

Periodic Review Report

154 South Ogden Street Site

*BCP Site No. C915268
154 South Ogden Street
Buffalo, New York*

June 2019

0249-019-001

Prepared For:

*154 South Ogden, LLC &
South Buffalo Charter School*



Prepared By:



PERIODIC REVIEW REPORT

**154 SOUTH OGDEN STREET SITE
(BCP SITE No. C915268)**

BUFFALO, NEW YORK

July 2019

B0249-019-001

Prepared For:

154 South Ogden, LLC

Prepared By:



Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
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PERIODIC REVIEW REPORT
154 South Ogden Street Site (C915268)

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1.0 INTRODUCTION

Benchmark Environmental Engineering and Science, PLLC (Benchmark) has prepared this Periodic Review Report (PRR) to summarize the post-remedial status of New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C915268, located at 154 South Ogden Street, in the City of Buffalo, Erie County, New York (see Figure 1).

This PRR has been prepared in accordance with the NYSDEC DER-10 *Technical Guidance for Site Investigation and Remediation* (May 2010; Ref. 1) and the NYSDEC's Institutional and Engineering Controls (IC/EC) Certification Form has been prepared for the Site. This PRR and the associated IC/EC Form (see Appendix A) have been completed for the post-remedial period from June 15, 2018 to June 15, 2019.

1.1 Site Background

154 South Ogden, LLC entered into a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) in November 2012 to investigate and remediate a 21-acre portion of a greater 26.6-acre parcel located in the City of Buffalo, County of Erie, New York. BCP site activities were performed in accordance with Brownfield Cleanup Agreement (BCA) Index #C915268-10-12, Site #C915268, which was executed on November 13, 2012. The property was remediated to restricted residential use is currently being used as the South Buffalo Charter School educational facility.

The site is in the County of Erie, New York and is identified as a portion of Block 1 and Lot 4 on the City of Buffalo Tax Map # 123.15 per Erie County Tax Map records. The site is situated on an approximately 21-acre area bounded by the Buffalo River to the north; vacant property, a cell tower, and Mineral Spring Road to the south; South Ogden Street to the east; and railroad tracks and power lines to the west (see Figures 1 and 2).

1.2 Remedial History

Until 2013, the site was vacant, vegetated with grasses, emergent trees, and invasive species (e.g., knotweed). Prior uses that appear to have led to site contamination include past solid waste disposal over most of the site. Historical records indicate that the site was not

previously developed. A portion of the property was historically traversed by the Buffalo River and filled when the river channel was straightened to its current configuration.

A Remedial Investigation (RI) was performed in January 2013 (and a supplemental investigation completed in March 2013) to characterize the nature and extent of contamination at the site. The results of the RI are described in detail in the Remedial Investigation/Interim Remedial Measures/Alternatives Analysis (RI/IRM/AA) Report prepared by Benchmark and dated April 2013 (revised March 2014). Generally, the RI determined the following contaminants of concern (COCs) in Site soil and/or groundwater: lead, arsenic, polycyclic aromatic hydrocarbons (PAHs) (particularly benzo(a)pyrene), chlorobenzene, 1,2-dichlorobenzene, and cis-1,2-dichloroethene.

The RI/IRM/AA Report recommended remediation of nine areas of concern (AOCs) (characterized by more pronounced levels of COCs), with cover placement recommended as the final remedial measure under a Track 4 Cleanup approach. Additional requirements included development and adherence to a Site Management Plan (SMP) and filing of an Environmental Easement to restrict use of the property to restricted residential, commercial, and industrial applications and to place other limitations on post-redevelopment activities.

1.3 Compliance

At the time of the Site inspection, the Site was fully compliant with the NYSDEC-approved SMP dated September 2014.

1.4 Recommendations

Based on the results of the annual inspection and certification, no modifications are recommended at this time with the exception of a request to modify the reporting period as discussed in Section 5.0.

2.0 SITE OVERVIEW

An overview of the remediation and redevelopment activities undertaken on the Site covered by this PRR are presented below. The remediated property is subject to a comprehensive, site-wide SMP that identifies requirements for monitoring and maintenance of engineering and institutional controls and procedures for post-remedial excavation and related activities.

