Genesee Marina, Inc., 118 Petten Street

MONROE COUNTY, NEW YORK

Interim Site Management Plan

NYSDEC Site Number: C828130

Prepared for:
Genesee Marina, Inc.
118 Petten Street
Rochester, New York

Prepared by:
Day Environmental, Inc. 1563 Lyell Avenue
Rochester, New York (585) 454-0210

Revisions to Interim Site Management Plan:

Revision #	Submitted Date	Summary of Revision	DEC Approval Date

DECEMBER 2012
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INTERIM SITE MANAGEMENT PLAN

1.0 INTRODUCTION AND DESCRIPTION OF REMEDIAL PROGRAM

1.1 INTRODUCTION

This document is required as an element of the remedial program at 118 Petten Street (hereinafter referred to as the "Site") under the New York State (NYS) Brownfield Cleanup Program (BCP administered by New York State Department of Environmental Conservation (NYSDEC). This Site is being remediated in accordance with Brownfield Cleanup Agreement (BCA) Index #B8-0700-05-08, Site # C828130. Work at the Site is required to be in compliance with this Interim Site Management Plan (Interim SMP) until such time that a final SMP for the Site has been approved by the NYSDEC, which is anticipated to be after the remedy for the Site has been substantially completed.

1.1.1 General

Genesee Marina, Inc. entered into Brownfield Cleanup Agreement (BCA) Index #B8-0700-05-08, Site # C828130. Genesee Marina, Inc. entered into the BCA with the NYSDEC to remediate an approximate 25-acre property located in Rochester, New York. This BCA required the Participant, Genesee Marina, Inc., to investigate and remediate contaminated media at the site, and the property is to be remediated to NYSDEC Restricted Commercial Use SCOs. A copy of these SCOs is included as Appendix A. A figure showing the site location of this approximate 25-acre site is provided in Figure 1. NYSDEC's March 2012 Decision Document for the Site identifies several planned remedial activities for the Site, including;

- Development of a remedial design program in the area of three closed in-place underground storage tanks (USTs) that incorporates green remediation principles and techniques to the extent possible.
- Excavation of on-site soils in the area of the three closed in-place USTs that exceed site-specific Restricted Commercial Use SCOs transport off-site for disposal.
- Placement of amendments in the excavation in the area of closed in-place UST investigation to enhance aerobic bioremediation and to address residual impact within soil and/or groundwater.

- A site cover system allowing restricted commercial use of the Site (Engineering Control).
- Imposition of an Environmental Easement (Institutional Control).
- Preparation of a Site Management Plan (SMP).
- Preparation of a Monitoring Plan to assess the performance and effectiveness of the remedy.

This Interim SMP is intended to manage contamination at the Site until the majority of remedial activities have been completed and a Final SMP has been prepared and subsequently approved by the NYSDEC.

This Interim SMP, with some changes, will form the basis for developing the final SMP.

All reports associated with the site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State.

This Interim SMP was prepared by Day Environmental, Inc. on behalf of Genesee Marina, Inc., in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 3, 2010, and the guidelines provided by NYSDEC. This Interim SMP addresses the means for implementing some of the Institutional Controls (ICs) that are required by the Environmental Easement (once recorded) for the site.

1.1.2 Purpose

The Site will contain contamination after completion of the remedial actions. Engineering Controls shall be incorporated into the site remedy to control exposure to remaining contamination during the use of the site to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Monroe County Clerk, will require compliance with the final SMP and all ECs and ICs placed on the site. The ICs place restrictions on site use, and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. This Interim SMP specifies the methods necessary to ensure compliance with some of the ECs and ICs required by the Environmental Easement (once recorded) for contamination that remains at the site. This plan has been approved by the NYSDEC, and compliance with this plan is required by the owner and occupants of the Site, the grantor of the Environmental Easement (once recorded) and the grantor's successors and assigns. This Interim SMP may only be revised with the approval of the NYSDEC.

