

**OPERATION, MAINTENANCE, AND MONITORING MANUAL
- ADDENDUM 1**

**Ley Creek PCB Dredgings Site
Syracuse, New York**

Remediation and Liability Management
Company, Inc.

August 2008

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Douglas M. Crawford, P.E., Vice President
O'Brien & Gere Engineers, Inc.

August 2008



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A NYSDEC letter approving modification of routine inspection frequency

B NYSDEC letter approving modification to wetland inspection and maintenance requirements

1. Introduction

This document provides the first addendum to the Ley Creek PCB Dredgings Site Operation, Maintenance & Monitoring (OM&M) Manual dated September 25, 2001 (O'Brien & Gere 2001). The OM&M Manual was approved by the New York State Department of Environmental Conservation (NYSDEC) on October 15, 2001 (Cruden, 2001).

Revisions to the OM&M Manual are provided in accordance with Section 1.4 of the OM&M Manual. This addendum has been forwarded to holders of the OM&M Manual as well as to the document repositories for the Ley Creek PCB Dredgings Site, as described in Section 1.4 of the OM&M Manual.

NYSDEC-approved changes to the OM&M Manual comprise:

- Modification of the frequency of routine site inspections from semi-annual to annual
- Modification of reporting requirements for routine site inspections
- Modification of wetland inspection and maintenance requirements
- Addition of a Management Plan for Electrical Utility Maintenance Work.

The OM&M Manual is also updated to include additions to the ground water monitoring system, conducted as part of the Supplemental Remedial Investigation/Feasibility Study (SRI/FS) for the Former IFG Facility and Ley Creek Deferred Media SRI/FS Order.

2. Site Monitoring and Maintenance Activities

2.1. Inspection Requirements

In accordance with Section 2.1.3 of the approved OM&M Manual, an evaluation was performed after the fifth year of OM&M activities (2005) regarding inspection frequency for the Site. A similar evaluation was performed again in 2006. Since the first year (2001) of OM&M, only minor deficiencies to the Site features had been observed during the semi-annual site inspections. With the absence of major deficiencies, in its letter of January 10, 2007, REALM proposed the monitoring frequency for routine site inspections be modified from semi-annual to annual (Hartnett 2007). NYSDEC concurred with this modification in its letter of May 30, 2007 (Edwards 2007), which is provided as Exhibit A of this Addendum. Therefore, the frequency of routine site inspections as referenced in Section 2 and Section 2.1.3 of the OM&M Manual is modified from semi-annual to annual.

2.2. Ground Water Monitoring System

During September 2006, four new monitoring wells (MW-25S, MW-25D, MW-26, and MW-27) were installed at the Site as part of the SRI/FS for the Former IFG Facility and Ley Creek Deferred Media SRI/FS Order. The locations of these wells are shown on Figures 3, 4 and 5 of this Addendum. Therefore, Section 2.4.1 of the OM&M Manual is modified to include these additional monitoring wells.

2.3. Reporting Requirements

In accordance with the United States Environmental Protection Agency (USEPA) Five-Year Review Report for the Ley Creek PCB Dredgings Site (USEPA 2007), New York State now requires annual certifications that institutional controls, which are required by Records of Decision, are in place and that remedy-related OM&M are being performed. Therefore, Section 2.8 of the OM&M Manual is modified to require an annual certification, signed and stamped by a Licensed Professional Engineer, stating that institutional controls are in place (once they are put into place) and that remedy-related OM&M are being performed. This certification will be provided to NYSDEC by REALM along with the annual inspection report.

2.4. Wetlands

In accordance with Section 2.6.3 of the approved OM&M Manual, a wetland inspection was performed following the first full growing season (2001) and the subsequent four years (2002 through 2005). Based on the results of the 2005 evaluation, the restoration goal was met in three of the four sample plots evaluated in 2005. Since the restoration goal had not been met in the fourth sample plot, an additional year (2006) of monitoring was recommended. Based on the results of the 2006 evaluation, the restoration goal was once again met in three of the four sample plots evaluated. Since the restoration goal was not met in the fourth sample plot, additional restoration activities in the area not meeting the restoration goal were performed. The additional restoration activities included

discing, fertilization, mulching and an additional year (2007) of monitoring. It was also recommended that monitoring be discontinued in the areas that met the restoration goal. NYSDEC concurred with this modification in its letter of May 30, 2007 (Edwards 2007).

The additional restoration activities were performed in May 2007 followed by the 2007 wetland evaluation of this plot. Results of the 2007 evaluation indicated that the area had improved compared to the 2006 results, but had not met the restoration goal of 90% ground cover. Based on monitoring activities performed to date, approximately 1.34 acres of wetland have been successfully created of the 1.4 acre wetland mitigation requirement (1.5 acres originally created versus a 0.16-acre area that does not meet the target vegetation goal – the reseeded wetland area). The wetland creation deficit at the site is therefore approximately 0.06 acres.

As detailed in the 2007 Wetland Evaluation Report, which was included as Attachment 3 of the 2007 Annual OM&M Inspection Report (Hartnett 2008), it was recommended that, as an offset to the 0.06 acre wetland deficit and in lieu of continued wetland monitoring, an additional 0.6 acre area of vegetation buffer be established at the Site. Establishment of the vegetation buffer would provide opportunity for wildlife cover and forage in a buffer/transition area for the restored wetlands, which is ten times larger than the area that currently does not meet the goal at the Site. The existing wetlands and reseeded area would continue to be managed as restored wetland at the site. NYSDEC concurred with this recommendation in its letter of May 13, 2008 (Edwards 2008a), which is provided as Exhibit B of this addendum. Therefore, the wetland evaluation requirements as described in Section 2.6.3 of the OM&M Manual are no longer required.

The buffer area (up to 5 feet from the vegetative cover/created wetland edge), depicted on Figures 1 through 5 of this Addendum, will be managed to encourage seed/forage production for wildlife use and will consist of vegetative species currently in place. The buffer area will be left to vegetate naturally (*i.e.*, no mowing) with the exception of controlling the growth of woody vegetation, similar to the ongoing control of woody species on the vegetative cover system. The existing wetlands and reseeded area will continue to be managed as restored wetland at the Site (*i.e.*, no mowing).

3. Electrical Utility Maintenance and Work Activities

A Management Plan for Electrical Utility Maintenance Work was developed to detail the procedures to be followed by National Grid and its respective contractors in inspections, maintenance, and repair activities associated with power lines (both overhead and underground), utility poles, and guy wires at the Site. NYSDEC reviewed this plan and provided comments in its letter of March 10, 2008 (Edwards 2008b). The plan was revised in accordance with NYSDEC comments. The revised Management Plan for Electrical Utility and Maintenance Work is separately bound and incorporated into this Addendum as Appendix A.

Section 1.3.3 of the OM&M Manual, Health and safety, is also modified to include the National Grid health and safety requirements for general excavations, which is provided as Appendix A of the Management Plan for Electrical Utility Maintenance and Work.

References

- Cruden, Michael J. (NYSDEC). 2001. Letter to James F. Hartnett (REALM). October 15, 2001.
- Edwards, Susan (NYSDEC). 2007. Letter to James F. Hartnett (REALM). May 30, 2007.
- Edwards, Susan (NYSDEC). 2008a Letter to James F. Hartnett (REALM). May 13, 2008.
- Edwards, Susan (NYSDEC). 2008b. Letter to James F. Hartnett (REALM). March 10, 2008.
- Hartnett, James F. (REALM). 2007 Letter to Gerald Rider, P.E., (NYSDEC). January 10, 2007.
- Hartnett, James F. (REALM). 2008 Letter to Susan Edwards, P.E., (NYSDEC). January 31, 2008.
- O'Brien & Gere. 2001. *Operation, Maintenance, and Monitoring Manual, Ley Creek PCB Dredgings Site, Syracuse, New York*. September 2001.
- USEPA. 2007. *Five-Year Review Report, Ley Creek PCB Dredgings Subsite, Onondaga Lake Site, Onondaga County, Town of Salina, New York*. January 2007.

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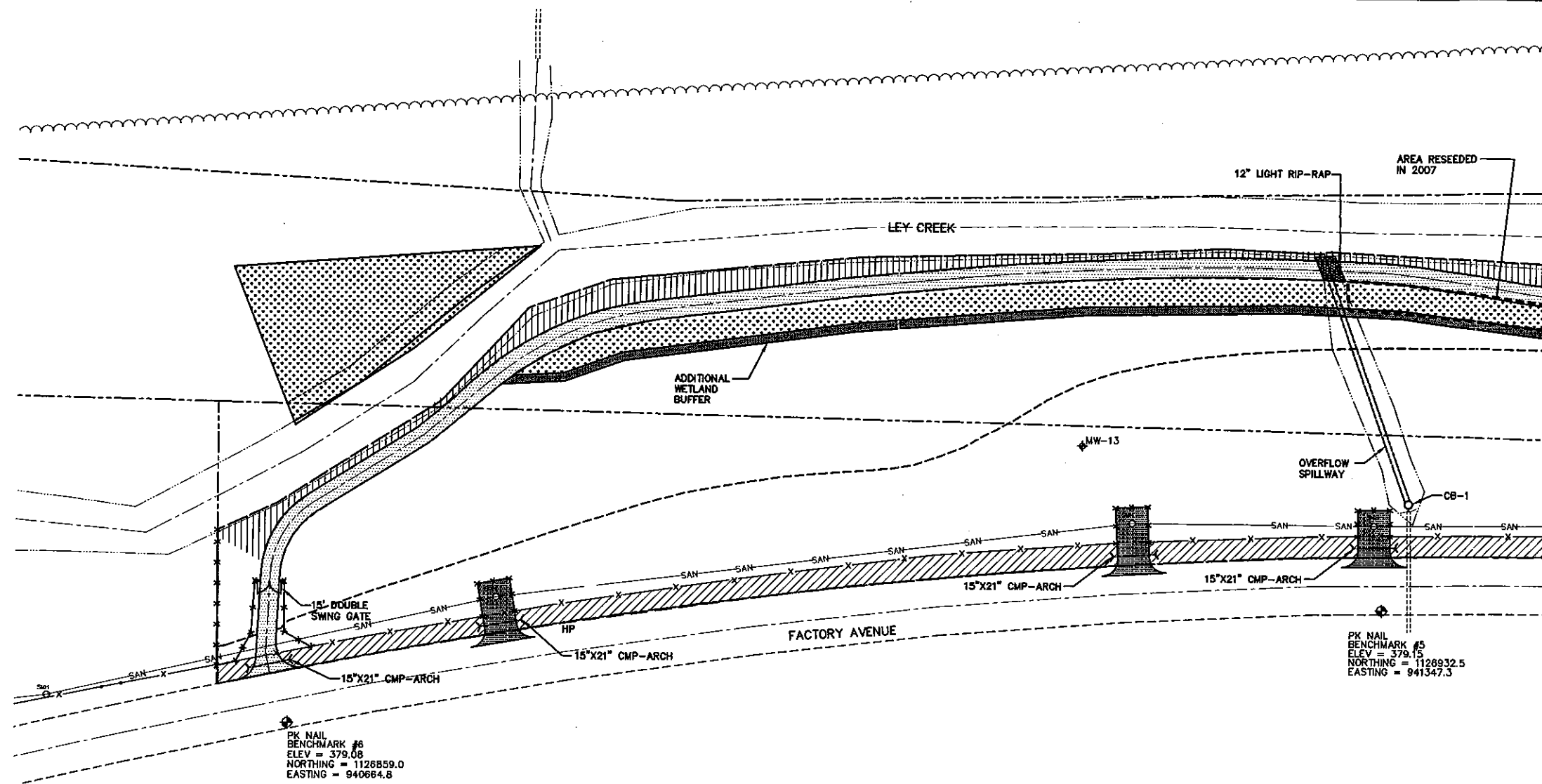
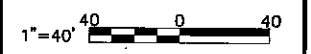


FIGURE 1

- LEGEND**
- SEEDED WITH CANARY GRASS
 - OVERHEAD WIRES
 - PROPERTY BOUNDARY
 - EDGE OF WOODS
 - UTILITY POLE
 - GUY WIRE
 - SANITARY SEWER
 - SANITARY MANHOLE
 - CATCH BASIN
 - SECURITY FENCE
 - PAVEMENT
 - GRAVEL ACCESS ROAD
 - LIMITS OF SOIL LOCATED ALONG FACTORY AVENUE RELOCATED BENEATH COVER SYSTEM
 - CATCH BASIN
 - 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
 - ADDITIONAL WETLAND BUFFER