The 154 South Ogden Street Site was redeveloped under the BCP as a charter school educational facility. The following nine AOCs were remediated:

- Metals-impacted (arsenic) AOC SS-6: excavation of approximately 87.5 tons within an approximate 20 by 20 foot area to an average two-foot depth;
- Petroleum-impacted AOC SB-4: excavation of approximately 652 tons within an approximate 33 by 38 foot area to an approximate 17 foot depth based on visual and olfactory petroleum-like odor;
- PAH-impacted AOC SB-14: excavation of approximately 255 tons within an approximate 30 by 30-foot area to an average six-foot depth;
- PAH-impacted AOC SB-16: excavation of approximately 80.5 tons within an approximate 20 by 20-foot area to an average four-foot depth;
- Metals-impacted (lead) AOC SB-20: excavation of approximately 86 tons within an approximate 20 by 20 foot area to an average five-foot depth;
- Metals-impacted (arsenic and lead) AOC SB-27: excavation of approximately 94 tons within an approximate 20 by 20 foot area to an average five-foot depth;
- PAH-impacted AOC SB-36: excavation of approximately 122.5 tons within an approximate 23 by 30 foot area to an average two-foot depth;
- Metals-impacted (arsenic and lead) AOC SB-69: excavation of approximately 409 tons within an approximate 52 by 63 foot area to an average two-foot depth; and
- Asphalt pieces and fill AOC Column Pile Line M5: excavation of approximately 24 tons within an approximate 15 by 20 foot area.

The remedial program was successful in achieving the remedial objectives for the Site. An Environmental Easement restricting end use of the Site and enforcing adherence to the SMP was filed in September 2014 and approved in November 2014. The Final Engineering Report (FER) was approved in December 2014. Concurrently, a Certificate of Completion (COC) was issued for the Site by the NYSDEC in December 2014.

3.0 REMEDY PERFORMANCE

A post-remedial site inspection involving a walk-over of the Site covered by this PRR was performed by Thomas Forbes, P.E. on June 21, 2019 to visually observe and document the use of the Site for continued institutional (school) use, confirm absence of site groundwater use, inspect the cover system integrity, and verify conformance with other requirements under the SMP. The site inspection completed during the current reporting period indicates that the controls are in-place and functioning as intended in accordance with the SMP.

Appendix A includes the completed IC/EC Certification Form and Appendix A includes Site photographs taken during the inspection.

4.0 SITE MANAGEMENT PLAN

A site-wide SMP was prepared for the Site and approved by the Department in November 2014. Key components of the SMP are described below.

4.1 Institutional and Engineering Control (IC/EC) Plan

Since remaining contaminated soil and groundwater exists beneath the site, Institutional Controls and Engineering Controls (IC/ECs) are required to protect human health and the environment. The Engineering and Institutional Control Plan describes the procedures for the implementation and management of all IC/ECs at the site. At the time of the site inspection, the Site covered by this PRR was fully compliant with all engineering and institutional control requirements.

4.1.1 Institutional Controls (ICs)

The site has a series of Institutional Controls in the form of site restrictions. Adherence to these Institutional Controls is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

- The property may only be used for restricted-residential, commercial, and industrial use provided that the long-term Engineering and Institutional Controls included in the SMP are employed.
- The property may not be used for a higher level of use, such as unrestricted use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;
- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use;
- Vegetable gardens and farming on the property are prohibited; and
- The site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC and (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or

that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow, and will be made by an expert that the NYSDEC finds acceptable.

4.1.2 Engineering Controls (ECs)

Engineering controls at the Site include:

- Cover System – Exposure to remaining contamination in soil/fill at the site is prevented by a final cover system placed over the site. This cover system is comprised of a minimum of 24 inches of clean soil (with demarcation layer), asphalt pavement, concrete sidewalks, compacted fine gravel walking paths, concrete building slabs, bioretention material, and recycled rubber mulch. The cover system must be maintained in compliance with the SMP.
- Bioretention Basins – There are five bioretention basins located on the Site (see Figure 2). Each bioretention basin is part of the Site erosion control plan. Procedures for the inspection and maintenance of these basins are provided in the SMP.
- Vapor Barrier - A poly vapor barrier must be installed (if new construction) and remain in-place beneath existing building concrete floor slabs.

4.2 Excavation Work Plan

An Excavation Work Plan (EWP) was included in the NYSDEC-approved SMP for the Site. The Excavation Work Plan provides guidelines for the management of soil and fill material during any future intrusive activities. Any intrusive work that will penetrate the cover or cap, or encounter or disturb the remaining contamination, including any modifications or repairs to the existing cover system, must be performed in compliance with the EWP.