This Interim SMP provides a detailed description of interim procedures required to manage current contamination at the site prior to completion of the Remedial Action, including implementation and management of certain Institutional Controls.

To address these needs, this Interim SMP includes some components of an Engineering and Institutional Control Plan for implementation and management of some ICs.

It is important to note that:

- This Interim SMP details the site-specific implementation procedures that will be required by the Environmental Easement. Failure to properly implement the Interim SMP is a violation of the environmental easement (once recorded), which is grounds for revocation of the Certificate of Completion (COC) (once recorded); and
- Failure to comply with and properly implement this Interim SMP is also a violation of the BCA (Index # B8-0700-05-08; Site #C828130) for the site, and can be grounds for termination of the BCA.

1.1.3 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. In accordance with the Environmental Easement (once recorded) for the site, the NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

1.2 SITE BACKGROUND

1.2.1 Site Location and Description

The site is located in the City of Rochester, County of Monroe, New York and is identified as Section 061.30 Block 01 Lot 08.006 and Section 061.22 Block 01 Lot 09 on the Monroe County Real Property Data Website Tax Map. The site is an approximately 25-acre area bounded by land owned by the City to the north and to the south, the Genesee River to the east, and a railroad spur to the west (see Figure 2).

The Site is an operating marina that includes multiple buildings and more than 200 boat slips. There are 2 boat ramps located along the river front. The Site also consists of asphalt and gravel roadways and parking areas, woods, and wetlands that are regulated federally and by the NYSDEC.

The Site is zoned by the City of Rochester as Harbortown Village District (H-V). Recreational use, commercial use, and residential use are permitted uses in the district.

1.2.2 Site History

The site has been operated commercially as a marina including boat slips, a boat repair shop, storage for boats and boat parts, and a retail boat refueling facility from approximately 1947 to present. The site also contains offices, a shop, and a parking area that was for patrons of the former Spirit of Rochester cruise boat, which ceased operation in 2003. A portion of the site was used as a railroad yard by the New York Central Railroad prior to the marina operation. Railroad spurs traversed the northern portion of the site from approximately 1918 to 1978. The off-site railroad spur along the western property boundary is still active.

In 2004 three (3) environmental site assessments and investigation were conducted on the site: a Phase I Environmental Site Assessment; a Limited Phase II Site Assessment, and a Phase II Site Assessment.

Gibbs Marina (leasee and current operator of the Genesee Marina) also conducted a sediment sampling program along the Genesee River and within the marina basin in the fall of 2006 as part of a dredging permitting program.

The NYSDEC Spills database indicates that there have been a total of 11 recorded spills at the site with one spill remaining open.

1.2.3 Geologic Conditions

The bedrock underlying the overburden deposits consists of Queenston Shale and was encountered at depths between 66 to 102 feet below ground surface.

The overburden at the site is characterized by two general subsurface areas: miscellaneous fill underlain by native soils. The fill material across the site ranges from 1.5 feet to 20 feet in thickness. The estimated fill thickness is shown in Figure 3. The native soils consist of brown silty peat underlain by gray clay and silt in some areas of the site and gray sandy clay and silt in other areas of the site.

The Genesee River, a Class B river, borders the site to the east and flows northerly. Surface water from the site flows towards the Genesee River. The depth to groundwater ranges from 0.16 to 7.33 feet across the site. Groundwater flow at the site appears to change seasonally. The Genesee River is hydraulically down gradient from the site during high groundwater conditions and hydraulically up gradient during low groundwater conditions.

Groundwater flow figure are included as Figure 4A and Figure 4B.