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

**OM&M PARTIAL
SITE PLAN**



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JUNE 2008



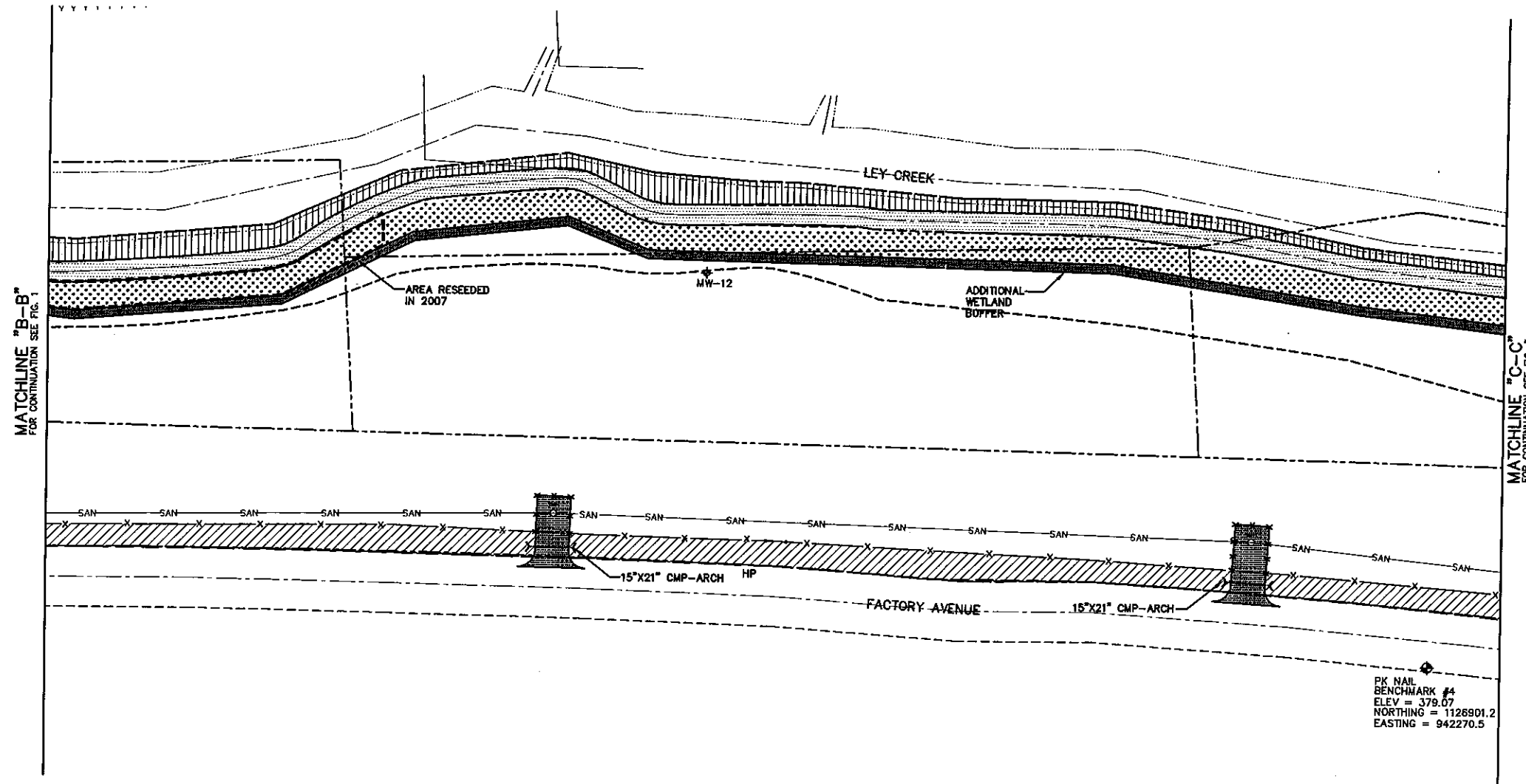


FIGURE 2

- LEGEND**
- SEEDED WITH CANARY GRASS
 - OVERHEAD WRES
 - PROPERTY BOUNDARY
 - EDGE OF WOODS
 - UTILITY POLE
 - GUY WIRE
 - SANITARY SEWER
 - SANITARY MANHOLE
 - CATCH BASIN
 - SECURITY FENCE
 - PAVEMENT
 - GRAVEL ACCESS ROAD
 - LIMITS OF SOIL LOCATED ALONG FACTORY AVENUE RELOCATED BENEATH COVER SYSTEM
 - CATCH BASIN
 - MODIFIED MONITORING WELL
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 - ABANDONED MONITORING WELL
 - NEW MONITORING WELL
 - LIMITS OF EROSION CONTROL MAT
 - LIMITS OF COVER SYSTEM
 - LIMITS OF NON-WOVEN GEOTEXTILE
 - ADDITIONAL WETLAND BUFFER

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

**OM&M PARTIAL
SITE PLAN**



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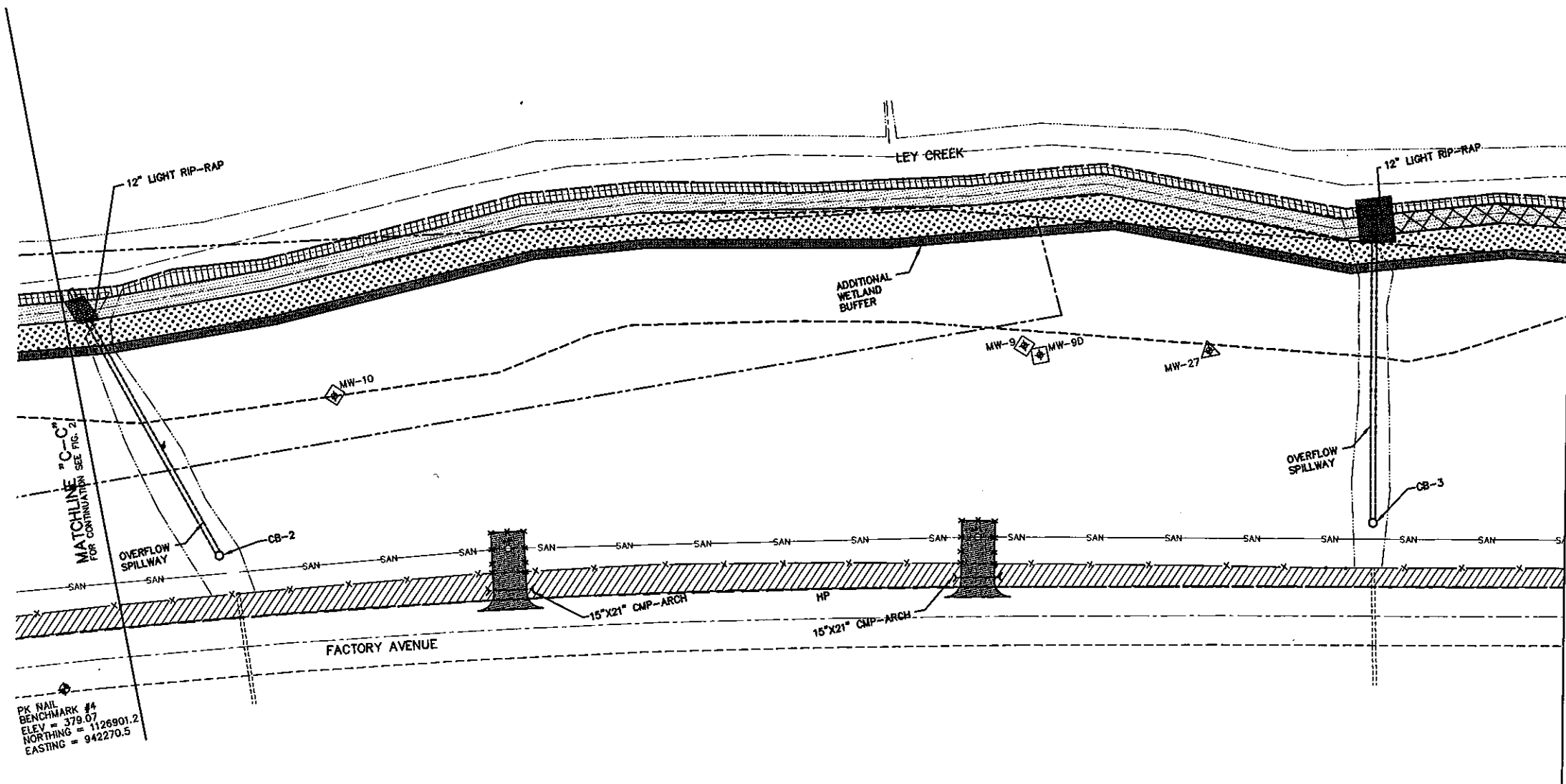


FIGURE 3

- LEGEND**
- SEEDED WITH CANARY GRASS
 - OVERHEAD WIRES
 - PROPERTY BOUNDARY
 - EDGE OF WOODS
 - UTILITY POLE
 - GUY WIRE
 - SANITARY SEWER
 - SANITARY MANHOLE
 - CATCH BASIN
 - SECURITY FENCE
 - PAVEMENT
 - GRAVEL ACCESS ROAD
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 - ADDITIONAL WETLAND BUFFER

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

**OM&M PARTIAL
SITE PLAN**

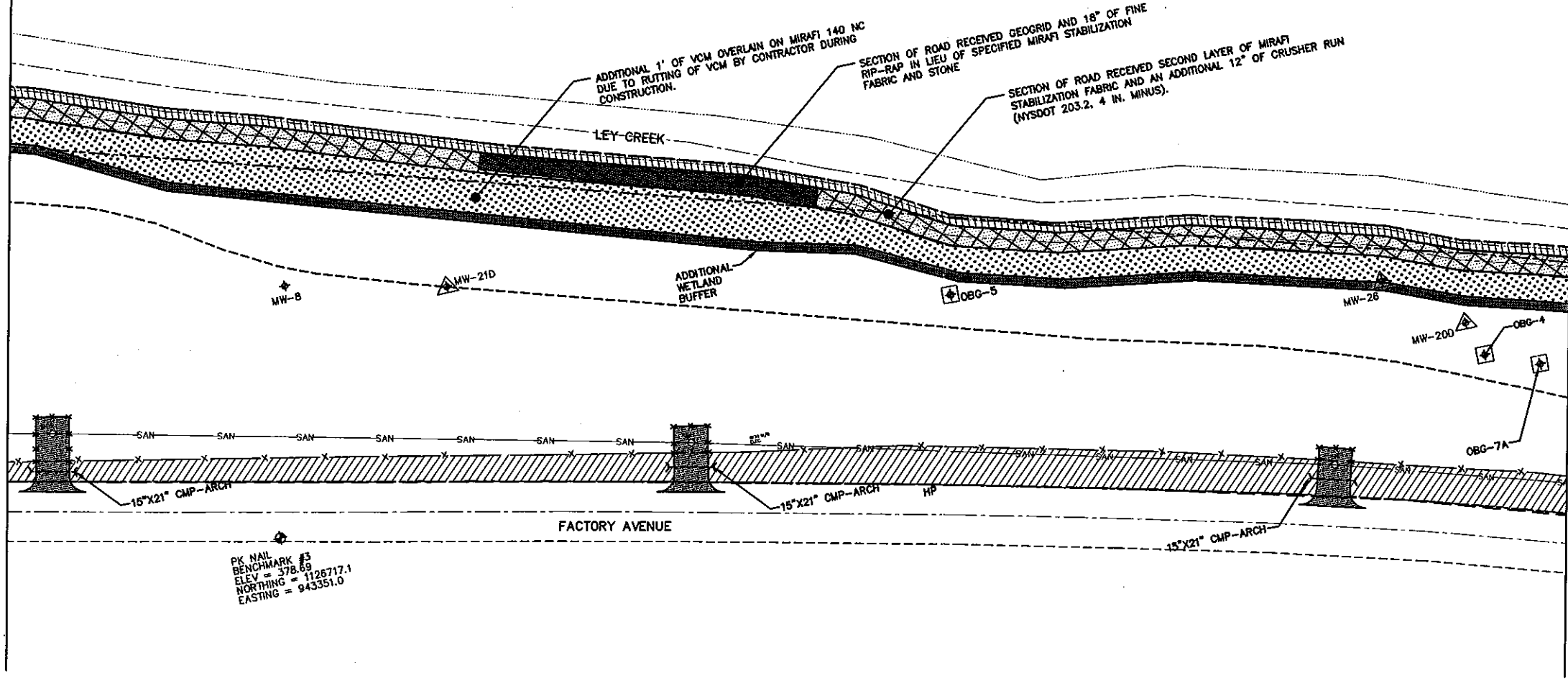


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MATCHLINE "D-D"
FOR CONTINUATION SEE FIG. 3

MATCHLINE "E-E"
FOR CONTINUATION SEE FIG. 5



PK NAIL
BENCHMARK #3
ELEV = 378.69
NORTHING = 1126717.1
EASTING = 943351.0

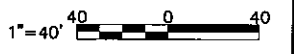


FIGURE 4

- LEGEND**
- SEEDED WITH CANARY GRASS
 - OVERHEAD WIRES
 - PROPERTY BOUNDARY
 - EDGE OF WOODS
 - UTILITY POLE
 - GUY WIRE
 - SANITARY SEWER
 - SANITARY MANHOLE
 - CATCH BASIN
 - SECURITY FENCE
 - PAVEMENT
 - GRAVEL ACCESS ROAD
 - LIMITS OF SOIL LOCATED ALONG FACTORY AVENUE RELOCATED BENEATH COVER SYSTEM
 - CATCH BASIN
 - 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
 - ADDITIONAL WETLAND BUFFER

