THIRD FIVE-YEAR REVIEW REPORT FOR LEY CREEK PCB DREDGINGS SUBSITE ONONDAGA LAKE SUPERFUND SITE ONONDAGA COUNTY, NEW YORK

Prepared by

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Region 2
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Date

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LIST OF ABBREVIATIONS & ACRONYMS

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
EPA	United States Environmental Protection Agency
FYR	Five-Year Review
GM	General Motors Corporation
ICs	Institutional Controls
µg/L	Micrograms per Liter
mg/kg	Milligrams per kilogram
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
NYSDEC	New York State Department of Environmental Conservation
O&M	Operation and Maintenance
OU	Operable Unit
PCBs	Polychlorinated Biphenyls
PRP	Potentially Responsible Party
RACER	Revitalizing Auto Communities Environmental Response
RAOs	Remedial Action Objectives
REALM	Remediation and Liability Management Company, Inc.
ROD	Record of Decision
RI/FS	Remedial Investigation/Feasibility Study
RPM	Remedial Project Manager
UU/UE	Unlimited Use/Unrestricted Exposure
VOCs	Volatile Organic Compounds

I. INTRODUCTION

The purpose of a five-year review (FYR) is to evaluate the implementation and performance of a remedy in order to determine if the remedy is and will continue to be protective of human health and the environment. The methods, findings, and conclusions of FYRs are documented in FYR reports, such as this one. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The U.S. Environmental Protection Agency (EPA) is preparing this FYR review pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121, consistent with the National Oil and Hazardous Substances Contingency Plan (NCP)(40 CFR Section 300.430(f)(4)(ii)), and considering EPA policy.

The Onondaga Lake site currently includes eleven subsites (subsites are defined as any site that is situated on Onondaga Lake's shores or tributaries that has contributed contamination to or threatens to contribute contamination to Onondaga Lake.) Each subsite is an operable unit (OU). This FYR report evaluates OU10, the Ley Creek PCB Dredgings subsite (Subsite).

This is the third FYR for the Subsite. The triggering action for this statutory review is the completion date of the previous FYR. The FYR has been prepared due to the fact that hazardous substances, pollutants or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure (UU/UE).

The Ley Creek PCB Dredgings Subsite FYR team was led by the EPA remedial project manager (RPM) Robert Nunes. Other participants included New York State Department of Environmental Conservation (NYSDEC) project manager, Jacky Luo, EPA hydrogeologist, Edward Modica, EPA human health risk assessor, Chloe Metz, EPA ecological risk assessor, Mindy Pensak, and EPA community involvement coordinator, Larisa Romanowski. The potential responsible party, Revitalizing Auto Communities Environmental Response (RACER) Trust, was notified of the initiation of the FYR. The review began on July 27, 2016.

Site Background

The Subsite is located along the south bank of Ley Creek in the Town of Salina, Onondaga County, New York. A site location map and site plans are included as Figures 1 through 6 in Appendix B. The Subsite is bounded by Factory Avenue on the south and Ley Creek to the north. The New York State Thruway is located immediately to the north of Ley Creek. The eastern limit of the Subsite is the General Motors Outfall 003, which is located just west of Townline Road. The western limit is located approximately 4,000 feet downstream near the Town of Salina Highway Department garage. A fence extends along the south side of the study area approximately 10 feet north of Factory Avenue and to the east and west; however, access along the bank of Ley Creek, which forms the northern site boundary, remains unrestricted.

Prior to the early 1970s, the combination of poor channel conditions and large impermeable areas in the Ley Creek watershed resulted in extensive flooding, some of the worst of which was near the General Motors Corporation (GM)-Inland Fisher Guide Facility in 1969. The Ley Creek Drainage District, a project involving the clearing and dredging of the creek channel, was initiated

following the 1969 flooding event. In 1970, contractors, under the direction of the Onondaga County Department of Drainage and Sanitation, began dredging of a portion of Ley Creek. Other reaches of the creek were subsequently dredged in phases. While the final disposition of much of the dredged material is not known, some dredged material generated during these activities was placed along the south bank of the creek or used for land restoration projects. It was subsequently determined that much of the dredged sediments were contaminated with PCBs as a result of industrial wastewater discharges to the creek, primarily from the adjacent GM-Inland Fisher Guide Plant.

The 18-acre Subsite consists of dredged spoil materials located on the south bank of the creek. These materials have been covered with a one-foot thick soil cover.

FIVE-YEAR REVIEW SUMMARY FORM

SITE IDENTIFICATION		
Site Name: Onondaga Lake site (Ley Creek PCB Dredgings Subsite – Operable Unit 10)		
EPA ID: NYD986913580		
Region: 2	**State:** NY	**City/County:** Town of Salina, Onondaga County

SITE STATUS	
NPL Status: Final	
Multiple OUs? Yes	**Has the site achieved construction completion?** No

REVIEW STATUS
Lead agency: State ***[If "Other Federal Agency", enter Agency name]*:**
Author name (Federal or State Project Manager): Robert Nunes
Author affiliation: EPA
Review period: 1/30/2012 – 4/21/2017
Date of site inspection: 10/13/2016
Type of review: Statutory
Review number: 3
Triggering action date: 1/17/2012
Due date *(five years after triggering action date)*: 1/17/2017

II. RESPONSE ACTION SUMMARY

Basis for Taking Action

The deposited dredge spoil materials was determined to represent a threat to the environment as a contributing source of PCBs to the fish, sediments, and groundwater in the vicinity of the Subsite. Ecological risk calculations indicated that the un-remediated PCB-contaminated dredge material/soils posed an unacceptable risk to terrestrial species and their predators, such as the short-tailed shrew and the red-tailed hawk.

Response Actions

After investigations related to the deposited dredge materials conducted in 1985, 1987, and 1989, NYSDEC determined that GM needed to perform a remedial investigation/feasibility study (RI/FS) at the Subsite to fully characterize the areal and vertical extent of contamination present. GM and NYSDEC entered into an Administrative Order on Consent for performance of the RI/FS on May 23,1991. In 1993, the RI was completed. Also in 1993, the adjacent GM-Inland Fisher Guide site was listed on NYSDEC's Registry of Inactive Hazardous Waste Disposal Sites, as a Class 2 site. In 1996, the FS report was accepted by NYSDEC.

