate impact from past use.

3.2.11 AOC-K: Upper Terrace

The Upper Terrace is located in the eastern portion of the site and extends to the cliff face which defines the eastern most boundary of the Site. This area was formerly used as a parking area for the former Glass Plant and currently contains the Bio-Cell (AOC-B). One soil boring was advanced within the upper Terrace, SB-19, as during the SC investigation. A single soil sample was submitted for analysis of PCBs, BNs and metals. Soil sample SB-19 (0.5-1) indicated the presence of a number of PAHs and metals with a concentration of benzo(a)pyrene (2.0 mg/kg) slightly over the Restricted Residential and Industrial RSCO.

RG&E completed additional borings on the southern half of the upper terrace and soil samples reflected similar results of SVOCs. Additional borings are planned as part of the RG&E PDI. Additionally, remedial actions to excavate MGP impacted soil is also planned for this area (**Figure 2**)

3.2.12 AOC-L: Lower River Terrace – Discharge Pipes

The Lower River Terrace consists of an 0.84 acre strip of land located directly adjacent to the Genesee River at an elevation of approximately 390 ft (canal datum). Six soil samples (denoted as SED-X in the figures in Appendix A) were collected within this AOC during the Phase II SC and were targeted at identified discharge pipes. Results of these soil samples were compared to both the Industrial RSCO standards and the NYS PER standards due to the proximity of the Lower River Terrace to the Genesee River. Exceedances of both the Industrial RSCO criteria and the RSCO PER criteria for SVOCs, PCBs and metals were identified. An additional six soil samples were collected by RG&E and analytical results show similar exceedances of Restricted Residential SCOs. Based on the results of this investigation, it appears that soil quality within the Lower Terrace has been impacted by site activities. These data will be evaluated in the RI, but no additional borings are needed to evaluate the nature and extent of the impacts.

3.2.13 AOC-M: Offsite Coal Gasification Plant

AOC-M - Offsite Coal Gasification Plant is the adjacent RGE Former MGP. This AOC is not included as part of this Remedial Investigation. However, the data collected on the B+L property and in the Genesee River adjacent to the B+L property are included in the data set compiled for evaluating data gaps at the B+L Site.

It should also be noted that media, including soil, groundwater, and sediments impacted by the adjacent MGP Site are also under continued investigation with Remedial Actions planned to address the MGP impacts on the B+L Site and in the Genesee River adjacent to the Site.

Based on known site conditions at the adjacent RG&E property, impacts associated with former Coal Gasification operations at the neighboring property were suspected on the Site. Olfactory indications of coal tar impacts were noted on boring logs for a number of soil borings including: SB-03, SB-06, SB-14, SB-20, and SB-26. In addition, free-phase coal tar was observed in soil cores collected at boring SB-20. Free-phase coal tar was identified from 13 to 18.5 feet bgs in unconsolidated overburden below the observed water table. Soil samples collected from this interval were submitted for analysis of VOCs and PAHs and indicated the presence of benzene, ethylbenzene, naphthalene, acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, dibenz(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene. Concentrations of benzo(a)pyrene (24 mg/kg) and benzo(a)anthracene (23 mg/kg) exceed the Industrial RSCOs. PAH concentrations observed in this soil sample were the highest concentrations reported for any sample collected at the Site. Based on these results, it is clear that coal gasification operations at the adjacent RG&E property have impacted soil quality on the B+L Site.

3.2.14 AOC-N: Former Buildings

A total of four additional former B+L Glass Plant Buildings were identified during the Phase II SC investigation based on site plans presented in the Asbestos and Metals Report. According to the report, two of the four buildings were located on the adjacent RG&E property and were not investigate. The remaining two buildings (Buildings 11 and 17) were located east of the main operations building.

Soil Boring SB-03 and SB-20 were both located near or within the suspected location of these two buildings. Soil boring SB-03 was completed to a depth of 8 bgs in former Building 11 and SB-20 was completed to a depth of 8 and 18.5 feet bgs in former Building 17. Two soil samples were collected at SB-03 and three soil samples were collected at SB-20 to verify soil quality at these locations. Soil samples at both locations indicated the presence of a number of PAHs and metals. Concentrations of benzo(a)pyrene (6.3 mg/kg at 0-0.5 ft bgs) and arsenic (26.4 mg/kg and 835 mg/kg at 0-0.5 and 4.5-5 ft bgs) at boring SB-03 exceeded the Industrial RSCOs. Additional metals and SVOCs exceeded Restricted Residential SCOs at these sample depths, consistent with other

locations. Concentrations of benzo(a)anthracene (25 mg/kg), benzo(a)pyrene (25 mg/kg), benzo(b)fluoranthene (37 mg/kg), dibenz(a,h)anthracene (11 mg/kg), arsenic (41.9 mg/kg), and lead (5,930 mg/kg) in soil sample SB-20 (0.5-1) also exceeded the Industrial RSCOs. Similar to SB-03, additional metals and SVOCs exceeded Restricted Residential SCOs at these sample depths, consistent with other locations. Based on these results, it appears that operations at these former buildings or filling adjacent to these buildings prior to or following demolition may have impacted soil quality.

RG&E also completed additional borings on the southern half of the former location of Building 11, similar to the investigation area completed in the upper terrace. Soil samples reflected similar results of SVOCs. And additional borings are planned as part of the RG&E PDI. Additionally, remedial actions to excavate MGP impacted soil is also planned for this area (**Figure 2**). Additional investigation will also be completed to delineate the horizontal and vertical extent in the former location of Building 17.

3.2.15 AOC-O: Prangborn Dust Collector

The Pragborn Dust Collector was used to collect dust resulting from mixing of raw materials for manufacturing glass lenses. Soil boring SB-12 was advanced to four (4) feet below ground surface adjacent to the suspected location of this unit. Two soil samples were collected (SB-12 0-0.5 and SB-12 3.5-4) to verify soil quality in this area. Both soil samples indicated the presence of a number of PAHs and metals with concentrations of arsenic (321 mg/kg) and lead (106,000 mg/kg) detected above Industrial RSCOs in sample SB-12 (3.5-4). Barium (8,090 mg/kg) and mercury (0.815) were also detected above Restricted Residential RSCOs. The soil description at this soil borings consisted of crushed glass and a powder like substance at 3.5-4 feet bgs. Based on these results, it appears that soil quality adjacent to the former Prangborn Dust Collector has been impacted by site activities. A soil boring will be added to this area to evaluate the nature and extend of the contamination,

3.2.16 AOC-P: Underground Piping

Underground piping at the former Glass Plant facility is illustrated in Figure 2-7 in the SCR. The following types of piping were identified:

Natural Gas Lines

- Sluice Ways and Drains
- Steam Lines
- Sewer Lines
- Water Lines

Soil samples collected within the Lower-River Terrace areas were targeted to observed discharge pipe locations with the purpose of evaluating soil conditions adjacent to these discharge areas. In addition, two soil samples (SB-09 and SB-23) were located adjacent to underground piping as identified (following sampling activities) from the rectified site diagram. Results of soil samples collected at these locations indicate the presence of a number of PAHs and metals with concentrations of benzo(a)pyrene, dibenz(a,h)anthracene, and arsenic detected above industrial RSCO's. However, these results are consistent with general historic fill conditions. At this time, it is unknown if underground piping has impacted soil conditions at the Site. Additional borings will not target these locations due to the inability to locate the infrastructure through geophysical means or mapping.