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

**OM&M PARTIAL
SITE PLAN**



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JUNE 2008



FIGURE 5

LEGEND

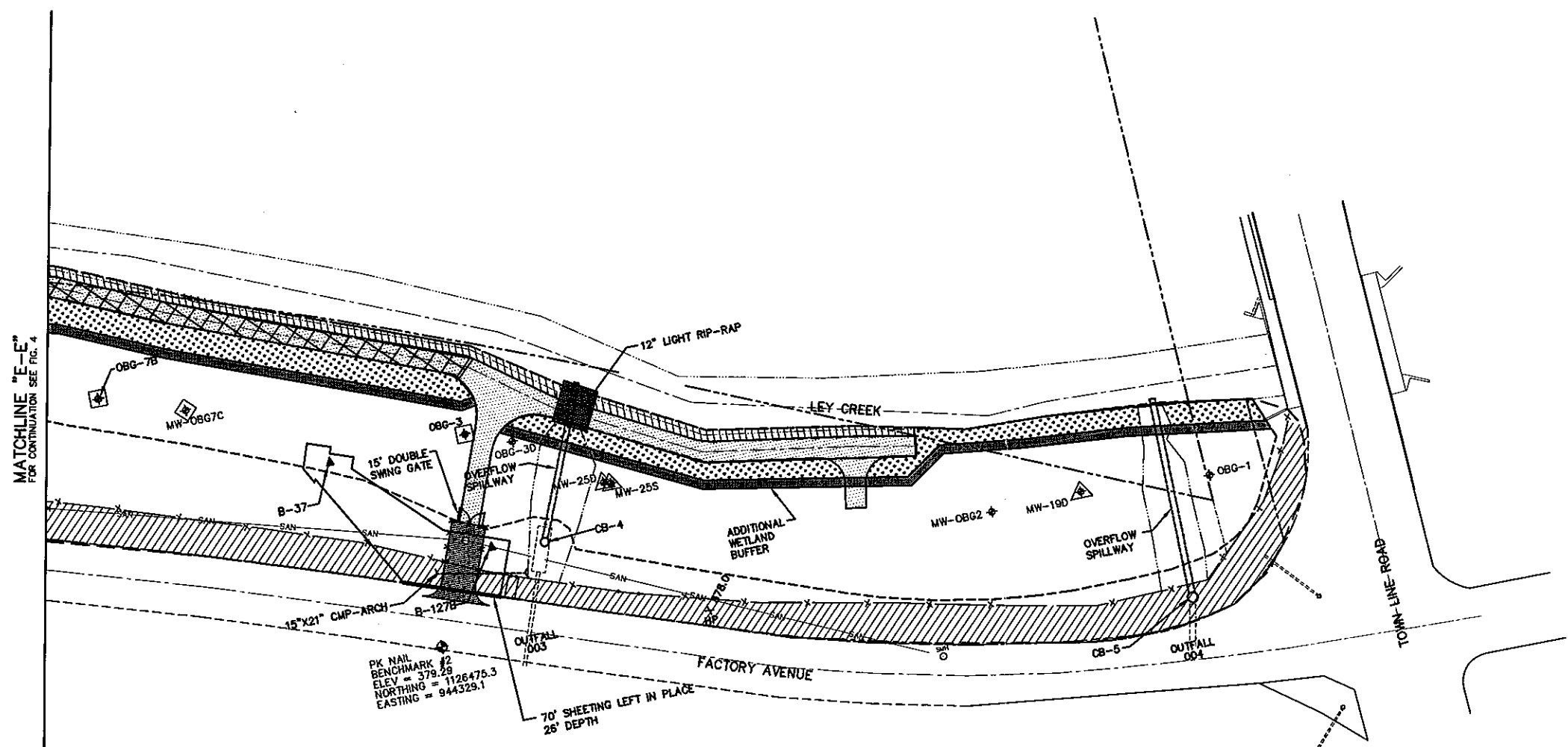
- SEEDED WITH CANARY GRASS
- OVERHEAD WIRES
- PROPERTY BOUNDARY
- EDGE OF WOODS
- UTILITY POLE
- GUY WIRE
- SANITARY SEWER
- SANITARY MANHOLE
- CATCH BASIN
- SECURITY FENCE
- PAVEMENT
- GRAVEL ACCESS ROAD
- LIMITS OF SOIL LOCATED ALONG FACTORY AVENUE RELOCATED BENEATH COVER SYSTEM
- CATCH BASIN
- MW-OBG7C 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
- ADDITIONAL WETLAND BUFFER

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

OM&M PARTIAL
SITE PLAN



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JUNE 2008



MATCHLINE "E-E"
FOR CONTINUATION SEE FIG. 4

**Management Plan for Electrical
Utility Maintenance Work**

WORK PLAN

**Management Plan for Electrical Utility
Maintenance Work**

Remediation and Liability Management
Company, Inc
Syracuse, New York

August 2008

WORK PLAN

Management Plan for Electrical Utility Maintenance Work

*Remediation and Liability Management Company, Inc
Syracuse, New York*

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August 2008



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1. Introduction

1.1. Background

The Ley Creek PCB Dredgings Site (site), identified as site #7-34-044 on the New York State Department of Environmental Conservation (NYSDEC) Registry of Inactive Hazardous Waste Disposal sites, is located along the south bank of Ley Creek in the Town of Salina, Onondaga County, New York. The site is approximately 19 acres in size and is bounded by Factory Avenue to the south, Ley Creek to the north, and Townline Road to the east; the western site boundary is approximately 4300 feet west of Townline Road. A sanitary sewer line owned and maintained by the Onondaga County Department of Water Environmental Protection (WEP, formerly Drainage and Sanitation (OCDDS)) is located along the southern boundary of the site. Power lines (both overhead and underground), utility poles, and guy wires owned and maintained by Niagara Mohawk – A National Grid Company (National Grid) are generally located along the southern boundary of the site. A site layout plan is attached as Figures 1 through 5.

Dredgings from Ley Creek were generated during channel improvements performed by OCDDS and were staged on the site. Polychlorinated biphenyls (PCBs) were detected in the dredgings.

A Remedial Investigation/Feasibility Study (RI/FS) was conducted by O'Brien & Gere Engineers, Inc. (O'Brien & Gere) on behalf of General Motors Corporation (GM), in accordance with an Administrative Order on Consent (#A7-0239-90-07) between GM and NYSDEC and the RI/FS Work Plan (O'Brien & Gere, 1992) which was approved by NYSDEC on June 3, 1992. The results of the RI were documented in the September 1993 Revised RI Report (O'Brien & Gere 1993) and the FS Report was prepared by O'Brien & Gere in October 1996 (O'Brien & Gere 1996) based on the results of the RI. The FS Report evaluated several remedial alternatives and detailed the proposed remedial action for the site.

Based on the results of the RI/FS, NYSDEC prepared a Proposed Remedial Action Plan (PRAP) for the site in February 1997. Following public comment, the site remedy was documented in the March 1997 Record of Decision (ROD). The United States Environmental Protection Agency (USEPA) concurred with the ROD-selected remedy in its letter dated February 9, 1998 to NYSDEC Commissioner John Cahill.

The Remedial Design/Remedial Action Order on Consent (RD/RA Order; Index # D-7-0008-97-06) between Remediation and Liability Management Company, Inc. (REALM) and NYSDEC became effective upon the signature of NYSDEC on July 15, 1999. REALM is a wholly owned subsidiary of GM. The RD/RA implementation commenced in October 1999. Construction proceeded through 1999 with substantial completion of the project on November 8, 2000. The Final Completion Inspection was conducted on August 30, 2001 with representatives of REALM, O'Brien & Gere, Royal, and NYSDEC present.

1.2. Purpose of Plan

The purpose of this plan is to detail the procedures to be followed by National Grid and its respective contractors in inspections, maintenance and repair activities of power lines (both overhead and underground), utility poles, and guy wires at the site. Maintenance work may include, but not be limited to: repair; replacement; inspection; and/or installation of power lines, power utility poles, and guy wires, which National Grid deems necessary and appropriate within its designated right-of-way.

The plan is attached as an Addendum to the Operation, Maintenance and Monitoring (OM&M) Plan (O'Brien & Gere 2001) prepared as part of the Remedial Design/Remedial Action (RD/RA) work under the Order on Consent between NYSDEC and REALM (NYSDEC 1999).

The procedures described in this plan are limited to the protection of workers and off-site receptors from exposure to PCB-contaminated materials during the conduct of maintenance work by National Grid, and are not intended to cover any other conditions that may be encountered in the course of the maintenance work. Further, it will be the responsibility of National Grid and its contractors to initiate, maintain, and supervise all safety programs for their respective employees in accordance with all applicable laws, ordinances, rules, regulations, and orders of public bodies.

2. Summary of the Remedial Action

2.1. Description

The following remedial action was chosen in the ROD and implemented during remedial construction:

- removal and off-site disposal of dredged material/soil containing greater than 50 mg/kg PCBs
- regrading and placement of a low permeability cover on those portions of the site in the floodway
- placement of a vegetative soil cover over the remaining portions of the site which exceeded the remedial criteria
- ground water monitoring
- fencing and maintenance access provisions.

This remedial action is discussed in greater detail below.

2.2. Removal of Dredged Material/Soil and Cover Installation

Dredged material/soil containing greater than 50 mg/kg PCBs was excavated and disposed off-site. The remaining material with concentrations greater than 1 mg/kg PCBs (surface) and 10 mg/kg PCBs (subsurface) was handled as follows:

- PCB-contaminated dredged material/soil was regraded out of the floodway south of Ley Creek to appropriate elevations. The area was then covered with a non-woven geotextile overlain by a 12-inch vegetative soil cover. A synthetic geo-mat was also placed in the area from the southern edge of Ley Creek to the northern edge of the access road to strengthen the interface between soil and vegetation.
- Material relocated from the floodway was consolidated south of the floodway and north of a buffer zone that runs 25 feet north of the sewer line.
- Remaining areas within the site with PCB concentrations exceeding the 1 mg/kg PCB (surface) and 10 mg/kg PCB (subsurface) criteria were covered with a 12-inch vegetative soil cover.

The approximate extents of the vegetative cover, non-woven geotextile, and synthetic geo-mat are depicted on Figures 1 through 5.

2.3. Ground Water Monitoring, Fencing, and Access Provisions

In addition to dredged material/soil removal and cover placement, the remedy included ground water monitoring, and fencing and access provisions. Ground water monitoring will be conducted to document PCB concentrations in shallow ground water as part of a long-term ground water monitoring program. Ground water at the Ley Creek PCB Dredgings Site is being addressed as Ley Creek Deferred Media at the Former IFG Facility and Ley Creek Deferred Media Site (Registry Site #734057). The long term ground water monitoring program for the Ley Creek Deferred Media ground

water will be established as part of the Record of Decision for that site, following completion of the SRI/FS.

Fencing was installed to control access to the site, which consists of 5-ft chain link fencing around the eastern and western limits of the soil cover system and off-set from Factory Avenue on the southern side (see Figures 1 through 5).

3. Site Maintenance Procedures

3.1 Summary of Expected Maintenance Work

REALM understands that National Grid or its contractors will be performing periodic inspection, maintenance, and installation of power lines (both overhead and underground), utility poles, and guy wires. The expected non-intrusive and intrusive maintenance activities to be performed on-site are described below. Potential exposure to PCB-containing materials is anticipated only for intrusive activities. For intrusive activities, it will be the responsibility of National Grid and its contractors to develop, adopt, and enforce a project-specific health and safety plan (HASP) for their respective employees, in accordance with 29 CFR Part 1910. The site-specific HASP included as Appendix A has been developed by National Grid for general excavations at the site.

3.1.1. Unrestricted Activities

Unrestricted activities are those activities that when performed should not involve access to fenced areas of the site. The following inspection and maintenance activities may be performed at the site by National Grid or its contractors:

- Overhead power line, utility pole, and guy wire inspection – Overhead power lines, utility poles, and guy wires may be visually inspected periodically by National Grid personnel from Factory Avenue for damage assessment or maintenance inspections. If damage is present, National Grid may repair and service the overhead lines or utility poles above ground.

It will not be necessary for personnel performing unrestricted site activities to notify REALM of the activities.

3.1.2. Restricted Non-intrusive Site Activities

Restricted non-intrusive site activities are those that require access to fenced areas of the site, but which should not involve exposure to PCB-contaminated materials. The following restricted non-intrusive maintenance activities may be performed at the site by National Grid or its contractors:

- Overhead power line, utility pole, and guy wire inspection – Overhead power lines, utility poles, and guy wires may be visually inspected periodically by National Grid personnel within the fenced area of the site for damage assessment or maintenance inspections. If damage is present, National Grid may repair and service the overhead lines or utility poles above ground.

All persons performing non-intrusive activities shall have read and understood this document and acknowledged this in writing. A copy of the acknowledgment form is attached as Figure 6. Copies of these signed forms shall be forwarded to REALM's project manager before commencing these activities. REALM's project manager contact information is provided in Section 4. Access to the site shall be limited to the two locked access gates, for which National Grid will be provided keys. To the extent practicable, National Grid project managers shall limit personnel and equipment activity in the area of the soil cover by utilizing access roads, as appropriate. In the event that damage to the soil cover occurs, the affected area shall be delineated with temporary fencing by National Grid, and REALM's project manager shall be contacted within 48 hours of the damage. Final

repair/replacement of the cover, including the non-woven geo-textile and synthetic geo-mat, shall be National Grid's responsibility, but shall be coordinated with REALM for proper repair/replacement.

Upon completion of non-intrusive maintenance activities, a record of non-intrusive maintenance activity form must be completed, signed, and submitted to REALM's project manager within 48 hours of activity completion. A copy of this form is attached as Figure 7.

3.1.3. Restricted Intrusive On-Site Activities

Intrusive activities are those activities that when performed have the potential for exposure to PCB-contaminated material. The following intrusive maintenance activities may be performed at the site by National Grid or its contractors:

- Subsurface inspection/repair of power lines or utility poles – Repair of utility poles, guy wires, and underground power lines may be performed by National Grid personnel by removing surface and subsurface soil to access the area in need of repair. Dewatering of excavations may be required.