A Record of Decision (ROD) was issued for the Subsite by NYSDEC in March 1997; EPA concurred with the ROD in February 1998. The following remedial action objectives (RAOs) were identified in the ROD:

1) reduce, control, or eliminate the PCB contamination present within the dredge materials/soils on the Subsite;
2) eliminate the threat to surface waters and sediments by eliminating any future contaminated surface run-off from the contaminated dredge material/soils on site;
3) reduce short-term impacts to surface water and air expected as a result of remedial activities;
4) eliminate a source of PCBs for uptake by fish and other organisms in Ley Creek;
5) eliminate the potential for direct human or animal contact with the contaminated dredge materials/soils on site; and
6) prevent, to the extent possible, migration of contaminants into the groundwater.

The major components of the remedy include:

- Excavation and disposal of deposited dredge material/soils that contain PCBs at concentrations exceeding 50 milligrams per kilogram (mg/kg) at a permitted hazardous waste landfill;
- Consolidation and covering of the remaining PCB-contaminated dredge materials where concentrations are less than 50 mg/kg but exceed 1 mg/kg at the surface and 10 mg/kg in subsurface areas;
- Removal of deposited dredged materials, at a minimum, from the first 25 feet of the floodway area to restore the area to an appropriate elevation. After the restoration of the floodway elevations, covering of any remaining materials above the remedial level remaining in the floodway with a geomembrane or clay and 12 inches of soil or a gravel

roadway. Grading and covering with a vegetated soil cover consisting of 12 inches of soil in areas outside of the floodway;

- Construction of a gravel access road adjacent to the southern bank of the Creek to allow for future maintenance and/or dredging;
- Grading and covering four drainage swales from Factory Avenue with a vegetated cover. Lining with a half pipe or formed concrete spillway where the swales pass through the area of covered dredge spoils. Provision of access pads and pathways, as well as gates in the fence, to allow access for maintenance of the County sewer line which is also located in the area to be covered;
- Completion during the remedial design of a hydraulic analysis and floodplain assessment to assure compliance with Executive Order 11988 (Floodplain Management) for the consolidated capped materials to ensure that the material to be left in the floodplain and floodway will not result in any significant change in flood elevations and that there will not be any adverse impact to the remedy from a 100-or 500-year flood;
- Installation of a chain-link fence around the area of the vegetative cover to limit access;
- Implementation of deed restrictions to preclude activities that could potentially expose contaminated materials and to ensure that the integrity of the cover is maintained; and
- Implementation of a long-term monitoring program.

Status of Implementation

During the remedial design, flow velocities in the vicinity of the Subsite were calculated as part of the Design Conditions Model for the 100-year and 500-year floods. The maximum channel velocity in the vicinity of the Subsite during a 500-year flood is calculated to be approximately 5 feet per second. Flow velocities outside the channel, particularly on the southern edge of Ley Creek extending across the Subsite to the northern edge of Factory Avenue ranged from approximately less than one to four feet per second. General erosion velocity capacity limits published by the New York State Department of Transportation indicate that bare soil, soil with excellent vegetation, and typical synthetic geomat materials with established vegetation can withstand flow velocities of up to one, five and 14 feet per second, respectively, without erosion. Therefore, a cover consisting of 12 inches of well- maintained vegetative cover would provide adequate erosion protection for even a 500-year flood and could be used in lieu of a cover with geomembrane or clay in the floodway as specified in the ROD. However, as a measure of additional erosion protection, a cover which includes a synthetic geomat from the southern edge of Ley Creek to the northern edge of the access road was included in the remedial design; this represents a design safety factor of more than 2.5 times what would be required to address a 500-year flood maximum channel velocity in this area. The synthetic geomat is a lightweight, porous material that strengthens the interface between soil and vegetation. The cover design also included the placement of a non-woven geotextile between the 6-inch vegetative soil layer and the 6-inch top soil layer from the southern edge of Ley Creek to a few feet south of the start of the slope increase south of the access road. The non-woven geotextile is a lightweight, porous fabric that would serve as an indicator that erosion has occurred and maintenance of the soil cover is required.

Excavation and staging of the deposited dredged material/soil that contained PCBs greater than or equal to 50 mg/kg was conducted between December 1999 and August 2000. Approximately 3,750 cubic yards of excavated, material/soil were loaded into dump trailers and the trailers were transported to the Chemical Waste Management facility in Model City, New York. Approximately 920 cubic yards of deposited dredged material/soil located on the north bank of Ley Creek were excavated from an area of approximately 6,200 square feet to a depth of 4 feet and consolidated with the on-site dredged spoils on the south bank of Ley Creek containing PCBs less than 50 mg/kg. The excavated area on the north bank was backfilled and seeded with Reed Canary Grass (*Phalaris arundinacea*).

A vegetative cover was installed over the consolidated dredged material/soil on the south bank of Ley Creek to meet the remedial action objectives called for in the ROD. Due to constructability concerns with respect to installation of the non-woven geotextile between the vegetative soil and top soil layers, the design was modified with NYSDEC approval during remedial construction to allow for the geotextile to be placed beneath one 12-inch layer of soil suitable to support vegetation. With the exception of areas identified for wetland mitigation and the excavated area in the northern area of the north bank of Ley Creek, the vegetative cover system was hydroseeded with Lancer Flat Pea (*Lathyrus sylvesths*) and was fertilized to establish vegetation. On-site wetland mitigation consisted of planting Reed Canary Grass (Phalaris arundinacea) in approximately 1.5 acres of the Subsite to replace 1.4 acres of wetlands eliminated during remedial construction. By 2005, restoration goals for the wetland area were met in three of four sample plots. Following additional restoration work in the sample plot in 2007, an additional 0.6-acre area of vegetation buffer was established along the southern boundary of the restored wetland area in lieu of additional wetland monitoring.

During remedial construction, six groundwater monitoring wells were decommissioned in accordance with NYSDEC-approved modified procedures because they were located in areas designated for excavation. One additional well was decommissioned because it exhibited artesian conditions, with water flowing from the top of the casing. This would likely have eroded the vegetative cover. Three additional monitoring wells were also lost during excavation activities. Six groundwater monitoring wells did not need to be removed to accommodate construction, but were modified to an elevation flush with the final grade of the vegetative cover. Three groundwater monitoring wells were installed in July 2001 to assess groundwater quality in the deep overburden migrating from the former GM-Inland Fisher Guide facility. Two additional shallow monitoring wells and one nested well pair (one shallow well and one deep well) were installed at the Subsite in September 2006.