No intrusive activities requiring management of on-site soil or fill material or the placement of backfill materials occurred during the monitoring period.

4.2.1 Imported Materials

Imported material were not required during the current reporting period.

4.3 Annual Inspection and Certification Program

The Annual Inspection and Certification Program outlines requirements for certifying and attesting that the institutional controls and engineering controls employed on the Site are unchanged from the original design and/or previous certification. The Annual Certification includes a Site Inspection and completion of the NYSDEC's IC/EC Certification Form. The Site inspection is intended to verify that the IC/ECs:

- Are in place and effective.
- Are performing as designed.
- That nothing has occurred that would impair the ability of the controls to protect the public health and environment.
- That nothing has occurred that would constitute a violation or failure to comply with any operation and maintenance plan for such controls.
- Access is available to the Site to evaluate continued maintenance of such controls.

Inspection of the Site was conducted by Thomas Forbes, P.E. of Benchmark on June 21, 2019. Mr. Forbes is a licensed and registered NY State Professional Engineer and meets the requirements of a Qualified Environmental Professional (QEP) per 6NYCRR Part 375.12. At the time of the inspection, the Site was being used as a charter school educational facility (South Buffalo Charter School) with surface parking, concrete sidewalks, bioretention areas, ball fields (softball, baseball, and soccer), playgrounds, pole barn, and landscaped areas. No observable indication of intrusive activities was noted during the Site inspection. The charter school educational facility uses the local municipal water supply; no observable use of groundwater was noted during the Site inspection.

The completed Site Management Periodic Review Report Notice – Institutional and Engineering Controls Certification Form is included in Appendix A. Appendix B includes a photographic log of the June 2019 Site inspection.

4.4 Operation, Monitoring and Maintenance Plan

The remedy for the Site does not rely on any mechanical systems such as sub-slab depressurization or soil vapor extraction, to protect public health and the environment. Therefore, an Operation and Maintenance Plan is not required.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusions for this reporting period and recommendations for the next reporting period are as follows:

- At the time of the Site inspection, the Site remained in compliance with the SMP; no corrective measures are required or recommended.
- Based upon the history of consistent compliance with SMP requirements, the fully redeveloped status of the property, and its continued use for its intended purpose, it is requested that the PRR reporting frequency be reduced to once every 2 years.

6.0 DECLARATION/LIMITATION

Benchmark Environmental Engineering & Science, PLLC personnel conducted the annual site inspection for BCP Site No. C915268, located in Buffalo, New York, according to generally accepted practices. This report complied with the scope of work provided to 154 South Ogden, LLC (and the South Buffalo Charter School) by Benchmark Environmental Engineering & Science, PLLC.