Prior to performing intrusive maintenance activities, National Grid or its contractors shall inform REALM's project manager as listed in Section 4. REALM will notify NYSDEC's project manager. All persons performing intrusive activities shall have hazardous waste site operations training in accordance with Occupational Safety and Health Administration (OSHA) 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response (HAZWOPER). All persons performing intrusive maintenance activities shall have read and understood this document and acknowledged this in writing. A copy of the acknowledgment form is attached as Figure 6. Copies of these signed forms shall be forwarded to REALM's project manager before commencing these activities. Access to the vegetated cover portions of the site shall be limited to locked access gates, for which National Grid will be given keys. National Grid project managers shall limit personnel and equipment activity in the area of the soil cover by utilizing access roads, as appropriate.

Area control. During intrusive activities, the potential for encountering soils with detectable concentrations of PCBs is anticipated. Work areas at the site shall be delineated in three specific zones: a "Work Zone," a "Decontamination Zone" and a "Clean Zone." Entrance into work and decontamination zones shall be limited to personnel which have received HAZWOPER training. These zones shall be delineated using means such as temporary fencing or stakes and surveyors' tape. The operation of each zone and other area control measures are discussed in the HASP.

Dredged material /soil excavation. The first foot of disturbed clean soil cover material shall be staged separately from excavated dredged material/soil for reuse in soil cover restoration, as feasible. In order to mitigate contact with the clean soil cover, excavated dredged material/soil, which is potentially PCB-contaminated, shall be placed on polyethylene sheeting or its equivalent and covered or placed in watertight containers as close as is reasonable to the excavation, in a manner which will minimize erosion of the staged pile. Staged dredged material/soil shall be used as backfill upon completion of construction activities, and the soil cover shall be restored by National Grid to the extent possible with original cover material. In the event that all of the excavated dredged material/soil can not be used as backfill, the remaining dredged material/soil shall be staged in DOT-approved 55-gallon drums or other suitable container(s), which will be provided to National Grid by REALM, for future characterization and disposal by REALM. National Grid shall coordinate with REALM for drum staging at the site within 48 hours of initiation of work activities. National Grid or its contractors shall minimize the amount of dredged material/soil generated during construction.

National Grid or its contractor shall contact REALM's project manager to inform him as to the amount and type of material staged on-site within 48 hours of activity completion. The area of vegetative soil cover damage shall be delineated with temporary fencing. Final repair/replacement of the cover shall be National Grid's responsibility, but shall be coordinated with REALM for proper repair/replacement.

Dewatering. During dredged material/soil excavation the potential exists for ground water to enter the excavation. Dewatering of the excavation shall be performed, as needed, by pumping the standing water from the excavation to suitable on-site containment vessels (*e.g.*, drums, tanks). REALM will provide containment vessels to National Grid. National Grid shall coordinate with REALM for containment vessel at the site within 48 hours of initiation of work activities. Provisions to prevent freezing of water shall be employed during cold-weather activities. Care shall be taken during pumping to limit the amount of solids present in the discharge stream. REALM's project manager shall be contacted and informed of the amount of water held on-site. The characterization and proper disposal of these waters shall be REALM's responsibility.

During emergency situations, in which dewatering is necessary and a suitable containment vessel is not available, REALM's project manager shall be contacted immediately by National Grid or its contractor to develop as viable a plan as possible to mitigate environmental impacts. REALM's project manager will contact NYSDEC's project manager. National Grid and its contractor shall take prudent steps to minimize health and environmental impacts during the interim period between the emergency occurrence and the development of such plan with the NYSDEC Regional Water Engineer. In the event that pumping of water from the excavation to Ley Creek is necessary in this interim period, care shall be taken during pumping to minimize the discharge and to limit the amount of solids present in the discharge stream. REALM's project manager shall be contacted and informed of the approximate amount of water discharged to Ley Creek. REALM will notify NYSDEC's project manager.

Migration control. During intrusive maintenance activities in which dredged material/soil, sediment, or ground water potentially containing PCBs is disturbed, engineering controls shall be employed to minimize the potential migration of PCBs through dust, runoff/runoff, and personnel/equipment. Use of water sprays and polyethylene sheeting to cover disturbed soil are examples of dust control methods. Measures to control runoff/runoff may include physical measures such as berms around excavation areas or other devices to prevent clean water from contacting PCB-contaminated material, and temporary covers (*e.g.*, polyethylene sheeting over the excavation and/or excavated materials). Work scheduling efforts, such as minimizing the areas of excavation that are open at any one time, may also be employed to control runoff/runoff.

Decontamination. Equipment in contact with potentially PCB-containing material shall be decontaminated in the Decontamination Zone prior to entering the Clean Zone. Decontamination procedures shall be performed in accordance with the HASP. Dry decontamination may be performed when the intrusive maintenance activities do not involve exposure to saturated subsurface soil or water which are potentially PCB-contaminated. Upon completion of dry decontamination procedures, visual inspection of equipment shall be conducted. If during visual inspection, residual dredged material/soil or staining is still observed on the equipment, wet decontamination shall be performed.

Wet decontamination shall be performed by National Grid or its contractors on a decontamination pad and collection sump for large equipment (*e.g.*, drill rig and backhoe). Small equipment (*e.g.*, hand

tools and augers) shall be performed in such a manner to collect decontamination fluids (e.g., within/over a 55-gallon drum staged on polyethylene sheeting). National Grid or its contractors shall bring clean water on-site or utilize Ley Creek water for wet decontamination. Decontamination fluids which are directed to the collection sump (max capacity 55-gallons) shall be collected and stored in suitable on-site containment vessels (e.g. drums, tanks). The type of container utilized shall depend on the amount of decontamination water generated. REALM will provide National Grid with containment vessels. National Grid shall coordinate with REALM for containment vessel staging at the within 48 hours of initiation of work activities. REALM's project manager shall be contacted and informed of the amount of water held on-site within 48 hours of activity completion. REALM will be responsible for characterization and proper disposal of decontamination water, upon completion of activities by National Grid or its contractor.

During dry and wet decontamination procedures, PPE, polyethylene sheeting, and other potentially PCB-contaminated material must be containerized in DOT approved 55-gallon drums or other suitable containers. REALM's project manager shall be contacted regarding the amount of PCB-contaminated material (e.g., PPE and polyethylene sheeting) stored on-site. The characterization and disposal of potentially PCB-contaminated material shall be REALM's responsibility.

Documentation. Upon completion of intrusive maintenance activities, a record of intrusive maintenance activity form must be completed, signed, and submitted to REALM's project manager within 48 hours of activity completion. A copy of this form is attached as Figure 8.

3.2. Management of Potential PCB-Containing Materials

National Grid or its contractors shall be responsible for the following management activities for potential PCB-containing materials left on-site: proper handling of the PPE as specified in the HASP, proper staging of PCB-contaminated material, and proper notification of REALM's project manager. REALM will be responsible for characterization and disposal of PCB-contaminated material.

The staging area for drums or other containers shall be delineated using temporary fencing or stakes and surveyor's tape, which will be dependent on the location of the work activity. The staging area shall be treated as a Work Zone as discussed in Section 3.1.3 and the HASP. The containers shall be staged on polyethylene sheeting in a flat area of the site, at least 50 feet from the fence line. The containers shall be free of holes or other defects and have a limited potential for tipping or spillage. Prior to leaving the site, National Grid or its contractors shall label each container to identify its origin and contents. National Grid or its contractors shall also document the amount of material staged on the site for off-site disposal in accordance with the activity form attached as Figure 8. The forms shall be submitted to REALM's project manager within 48 hours of activity completion.

4. Project Management

A project management team has been identified to oversee the implementation of maintenance work at the site. Non-intrusive maintenance activities shall be communicated by National Grid verbally or in writing to REALM's project manager at least 1 day prior to the activities. Intrusive maintenance activities shall be communicated verbally or in writing to REALM's project manager project manager at least 2 weeks prior to the activities, except in emergencies, when notification shall be provided as soon as practicable. REALM's project manager will notify NYSDEC's project manager, as warranted, based on activities to be completed by National Grid. Addresses and phone numbers for these individuals are listed below.

Additionally, the individuals listed below shall be recognized as the general contact for National Grid's maintenance activities. During emergency situations, notifications of project managers or regulatory personnel shall be conducted in accordance with the HASP. Any changes to the project managers listed in this plan shall be made in writing to the other project managers.

REALM's Project Manager

- Mr. James F. Hartnett
Remediation and Liability Management Company, Inc.
c/o GM Remediation Project Office
1 General Motors Drive
Syracuse, NY 13206
(315) 463-2391

National Grid's Project Manager

- Ms. Susan M. Swanson
Senior Environmental Engineer
National Grid
7437 Henry Clay Blvd.
Liverpool, New York 13088
(315) 460-2334

NYSDEC's Project Manager

- Ms. Susan Edwards
New York State Department of Environmental Conservation
Remedial Bureau D
625 Broadway, 12th Floor
Albany, NY 12233-7013
(518) 402-9676

References

NYSDEC 1999. *Remedial Design/Remedial Action Order on Consent, Index #D-7-0008-97-06*. July 15, 1999.

O'Brien & Gere 1992. *Work Plan; Remedial Investigation/Feasibility Study; Ley Creek Dredged Material Area*. February 1992.

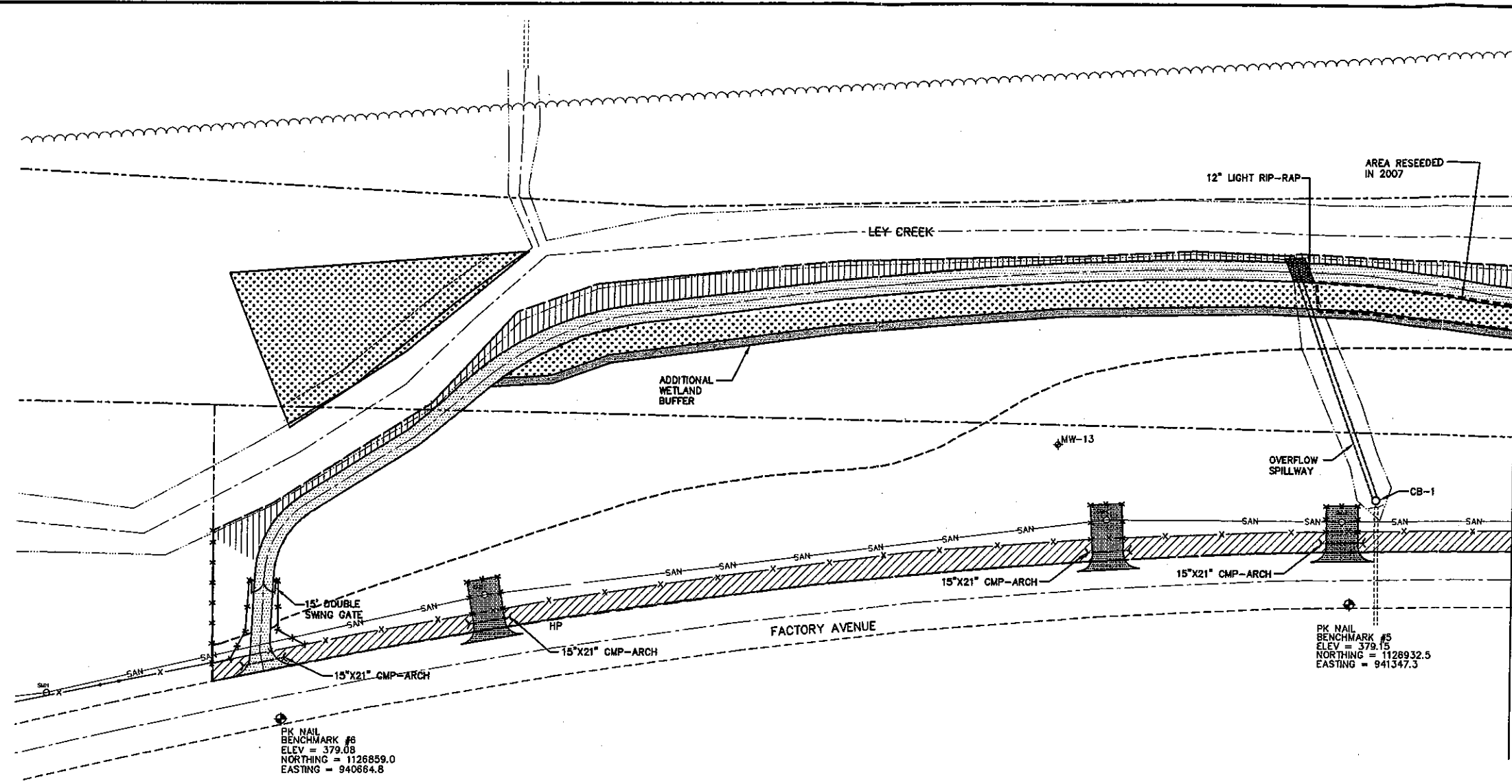
O'Brien & Gere 1993. *Remedial Investigation; Ley Creek Dredged Material Area*. September 1993.

O'Brien & Gere 1996. *Feasibility Study; Ley Creek Dredged Material Area*. October 1996.

O'Brien & Gere 2001. *Operation, Maintenance, and Monitoring Manual*. September 2001.