Institutional Controls

The selected remedy for the Subsite included the implementation of deed restrictions to preclude activities that could potentially expose contaminated materials and to ensure that the integrity of the cover is maintained. At the time the ROD was issued, four different entities were property owners of parcels at the Subsite. In order to facilitate the remediation, Remediation and Liability Management Company, Inc. acquired title to these parcels. A deed restriction for the properties was recorded in the Onondaga County Clerk's office on July 6, 2007. The deed restrictions require that the vegetative/soil cover be maintained in accordance with the operation, maintenance, and monitoring(OM&M) Plan, that any amendments to the plan be approved by

NYSDEC, that no activities that would threaten the integrity of the cover be undertaken or permitted, and that groundwater be prohibited from residential use.

Table 1 summarizes the status of the Institutional Controls (ICs).

Table 1: Summary of Implemented Institutional Controls

Media, engineered controls, and areas that do not support UU/UE based on current conditions	ICs Needed	ICs Called for in the Decision Documents	Impacted Parcel(s)	IC Objective	Title of IC Instrument Implemented and Date (or planned)
Vegetative/Soil Cover	Yes	Yes	All	Cover be maintained in accordance with the OM&M Plan. No activities that would threaten the integrity of the cover be undertaken or permitted.	Deed restriction recorded in the Onondaga County Clerk's office on July 6, 2007.
Groundwater				Groundwater be prohibited from use as drinking water.	

Systems Operations/Operation & Maintenance

This Subsite has ongoing maintenance and monitoring activities as part of the remedy. Since the completion of the remedial action, site inspections have been conducted in accordance with the NYSDEC-approved OM&M Manual for the Subsite. Routine annual inspections have been conducted on the Subsite since 2007.

No modifications to these activities have been made since the previous FYR.

Potential site impacts from climate change have been assessed, and the performance of the remedy is currently not at risk due to the expected effects of climate change in the region and near the Subsite.

III. PROGRESS SINCE THE LAST REVIEW

This section includes the protectiveness determinations and statements from the last FYR as well as the recommendations from the last FYR and the current status of those recommendations.

The protectiveness determinations from the last FYR is summarized in Table 2.

Table 2: Protectiveness Determinations/Statements from the 2012 FYR

OU	Protectiveness Determination	Protectiveness Statement
10	Protective	The implemented actions at the Subsite protect human health and the environment. There are no exposure pathways that could result in unacceptable risks and none are expected, as long as the Subsite use does not change and the engineered and access controls that are currently in place continue to be property operated, monitored, and maintained.

There were no recommendations or follow-up actions stemming from the prior FYR and aside from the ongoing maintenance and monitoring activities, no new activities have been conducted at this subsite.

IV. FIVE-YEAR REVIEW PROCESS

Community Notification, Involvement & Site Interviews

On November 14, 2016, EPA Region 2 posted a notice on its website indicating that it would be reviewing site cleanups and remedies at 38 Superfund sites in New York and New Jersey, including the Subsite. The announcement can be found at the following web address: https://www.epa.gov/sites/production/files/201611/documents/five_year_reviews_fy2017_final.pdf.

In addition to this notification, a notice of the commencement of the FYR for the Subsite was posted on the EPA's Region 2 webpage and sent to local public officials. The notice was provided to the Town of Salina on October 4, 2016 with a request that it be posted in the Town Hall and on the Town of Salina webpage. The public notice was also distributed via the NYSDEC's Onondaga Lake News email listserv on October 12, 2016, which includes approximately 14,000 subscribers. The purpose of the public notice was to inform the community that EPA would be conducting a FYR to ensure that the remedy implemented at the Subsite remains protective of public health and is functioning as designed. In addition, the notice included contact information, including addresses and telephone numbers, for questions related to the FYR process or the Subsite.

The FYR report will be made available via the NYSDEC listserv and at the Subsite information repositories, which are NYSDEC's Albany and Syracuse offices; Salina Free Library, 100 Belmont Street, Salina, New York; Onondaga County Public Library, Syracuse Branch at the Galleries 447 South Salina Street, Syracuse New York; and the Atlantic States Legal Foundation, 658 West Onondaga Street, Syracuse, New York.

No interviews were conducted for this five-year review.

Data Review

Maintenance and monitoring activities including site inspections are ongoing.

Thirteen on-site groundwater monitoring wells were sampled in August 2016 for PCBs. During sampling, bailers were used to collect the samples from groundwater monitoring wells MW-8, MW-12, and MW-13, as submersible pumps could not be lowered into these wells. Also, it was noted that groundwater monitoring wells OBG-25D & OBG-25S were in need of bolts to secure the well covers to the base. The results for PCBs are discussed below. Subsite groundwater was also sampled for VOCs. The VOC data will be considered as part of the ongoing RI/FS for the former GM-Inland Fisher Guide Facility area.

A PCB aroclor, Aroclor-1242, was detected at a concentration of 0.41 micrograms per liter (µg/L) in a sample collected from OBG-27S (see Figure 4). The result was noted with the data qualifier "L," indicating that the identification of the analyte is acceptable; the reported value may be biased low. The reported value exceeds the groundwater screening criterion for total PCBs of 0.09 µg/L in NYSDEC's June 1998 Division of Water Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards and Guidance Values and Ground Water Effluent Limitations. PCBs were not detected in any of the other groundwater samples.

Site Inspection

The inspection of the Subsite was conducted October 13, 2016. In attendance were Robert Nunes (EPA), Jacky Luo (NYSDEC), Alma Lowry, Jenna McAuley, and Curtis Waterman (Onondaga Nation), and Clare Leary and Mark Byrne (O'Brien & Gere, technical consultant for RACER). The purpose of the inspection was to assess the protectiveness of the remedy. The vegetative cover was generally observed to be in good condition. The catch basin metal drainage grates were free of debris and surface water drainage at the Subsite was not impeded. Reddish/brown-colored stormwater, presumably from an offsite source, was observed to be flowing into Catch Basin #2. A sampling plan to determine the source of this stormwater is under development.

V. TECHNICAL ASSESSMENT

QUESTION A: *Is the remedy functioning as intended by the decision documents?*

Question A Summary

Site inspections indicate that residual PCB-contaminated materials remain capped, the vegetative cover is well established, and the Subsite perimeter remains fenced. Institutional controls in the form of deed restrictions were established in 2007 and remain in place. Only minor deficiencies in the remedy have been observed during annual Subsite inspections and document review. Based upon the inspections and a review of the documents summarized in Appendix A, it has been concluded that the remedy is functioning as intended by the ROD.