1.3 SUMMARY OF REMEDIAL INVESTIGATION FINDINGS

A Remedial Investigation (RI) was performed to characterize the nature and extent of contamination at the site. The results of the RI are described in detail in the following report:

"Remedial Investigation Report, Brownfield Cleanup Program, NYSDEC Site ID C828130, 118 Petten Street, Rochester, New York" dated September 2011. Generally, the RI determined that the primary contaminants of concern are volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) comprised mostly of polynuclear aromatic hydrocarbons (PAHs), and metals. These contaminants have been detected in soil, sediment, and/or groundwater samples collected from the site. The contamination appears to be moderate but widespread across the site. The contaminant(s) of concern identified at the Site are:

- Naphthalene
- Benzo(k)fluoranthene
- Benzo(b)fluoranthene
- Benzo(a)pyrene
- Chromium
- Copper
- Silver
- Mercury
- Lead
- Benzene
- Ethylbenzene
- Methyl-tert-butyl-ether (MTBE)
- Toluene
- Xylene (Mixed)

The contaminant(s) of concern exceed one or more of the applicable SCGs for:

- Groundwater
    - Soil
    - Sediment

Below is a summary of site conditions when the RI was performed between 2006 and 2007:

Sediments:

Six sediments samples were collected from upstream, downstream, within the marina basin, and along the marina's river frontage and were analyzed for the full Target Compound List (TCL) VOCS and SVOCs, Pesticides, PCBs, and Target Analyte List (TAL) Metal parameters as well as total organic carbon.

The Human Health Bioaccumulation Criteria was exceeded for several semi-volatile organic compounds and pesticides. One pesticide, gamma-chlordane, exceeded the Benthic Aquatic Life Chronic Toxicity Criteria.

Several metal compounds including arsenic, chromium, copper, and silver exceeded the Lowest Effect Level. Silver concentrations ranged from 3.1 to 8.1 ppm which exceeded the Severe Effect Level. Silver concentrations in the river sediment are attributable to an off-site upstream source.

The NYSDEC Division of Fish, Wildlife and Marine Resources reviewed the environmental data and determined that site contaminants at the site and in the sediment do not present a potential for significant fish or wildlife impacts.

Surface and Near-Surface Soil:

Thirty surface and near-surface soil samples were collected and submitted for the full TCL VOCs and SVOCs, Pesticides, PCBs, and TAL Metal parameters. The commercial soil cleanup objectives (SCO) for SVOCs including PAHs and/or metals were exceeded. PAH concentrations range from 1.1 to 9.7 parts per million (ppm). Metals highest exceedances included copper (850 ppm) and lead (439 ppm). The exceedances were moderate but widespread across the site. In the wetland and its associated buffer zone, metals and pesticides (4,4-DDE and 4,4-DDT) were detected above the ecological SCOs. The locations where constituents in surface and near-surface soil samples exceeded Unrestricted Use SCOs, Restricted Residential SCOs, and Restricted Commercial Use SCOs are shown on Figure 5.

Subsurface Soil:

Thirty-five subsurface soil samples were collected and submitted for the full TCL VOCs and SVOCs, Pesticides, PCBs, and TAL Metal parameters. The commercial SCOs were exceeded for SVOCs and/or metals. PAH concentrations ranged from 0.89 to 14 ppm. Metals highest exceedances included copper (440 ppm), lead (2300 ppm), and arsenic (169 ppm). The exceedances were moderate but widespread across the site. Subsurface soil samples collected in the wetlands and associated buffer zone did not exceed ecological SCOs. The locations where constituent in subsurface soil samples exceeded Unrestricted Use SCOs, Restricted Residential SCOs, and Restricted Commercial Use SCOs are shown on Figure 6.

Surface Water:

Three surface water samples were collected and analyzed for the full TCL VOCs and SVOCs, Pesticides, PCBs, and TAL Metal parameters, cyanide, and hardness.

Aluminum and iron exceeded the NYSDEC Surface Water Quality Standards for a Class B water body in all 3 of the surface water samples. The concentrations in the upstream and downstream concentrations were similar; therefore, attributed to naturally occurring background levels.