3.2.17 Non-AOC Areas

There are several areas that have not been identified as AOCs, but the soil quality underneath the slab will need to be evaluated for potential historical impacts. These locations are as follows:

- Loading Dock
- Glass “81” Secured Storage
- Building 10
- Building 9

Additional borings will be advanced in these areas.

3.3 Summary of Environmental Assessment

The Site is currently zoned for Industrial Use. The area was gated with limited access to the public, until the City of Rochester accessed the property, without an access agreement, and installed a gravel roadway to access the railroad trestle for maintenance purposes. The property has been accessible by the public since this maintenance road was installed, resulting in several dumpings. The City of Rochester was notified on 27 July 2023 regarding this matter for resolution. . A majority of the Site (approximately 6 of the 7.8 acres) is covered by impervious surfaces or cover soils (Bio-Cell) limiting human contact to impacted soil.

Overburden groundwater impacts are limited with the exception of the MGP impacted area on the south side of the Site and offsite transportation of impacted overburden groundwater does not appear to be significant. According to the RG&E ROD, the impacts to bedrock groundwater appears to be from historical MGP operations, and MGP related COCs are migrating in groundwater with the secondary porosity of the bedrock (i.e., cracks, bedding planes, fissures, etc.).

Based on the investigations conducted to date, the primary COPCs are anticipated to be VOCs, SVOCs, and metals. COPCs will be refined based on the RIR results. A more detailed description of each media is provided in the following sections.

3.3.1 Soil

As discussed in the Phase II ESA, fill at the Site is a complex mixture of demolition debris, imported excavation materials, coal cinder and ash, reworked fill/alluvial deposits. Ranging between 8 to 47 feet below grade which is underlain by weathered bedrock at the site with a bedrock surface that slopes from the exposed cliff surface to the river (east to west). While COPCs are discussed in relation to each specific AOC within the historical operational context, the following is a brief overall summary of COPC impacts.

Generally, soil exceedances for metals, including cadmium, lead, and barium, are inconsistently distributed in extent and type of metal on the in soil borings completed under the former B+L manufacturing plant floor slab. These impacts appear to be localized according to the specific historical operational use. However, it appears that soil quality within the Lower Terrace has been impacted by site activities, with respect to soil exceedances of metals.

According to the RG&E ROD, petroleum-like odor and sheen are present at depths typically at and below the water table in the central portion of the B+L property. These apparent petroleum impacts appear to be unrelated to the MGP residual material observed in the southeast portion of the property. These were analyzed and identified as diesel/petroleum-related impacts from other possible sources at the B+L property and their operations. Minor apparent petroleum-related impacts, such as petroleum-like odor or minor sheen, were observed in borings completed to the east of the former plant floor slab and in two borings completed along the Genesee River west of the retaining wall. The ROD also notes that a targeted PDI and remedial action are planned to investigate the extent of these impacts and address the contamination while mobilized to implement MGP remedial efforts.

Additionally, soil exceedances for PAHs are distributed throughout the fill material in the southern portion of the B+L property and in soil along the Genesee River. The origin of the fill material placed at the Site prior to the construction of the B+L Former Glass Plant is unknown. Residuals from the 1915 fire that destroyed a portion of the former B+L manufacturing facility may also contribute to PAHs in overburden on the B+L property.

MGP-related impacts appear to be limited to the southeast portion of the property located north of the former purifier area at the former MGP site. In the southeast portion of the B+L property, apparent MGP residual material, including sheen, and/or NAPL blebs were observed in overburden soil at depths typically greater than 10 ft bgs. The apparent MGP residual material was typically observed in the overburden soil directly above and within weathered bedrock. NAPL migration from the former purifier area to the southeast portion of the B+L property along the overburden and bedrock interface is a possible transport mechanism from the former MGP site to the B+L property. As noted above, the RG&E ROD will address this area with a PDI and remedial action are to investigate the extent of these impacts and address the contamination.

3.3.2 Surface Soil

While analytical data show some limited impacts to surface soil at the Site from historical operations, a large majority of the Site is covered by impermeable surfaces including the former building foundation, paved parking areas and the Bio-Cell. COPC impacts are concentrated on areas to the west of the existing foundation and to the surface soil of the lower terrace. As described in section 3.2.12 for AOC-L Lower River Terrace – Discharge Pipes, discharge pipes observed along the retaining wall likely discharged directly to the river during times of high-water levels. These pipes likely transported COPCs including multiple metals (antimony, arsenic, copper, lead, silver, and zinc), SVOCs (primarily PAHs), and limited PCBs.

3.3.3 Groundwater

Overburden groundwater quality was evaluated at four monitoring well locations, one temporary groundwater grab sample location and at Pipe G (flowing pipe). Dissolved VOC concentrations in groundwater are associated with offsite coal tar impacts associated with the neighboring RG&E operations and possible from an unknown regional or upgradient source for dissolved CVOC impacts. Dissolved SVOC compounds recorded over the NYS GWS are likely associated with the documented coal tar associated with the neighboring RG&E site and from general historic fill groundwater conditions. Dissolved metal concentrations in overburden groundwater over the NYS GWS is likely the result of historic fill conditions with the exception of metal concentrations observed at MW-04. At this location, is suspected that site activities associated with the former Glass Plant has impacted the geochemistry of groundwater in this vicinity (low pH) which provides an ideal environment for solubilizing metals in groundwater.

Based on the results of this investigation, additional investigation is recommended to delineate the low pH conditions and elevated metal concentrations in the vicinity of MW-04, which is located within AOC-D Batch Room. Additional investigation may be required to determine background groundwater conditions associated with historic fill as specified in NYDEC DER-10. Additional investigation of TCE impacted groundwater may also be required as specified in NYDEC DER-10; however, it is believed that CVOCs are not a compound of concern at this site.

3.3.4 Soil Vapor

Due to the very low levels of VOCs detected in soil and groundwater, and the absence of structures on the Site, soil vapor is not considered a concern.

3.3.5 Sediment

As discusses in the RG&E ROD, NAPL impacts to sediment within the Genesee River related to former MGP operations appear to be limited to an area along the southern portion of the former MGP site adjacent to the former light oil plant. A discrete area of NAPL blebs were observed adjacent to the B+L property located approximately 210 ft north (downstream) of the northern RG&E and B+L property boundary. The extent of these impacts are currently being investigated by RGE. Additionally due to the limited nature of the sediments (i.e., thin sediment layer over bedrock), the selected remedy discussed in the RG&E ROD included only remediating sediments with visual NAPL impacts. The following description for investigation and remediation is included in the East Station Record of Decision:

"Following a pre-design investigation, sediment which contains MGP NAPL impacts and is above sediment PAH Class C SGV, will be removed from the Genesee River. This is currently predicted to be excavation and off-site disposal/thermal treatment of approximately 2,500 cubic yards (cy) of impacted sediment.