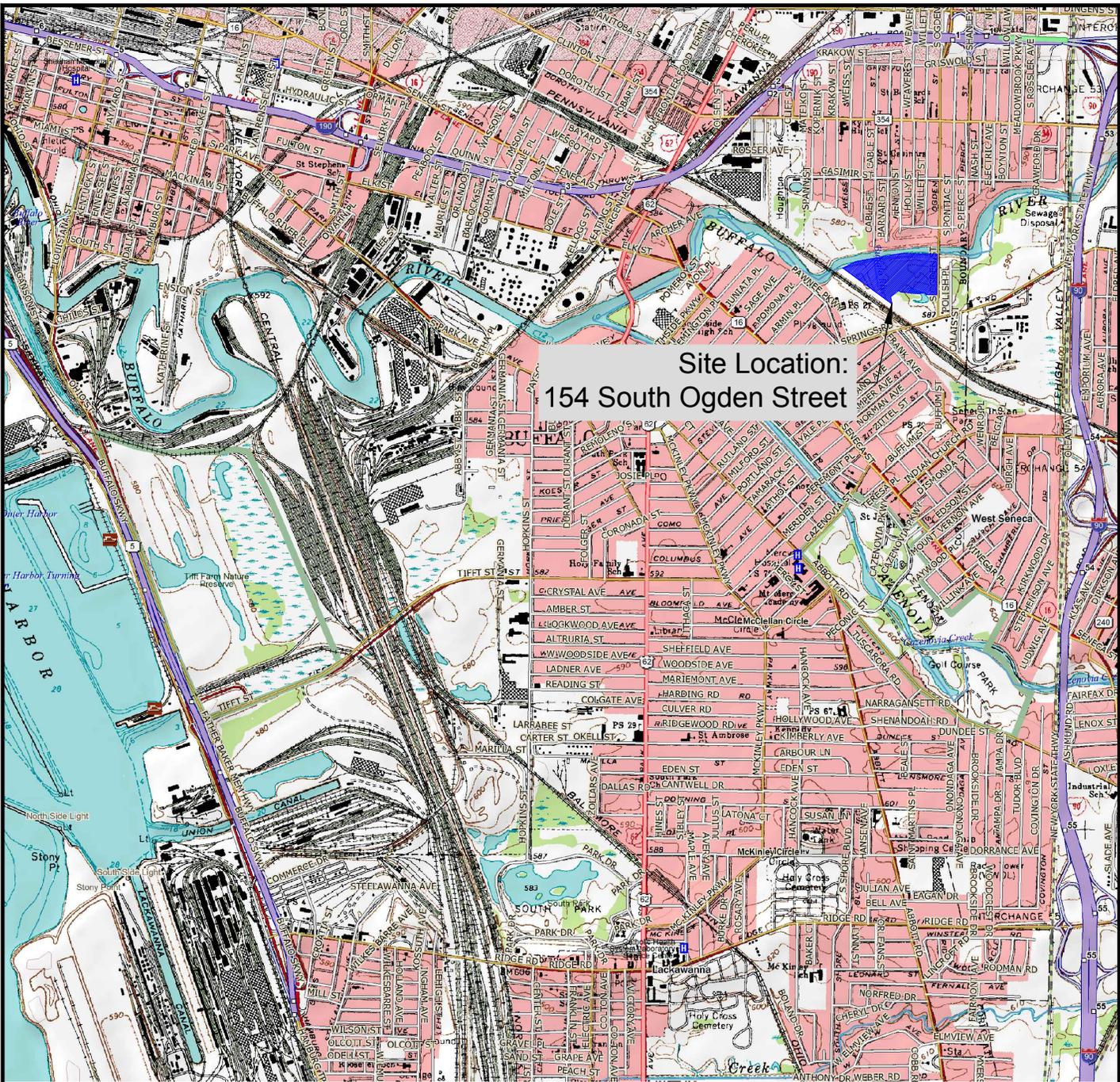
This report has been prepared for the exclusive use of 154 South Ogden, LLC (and the South Buffalo Charter School). The contents of this report are limited to information available at the time of the site inspection. The findings herein may be relied upon only at the discretion of 154 South Ogden, LLC (and South Buffalo Charter School). Use of or reliance upon this report or its findings by any other person or entity is prohibited without written permission of Benchmark Environmental Engineering & Science, PLLC.

7.0 REFERENCES

1. New York State Department of Environmental Conservation. *DER-10; Technical Guidance for Site Investigation and Remediation*. May 2010.
2. Benchmark Environmental Engineering & Science, PLLC. *Site Management Plan, 154 South Ogden Street Site, Buffalo, NY (NYSDEC BCP Site #C915268)*. September 2014.
3. Benchmark Environmental Engineering & Science, PLLC. *Final Engineering Report, 154 South Ogden Street Site, Buffalo, NY (NYSDEC BCP Site #C915268)*. November 2014.