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MATCHLINE "B-B"
FOR CONTINUATION SEE FIG. 2

FIGURE 1

LEGEND

- SEEDED WITH CANARY GRASS
- OVERHEAD WIRES
- PROPERTY BOUNDARY
- EDGE OF WOODS
- UTILITY POLE
- GUY WIRE
- SANITARY SEWER
- SANITARY MANHOLE
- CATCH BASIN
- SECURITY FENCE
- PAVEMENT
- GRAVEL ACCESS ROAD
- LIMITS OF SOIL LOCATED ALONG FACTORY AVENUE RELOCATED BENEATH COVER SYSTEM
- CATCH BASIN
- 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
- ADDITIONAL WETLAND BUFFER

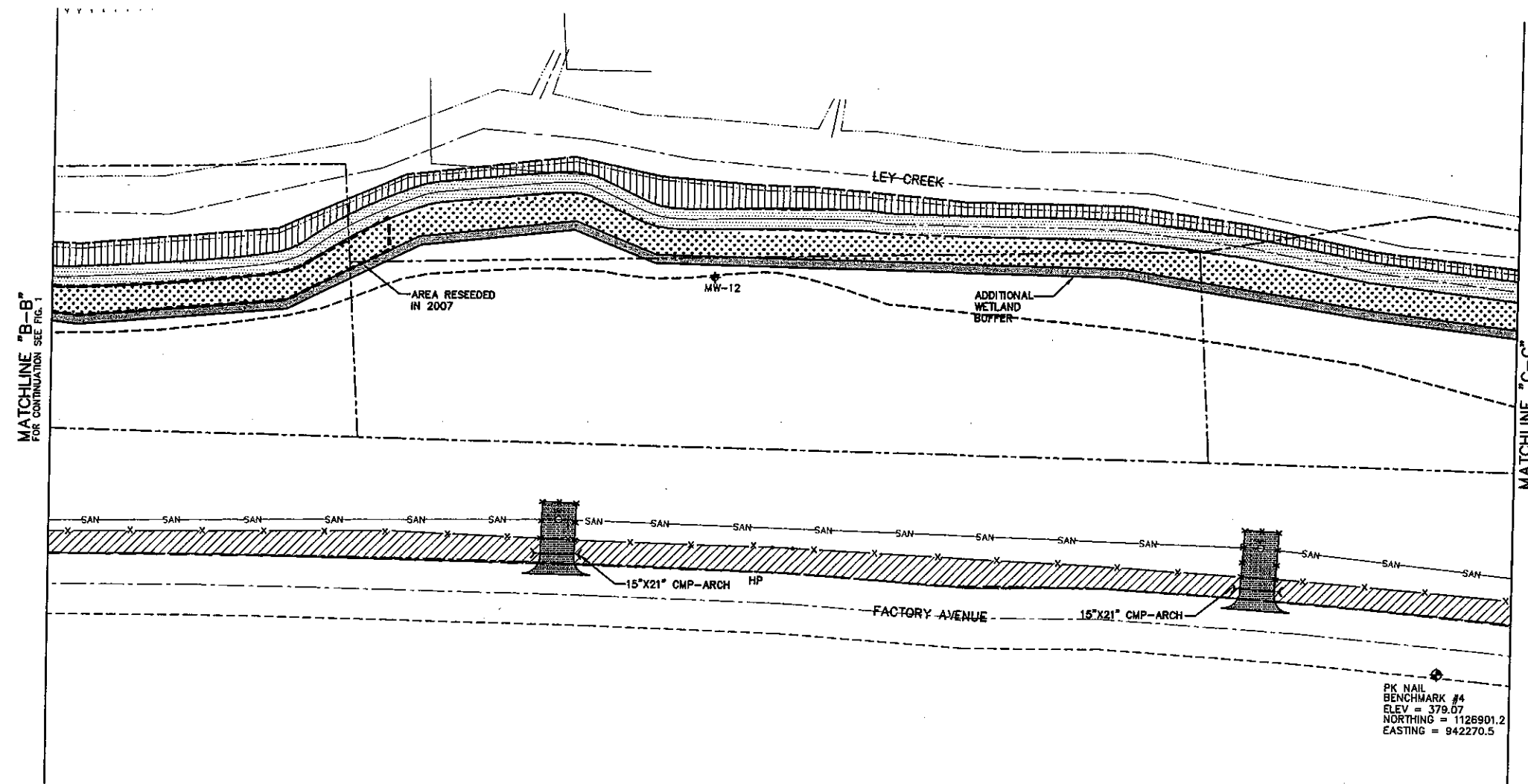
LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

OM&M PARTIAL
SITE PLAN



FILE NO. 4966.34124.125
JUNE 2008





MATCHLINE "B-B"
FOR CONTINUATION SEE FIG. 1

MATCHLINE "C-C"
FOR CONTINUATION SEE FIG. 3

PK NAIL
BENCHMARK #4
ELEV = 379.07
NORTHING = 1128901.2
EASTING = 942270.5



FIGURE 2

LEGEND

- SEEDED WITH CANARY GRASS
- OVERHEAD WIRES
- PROPERTY BOUNDARY
- EDGE OF WOODS
- UTILITY POLE
- GUY WIRE
- SANITARY SEWER
- SANITARY MANHOLE
- CATCH BASIN
- 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
- ADDITIONAL WETLAND BUFFER

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

OM&M PARTIAL
SITE PLAN

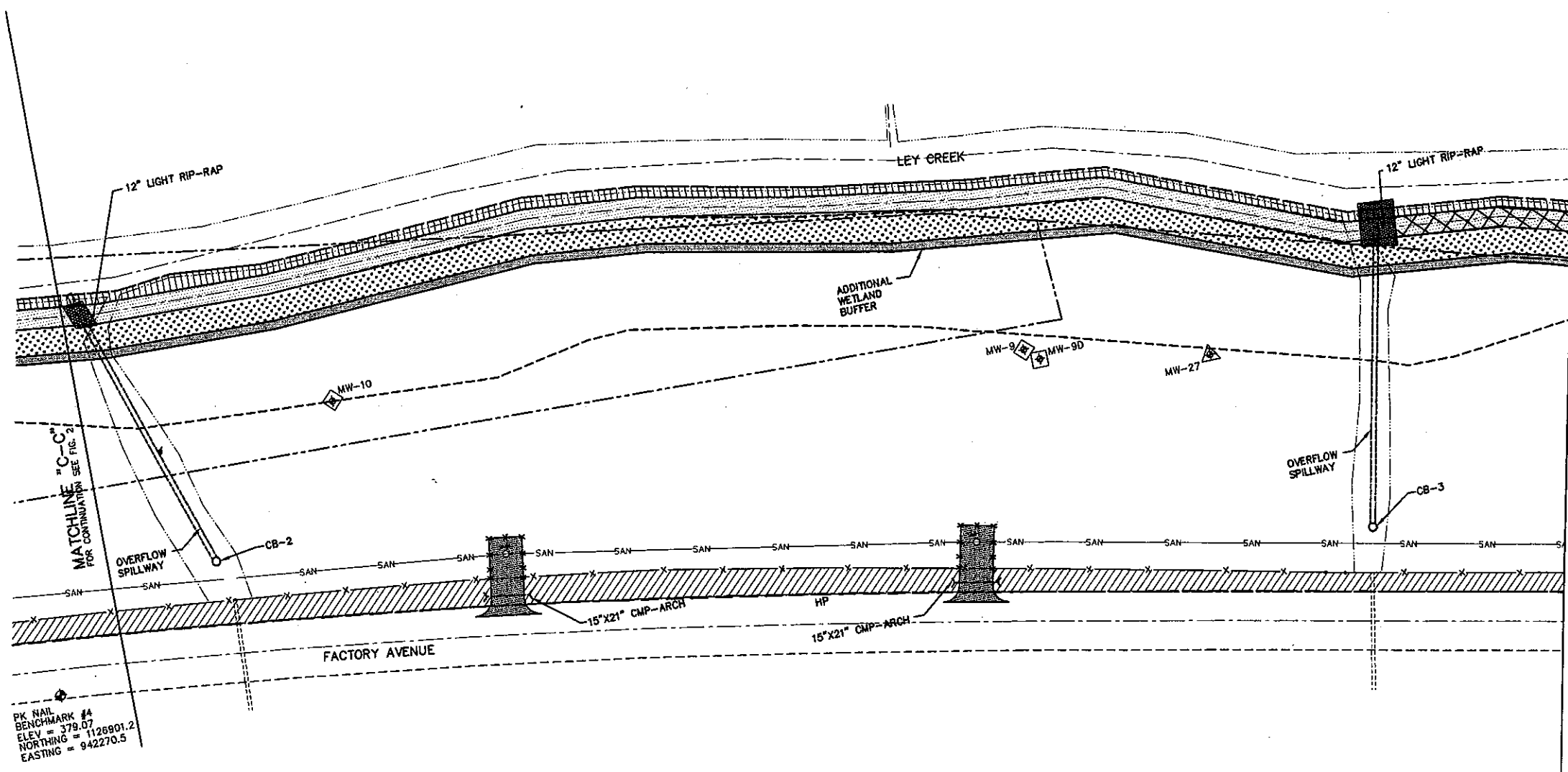


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JUNE 2008



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PK NAIL
BENCHMARK #4
ELEV = 379.07
NORTHING = 1126801.2
EASTING = 942270.5

FIGURE 3

LEGEND

- SEEDED WITH CANARY GRASS
- OVERHEAD WIRES
- PROPERTY BOUNDARY
- EDGE OF WOODS
- UTILITY POLE
- GUY WIRE
- SANITARY SEWER
- SANITARY MANHOLE
- CATCH BASIN
- SECURITY FENCE
- PAVEMENT
- GRAVEL ACCESS ROAD
- LIMITS OF SOIL LOCATED ALONG FACTORY AVENUE RELOCATED BENEATH COVER SYSTEM
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- ADDITIONAL WETLAND BUFFER

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

OM&M PARTIAL
SITE PLAN



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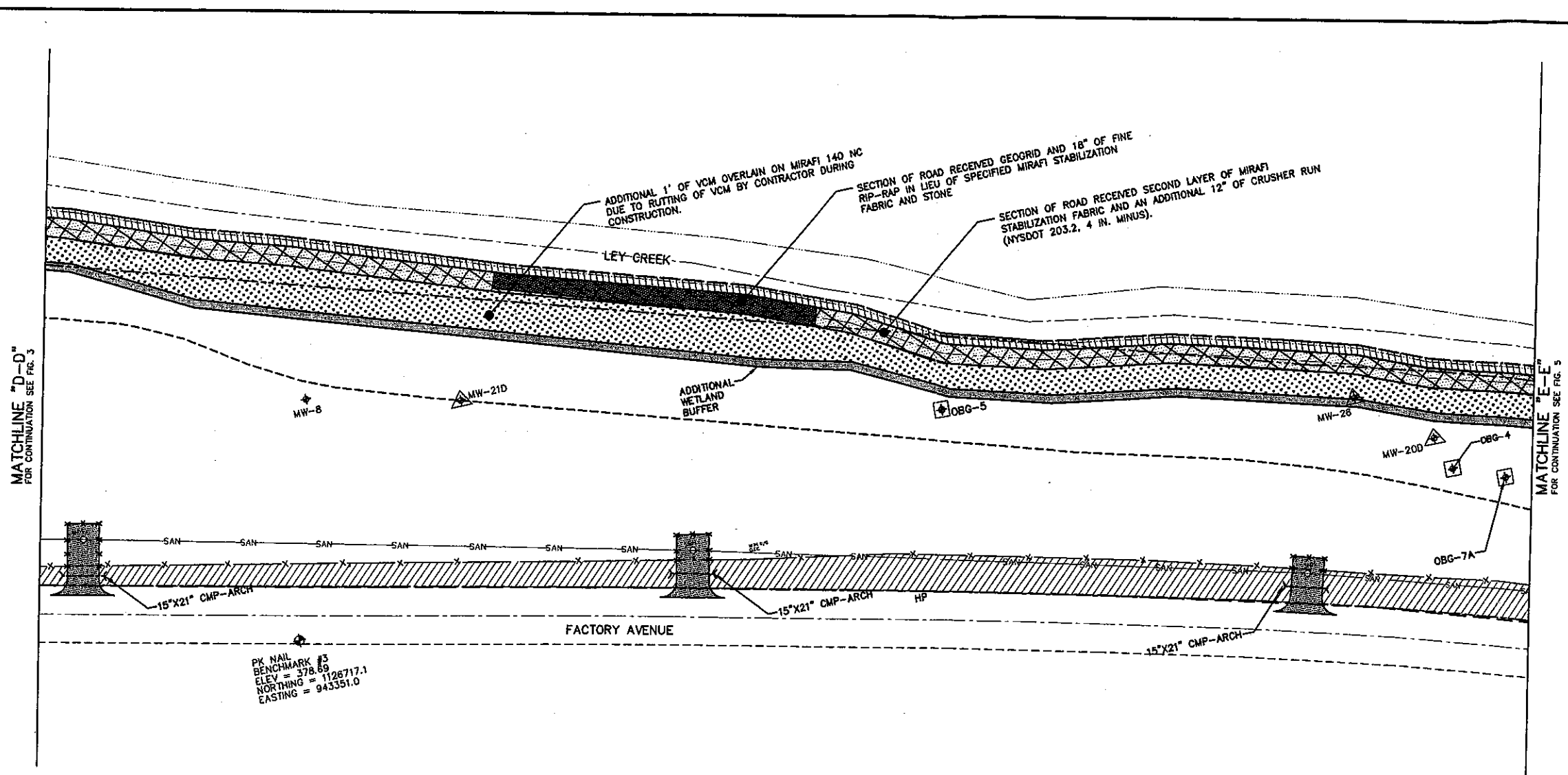