A restoration plan for the Genesee Riverbed and banks will be completed with the goal of restoring the stream bed, banks, and floodplain in-kind to the extent possible using natural stream restoration/bioengineering design principles and with the goal of re-establishing habitat function. The design will include a monitoring plan for areas disturbed by the remedy and all activities will be consistent with the requirements of 6 NYCRR Part 608"

As a result of the ongoing comprehensive investigation work and the planned remedial efforts, sediment will not be sampled as part of this Remedial Investigation

3.3.6 Surface Water

Surface Water will not be evaluated as part of this Remedial Investigation Work Plan. The Genesee River is the only surface water body in proximity to the Site. Also as discussed in the Qualitative Assessment Section 6.3 of the RGE RI "The mean daily discharge rate of the Genesee River recorded at the Ford Street Bridge Gauging Station.

#04231600, located approximately 2 miles upstream of the Former MGP Site, is 6,670 cubic feet per second. Given this flow rate, concentrations of COPC in groundwater entering the river would be significantly diluted to concentrations that are very low to non-detect. Therefore, exposure to COPC in surface water would be insignificant and therefore, was not considered to be a complete exposure pathway."

4.0 INVESTIGATION TASKS

The elements of the RI presented in this section are based on the data gap assessment and preliminary CSM presented in Section 3.

The approach to the remedial investigation is described in the following sections. The remedial investigation will consist of a geophysical investigation, site survey, surface soil investigation, a soil investigation, and a groundwater investigation. Each portion of the investigation work will follow NYSDEC guidelines outlined in Division of Environmental Remediation (DER) DER-10.

Field activities will be conducted in accordance with the Field Sampling Plan (FSP) (**Appendix D)**, Quality Assurance Project Plan (QAPP) (**Appendix E)** A Site-specific CAMP (**Appendix F**) and the Health and Safety Plan (HASP) (**Appendix G)**. Site-specific elements and specific job safety analyses for soil borings will be added to the Health and Safety Plan.

Investigation-derived waste (IDW), including excess soils, decontamination rinsates, well development water, purge water, and personal protective equipment, will be placed in Department of Transportation-approved 55-gallon 17-H type drums. The IDW will be evaluated as hazardous or non-hazardous based on characterization results and will be disposed of in accordance with applicable NYSDEC regulations. Waste characterization sampling is described in more detail in **Section 4.5**. It is assumed that all IDW will be nonhazardous. It is anticipated that IDW will be stored on-site within the perimeter of the Site fence to maintain site security.

The Community Air Monitoring Plan (CAMP) (**Appendix F**) will be implemented for real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area during invasive activities on-site.

4.1 Geophysical/Utility Clearance and Initial Site Survey

A geophysical investigation will be conducted to identify buried utilities and other structures that may be impacted by installing soil borings. The geophysical survey will be conducted over areas where soil borings will be installed plus an additional 10 feet extending outward from proposed boring locations. Any detected utilities will be marked out.

Prior to initiation of Site activities, Call 811 (Dig Safely NY) will be contacted to locate utility lines that enter and/or cross the property. The geophysical survey will be conducted to detect buried structures and subsurface utilities within the specified locations, and/or to trace a particular utility line or system. The geophysical surveyor will apply the appropriate surface geophysical method(s) to search for utilities and/or buried obstructions. Geophysical technologies may include, but not be limited to, ground-penetrating radar (GPR), radio frequency (RF), and electromagnetic induction (EM). These techniques will be used to locate subsurface utility lines or subsurface features within a 10-foot radius of each proposed intrusive activity. Specific features may include subsurface utilities, subsurface anomalies, large voids, former subsurface structures, abandoned utilities, and former utility trenches. Paint and flagging shall be used for marking of lines, showing any underground site utilities or obstructions.

Prior to intrusive work, Parsons will follow their *Subsurface Soil Disturbance Protocol* (**Appendix C**).

Following the geophysical investigation and mark out of investigation sampling locations, a site topographical survey will be completed for the approximately 7.8-acre investigation area by a subcontracted surveyor. The site survey will include geophysical mark-outs of former structures, utilities, and obstructions.

In addition, site survey tasks will include collecting the as-built sample coordinates and elevation information, as well as the as-built monitoring well elevations. Horizontal survey data will be based on the North American Datum (NAD) 83 New York State Plane (Western Zone) coordinate system (in feet). Elevations will be based on the North American Vertical Datum (NAVD) 88.

4.2 Surface Soil Sampling and Soil Borings

4.2.1 Surface Soil and Existing Cover Sampling

Up to 20 surface soil samples will be collected at the Site. Fourteen proposed locations are included on **Figure 3** and up to six additional surface soil samples may be collected depending on the surface area not covered with impervious material. Surface soil will be collected from the 0–2-inch interval below any vegetative cover using a hand auger. These samples will be collected for chemical analysis to evaluate the potential for Site related impacts to surface soil at the Site and to evaluate for human exposure from incidental soil ingestion, inhalation of soil or dermal contact. SOPs for collecting surface soil samples and other field work are included in the Field Sampling Plan (**Appendix D**).

4.2.1.1 Surface Soil Analytical Sampling

Surface soil samples will be analyzed for the following parameters:

- TAL metals by USEPA SW-846 Method 6010
- TCL VOCs by UESPA SW-846 Method 8260 +10 Tentatively identified compounds (TICs)
- TCL SVOCs by USEPA SW-846 Method 8270+20 Tentatively identified compounds (TICs)
- Mercury by USEPA SW846 Method 7471
- Chromium (trivalent and hexavalent) by USEPA SW846 Method 7196
- Cyanide by USEPA SW-846 Method 9014
- PCBs by USEPA SW-846 Method 8082
- Pesticides by USEPA SW-846 Method 8081
- Herbicides by USEPA SW-846 Method 8151
- PFAS by USEPA Method 1633
- 1,4-dioxane by USEPA SW-846 Method 8270 SIM

Pesticides, herbicides, PFAS, and 1,4-dioxane samples will be collected at all locations, with samples from 20% of the surface sampling locations analyzed immediately after collection. Samples from other locations will be held at the lab pending receipt of analytical results from the initial 20% of sample locations. If results from the initial 20% of sample locations exceed Restricted Residential Use SCOs for pesticides, herbicides, 1,4-dioxane and/or exceed the most recent applicable guidance values for Residential Use SCOs for PFAS, additional on hold samples will be analyzed for these selected parameters in consultation with NYSDEC. Additional details on the analytical program are included in the QAPP (**Appendix E**).