A PCB aroclor, Aroclor-1242, was detected at a concentration of 0.41 micrograms per liter (µg/L) in a sample collected from OBG-27S (see Figure 4), which exceeds the groundwater screening criterion for total PCBs of 0.09 µg/L. However, PCBs were not detected in any of the other groundwater samples.

QUESTION B: *Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?*

Question B Summary

There have been no physical changes to the Subsite that would adversely affect the protectiveness of the remedy. Land use assumptions, exposure assumptions and pathways, cleanup levels and remedial action objectives considered in the decision documents remain valid.

The soil cap prevents direct contact with contaminated soils and is protected by a deed restriction. Additionally, groundwater in the vicinity of the site cannot be used for drinking. The vapor intrusion pathway was not evaluated because the property does not have current development and the potential risk from exposure through inhalation of volatilization of PCBs, the Subsite contaminants, is not significant. PCB-contaminated sediments will be addressed as part of the remedy for the former GM-Inland Fisher Guide facility and Ley Creek Deferred Media Subsite. As such, all potential exposure pathways have been addressed by the remedy for this Subsite or will be addressed as part of the actions related to the former GM facility.

The remediation levels for PCBs selected in the ROD to meet Subsite remedial goals were 1 mg/kg for surface soils and 10 mg/kg for subsurface soils. These levels conformed with New York State Technical and Administrative Guidance Memorandum No. 94-HWR-4046 objectives and were consistent with EPA's policy for remediation goals for PCBs at Superfund sites so that the residual risk meets the risk range identified in the National Oil and Hazardous Substances Pollution Contingency Plan. Furthermore, calculation of the ecological risk using the remediation levels for PCBs selected in the ROD indicated that the selected remedy was protective of the environment. The cleanup goals remain protective of human and ecological receptors.

QUESTION C: *Has any other information come to light that could call into question the protectiveness of the remedy?*

No.

VI. ISSUES/RECOMMENDATIONS

There are no recommendations or follow-up actions stemming from this FYR.

Table 3: Issues/Recommendations

Issues/Recommendations
OU(s) without Issues/Recommendations Identified in the Five-Year Review:
OU-10

OTHER FINDINGS

The following are suggestions that were identified during the FYR that may improve performance of the remedy, reduce costs, improve management of O&M, accelerate site close out, conserve energy, promote sustainability, but do not affect the current and/or future protectiveness:

- Submersible pumps could not be lowered into groundwater monitoring wells MW-8, MW-12, and MW-13 during sampling. The wells could only be sampled with bailers. The wells should be repaired or replaced.
- Groundwater monitoring wells OBG-25D & OBG-25S are in need of bolts to secure the well covers to the base.
- Based on the annual maintenance and monitoring reports, the spring mowing events occurred on or after June 15 each year between 2012 and 2015. Consistent with a recommendation in the Second FYR Report, mowing of the upland portion of the site should be avoided during the bird-nesting season which is between June 15 and August 31, and should be conducted before May 15 if site conditions allow (not too wet).
- The sampling plan currently under development and sample results pertaining to investigation of the reddish/brown colored stormwater flowing into Catch Basin #2 should be made available to NYSDEC and EPA.

VII. PROTECTIVNESS STATEMENT

Table 4: Protectiveness Statement

Protectiveness Statement(s)		
*Operable Unit:*10	*Protectiveness Determination:* Protective	*Planned Addendum Completion Date:* Click here to enter a date
Protectiveness Statement: The implemented actions at the Subsite are protective of human health and the environment.		

VIII. NEXT REVIEW

The next FYR report for the Ley Creek PCB Dredgings Subsite of the Onondaga Lake Superfund Site is required five years from the completion date of this review.

APPENDIX A – REFERENCE LIST

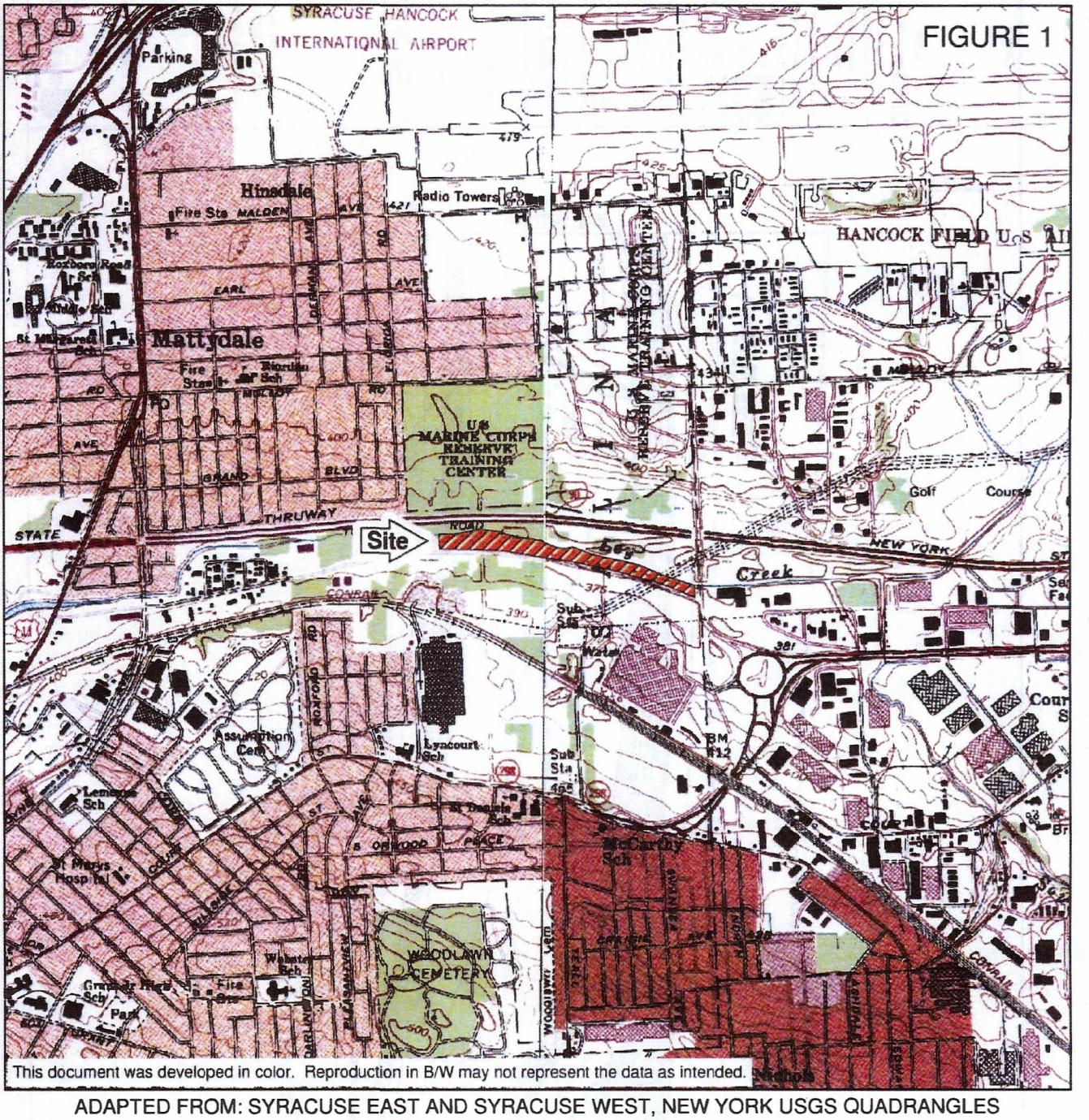
Documents, Data, and Information Reviewed in Completing the Five-Year Review	
Document Title, Author	**Submittal Date**
Record of Decision for the Ley Creek PCB Dredgings Subsite, Town of Salina, NY, NYSDEC	1997
EPA Letter of Concurrence on Record of Decision	February 9, 1998
Operation, Maintenance and Monitoring Manual, Ley Creek PCB Dredgings Subsite, Town of Salina, NY, Remediation and Liability Management Company Inc. (REALM), O'Brien & Gere Engineers, Inc.	2001
Remedial Action Engineering Report, Ley Creek PCB Dredgings Subsite, Town of Salina, NY, REALM, O'Brien & Gere Engineers, Inc.	2001
Quitclaim Deed between REALM and REALM	June 25, 2007
Second Five-Year Review Report, Ley Creek PCB Dredgings Subsite	January 2012
Operation, Maintenance and Monitoring Inspection Reports, Ley Creek PCB Dredgings Subsite, Town of Salina, NY, RACER, Inc./O'Brien & Gere.	2012-2017
Laboratory Report, EPA Region 2 Laboratory	September 4, 2016
EPA guidance for conducting five-year reviews and other guidance and regulations to determine if any new Applicable or Relevant and Appropriate Requirements relating to the protectiveness of the remedy have been developed since EPA issued the ROD.	