Groundwater:

Twenty-two groundwater monitoring wells were sampled. The groundwater samples were analyzed for the full TCL VOCs and SVOCs, Pesticides, PCBs, and TAL Metal parameters. Petroleum related compounds (VOCs and SVOCs) and metals were detected and exceeded groundwater standards or guidance values in 5 monitoring wells. Pesticides were detected and exceeded the groundwater standards or guidance values in 4 monitoring wells. Petroleum related compounds highest exceedances included benzene (600 ug/L), naphthalene (120 ug/L), xylenes - total (540 ug/L), and ethylbenzene (130 ug/L). Metals highest exceedance included mercury (2.4 ug/L), lead (352 ug/L), and copper (477 ug/L).

A select group of groundwater monitoring wells (13 wells) were resampled. Petroleum related compounds (VOCs and SVOCs), metals, and pesticides were detected and exceeded the groundwater standards or guidance values. Two groundwater monitoring wells had exceedances of VOC petroleum related compounds. The highest VOC petroleum exceedances included benzene (1200 ug/L), MTBE (33 ug/L), xylenes - total (730 ug/L), and toluene (890 ug/L). Four groundwater monitoring wells had SVOC petroleum related compound exceedances. One groundwater monitoring well had a metals exceedance of the standards or guidance value - mercury was detected at 1.3 ug/L. One groundwater monitoring well had a pesticide exceedance of the standards or guidance value - dieldrin was detected at 0.25 ug/L.

The locations of monitoring wells where the groundwater samples exceeded one or more groundwater standards or guidance values are shown on Figure 7.

Underground Storage Tanks:

Reportedly there are three (3) 550-gallon USTs that were closed in-place just east of Building 6. This is an area where petroleum-related VOCs and SVOCs were detected in the groundwater and petroleum-related SVOCs were detected in the subsurface soils.

There is an existing UST located in the current fueling area. This is an area where petroleum-related VOCs and SVOCS were detected in the groundwater.

The locations of these tanks, along with the location of an existing aboveground tank and former aboveground tank are shown on Figure 7.

Significant Threat Determination:

The NYSDEC in conjunction with NYSDOH has reviewed the environmental data submitted to date and determined that the site does not pose a significant threat to the general public and the environment.

1.4 SUMMARY OF REMEDIAL ACTIONS

The site will be remediated in accordance with a NYSDEC-approved Remedial Action Work Plan yet to be developed.

The following is a summary of the Remedial Actions to be performed at the site, as outlined in the NYSDEC March 2012 Decision Document:

The selected remedy is a Track 4 cleanup for restricted use that utilizes with site-specific soil cleanup objectives as well as engineering controls and institutional controls.

The elements of the selected remedy are as follows:

1. Remedial Design:

A remedial design program will be implemented for the area of the three closed in-place USTs to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program in this area. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows;

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gas and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and

- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Excavation:

Site-specific soil cleanup objectives (SCOs) relevant to the planned use of the site will be used to guide excavation of contaminated soils in the area of the three closed in place USTs. On-site soils which exceed site-specific SCOs will be excavated and transported off-site for disposal. The site-specific SCOs are commercial use SCOs as defined by 6 NYCRR Part 375-6.8 for all contaminants. It is anticipated that approximately 200 cubic yards of soil will be removed. Clean fill meeting the requirements of 6 NYCRR Part 375-6.8 will be brought in to replace the excavated soil and establish the designed grades at the site.

3. In-Situ Bioremediation:

Amendments will be placed in the open excavation in the area of the three closed in-place USTs to increase oxygen levels and enhance aerobic bioremediation to address residual impact within soil and/or groundwater. Approximately 525 pounds of amendments are anticipated to be used.

4. Cover System:

A site cover will be required to allow for commercial use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of one foot of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer in areas not used for vehicle or boat parking lots, roadway, or staging areas. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

5. Institutional Control:

Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;

- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH;
- prohibits agriculture or vegetable gardens on the controlled property; and
- requires compliance with the Department approved Site Management Plan.

6. Site Management Plan:

A Site Management Plan is required, which includes the following:

a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed in Item #5 above.