FIGURES

FIGURE 1



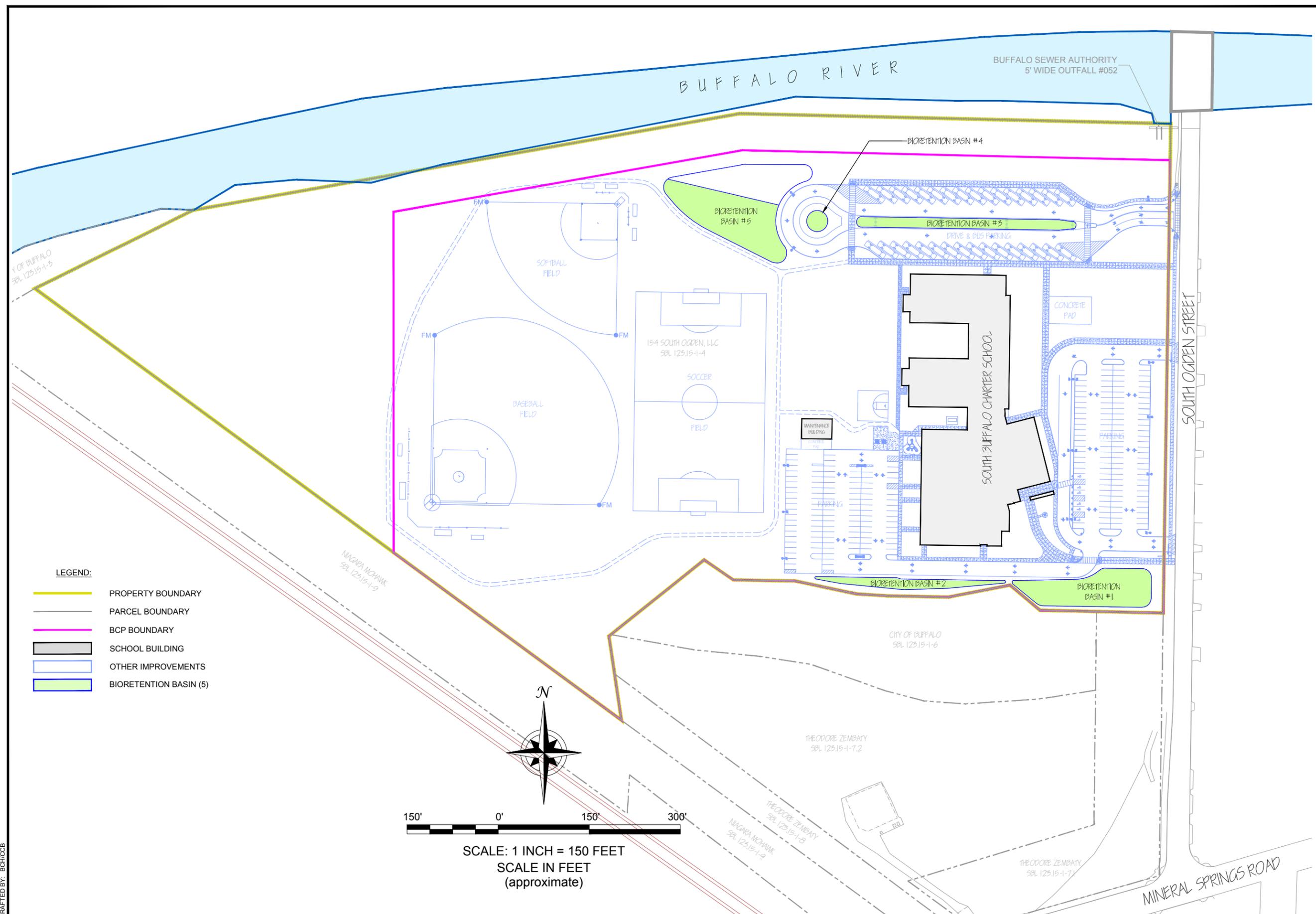
SCALE: 1 INCH = 3000 FEET
 SCALE IN FEET
 (approximate)

	2558 HAMBURG TURNPIKE SUITE 300 BUFFALO, NY 14218 (716) 856-0599
	PROJECT NO.: 0249-019-001 DATE: JUNE 2019 DRAFTED BY: BCH/CCB

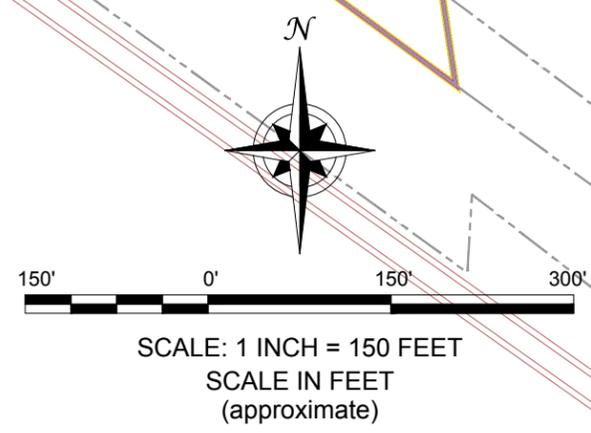
SITE LOCATION AND VICINITY MAP

PERIODIC REVIEW REPORT
 154 SOUTH OGDEN STREET SITE

BUFFALO, NEW YORK
 PREPARED FOR
 154 SOUTH OGDEN, LLC



- LEGEND:**
- PROPERTY BOUNDARY
 - PARCEL BOUNDARY
 - BCP BOUNDARY
 - SCHOOL BUILDING
 - OTHER IMPROVEMENTS
 - BIORETENTION BASIN (5)