APPENDIX B – SITE FIGURES

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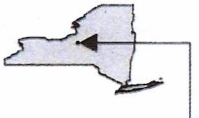
PLOT DATE: 12/19/06 DIV. 732 JPS

FIGURE 1



This document was developed in color. Reproduction in B/W may not represent the data as intended.

ADAPTED FROM: SYRACUSE EAST AND SYRACUSE WEST, NEW YORK USGS QUADRANGLES



QUADRANGLE LOCATION

LEY CREEK PCB DREDGINGS SITE SYRACUSE, NEW YORK

SITE LOCATION

0 1,000 2,000 4,000 6,000 8,000

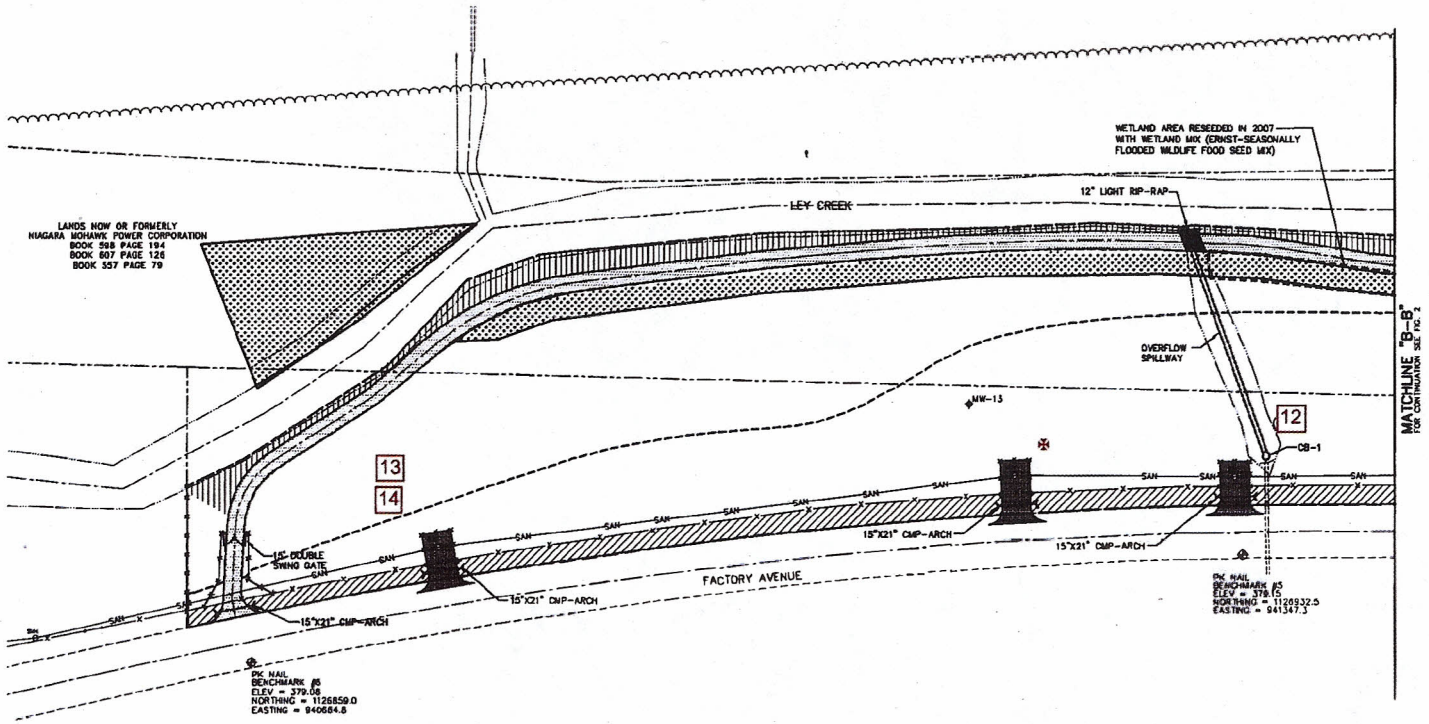
Feet

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JANUARY 2017

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O'BRIEN & GERE

FIGURE 2



LEGEND

- SEEDED WITH CANARY GRASS
- OVERHEAD WIRES
- PROPERTY BOUNDARY
- EDGE OF WOODS
- UTILITY POLE
- GUY WIRE
- SANITARY SEWER
- SANITARY MANHOLE
- SECURITY FENCE
- PAVEMENT
- GRAVEL ACCESS ROAD
- LIMITS OF SOIL LOCATED ALONG FACTORY AVENUE RELOCATED BENEATH COVER SYSTEM
- CATCH BASIN
- MW-08G7C MODIFIED MONITORING WELL
- MONITORING WELL PRESUMED DESTROYED