4.2.2 Existing Cover Soil Sampling

A total of 14 existing cover soil samples will be collected at the Site (**Figure 3**). Cover soil will be collected by installing shallow soil borings. These samples will be collected from the 0-6 inch interval below any vegetative cover and the 12-24 inch interval for chemical analysis to evaluate the potential for Site related impacts to existing cover soils at the Site and for assessing ecological resource exposure to soil. SOPs for collecting soil samples, installing soil borings, and other field work are included in the Field Sampling Plan (**Appendix B**).

4.2.2.1 Surface Soil Analytical Sampling

Surface soil samples will be analyzed for the following parameters:

- TAL metals by USEPA SW-846 Method 6010
- TCL VOCs by UESPA SW-846 Method 8260
- TCL SVOCs by USEPA SW-846 Method 8270
- Mercury by USEPA SW846 Method 7471
- Chromium (trivalent and hexavalent) by USEPA SW846 Method 7196
- Cyanide by USEPA SW-846 Method 9014
- PCBs by USEPA SW-846 Method 8082
- Pesticides by USEPA SW-846 Method 8081
- Herbicides by USEPA SW-846 Method 8151
- PFAS by USEPA Method 1633
- 1,4-dioxane by USEPA SW-846 Method 8270 SIM

Pesticides, herbicides, PFAS, and 1,4-dioxane samples will be collected at all locations, with samples from 20% of the existing cover soil sampling locations analyzed immediately after collection. Samples from other locations will be held at the lab pending receipt of analytical results from the initial 20% of sample locations. If results from the initial 20% of sample locations exceed Restricted Residential Use SCOs for pesticides, herbicides, 1,4-dioxane and/or exceed the most recent applicable guidance values for Residential Use SCOs for PFAS additional on hold samples will be analyzed for these selected parameters in consultation with NYSDEC. Additional details on the analytical program are included in the QAPP (**Appendix C**).

4.2.3 Soil Borings

A total of 9 soil borings will be installed to bedrock at the Site. Proposed locations for the 9 additional borings (**Figure 3**) were selected to address data gaps identified following a thorough review of the 2011 Site Characterization conducted by B+L, and the 2012 and 2014 Remedial Investigation work conducted on the B+L property. Soil borings will be installed to sample subsurface soil for analytical parameters to provide a further level of understanding of the nature and extent of contamination at the Site. Standard Operating Procedures (SOPs) for installing soil borings and other field work are included in the Field Sampling Plan (**Appendix D**).

4.2.3.1 Soil Boring Installation

Soil borings will be advanced using hollow-stem augers, and soils will be continuously recovered via split-spoon. Standard penetration testing (SPT) shall be conducted continuously at all soil borings in accordance with American Society for Testing and Materials (ASTM) D1586. Split-spoon samples shall be obtained using a standard spoon (2-inch outer diameter [OD] and 1.375-inch inner diameter [ID]), driven with a 140-pound hammer dropped from 30 inches. The number of hammer blows required to advance the spoon 24 inches will be measured in 6-inch increments and recorded. Split-spoon sampling will continue until the target depth for each boring is achieved, or refusal is encountered. Refusal shall be defined as 100 hammer blows required to penetrate 12 inches of material or less.

Soils will be visually classified using the Burmister soil classification system (1970) and Unified Soil Classification System (USCS) (ASTM International 2018). Soil descriptions will be recorded in the field notes or soil boring log forms. Any non-native material present in the soil core will be noted and described (type, color, texture, moisture content, etc.) in the field logs. Each soil core will also be photographed and screened for the presence of VOCs with a photoionization detector (PID) and a radiological detector. PID and radiological readings will be recorded on the boring log and/or field book.

Once all sampling needs are met, each borehole will be grouted from total depth to surface. After grouting is complete, the surface and surrounding area will be restored to conditions prior to intrusive activities. Track mats may be used to access the boring locations and minimize ground disturbances.

Sampling equipment will be decontaminated between pushes and soil boring locations by washing equipment using a phosphate-free cleaning solution (e.g., Alconox) along with a distilled water rinse. All "down hole" drilling equipment will be decontaminated inside the decontamination pad, using a high-pressure steam wash.

Drill cuttings and decontamination rinsate will be containerized in roll-off containers lined with polyethylene, or other approved container, and transported to a central waste staging area for further characterization and disposal.

4.2.3.2 Soil Analytical Sampling

Up to four soil samples from each proposed boring will be collected and submitted for laboratory analysis based on the following criteria:

For VOCs and SVOCs:

- A depth at which visual or olfactory evidence of non-aqueous phase liquid (NAPL) contamination or elevated PID readings is encountered, if any.
- The interval immediately above the shallowest depth at which visual or olfactory evidence of NAPL contamination is encountered, if any.
- The interval directly above the water table, if encountered.
- The bottom of the boring.

For all metals:

- At a depth where visual staining or color change occurs indicating a potential zone of metal oxidation or reduction and potential dissolved metal precipitation.
- At an approximate depth that coincides with historical basement or foundation slab elevation.
- At a depth that corresponds with a metals exceedance collected from an adjacent boring where additional delineation is recommended.

All soil samples will be analyzed for the following parameters:

- Target analyte list (TAL) metals by U.S. Environmental Protection Agency (USEPA) SW-846 Method 6010
- Target compound list (TCL) VOCs +10 TICs by UESPA SW-846 Method 8260
- TCL SVOCs +20 TICs by USEPA SW-846 Method 8270
- Mercury by USEPA SW846 Method 7471
- Chromium (trivalent and hexavalent) by USEPA SW846 Method 7196
- Cyanide by USEPA SW-846 Method 9014
- Polychlorinated biphenyls (PCBs) by USEPA SW-846 Method 8082

Additionally. soil samples from each of the nine proposed borings will be collected and submitted to the laboratory for the following parameters:

- Pesticides by USEPA SW-846 Method 8081
- Herbicides by USEPA SW-846 Method 8151

Samples from three of the nine proposed borings will be analyzed immediately for pesticides and herbicides following collection. Samples from the remaining four borings will be held at the lab pending receipt of analytical results. If the analytical results from the initial three borings exceed industrial use RSCOs for pesticides or herbicides, the remainder of the on-hold samples will be analyzed for pesticides and/or herbicides in

consultation with NYSDEC. Additional details on the analytical program are included in the Quality Assurance Project Plan (QAPP) (**Appendix E**).

4.3 Groundwater Sampling

As described above in Section 2 – Previous Investigations, groundwater samples have been collected from multiple overburden and bedrock monitoring wells since 2010 (**Appendix A**). A total of three groundwater sampling events have been conducted as part of the B+L Site Characterization Phase II Investigation in August 2010, and as part of the RG&E off-site investigations conducted as part of the East Station Remedial Investigation and the Supplemental Investigation in December of 2013 and August 2014. As summarized above, the reports concluded that site groundwater contains elevated levels of petroleum type analytes associated with MGP impacted media in the overburden in the southeastern and southern central portion of the property. MGP associated impacts are also observed in bedrock groundwater in several wells at the Site. As noted elsewhere RG&E will be completing a Remedial Action (RA) to address the MGP impacted areas on the B+L Property following the completion of a PDI in 2023 to evaluate the extent of the MGP impacts in the southeastern and south-central portion of the B+L property.