FIGURE 4

- LEGEND**
- SEEDED WITH CANARY GRASS
 - OVERHEAD WIRES
 - PROPERTY BOUNDARY
 - EDGE OF WOODS
 - UTILITY POLE
 - GUY WIRE
 - SANITARY SEWER
 - SANITARY MANHOLE
 - CATCH BASIN
 - SECURITY FENCE
 - PAVEMENT
 - GRAVEL ACCESS ROAD
 - LIMITS OF SOIL LOCATED ALONG FACTORY AVENUE RELOCATED BENEATH COVER SYSTEM
 - CATCH BASIN
 - MODIFIED MONITORING WELL
 - MONITORING WELL PRESUMED DESTROYED
 - ABANDONED MONITORING WELL
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 - LIMITS OF EROSION CONTROL MAT
 - LIMITS OF COVER SYSTEM
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 - ADDITIONAL WETLAND BUFFER

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

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JUNE 2008



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MATCHLINE "E-E"
FOR CONTINUATION SEE FIG. 4

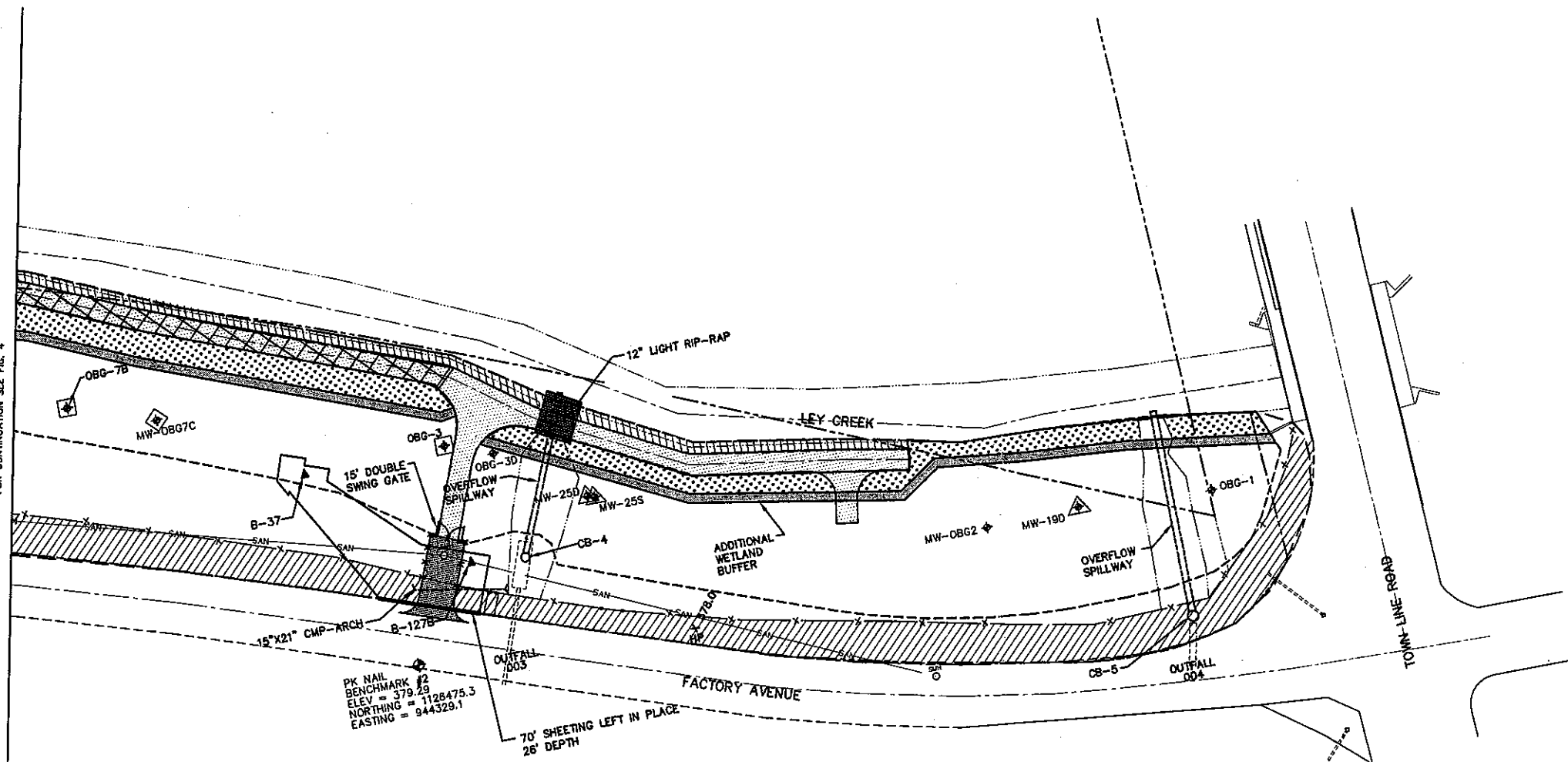


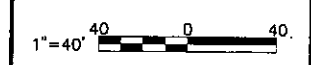
FIGURE 5

LEGEND

- SEEDED WITH CANARY GRASS
- OVERHEAD WIRES
- PROPERTY BOUNDARY
- EDGE OF WOODS
- UTILITY POLE
- GUY WIRE
- SANITARY SEWER
- SANITARY MANHOLE
- CATCH BASIN
- SECURITY FENCE
- PAVEMENT
- GRAVEL ACCESS ROAD
- LIMITS OF SOIL LOCATED ALONG FACTORY AVENUE RELOCATED BENEATH COVER SYSTEM
- CATCH BASIN
- MW-OBG7C MODIFIED MONITORING WELL
- MONITORING WELL PRESUMED DESTROYED
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LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

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JUNE 2008



**National Grid Health and Safety
Plan for General Excavations**

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Ley Creek, Syracuse, NY	Rev. Date:	04/09/2008

**LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NY**

**HASP for
GENERAL EXCAVATIONS**

Reviewed and Approved by:		
	Name:	Title:
Signature:	<i>Paul J. Webb</i>	
Print Name:	Paul J. Webb	Corporate Health and Safety Officer
Approval Date:	April 9, 2008	

nationalgrid

Paul J. Webb, CIH, CSP
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ATTACHMENTS

- Attachment-1 Record of Restrictive, Non-Intrusive Maintenance Activities
- Attachment-2 Record of Intrusive Maintenance Activities

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1.0 EMERGENCY INFORMATION

1.1 Emergency Contacts

In the event of any situation or unplanned occurrence requiring assistance, the appropriate contact(s) should be made from the list below. For emergency situations, contact should first be made with the Site Health and Safety Officer (or designee) who will notify emergency personnel who will then contact the appropriate response teams. This emergency contacts list must be in an easily accessible location at the site.

Contact Description	Phone Number
Nearest phone located onsite	National Grid Radio System Site is un-manned
Ambulance Service: (Ambulance)	911
Fire Department	911
Police:	911
Poison Control Center (Albany)	(800) 336-6997
Pollution Toxic Chemical, Oil Spills:	(800) 424-8802
UFPO	(800) 962-7962
Utility Emergencies: (Electric)	(800) 637-2770
Utility Emergencies: (Gas)	(800) 627-6466

1.2 Medical Care Information:

Hospital Name:	St. Joseph's Hospital
Hospital Phone Number:	315-448-5101
Hospital Address:	301 Prospect Avenue Syracuse, NY
Travel Time From Site:	10 minutes
Route to Hospital:	
1.	From Factory Avenue, turn RIGHT onto Town-line Road. Get on Military Circle.
2.	Go to Route 298 West (Court Street)
3.	Continue west on Court Street to the intersection of Court Street and N. Salina Street
4.	Turn LEFT on N. Salina Street
5.	Proceed to the intersection of N. Salina Street and Prospect Avenue
6.	Turn LEFT onto Prospect Avenue
7.	Proceed to St. Joseph's Hospital at 301 Prospect Street between Townsend Road and N. State Street

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1.3 National Grid Contacts

Corporate Health and Safety Officer: Paul Webb, Westborough, MA	508-389-2346 (office) 509-330-3992 (mobile)
Local Safety and Health Specialist: Ken Lieberman	315- 452-7557 (office) 315- 391-1345 (mobile)
Site Health and Safety Officer (Contracted) Cameron Steuer, Adirondack Environmental	518- 434-4546
Environmental Affairs (SIR) Project Manager (PM): Edward Neuhauser	315 - 428-3355
Alternate PM – TBD	
Environmental Affairs Department	(315) 428-6384
Operations Project Manager TBD	

1.4 Regulatory Agency Contacts

NYS Department of Environmental Conservation Susan Edwards	518 – 402 - 9676
NYS Department of Health Henri Hamel	315 – 477 - 8154

1.5 Designated Evacuation Route

The designated evacuation route shall be determined by the Work Crew prior the commencement of on-site activities.

The on-site manager/foreman should then make a “head-count” to account for all personnel known to be at the project site at the time of the emergency.

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2.0 Project Details and Structure

2.1 Purpose and Policy

This site Health and Safety Plan (HASP) establishes personal protection standards and safety practices for National Grid personnel, or their contractors, who work at the Ley Creek PCB Dredgings Site, located in the Syracuse, New York metropolitan area. The site a Class 4 hazardous waste site that is currently in an operation, maintenance and monitoring phase

This HASP assigns roles and responsibilities; identifies potential hazards and establishes mitigation steps; establishes personal protection standards; and, provides for contingencies that may arise while operations are being conducted at this hazardous waste site.

Guidance regarding the development and implementation of this HASP are referenced in the National Grid *Hazardous Waste Operations* procedure.

This HASP shall conform to National Grid Safety and Health procedures, Electrical Operating Procedure (EOPs), Gas Operating Procedures (GOPs), and any other National Grid policy or procedure, as appropriate.

This site HASP shall be updated as often as necessary to reflect any significant changes that occur to the project. These changes can be documented by the site Health and Safety Officer via an on-going log of site activities. The log shall be included with the project file.

2.2 Site Description

The Ley Creek PCB Dredgings Site (site) is located along the south bank of Ley Creek in the Town of Salina, Onondaga County, New York. The site is approximately 19 acres and is bounded by Factory Avenue to the south, Ley Creek to the north, and 4300 feet from Townline Road. Electrical lines and equipment are generally located along the southern boundary of the site.

2.2.A Background

This site, #7-34-044, is listed on the New York State Department of Environmental Conservation (NYSDEC) registry of inactive hazardous waste disposal sites.

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The property is managed by Remediation and Liability Management Company, Inc (REALM).

Dredgings from Ley Creek were generated during channel improvements performed by the Onondaga County Department of Water Environmental Protection. Polychlorinated biphenyls (PCBs) were detected in the dredgings.

A remedial investigation/feasibility study was conducted and a remedial design/remedial action order was executed between REALM and the NYSDEC in July, 1999. The final completion inspection was conducted on August 30, 2001.

2.3 Scope of Work

This HASP is intended to be used for any activity which results in the excavation of soil **within** the fenced-in area of the Ley Creek site.

This HASP does not apply to activities that are performed **outside** of the fenced-in areas of the site.

2.3.A Restrictive Activities

Activities that are conducted inside the fenced-in areas require written notification to the property owner. The notification process is referenced in the next section, 2.3.B

The type of work conducted within the fenced in areas shall be classified as either non-intrusive or intrusive. Intrusive activities involve excavation of the soil.

Non-intrusive Activities include any activity that is required to maintain electrical equipment as the activity does not require excavation.

Intrusive Activities include any activity that requires sub-surface maintenance of power lines or utility poles.

2.3.B Site Access and Notification

Access to the site shall be limited to the two locked access gates, which National Grid will be provided keys. To the extent possible, National Grid management shall limit personnel and equipment activity in the area of the soil cover by utilizing access roads, as appropriate.

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Notifications

(1) Non-Intrusive Activities

Before entering the site, notify the REALM manager via phone call at least one day prior to on-site activities. The Crew Leader or supervisor shall submit a *Record of Restricted, Non-Intrusive Maintenance Activities* upon completion of the work. See attachment-1 of this HASP

(2) Intrusive Activities

Before entering the site, notify the REALM manager and the NYSDEC via phone call at least 2 weeks prior to on-site activities. The Crew Leader or supervisor shall submit a *Record of Intrusive Maintenance Activities* upon completion of the work. See attachment-2 of this HASP.

For emergencies, notification shall be completed as soon as possible after the emergency.

Mail all completed forms to the REALM Project Manager within 48 hours of activity completion.

Mr. James F. Hartnett
Remediation and Liability Management Company, Inc.
Mr. James F. Hartnett
c/o REALM Project Manager
1 General Motors Drive, Suite 2
Syracuse, NY 13206

Phone: (315) 463-2391
E-mail: Jim.F.Hartnett@gm.com

In the event that the soil cover is damaged during operations:

- The affected area shall be delineated with temporary fencing by National Grid. National Grid shall contact the REALM manager
- Any repair or replacement of the cover shall be National Grid's responsibility and coordinated with the REALM manager.