APPENDIX A

INSTITUTIONAL & ENGINEERING CONTROLS CERTIFICATION FORM



Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form



	Site Details	Box 1	
Site No.	C915268		
Site Name 154 South Ogden Street Site			
Site Address: 154 South Ogden Zip Code: 14210			
City/Town: Buffalo			
County: Erie			
Site Acreage: 20.950			
Reporting Period: June 15, 2018 to June 15, 2019			
		YES	NO
1.	Is the information above correct?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	If NO, include handwritten above or on a separate sheet.		
2.	Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.	Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5.	Is the site currently undergoing development?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		Box 2	
		YES	NO
6.	Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.	Are all ICs/ECs in place and functioning as designed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.			
A Corrective Measures Work Plan must be submitted along with this form to address these issues.			
_____ Signature of Owner, Remedial Party or Designated Representative		_____ Date	

Box 2A

YES NO

8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?

 YES NO

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

9. Are the assumptions in the Qualitative Exposure Assessment still valid?
(The Qualitative Exposure Assessment must be certified every five years)

 YES NO

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C915268

Box 3**Description of Institutional Controls**ParcelOwnerInstitutional Control**A portion of 123.15-1-4**

154 South Ogden LLC

Ground Water Use Restriction
Soil Management Plan
Landuse Restriction
Site Management Plan
IC/EC Plan

Adherence to Site Management Plan (SMP)
Allows development to restricted residential re-use
Prohibition of groundwater use
Allowance for Departmental access
Requires a Periodic Review and Report

Box 4**Description of Engineering Controls**ParcelEngineering Control**A portion of 123.15-1-4**

Cover System

Cover system over 5 acres of soil, blacktop, concrete

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C915268

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1, 2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

Christopher J. Schafer

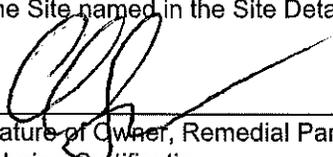
I Christopher J Schafer at _____
print name

154 So Ogden Street, Buffalo, NY 14210

print business address

am certifying as _____ Owner's Representative (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.



Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

7/9/19
Date

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Thomas H. Forbes, P.E. at Benchmark Environmental Engineering & Science, PLLC
print name 2558 Hamburg Turnpike, Suite 300, Buffalo, NY 14218
print business address

I am certifying as a Qualified Environmental Professional for the Owner
(Owner or Remedial Party)

  7-9-19
Signature of Qualified Environmental Professional, for Stamp Date
the Owner or Remedial Party, Rendering Certification (Required for PE)

APPENDIX B

PHOTOGRAPHIC LOG

Client Name: South Buffalo Charter School		Site Location: 154 South Ogden Street Site (C915268)	Project No.: B0249-019-001
Photo No. 1	Date 06/21/19		
Direction Photo Taken: north			
Description: Surface lot in front of school.			

Photo No. 2	Date 06/21/19		
Direction Photo Taken: west			
Description: Lawn and above grade planter boxes in front of school.			

Client Name: South Buffalo Charter School		Site Location: 154 South Ogden Street Site (C915268)	Project No.: B0249-019-001
Photo No. 3	Date 06/21/19		
Direction Photo Taken: west			
Description: Bus entrance drive/parking area.			

Photo No. 4	Date 06/21/19		
Direction Photo Taken: northwest			
Description: Bioretention pond #5.			

Client Name: South Buffalo Charter School		Site Location: 154 South Ogden Street Site (C915268)	Project No.: B0249-019-001
Photo No. 5	Date 06/21/19		
Direction Photo Taken: southwest			
Description: Ball fields showing Marco clay and grass/topsoil cover system components.			

Photo No. 6	Date 06/21/19		
Direction Photo Taken: east			
Description: Grass/topsoil and stone pedestrian path with school in background.			

Client Name: South Buffalo Charter School		Site Location: 154 South Ogden Street Site (C915268)	Project No.: B0249-019-001
Photo No. 7	Date 06/21/19		
Direction Photo Taken: south			
Description: Stockpiled cover soils partly covered with poly tarp.			

Photo No. 8	Date 06/21/19		
Direction Photo Taken: northwest			
Description: Playground and rear parking area.			

Client Name: South Buffalo Charter School		Site Location: 154 South Ogden Street Site (C915268)	Project No.: B0249-019-001
Photo No. 9	Date 06/21/19		
Direction Photo Taken: east			
Description: Access drive on south side of school building. Bioretention basins #1 and #2 at right.			

Photo No. 10	Date 06/21/19		
Direction Photo Taken: north			
Description: School entrance.			