In addition to the RA, the Record of Decision for GR&E East Station Site determined that Monitored Natural Attenuation as an acceptable remedy for off-site groundwater (on the B+L property) following the completion of the RAs. Furthermore, the multiple rounds of groundwater samples collected at the Site to date by both B+L and RG&E meet the groundwater sampling requirements for remedial investigations set forth in DER-10. However, one additional round of samples will be collected as part of this RI and compared to previously collected groundwater data to evaluate the current conditions of groundwater to the historical sampling.

A round of groundwater sampling will be conducted by sampling the monitoring wells shown on **Figure 3**. Wells that will be sampled (9 wells in total, including 5 overburden wells, 2 shallow bedrock wells, and 2 deep bedrock

Groundwater samples will be analyzed for the following parameters:

- Metals by USEPA SW-846 Method 6010
- VOCs by USEPA SW-846 Method 8260
- SVOCs by USEPA SW-846 Method 8270
- PCBs by USEPA SW-846 Method 8082

Additionally, since PFAS in groundwater has not been evaluated at the Site, one round of groundwater samples will be collected from three overburden monitoring wells including one existing upgradient overburden monitoring well (MW-03) and two existing downgradient overburden monitoring wells (MW-02 and MW-01) to screen for the presence of PFAS and 1,4-dioxan and analyzed for the following parameters:

- Pesticides by USEPA SW-846 Method 8081
- Herbicides by USEPA SW-846 Method 8151
- PFAS by USEPA Method 1633
- 1,4-dioxane by USEPA SW-846 Method 8270 SIM

Each monitoring well will be redeveloped a minimum of 24 hours prior to undergoing sampling as described in the FSP (**Appendix D**). Some sampling locations may differ from those shown on **Figure 4** due to conditions of the wells at the time of sampling.

Additional details on the analytical program are included in the QAPP (**Appendix E**).

4.4 Surface Water and Sediment Sampling

4.4.1 Surface Water Sampling

A qualitative assessment for surface water will be included in the RI report but analytical samples of surface water will not be collected and evaluated as part of this Remedial Investigation Work Plan. The Genesee River is the only surface water body in proximity to the Site. Also as discussed in the Qualitative Assessment Section 6.3 of the RGE RI "The mean daily discharge rate of the Genesee River recorded at the Ford Street Bridge Gauging Station #04231600, located approximately 2 miles upstream of the Former MGP Site, is 6,670 cubic feet per second. Given this flow rate, concentrations of COPC in groundwater entering the river would be significantly diluted to concentrations that are very low to non-detect. Therefore, exposure to COPC in surface water would be insignificant and therefore, was not considered to be a complete exposure pathway."

4.4.2 Sediment Sampling

As a result of the ongoing comprehensive investigation and the planned remedial efforts work discussed above, sediment will not be sampled as part of this Remedial Investigation, however, as discussed above a qualitative assessment of potential impacts to sediments will be included in the RI report.

4.5 Waste Characterization Sampling

4.5.1 Soil IDW

Up to three composite soil samples will be collected for evaluating potential disposal options for investigation derived waste (IDW). The specific parameters to be analyzed will be determined in consultation with a disposal facility but are likely to include the following parameters:

- Reactivity
- Corrosivity
- Ignitability
- Toxicity Characteristic Leaching Procedure (TCLP) VOCs (these samples will be collected as discrete samples rather than as composites)
- TCLP SVOCs
- TCLP metals
- Total cyanide
- Reactive cyanide
- PCBs
- Pesticides/herbicides

4.5.2 Groundwater IDW

Up to three composite soil samples will be collected for evaluating potential disposal options for investigation derived waste (IDW). The specific parameters to be analyzed will be determined in consultation with a disposal facility but are likely to include the following parameters:

- Reactivity
- Corrosivity

- Ignitability
- Toxicity Characteristic Leaching Procedure (TCLP) VOCs (these samples will be collected as discrete samples rather than as composites)
- TCLP SVOCs
- TCLP metals
- Total cyanide
- Reactive cyanide
- PCBs
- Pesticides/herbicides

4.6 Qualitative Human Health Exposure Assessment (QHHEA)

A Qualitative Human Health Exposure Assessment (QHHEA) will be developed in accordance with NYSDEC's DER-10 Technical Guidance for Site Investigation and Remediation and DER's Brownfield Cleanup Program Guide. The overall objective of the QHHEA is to evaluate the linkages between the contaminant source(s) and potentially exposed human receptor populations. To satisfy this objective, the QHHEA will document and describe the contaminant source(s) and constituents of potential concern (COPCs), the current and reasonably anticipated future land use at the Site, potential exposure pathways, and potentially exposed human receptor populations.

The results of the 2010 Phase II Site Characterization as well as the numerous investigations and report completed by RG&E on the B+L property indicate that soil and groundwater has been impacted by metals, SVOCs and VOCs. While RG+E investigations were limited to MGP related impacts, the documented presence of metals in Site soil and warrants further investigation of these media. Groundwater may also be impacted via leaching from overlying soils and will be investigated as part of the proposed RI sampling program.

While a QHHEA has already been completed for MGP related impacts on the Site, potential human exposure routes include incidental ingestion of soil, dermal contact with soil/groundwater, inhalation of soil dust will be prepared to supplement the Human Health Exposure Assessment as documented in the ROD for the adjacent RG&E Site. A thorough evaluation of current and reasonably anticipated future land use will guide the identification of potentially exposed human receptor populations and the determination of complete or incomplete exposure pathways at the Site.

Assumptions

- The current land use at the Site will include Industrial Use and Restricted Residential Use scenarios.
- Assumes groundwater is not used for potable purposes.
- The QHHEA will focus on the Site and not on adjacent parcel(s).
- No comparison to standards or quantitative human health risk evaluation will be conducted.

4.7 Fish and Wildlife Resources Impact Assessment

Based on review of the analytical data, a Fish & Wildlife Impact Assessment (FWIA) may be conducted if data shows that contaminants from the site are moving towards the Genesee River. The purpose of the FWIA is to identify the fish and wildlife species and habitats found on and in the vicinity of the site, evaluate the potential effects on these natural resources, and identify steps that can be taken to reasonably minimize potentially significant adverse impacts.

4.8 Data Management and Validation

Analytical services for sediment, water, and other types of samples to be collected as part of this work effort will be provided by laboratories accredited under the NYSDOH Environmental Laboratory Accreditation Program or equivalent. Data validation will be provided for data collected as a result of this work plan. Data validation is the review and evaluation of analytical environmental sample data in accordance with USEPA and NYSDEC protocols, and is to determine data usability and defensibility. As described in Section 9.0 of the QAPP (**Appendix E**), a USEPA Level IV data validation (i.e., full data validation) will be conducted on 10 percent of the chemical samples, and a USEPA Level III data validation (i.e., sample plus quality control summary data only, no raw data review) will be conducted on the remaining 90 percent of the samples. The validated results will be incorporated into a NYSDEC-compatible database (such as Equis) following validation.