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2.4 Site Team Roles and Responsibilities

The site team consists of Operations Site Project Manager (Site PM) or designee, SIR Project Manager (SIR PM), Site Health and Safety Officer (Site HSO), and the Work Crew. The work crew refers to the National Grid personnel who will be doing subsurface work.

Key site team responsibilities are outlined in this section and referenced in the National Grid *Hazardous Waste Operations* procedure.

2.4.a Site PM

The Operations Department's site project manager shall be responsible for the following site activities:

- i. Notifying the REALM manager and submitting required forms.
- ii. Maintain a current copy of this site HASP at the project site;
- iii. Coordinate with the Site Health and Safety Officer (HSO) for this site to make sure that there is coverage during work hours.
- iv. Confirm each Work Crew member's suitability for work based on a physician's recommendation.
- v. Ensure that all required equipment is available.
- vi. Ensure that the site HASP is being followed via periodic inspection.
- vii. Coordinate, delegate, or conduct HASP awareness and emergency response training. This involves a review of the site HASP and chain of command.

2.4.b SIR PM

The Environmental Department's SIR project manager or designee shall be responsible for the following site activities:

- i. Coordinate environmental characterization and remediation at the site.
- ii. Interface with federal and state regulatory agencies.
- iii. Provide assistance to the Operations Department during implementation of its project on matters related to the proper handling/disposal of hazardous and non-hazardous wastes that are known to exist or may be encountered at the project site.

2.4.c Work Crew

The Work Crew consists of National Grid employees who will be entering the Ley Creek property and who may also perform subsurface work.

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They shall be responsible for complying with this HASP as directed by the Site PM.
The crew leader shall:

- i. Serve as the competent person and stop any work that threatens worker or public health or safety.
- ii. Ensure that all necessary health and safety equipment is available on-site and is functional.
- iii. Periodically inspect protective clothing and equipment. Ensure that protective clothing and equipment are properly stored and maintained.
- iv. Control entry and exit at the access control points.
- v. Enforce the "buddy" system.
- vi. Know emergency procedures, evacuation routes, and the telephone numbers of the ambulance; local hospital; poison control center; fire and police departments.
- vii. Notify, when necessary, local public emergency officials.
- viii. Coordinate emergency medical care.
- ix. Set up decontamination lines and the decontamination solutions appropriate for the type of chemical contamination on the site.
- x. Assure proper disposal of contaminated clothing and materials.

2.4.d Site HSO

The Site HSO has the following responsibilities:

- i. Advise the SIR Project Manager (or designee) on site health and safety aspects directly related to chemical exposure.
- ii. Coordinate with the crew leader to control entry and exit at the access control points.
- iii. Coordinate HASP activities with the SIR PM or site PM designee, and work crew.
- iv. Monitor the work parties for signs of stress, such as cold exposure, heat stress, and fatigue.
- v. Assign PPE Level
- vi. Provide guidance regarding the control the decontamination of all equipment, personnel, and samples from the contaminated areas.
- vii. Advise medical personnel of potential chemical exposures and consequences.
- viii. Maintain on-going log of site activities. These records will be provided to the SIR PM or Site PM at the completion of the project.
- ix. Perform required air monitoring.

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2.5 Work Methods for Intrusive Activities

A. Soil Excavation

1. The first foot of disturbed clean soil cover material shall be staged separately from the deeper excavations. This top layer can be reused in soil cover restoration, if necessary.
2. Place potentially PCB-contaminated soil on polyethylene sheeting or equivalent or place in water-tight containers as close as possible to the excavation, in a manner which will minimize erosion of the staged pile.
3. Staged soil shall be used as backfill upon completion of construction activities and the soil cover shall be put back to the extent possible with the original cover material.
4. Excess excavated soil shall be staged in DOT-approved 55-gallon drums or other suitable containers for future characterization and disposal.
5. National Grid shall coordinate with the REALM manager to repair damaged soil cover areas.

B. Dewatering

1. Any excess ground water that enters the excavation shall be pumped out and stored in suitable containers for testing and disposal.
2. Care shall be taken to minimize the amount of solids present in the discharge stream.
3. During emergency situations in which dewatering is necessary but a suitable storage container is not available, NYSDEC Regional Water Engineer and REALM project manager shall be contacted by the site PM or their designee as soon as possible and shall provide an approximate estimate of the amount of water that would be discharged into Ley Creek.
4. The site PM or his designee shall notify the contact NYSDEC immediately in the event that excess water cannot be controlled.

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C. Migration Control

Measures to minimize the migration of PCB-containing soil and water beyond the excavation site shall include the use of water sprays to reduce dust levels; building of berms around excavation areas and covering spill piles.

D. Decontamination

For intrusive activities, follow site control and decontamination steps referenced in Section 4.0 of this HASP.

3.0 Risk Assessment and Mitigation

3.1 General Information

The work to be conducted at this site consists primarily of soil excavation. This HASP documents the risk assessment associated with PCBs.

An evaluation of the anticipated general work activities includes a risk assessment for each general task/activity to identify associated hazardous conditions, appropriate employee protection methods and PPE requirements. The evaluation of potential site conditions and activity hazards is an ongoing process and shall continue throughout the duration of the project.

A risk assessment is a careful examination of what in a work environment could cause harm to people and an evaluation of whether or not enough precautions have been taken to prevent or minimize that harm. The use of the words "hazard" and "risk" are sometimes interchanged, but in the assessment process, the two words have different meanings. The hazard presented by an activity or condition is its potential to cause harm. The risk from that activity or condition is the likelihood that it will cause harm.

The intent of performing the "risk assessment" is to:

- Identify the hazards associated with the activity,
- Determine who could be affected,
- Assess or evaluate the seriousness of the hazards,
- Ensure the proper controls are in place (or develop new ones) to reduce the associated risk to acceptable levels.

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3.2 Hazard Classification

Identified hazards in this HASP are broadly categorized and described as follows:

Physical: Excessive noise; inclement weather; heat stress; cold stress; manual lifting; slips and falls; structural integrity; working at elevation; electrical safety; heavy equipment operation; and other general construction hazards.

Chemical: Coal Tar Pitch Volatiles, also known as Poly-nuclear Aromatic Hydrocarbons (PAHs); Volatile Organic Hydrocarbons (VOCs); Polychlorinated Biphenyls (PCBs); asbestos; lead, and; other chemical substances.

Biological: Rodents; insects, snakes, pathogenic microbes, etc.

Physical Hazards

Physical hazards include contact with overhead power lines, or underground utilities when excavation activities are taking place. The exact location of all active utilities must be verified prior to commencing intrusive activities.

National Grid standard procedures for locating buried utility lines will be employed prior to site excavations.

Other physical hazards that may be encountered during this project include: heavy equipment operation; excessive noise; excessive heat or cold; inclement weather; manual lifting/handling of heavy objects; rough terrain, traffic, and; compromised structural integrity.

Chemical Hazards

PCBs are not easily become airborne. Although the site has been remediated there is still the potential for encountering PCBs.

Biological Hazards

Awareness and avoidance is the best way to protect against being bitten by insects or exposed to other biological hazards. In the event that a person is stung or bitten, the incident shall be reported to the site HSO.

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3.3 Personal Protective Equipment (PPE)

3.3.a General

All personnel engaged in subsurface work activities will use the appropriate level of protection based on the risk assessment and determination of the site HSO.

All PPE requirements for site activities are based upon available historical site characterization data and knowledge of the anticipated hazards.

Changes in levels of PPE and changes in the PPE requirements for specific areas shall be made by the site HSO based upon any combination of the results of monitoring, visual observations and/or the nature of the site operations, including the presence of or potential for previously unidentified chemicals or conditions.

All PPE shall be provided, used, and maintained in a sanitary and reliable condition and shall conform to National Grid standards.

Minimum level of protection for subsurface work shall be Level D

3.3.b LEVEL D

For purposes of this HASP, Level D personal protective equipment shall include:

Head and Face

- Hard Hat
- Safety glasses with side shields
- Hearing Protection (if needed)

Body

- Reflective vest (when working close to traffic)
- Fire Resistant (FR) clothing and FR Tyvek coveralls (if needed) when working around energized electrical equipment.
- Coated *Tyvek* coveralls for corrosive soils (if needed)

Hands

- Nitrile outer and latex inner gloves should provide adequate protection from direct contact hazards.
- Leather or other outer gloves where there are puncture hazards.
- Class 2 rubber gloves (if necessary)

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Feet

- Steel-toed rubber boots or boot covers that prevent contamination of boots. Electrical Hazard (EH) rated (if necessary)

3.3.c LEVEL C

Level C shall include Level D PPE as well as the use of air-purifying respiratory protection. The site HSO shall determine if respiratory protection required.

Respirator selection, use, maintenance, and employee training shall conform to the National Grid *Respiratory Protection Program* procedure.

3.3.d LEVELS B and A

Level B and A PPE involve the use of air supplying respirators and specialized chemical resistant full body and encapsulating suits. National Grid employees shall not perform work at sites where either Level B or A are deemed necessary by site air monitoring. The exception to this will be gas operating procedures that require Level B as a part of normal work practice.

3.4 Preliminary Risk Assessment

The following tables identify expected site-specific tasks; their hazards, and their how these hazards will be mitigated. These tasks are associated with excavation work at hazardous waste sites. Some hazards may not be present or applicable, while hazards not listed here may emerge in the course of work at this site. The site HSO and work crew must be vigilant for changing conditions and take appropriate action to address all hazards.

The site HSO shall review the contents of this HASP with the work crew prior to commencement of site work activities.

It is the responsibility of the site HSO and work crew to do a daily job safety brief to review the activities for that day and to maintain copies of these briefs at the site.

The site HSO can amend this HASP as often as necessary to reflect current conditions at this site. Amendments shall be kept with this original plan as part of the project file.

Unless noted otherwise, PPE Requirement is Level D.

The hazards and the mitigation steps in the tables below are not matched. This

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information should be used as a general guide to assist in identifying hazards that may be present during the course of the project. The daily job safety briefs shall be used at the site to identify and mitigate hazards specific to that day's activities.

Major Task 1: Mobilization (Set-up) and Demobilization

Hazards	Mitigation
<ul style="list-style-type: none"> • Vehicular Traffic • Cuts/Abrasions • Manual handling • Slips/trips/falls 	<ul style="list-style-type: none"> • Work Zone Traffic Protection • Police/Flag persons • Traffic Plan • Training, PPE

Major Task 2: Excavate using mechanical equipment

Hazards	Mitigation
<ul style="list-style-type: none"> • Electrical Contact • Persons struck by vehicle/equipment. • Trench collapse • Utility Damage (Water, Sewer, gas and others) • Mechanical failures • Excessive noise • Exposure to contaminated soil 	<ul style="list-style-type: none"> • Dig Safe requirements, company procedures and municipal utility verification • Trench box or shoring • Work area protection • Training, PPE • Hoisting Engineers License • Equipment maintenance requirements • Job Brief

3. Entering Excavation

Hazards	Mitigation
<ul style="list-style-type: none"> • Confined space entry hazards • Hazardous atmosphere • Cave in, entrapment • Presence of soil contaminates or other waste products • Nature of the ground, such as non-cohesive soil, rock, fractured rock, etc. • Rain • Machinery moving near excavation • Vibration from machinery in or near excavation • Presence of building or 	<ul style="list-style-type: none"> • Trench box or shoring (slope or bench) • Competent person requirements • Training, PPE • Safety observer • Barricades • Limit approach of vehicles and equipment, use barricades, wheel buffers • Egress procedures • Ventilation • Job Brief • Good housekeeping around excavation • Place excavated materials, equipment and other materials away from excavation • Remove persons from the excavation when mechanically lifting and placing loads in excavation

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<ul style="list-style-type: none"> • other structures near excavation • Piles of excavated material beside excavation • Struck by objects from above excavation • Slips/Trips/Falls • Skin and inhalation exposure to contaminated soil 	<ul style="list-style-type: none"> • Do not lift or suspend loads over person in excavation • Air monitoring to determine respirator selection and ambient air quality. • Appropriate chemical resistant gloves and boots.
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4. Backfill, compact and secure excavation

Hazards	Mitigation
<ul style="list-style-type: none"> • Manual operation of compaction equipment. • Being struck by excavating equipment. 	<ul style="list-style-type: none"> • Work area protection • Safe operation of compaction equipment

4.0 Site Demarcation and Control

4.1 Site Zones

The hazardous waste site shall be separated into three zones to control unauthorized access and contamination. The areas free of subsurface work shall be referred to as the Support Zone (SZ). The area where subsurface work occurs shall be referred to as the Exclusion Zone (EZ). The area designated as a corridor between the support and exclusion zones shall be referred to as the Contamination Reduction Zone (CRZ). The size of these zones will change throughout the project based on work activities and environmental/air monitoring results.

4.1.a. Support Zone

This zone starts at the project/property fence line and extends to the point where personnel enter to do subsurface work. This area does not require any PPE other than what is specified for existing National Grid operations. Within the SZ, exclusion zones may be established depending on the operations, for example: where material handling is performed, where hoisting equipment is located or where equipment is staged.

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4.1.b Contamination Reduction Zone (CRZ)

This zone serves as the corridor or path between the support and exclusion zone where equipment and personnel decontamination occur, and where personnel enter and exit the EZ. At a minimum, Level D is required in the CRZ. Personnel shall be aware of and follow all site control procedures with respect to entering and exiting the CRZ, to ensure that they are not exposed to contaminants and to minimize the potential for contamination of personnel and the spread of contamination outside the Exclusion Zone (EZ).