- ABANDONED MONITORING WELL
- NEW MONITORING WELL
- LIMITS OF EROSION CONTROL MAT
- LIMITS OF COVER SYSTEM
- LIMITS OF NON-WOVEN GEOTEXTILE
- 13 PHOTOGRAPH LOCATION
- VERMIN BURROW

LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

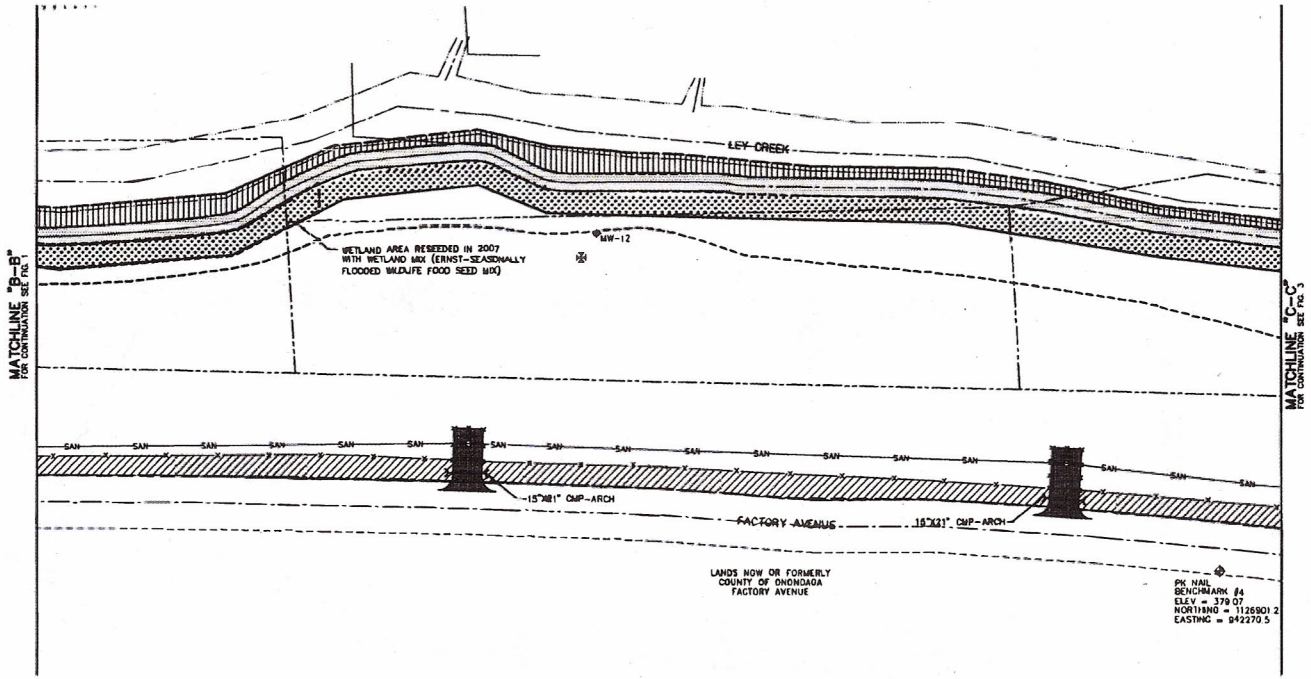
OCTOBER 2013
OM&M INSPECTION
PARTIAL SITE PLAN

1" = 40' 40 0 40

O'BRIEN & GERE

E:\RACER-TRUST\15368\40687 LEY-CREEK-O-M-\DOCS\DWG\SHEETS\40687-001-FIG1.DWG

FIGURE 3



LEGEND

- SWAMP WITH CANARY GRASS
- OHP — OVERHEAD WIRES
- PROPERTY BOUNDARY
- EDGE OF WOODS
- UTILITY POLE
- GUY WIRE
- SAN — SANITARY SEWER
- SANITARY MANHOLE
- SECURITY FENCE
- PAVEMENT
- GRAVEL ACCESS ROAD
- LIMITS OF SOIL LOCATED ALONG FACTORY AVENUE RELOCATED BENEATH COVER SYSTEM
- CATCH BASIN
- MW-08C7C MODIFIED MONITORING WELL
- MONITORING WELL PRESUMED DESTROYED
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- NEW MONITORING WELL
- LIMITS OF EROSION CONTROL MAT
- LIMITS OF COVER SYSTEM
- LIMITS OF NON-WOVEN GEOTEXTILE
- 13 PHOTOGRAPH LOCATION
- VERMIN BURROW

LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

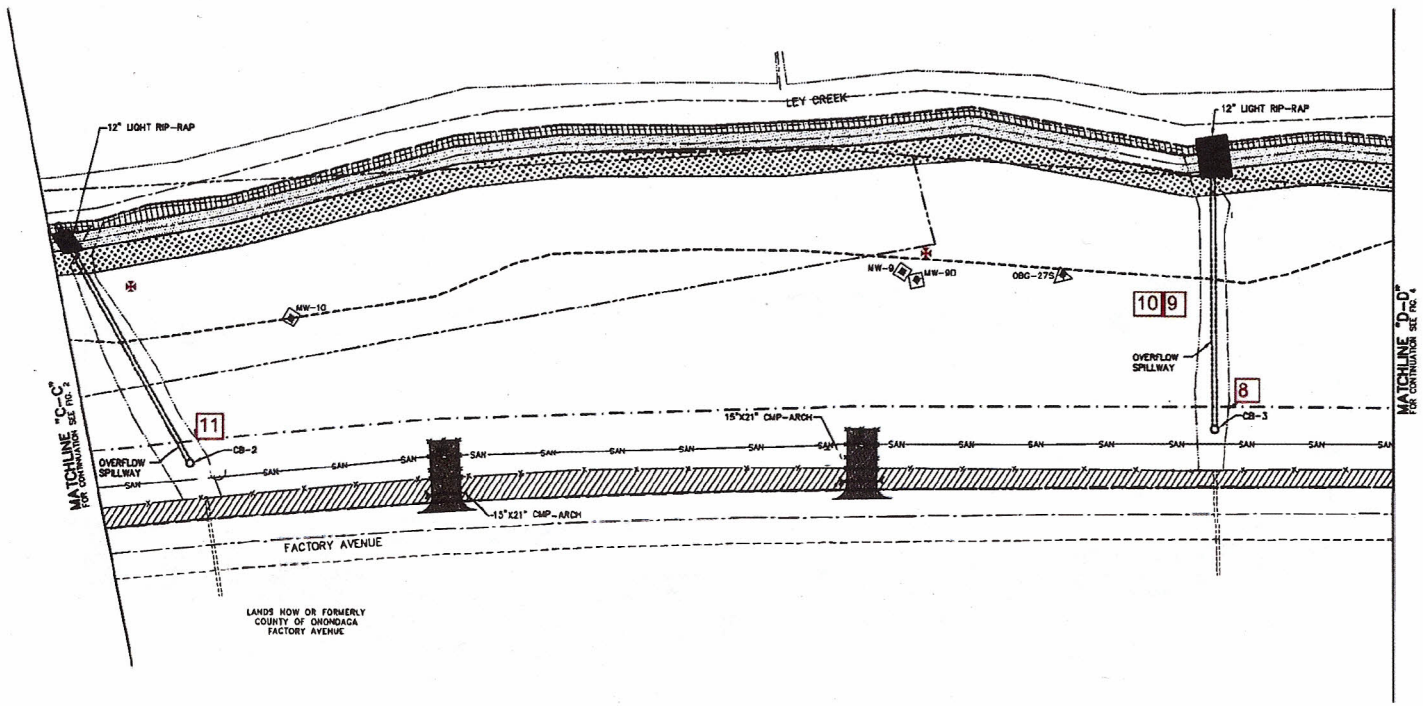
OCTOBER 2013
OM&M INSPECTION
PARTIAL SITE PLAN

1" = 40' (40 0 40)

O'BRIEN & GERE

\\RACER-TRUST15388\48987 LEY-CREEK-O-M-\DOCS\DWG\SHEETS\48987-002-FIG2.DWG

FIGURE 4



LEGEND

- SEEDED WITH CANARY GRASS
- OVERHEAD WIRES
- PROPERTY BOUNDARY
- EDGE OF WOODS
- UTILITY POLE
- GUY WIRE
- SANITARY SEWER
- SANITARY MANHOLE
- SECURITY FENCE
- PAVEMENT
- GRAVEL ACCESS ROAD
- LIMITS OF SOIL LOCATED ALONG FACTORY AVENUE RELOCATED BENEATH COVER SYSTEM
- CATCH BASIN
- MW-08C7C MODIFIED MONITORING WELL
- MONITORING WELL PRESUMED DESTROYED
- ABANDONED MONITORING WELL
- NEW MONITORING WELL
- LIMITS OF EROSION CONTROL MAT
- LIMITS OF COVER SYSTEM
- LIMITS OF NON-WOVEN GEOTEXTILE
- 13 PHOTOGRAPH LOCATION
- VERMIN BURROW

LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

OCTOBER 2013
OM&M INSPECTION
PARTIAL SITE PLAN

1"=40' 40 0 40

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I:\HACIR-TRUST\53681\68687\LEY-CREEK-O-M-\SOCS\DWGS\SHEETS\168687-003-FIG3.DWG