Once the data validation has been completed, a data usability and summary report that presents the results of data validation and data usability assessment will be prepared and submitted to NYSDEC as part of the RFI report.

4.9 Technical Plans for Remedial Investigation

Various plans will be implemented during the remedial investigation to control the management of materials generated during Site remediation.

4.9.1 Dust, Odor, and Vapor Control Plan

A Dust, Odor, and Vapor Control Plan will be developed for remedial construction work activity to meet CAMP requirements and OSHA standards for construction (29 CFR 1926) after selection of the final remedy and will specifically address work practices to minimize dust, odors, and vapors during remedial construction activities.

Specific work practices to minimize dust, odors, and vapors during remedial construction activities will be identified in the remedial design,

4.9.2 Decontamination Plan

Equipment (e.g., drill rigs, sampling equipment, etc.) will be decontaminated as necessary prior to exiting the Site. Decontamination will consist of physically removing residual contaminated soil from the equipment using steam cleaning/pressure washing methods. A temporary decontamination pad will be constructed in accordance with remedial design specifications. Decontamination fluids will be collected, sampled and disposed accordingly of as IDW.

4.9.3 Citizen Participation Plan

This RIWP, along with a Fact Sheet approved by NYSDEC that describes the upcoming remedial action, will be placed in the document repository for the Site. The Fact Sheet will also be mailed to the entities provided on the Site Contact List presented in the Citizen Participation Plan prior to the start of the remedial action at the Site.

5.0 REPORT PREPARATION

5.1 Remedial Investigation Report

Data obtained during the field investigations identified in this scope of work will be compiled, evaluated, and summarized. A Remedial Investigation Report will then be prepared following completion of the remedial investigation and receipt of analytical data. This report will document remedial investigation activities specified in this work plan. Groundwater flow direction will be documented from water level measurements. Chemical analytical results for soil and groundwater will be compared to 6 NYCRR Part 375 guidelines for various potential future land uses and State of New York Class GA water quality standards respectively. A brief summary of relevant results from prior site investigations will also be included.

5.2 Remedial Alternatives Analysis

Pending results of the remedial investigation, the remedial alternatives analysis (RAA) will address the areas of the site where concentrations in the impacted media are elevated due to past site activities. Soil and groundwater cleanup objectives are contaminant-specific remedial action objectives for soil based on a site's current, intended, or reasonably anticipated future use as defined in 6 NYCRR Subpart 375-6 ranging from unrestricted use to commercial use.

The feasibility study will address the areas of the site where CPOIs in soil and groundwater exceed the applicable statewide standards, criteria and guidance. The feasibility study will also include an evaluation of the contaminants identified from the remedial investigation and their potential for vapor intrusion into future buildings.

Feasibility study documentation will be prepared in accordance with DER-10 focusing on table summaries of engineering analyses. Remedial alternatives to be assessed are anticipated to include no action, source area excavation, and cap and cover. Potential future land uses to be assessed for excavation will range from commercial to unrestricted use. The Feasibility Study report will include cost estimates with a level of detail appropriate for a feasibility study (not construction contractor cost estimates). Recommendations for follow-up work prior to remediation, if any, will also be included.

6.0 SCHEDULE

The Site is currently vacant and zoned for Industrial Use. There is interest in this property from NYS Empire State Development to use the B+L parcel for a park with a rezoned use of Restricted Residential. This parcel would support the development of the City of Rochester's "ROC the Riverway" project, in conjunction with the NYS Parks, which would require B+L to sell the property to the City of Rochester or NYS. In addition to the work proposed by B+L, RG&E is completing additional investigation tasks and will be completing remedial actions (RAs) to address contaminated media on B+L property an RG&E property. IN addition to completing the RAs on the B+L property, The RAs proposed for the RG&E property may likely require construction space on the B+L parcel. As a result, the project schedule is tied directly to the progress of work on the neighboring RG&E Site. The schedule below included estimated dates for the projects. The schedule for the work described herein is estimated below assuming no significant delays due to uncontrollable circumstances:

Project Schedule	
Item	Estimated Completion
Submit Draft BCP Application and RI Work Plan	8/31/2023
NYSDEC Review of BCP Application and RIWP	9/15/2023
Revise Minor Deficiencies of BCP and RIWP	10/2023
Application Deemed Complete	11/2023
Public Comment Period on Application and RI Work Plan	11/2023
Revise RI Work Plan based on Public Comment Period	12/2023
Implement RI Field Work	4/2024
Lab Analyses and Data Assessment	4/2024 – 6/2024
Draft RI Report & Remedial Alternatives Analysis (RAA) Report	7/2024
NYSDEC Review of RI and RAA and Public Comment Period	8/2024
Revise and Finalize RI and RAA	9/2024
RG&E mobilization for PDI (RG&E and B+L properties)	2024
RG&E Remedial Actions on B&L property and RGE parcel	2028 - 2030
Completion of RAs	2030
Certificate of Completion	2030

Note: This schedule is tentative based on anticipated review times and responses from regulatory agencies, public comments and other interested parties.

7.0 REFERENCES

NES, Inc. Final Project for the Decontamination and Release of the Bausch & Lomb Batch Room, Bausch & Lomb, Rochester, New York. 23 pp. January 1995.

Final Report for the Closure of the Legacy Thorium Slurry Pits at the Bausch & Lomb Glass Plant Report August 18, 2008

American Society for Testing and Materials [ASTM] International 2018.

Leader Professional Services, Inc. 2002. Phase I Environmental Site Assessment. May.