These measures include having personnel follow the proper procedures for donning and doffing PPE and washing in the CRZ. The measures also address the decontamination procedures for use when moving equipment between zones. The CRZ shall consist of an area to drop off equipment, plastic bags to dispose of protective clothing, adequate soap and water for personnel and equipment decontamination and a means of capturing wash water generated during decontamination.

The CRZ shall also have a first-aid kit, fire blanket and fire extinguisher (20-lb ABC type).

4.1.c Exclusion Zone (EZ)

The EZ is restricted to personnel with the proper training and PPE. No employee shall eat, drink, chew gum, apply cosmetics, smoke or use other tobacco products while in the EZ.

The employee must first exit the EZ and follow decontamination procedures in the CRZ before engaging in any of the above actions. In the event that an employee in the EZ requires additional equipment, the employee shall exit the EZ and utilize proper decontamination procedures in the CRZ.

4.2 Site Control

The site PM shall implement site measures to protect the public and personnel working on-site. Site control includes:

- General site access.
- Fences, guardrails and access devices, including ladders and walking surfaces.
- Barricades, warning signs and devices, temporary lighting and other safety measures, as required, to protect site personnel.

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The site HSO shall provide technical assistance to the site PM and Work Crew to ensure that these devices are in the appropriate location, and maintained on a daily basis.

All visitors to the site shall report first to the site project manager or other designated field contact.

Visitor access shall be limited to the Support Zone and Level D operation areas only, and shall be allowed only with the consent of the site HSO.

No visitor shall enter a work area unescorted.

The presence of any regulatory agency on-site shall be reported immediately to the site HSO who shall report this to the site PM and SIR PM.

4.3 Personnel and Equipment Decontamination

4.3.a Personnel Decontamination

When exiting the EZ, personnel shall remove all gross contamination and debris from non-disposable protective clothing and equipment.

If an individual becomes “grossly contaminated”, the decontamination procedure will include a soap and water wash and a tap water rinse of the outer suit, gloves and over-boots prior to removal of the outer layer.

The employee shall dispose of all disposable protective clothing prior to exiting the CRZ.

All waste from decontamination shall be placed in a designated waste container and disposed of as directed by the National Grid Environmental Department.

4.3.b Equipment Decontamination

The Work Crew shall thoroughly wash and rinse all equipment that becomes “grossly contaminated”.

The Work Crew shall discard as hazardous waste all grossly contaminated equipment that cannot be cleaned.

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5.0 Training

5.1 General Information

All personnel directly involved in the project site activities shall be trained for the tasks they will perform, as required by applicable federal/state/local regulations.

Refresher training will be performed at least yearly. In addition, all site personnel shall participate in site-specific HASP awareness and emergency response.

The topics of training required are dependent on the scope of work.

The Site PM shall conduct/coordinate training specific to the subsurface work and shall review site specific hazards with the work crew prior to beginning each day's work.

5.2 HASP Awareness Training

Prior to commencement of work activities, all site personnel shall be trained in the contents of this HASP and understand their roles and responsibilities.

5.3 HAZWOPER Training

Personnel entering the exclusion zone for the purpose of subsurface work must have received the required 40 hour training as outlined by 29 CFR 1910.120(a) (i) and appropriate annual refresher training as required.

5.4 Emergency Response Training

The site PM shall conduct emergency response training so that personnel are familiar with their roles during an emergency. The site HSO can provide technical support to the site PM regarding chemical exposure issues. At a minimum, the topics of this training shall include the following:

- Location of all site emergency equipment
- Response procedures for fires
- Response procedures for injuries and accidents
- On-site/off-site response resources
- Emergency site operations shut down procedures
- On-site "Chain of Command"
- Designated on-site emergency meeting location

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- Recognition of evacuation signals and alarms

5.5 Site Visitor Training

Site visitors are defined as persons who are not employed at the project site, who do not routinely enter restricted work areas, or whose presence is of short duration (i.e., one to two days per month).

All visitors entering the EZ must receive site-specific training by the site HSO that includes:

- Location and description of potential hazards and risks
- Required PPE
- Areas of the site that may be closed to visitors
- The site evacuation plan and emergency procedures

6.0 Medical Surveillance and Care

6.1 Medical Surveillance

Coordinated by Safety and Health Services, employees who do subsurface work shall participate in exposure assessments and medical monitoring in accordance with the National Grid *Exposure Assessment and Medical Surveillance* procedure.

6.2 Medical Emergencies

Work crews at each site shall have two employees trained in First Aid and CPR.

The first individual who notices that a medical emergency or personal injury has occurred shall immediately make a subjective decision as to whether the emergency is life threatening and/or otherwise serious.

If a life-threatening incident occurs, those persons recognizing the situation shall follow the first responder steps as referenced in the American Red Cross *Emergency Care Reference Manual*:

- Do no harm. Do not do things that will endanger you as a rescuer or will make the patient's condition become worse.
- Do not move the patient unless absolutely necessary.

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- Activate Emergency Medical Service (EMS) as soon as an emergency is recognized.
- Notify the site HSO. The site HSO shall relay the appropriate information to the site person meeting the EMS.

Depending on the nature of the injury and the location at which the injury occurred, the site HSO shall determine whether the person can be moved or whether the EMS team will need to come into the work area to assist the victim.

If the victim is injured in the Exclusion Zone, all appropriate life-saving methods shall be exercised in that area before attempting decontamination of the victim.

The extent of emergency decontamination performed shall depend on the severity of the injury or illness and the nature of the contamination. If the emergency is such that emergency decontamination cannot be performed safely, the victim shall be given necessary first-aid treatment and wrapped in a blanket prior to transportation by EMS.

If heat stress is a factor in a victim's injury/illness, all protective clothing shall be removed from the victim immediately.

Non-Life-Threatening Incident

Should it be determined that no threat to life is present, a co-worker will assist the injured person and contact the site HSO as soon as reasonably possible.

If the victim is injured in the Exclusion Zone, a rapid decontamination consisting of PPE removal shall be performed in the Contamination Reduction Zone prior to initiation of medical assistance. For all non-life-threatening injuries, all medical assistance shall be provided in the Support Zone to reduce the spread of contamination to medical personnel or equipment.

DRAFT ATTACHMENT 1 National Grid Health and Safety Plan Ley Creek, Syracuse, NY	Rev. No.	001
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Record of Restricted, Non-Intrusive Maintenance Activities	Rev. Date:	04/09/2008

Date/Time: _____

Personnel On-Site (Print Name)

Organization (National Grid or Contractor Firm)

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Activities Performed:

- Was prior notification of work given to REALM? YES NO
- Was remedial cover damaged during work? YES NO
- Were fencing and gates intact? YES NO
- Were gates locked upon exiting? YES NO

General Notes

Signature of On-Site Supervisor: _____

I hereby acknowledge that the individuals that are listed on this form and who have been present on this site have reviewed this Ley Creek HASP and have conducted work activities in accordance with this HASP and the requirements of the REALM property manager.

DRAFT ATTACHMENT 2 National Grid Health and Safety Plan Ley Creek, Syracuse, NY	Rev. No.	001
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Record of Intrusive Maintenance Activities	Rev. Date:	04/09/2008

Date/Time: _____

Personnel On-Site (Print Name)

Organization (National Grid or Contractor Firm)

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Activities Performed:

Area where intrusive maintenance activities were performed:

Amount of dredged material/soil staged on-site: _____

Amount of construction water staged on-site: _____

Amount of water sent to sanitary sewer: _____

Was prior notification of work given to REALM? YES NO

Were fencing and gates intact? YES NO

Were gates locked upon exiting? YES NO

General Notes

Signature of On-Site Supervisor: _____

I hereby acknowledge that the individuals that are listed on this form and who have been present on this site have reviewed this Ley Creek HASP and have conducted work activities in accordance with this HASP and the requirements of the REALM property manager.

EXHIBIT A

**NYSDEC letter approving
modification of routine inspection
frequency – May 30, 2007**

New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau B
625 Broadway, Albany, New York 12233-7016
Phone: (518) 402-9768 • FAX: (518) 402-9020
Website: www.dec.state.ny.us



Alexander B. Grannis
Commissioner

May 30, 2007

James Hartnett
Remediation and Liability Management Company
1 General Motors Drive
Syracuse, NY 13206-1127

Dear Mr. Hartnett:

Re: Ley Creek PCB Dredgings Site
2006 Annual OM &M Inspection Report

Dear Mr. Hartnett:

In January 2007, REALM submitted documentation on the site inspections conducted at the Ley Creek Dredgings Site in 2006. This letter is to address requests for modifications to the OM &M inspections based upon information and trends found during those inspections of 2006 and prior.

Monitoring Frequency

As stated in your letter of January 10, 2007, in 2005 (and again in 2006) in accordance with the OM &M Manual for this site, an evaluation was performed regarding inspection frequency for the site. Based upon this evaluation, REALM has indicated the inspections have observed only minor deficiencies and no major deficiencies. REALM requests that the monitoring frequency for routine site inspections be modified from semi-annual to annual, beginning in 2007. ~~Provided that the recommendations as outlined in the January 2007 5-year review performed by the USEPA are implemented in 2007 and continued as necessary thereafter, and that the issues observed during the October 3, 2006 inspections are addressed in 2007, the NYSDEC concurs with the modification from semi-annual to an annual inspection frequency.~~

Wetland Establishment

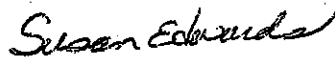
The OM &M Manual required that after the fifth year of wetland monitoring an assessment of the continued need for monitoring of the wetland area would be performed. In 2006, REALM proposed that an additional year of monitoring be performed. REALM has indicated that three of the four monitored plots have met the criterion of 90% groundcover of seeded and wetland - dependent species. In the area of the fourth plot, REALM has proposed a wetland enhancement effort, as provided in the November 30, 2006 Wetland Evaluation report. REALM has proposed that monitoring of the first three plots be discontinued and that the fourth plot (the enhanced area) be monitored, after the enhancement is performed, for one additional year (2007). Upon completion of the 2007 evaluation, the need for

continued wetland monitoring and maintenance would be assessed. The NYSDEC concurs with this approach.

Please note that all future correspondence regarding OM &M should be addressed to me, Susan Edwards, in lieu of Gerald Rider.

If you have any questions concerning this letter, please call me at 518-402-9767.

Sincerely,

A handwritten signature in cursive script that reads "Susan Edwards".

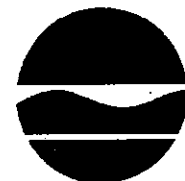
Susan Edwards
Project Manager

cc: Bradley Kubiak-OB&G

EXHIBIT B

**NYSDEC letter approving
modification to wetland inspection
and maintenance requirements –
May 13, 2008**

New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau D, 12th Floor
625 Broadway, Albany, New York 12233-7013
Phone: (518) 402-9676 • FAX: (518) 402-9020
Website: www.dec.ny.gov



Alexander B. Grannis
Commissioner

May 13, 2008

Mr. James Hartnett
Remediation and Liability Management Company
1 General Motors Drive
Syracuse, New York 13206-1127

RE: Ley Creek PCB Dredgings Site
2007 Annual Operations Maintenance and Monitoring Inspection Report

Dear Mr. Hartnett:

In January 2008, REALM submitted documentation on the site inspections conducted at the Ley Creek Dredgings Site in 2007. This letter is to address requests for modifications to the monitoring requirements and to the wetland requirements based upon information and trends found during those inspections of 2007 and prior.

The Operations Maintenance and Monitoring Manual (OM&M) required that after the fifth year of wetland monitoring an assessment of the continued need for monitoring of the wetland area would be performed. In 2006, REALM proposed that an additional year of monitoring be performed. REALM has indicated that three (3) of the four (4) monitored plots have met the criterion of 90 percent groundcover of seeded and wetland-dependent species. In the area of the fourth plot, REALM proposed a wetland enhancement effort, as provided in the November 30, 2006 Wetland Evaluation report. REALM proposed that monitoring of the first three (3) plots be discontinued and that the fourth plot (the enhanced area) be monitored, after the enhancement is performed, for one (1) additional year (2007). Upon completion of the 2007 evaluation, the need for continued wetland monitoring and maintenance would be assessed. Such an assessment is contained in the January 2008 report.

This assessment indicated that, in the fourth plot which had been disced, reseeded and mulched in spring 2007, at the end of the season, although improved from prior years, the restoration goal of 90 percent groundcover had not been met.

Your letter of January 31, 2008 which accompanied the 2007 inspection report recommends that, as an off-set to this 0.06 acre wetland deficit, and in lieu of continued wetland monitoring, an additional 0.6 acre area of vegetation buffer be established at the site. The existing wetlands and reseeded area would continue to be managed as restored wetland at the site.

Mr. James Hartnett

Page 2

Given the diligence with which REALM has attempted to meet the restoration goal in all areas of the restored wetland, and that this goal has been substantially met, except in the fourth plot, the NYSDEC concurs with this recommendation as stated above and as further described in Attachment 3 and depicted on Figures 1-5 of the 2007 OM&M Inspection Report for the Ley Creek PCB Dredgings Site.

If you have any questions concerning this letter, please call me at (518) 402-9676.

Sincerely,



Susan Edwards
Project Manager

cc: B. Kubiak, OB&G ✓