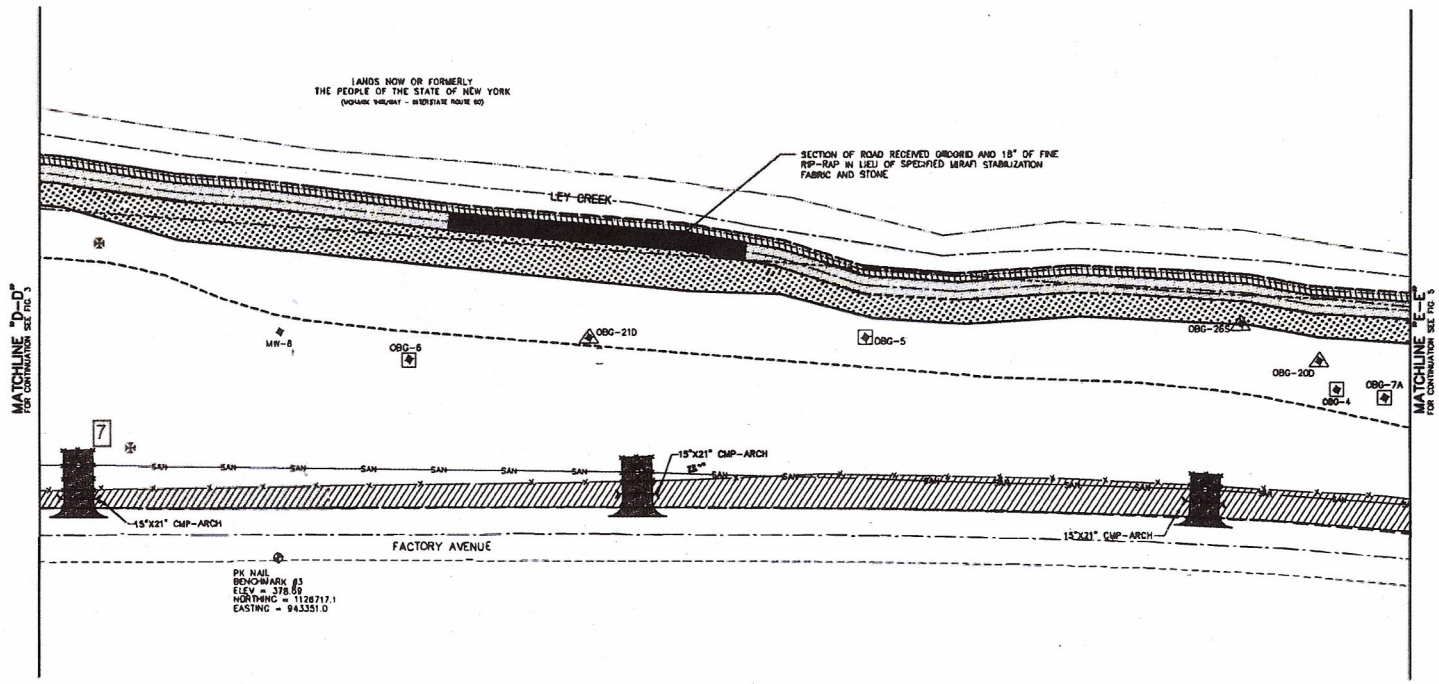


FIGURE 5

LEGEND

- SEEDED WITH CANARY GRASS
- OVERHEAD WIRES
- PROPERTY BOUNDARY
- EDGE OF WOODS
- UTILITY POLE
- GUY WIRE
- SANITARY SEWER
- SANITARY MANHOLE
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- LIMITS OF EROSION CONTROL MAT
- LIMITS OF COVER SYSTEM
- LIMITS OF NON-WOVEN GEOTEXTILE
- 13 PHOTOGRAPH LOCATION

LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

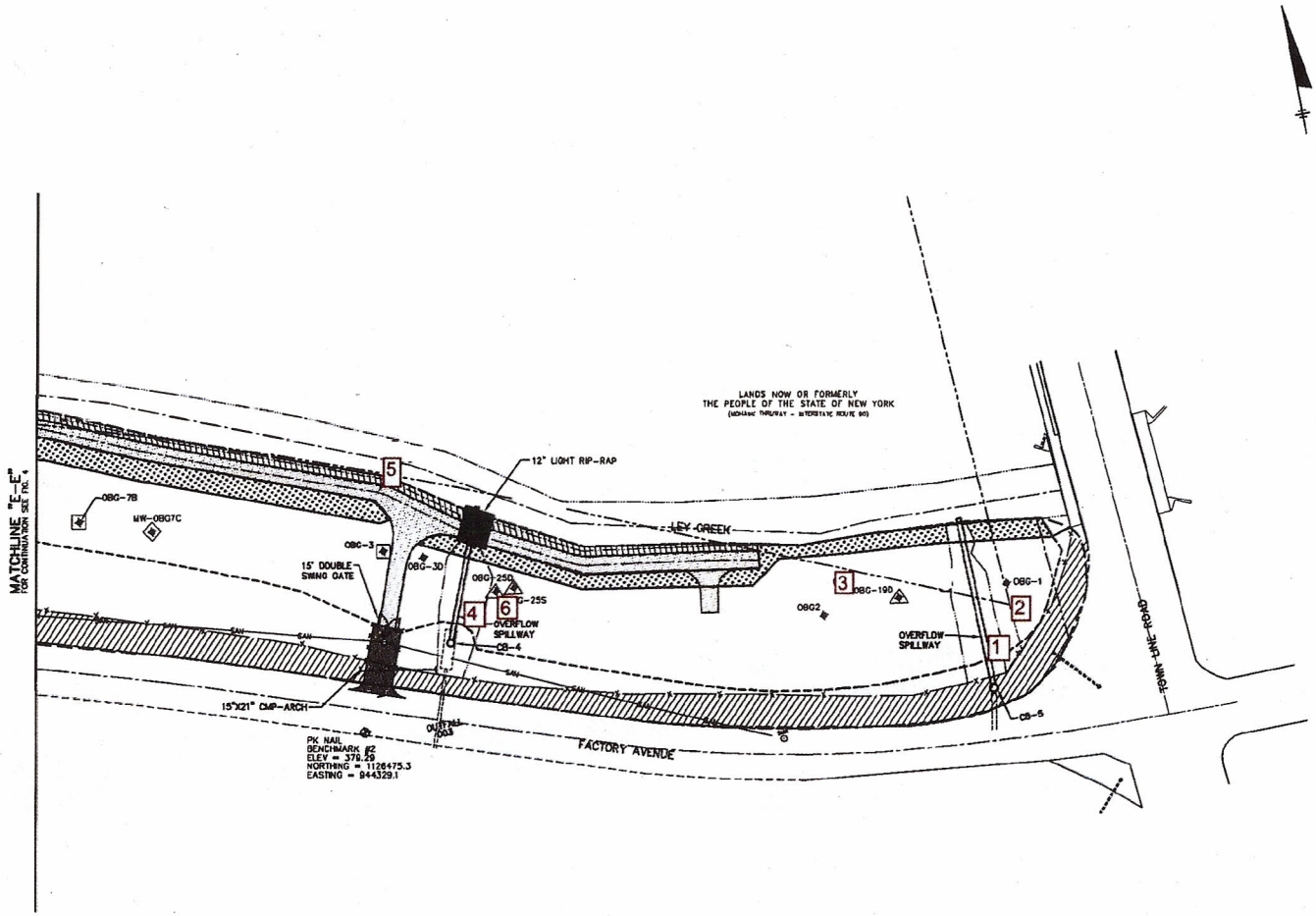
OCTOBER 2013
OM&M INSPECTION
PARTIAL SITE PLAN

1"=40' 40 0 40

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I:\SYRACUSE - TRUST 1\5380\48987-LEY--CREEK--O-M--\DOCS\DWG\SHEETS\48987-004-FIG4.DWG

FIGURE 6



LEGEND

- SEEDED WITH CANARY GRASS
- OVERHEAD WIRES
- PROPERTY BOUNDARY
- EDGE OF WOODS
- UTILITY POLE
- GUY WIRE
- SANITARY SEWER
- SANITARY MANHOLE
- SECURITY FENCE
- PAVEMENT
- GRAVEL ACCESS ROAD
- LIMITS OF SOIL LOCATED ALONG FACTORY AVENUE RELOCATED BENEATH COVER SYSTEM
- CATCH BASIN
- MW-08G7C MODIFIED MONITORING WELL
- MONITORING WELL PRESUMED DESTROYED
- ABANDONED MONITORING WELL
- NEW MONITORING WELL
- LIMITS OF EROSION CONTROL MAT
- LIMITS OF COVER SYSTEM
- LIMITS OF NON-WOVEN GEOTEXTILE
- 13 PHOTOGRAPH LOCATION

LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

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OM&M INSPECTION
PARTIAL SITE PLAN

1"=40' 40 0 40

O'BRIEN & GERE

I:\PROJECTS\TRUST 1530\46967.LEY-CREEK-O-M-\DOCS\DWG\SHEETS\46967-005-FIG5.DWG