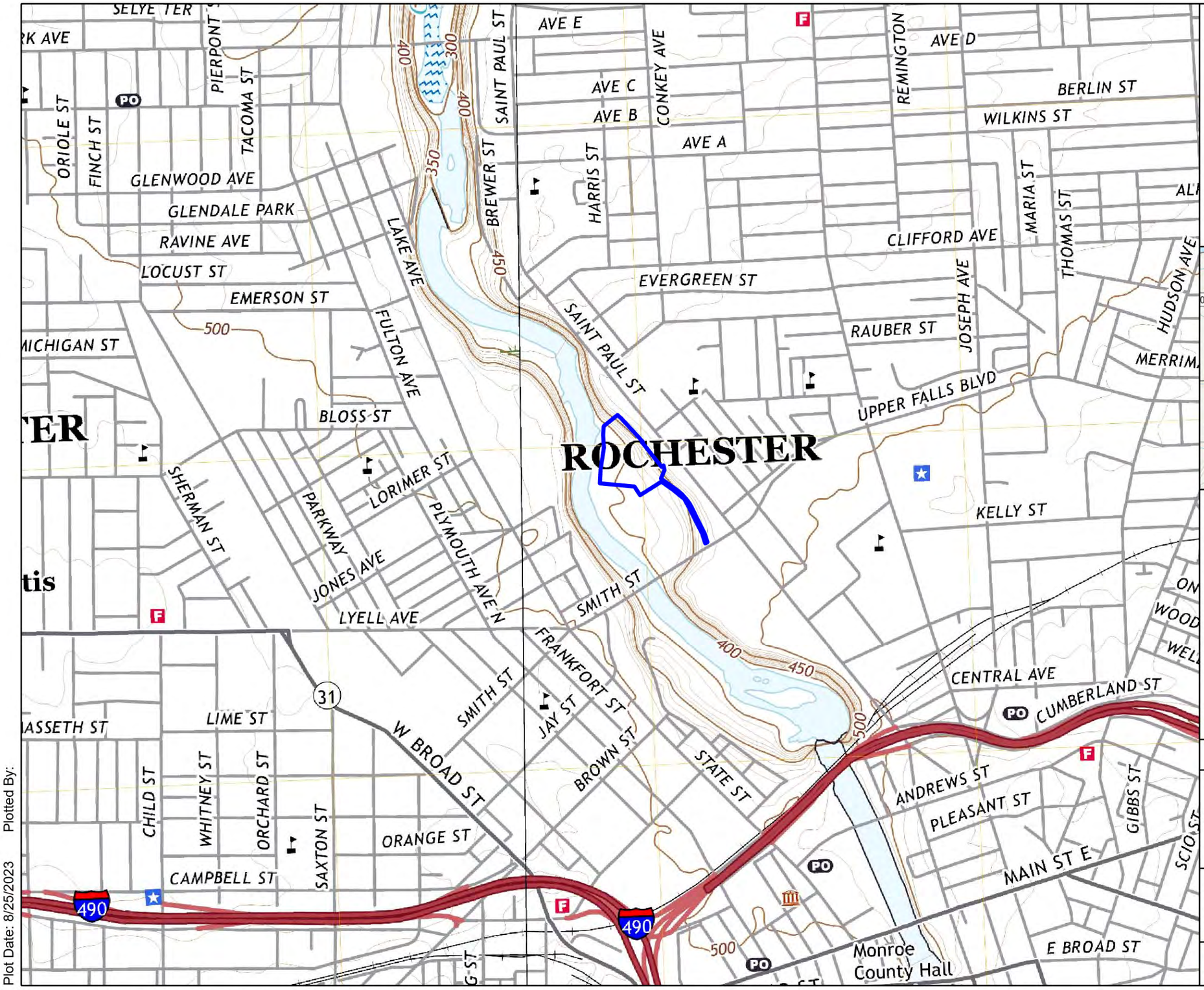
NYSDEC. 2006. 6 NYCRR Part 375 Environmental Remediation Programs. Division of Environmental Remediation. December.

NYSDEC Division of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation (May 2010).

NYSDEC Record of Decision, RG&E – East Station, State Superfund Project, Rochester, Monroe County, Site No. 828204 (June 2022)

S2C2. 2011. Phase II Site Characterization Report. August.

FIGURES



Notes:
USGS Quadrangle: Rochester East, NY (2019), Rochester West, NY (2019)

0 1,000 2,000 Feet

Figure 1

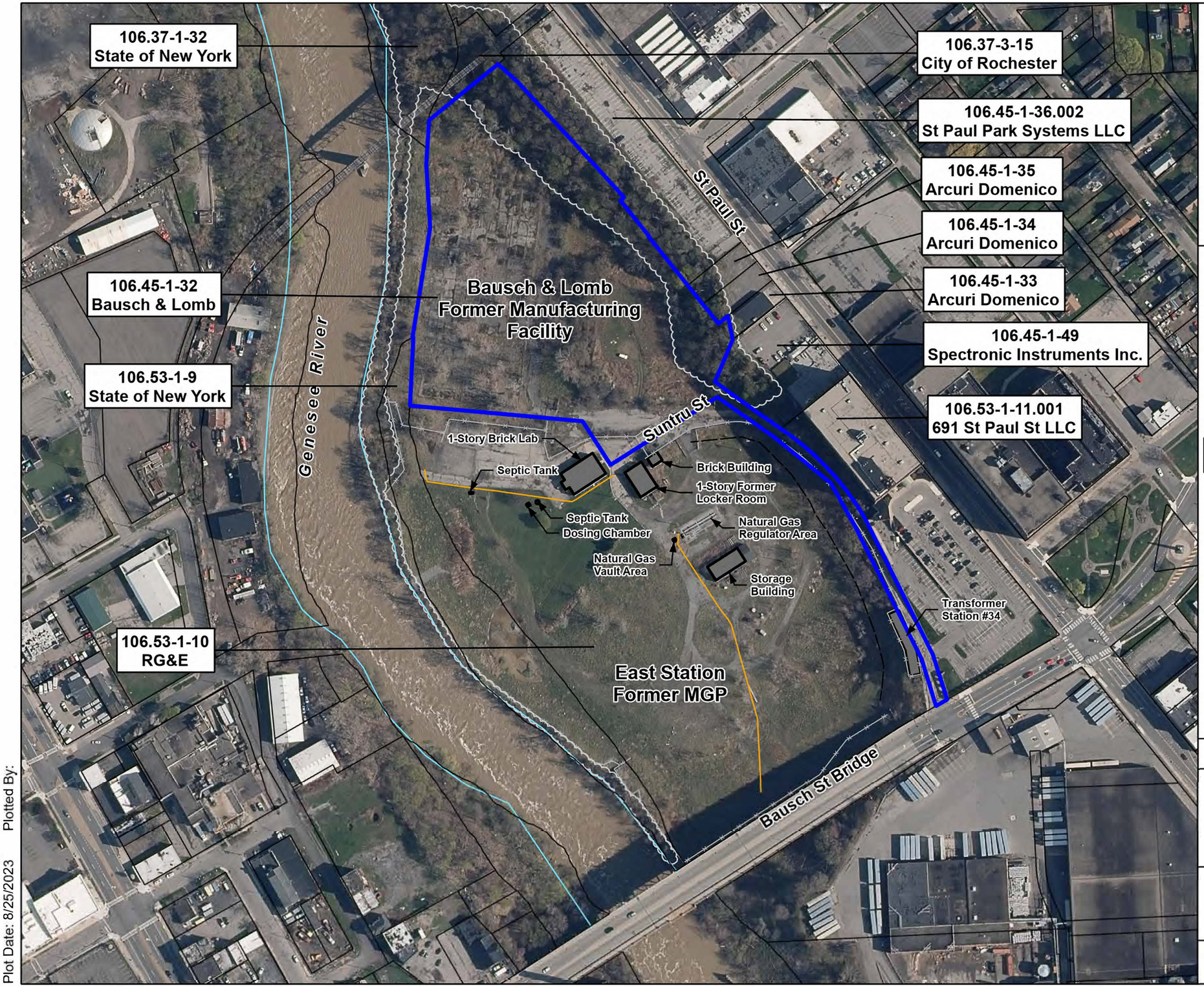
Bausch + Lomb
Former Glass Plant – Suntru Street Site
NYSDEC Site No. 828225
Rochester, NY

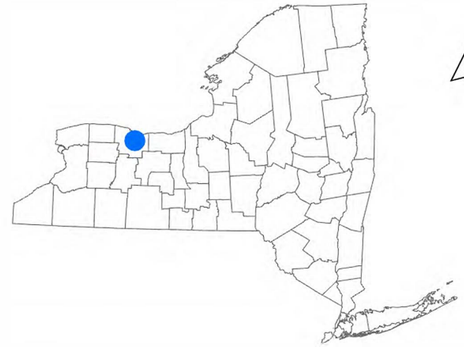
USGS Quad Map with Site Boundary

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Plotted By:
Plot Date: 8/25/2023

Document Path: \nysyr04fs01\Projects\Iberdrola_Avangrid\453121 East Station\9.0 Technical Categories\GIS\MXDs\East Station Figures.aprx





River Bank
Existing Tree Line
Toe of Slope
Existing Fence
Existing Gas Line
Existing Building

Property Boundary

Tax ID
Owner

Tax Parcel Boundary

Notes:
1) Parcel Boundaries and Ownership Information obtained from City of Rochester Tax Parcel Records

0 200 400 600
Feet

Figure 2

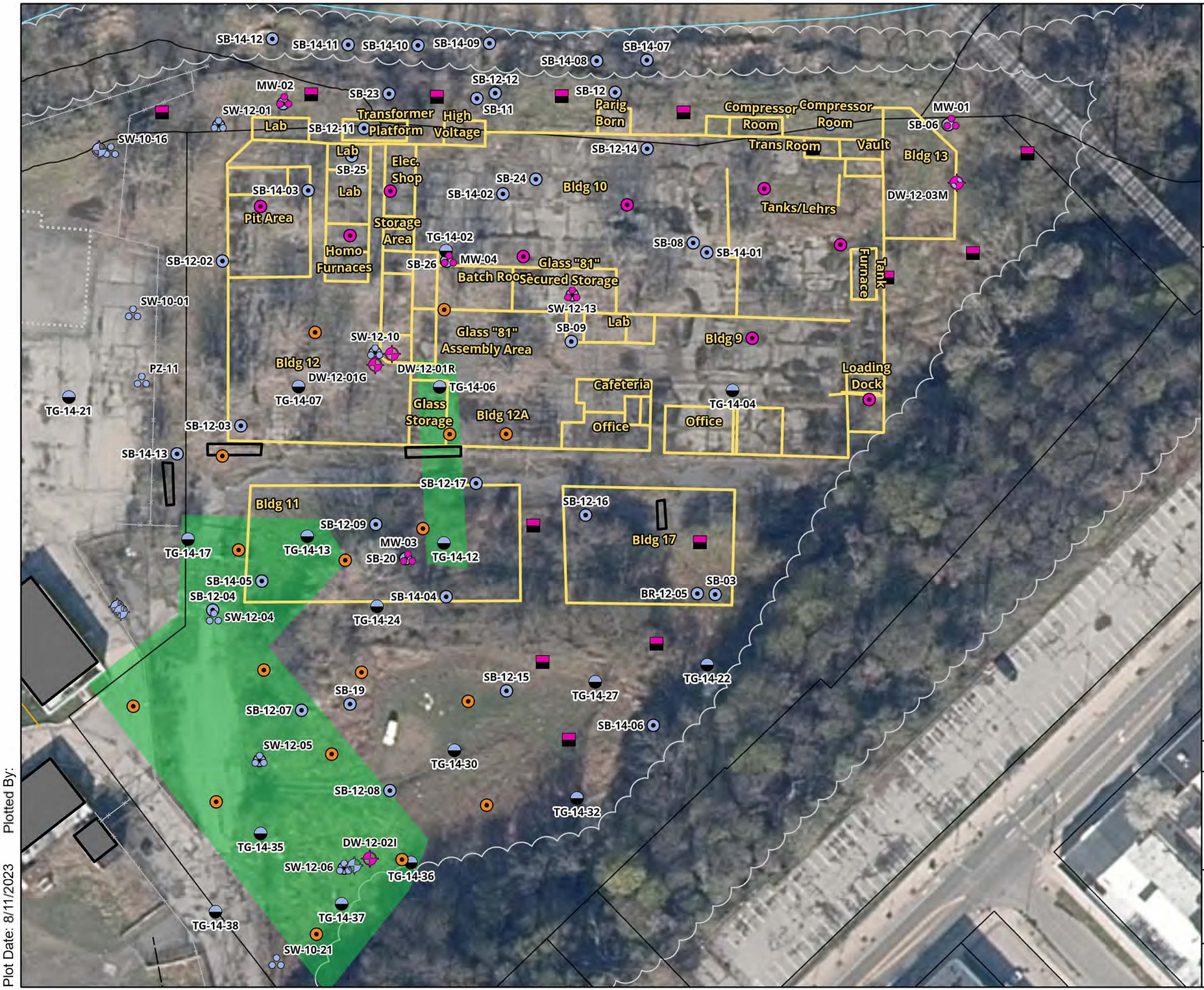
Bausch + Lomb
Former Glass Plant – Suntru Street Site
NYSDEC Site No. 828225
Rochester, NY

Site Boundary and Neighboring Properties

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Plotted By:
Plot Date: 8/25/2023

Document Path: \nysyr04fs01\Projects\Iberdrola_Avangrid\453121 East Station\9.0 Technical Categories\GIS\MXDs\East Station Figures.aprx



River Bank
Toe of Slope
Existing Tree Line
Existing Fence
Property Boundary
Building Layout
Off-Site Excavation (Note 2)
Proposed Co-Located RGE/B&L Soil Boring Location
Proposed B&L Soil Boring Location
Proposed B&L Surface Soil Location
Proposed Bedrock Well Location
Proposed Overburden Well Location

Historical Sample Location

Bedrock Monitoring Well Location
Overburden Well Location
TargOST Location
Soil Boring Location
Test Pit Location

Notes:

1) Parcel Boundaries obtained from City of Rochester Tax Parcel Records
2) Limits of Excavation shown are those proposed in the Record of Decision

0 50 100 150 200 Feet

Figure 3

Bausch + Lomb
Former Glass Plant – Suntru Street Site
NYSDEC Site No. 828225
Rochester, NY

Historical and Proposed Sampling Locations

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Plotted By:
Plot Date: 8/11/2023

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APPENDIX A HISTORICAL SAMPLING DATA – SUMMARY EXCEEDANCES

APPENDIX B RG&E EAST STATION ROD

APPENDIX C SUBSURFACE SOIL DISTURBANCE PROTOCOL

APPENDIX D FIELD SAMPLING PLAN

APPENDIX E QUALITY ASSURANCE PROJECT PLAN

APPENDIX F COMMUNITY AIR MONITORING PLAN

APPENDIX G HEALTH AND SAFETY PLAN