Engineering Controls: The site cover discussed in Item #4 above.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion if applicable should the on-site building become occupied and for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b, a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- monitoring of groundwater to assess the performance and effectiveness of the remedy;

- a schedule of monitoring and frequency of submittals to the Department;
- monitoring for vapor intrusion for any buildings occupied or developed on the site, as may be required by the Institutional and Engineering Control Plan discussed in Item 6a above.

The Track 4 remedial elements/areas are shown on Figure 8.

The remedy will be completed using a phased approach.

- Preparation and implementation of this Interim SMP is associated with a first phase of the remedy.
- The second phase involves preparation and implementation of a Remedial Action Work Plan (RAWP) that includes a Remedial Design Investigation (RDI) and Remedial Design Work Plan (RDWP) to further address the area of the Site where three reportedly closed-in-place underground storage tanks (USTs) are located along the east side of Building #6 on the Site. This phase includes further evaluation of soil and groundwater conditions in this area, and may also include soil removal and in-situ bioremediation.
- The third phase of the remedy involved design and installation of a cover system as an engineering control for the Site.

The fourth phase of the remedy involves preparation and implementation of institutional controls, a final site management plan and a final engineering report.

1.4.1 Site-Related Treatment Systems

No long-term treatment systems are planned to be installed as part of the site remedy.

1.4.2 Remaining Contamination

As of the time of preparation of this Interim SMP, no remediation has been performed at the Site.

Figure 5 summarizes the results of surface and near surface soil samples that meet or exceed Unrestricted Use SCOs, Restricted Residential Use SCOs, and Restricted Commercial Use SCOs.

Figure 6 summarizes the results of subsurface soil samples that meet or exceed Unrestricted Use SCOs, Restricted Residential SCOs, and Restricted Commercial Use SCOs.

2.0 ENGINEERING AND INSTITUTIONAL CONTROL PLAN

Since the remedy for the Site has not yet been implemented, Engineering Controls and some Institutional Controls are not included in this Interim SMP. Once the remedy has been substantially completed, a final SMP will be prepared that includes the complete components of the Engineering and Institutional Control Plan required by the March 2012 Decision Document.

2.1 INSTITUTIONAL CONTROLS

A series of Institutional Controls is required by the NYSDEC's March 2012 Decision Document to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the site to restricted commercial uses only. Adherence to these Institutional Controls on the site is required by the Environmental Easement (once recorded) and will be implemented under this Interim SMP. These Institutional Controls are:

- Compliance with this Interim SMP by the owner and occupants of the Site, and their successors and assigns;
- Environmental or public health monitoring must be performed as defined in this Interim SMP; and
- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in this Interim SMP.

Institutional Controls identified in the Interim SMP may not be discontinued without an amendment to or extinguishment of the Interim SMP.

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

- The property may only be used for restricted commercial or industrial use provided that the long-term Engineering and Institutional Controls included in this Interim SMP or as a part of the remedy are employed, although land use is subject to local zoning laws;
- The property may not be used for a higher level of use, such as unrestricted or restricted residential use without additional remediation and amendment of the Environmental Easement once recorded, as approved by the NYSDEC;

- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this Interim SMP;
- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use;
- The potential for vapor intrusion must be evaluated for any buildings developed on the Site , and any potential impacts that are identified must be monitored or mitigated; and
- Vegetable gardens and farming on the property are prohibited.

2.1.1 Excavation Work Plan

The site will be remediated for restricted commercial use. Any future intrusive work that will penetrate the cover system to be installed at the Site, or encounter or disturb the remaining contamination, including any modifications or repairs to the future cover system will be performed in compliance with the Excavation Work Plan (EWP) that is attached as Appendix B to this Interim SMP.

Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the site. A sample HASP is attached as Appendix C to this Interim SMP that is in current compliance with DER-10, and 29 CFR 1910, 29 CFR 1926, and all other applicable Federal, State and local regulations. Based on potential future changes to State and federal health and safety requirements, and specific methods employed by future contractors, the HASP and CAMP can be updated and re-submitted with the notification provided in Section A-1 of the EWP. Any intrusive construction work will be performed in compliance with the EWP, HASP and CAMP, and will be included in the periodic inspection and certification reports submitted under the Site Management Reporting Plan (See Section 5). Tentative CAMP monitoring locations are shown on Figure 9. The selection of CAMP monitoring locations will be based on the Site and weather conditions at the time of fieldwork activities.

The site owner and associated parties preparing the remedial documents submitted to the State, and parties performing this work, are completely responsible for the safe performance of all intrusive work, the structural integrity of excavations, proper disposal of excavation de-water, control of runoff from open excavations into remaining contamination, and for structures that may be affected by excavations (such as building foundations and bridge footings). The site owner will ensure that site development activities and Site maintenance activities will not interfere with, or otherwise impair or compromise, the engineering controls, or the implementation of the selected remedy, described in this Interim SMP.

2.1.2 Soil Vapor Intrusion Evaluation

Prior to the construction of any enclosed structures located on the Site that will be occupied , an SVI evaluation will be performed to determine whether any mitigation measures are necessary to eliminate potential exposure to vapors in the proposed structure. Alternatively, an SVI mitigation system may be installed as an element of the building foundation without first conducting an investigation. As part of the notification process presented in Section 2.2.1 (Notifications) of the Interim SMP, a change of use notification to the NYSDEC will include details on the evaluation for SVI for any new enclosed structures of planned substantial modifications to existing enclosed structures at the Site. This mitigation system will include a vapor barrier and passive sub-slab depressurization system that is capable of being converted to an active system. The NYSDEC and NYSDOH will evaluate the Site's environmental data (e.g., sub-slab soil gas, indoor air) after the installation of a passive system to determine if the passive system is sufficient to control SVI.

Prior to conducting an SVI investigation or installing a mitigation system, a work plan will be developed and submitted to the NYSDEC and NYSDOH for approval. This work plan will be developed in accordance with the most recent NYSDOH "Guidance for Evaluating Vapor Intrusion in the State of New York". Measures to be employed to mitigate potential vapor intrusion will be evaluated, selected, designed, installed, and maintained based on the SVI evaluation, the NYSDOH guidance, and construction details of the proposed structure.

Preliminary (unvalidated) SVI sampling data will be forwarded to the NYSDEC and NYSDOH for initial review and interpretation. Upon validation, the final data will be transmitted to the agencies, along with a recommendation for follow-up action, such as mitigation. SVI sampling results, evaluations, and follow-up actions will also be summarized in the next Periodic Review Report.

2.2 INSPECTIONS AND NOTIFICATIONS

Since the remedy for the Site has not yet been implemented, Inspections and some of the Notifications are not included in this Interim SMP. Once the remedy has been substantially completed, a final SMP will be prepared that includes the Inspections and complete Notifications.

2.2.1 Notifications

Notifications will be submitted by the property owner to the NYSDEC as needed for the following reasons:

- 60-day advance notice of any proposed changes in site use that are required under the terms of the Brownfield Cleanup Agreement (BCA), 6NYCRR Part 375, and/or Environmental Conservation Law.

- 7-day advance notice of any proposed ground-intrusive activities pursuant to the Excavation Work Plan.

- Any change in the ownership of the site or the responsibility for implementing this Interim SMP will include the following notifications:

    - At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser has been provided with a copy of the Brownfield Cleanup Agreement (BCA), and all approved work plans and reports, including this Interim SMP.

    - Within 15 days after the transfer of all or part of the site, the new owner's name, contact representative, and contact information will be confirmed in writing.

2.3 CONTINGENCY PLAN

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions.

2.3.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance, the Owner or Owner's representative(s) should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to Day Environmental, Inc. These emergency contact lists must be maintained in an easily accessible location at the site.

Table A: Emergency Contact Numbers

Medical, Fire, and Police:	911
One Call Center:	(800) 272-4480 (3 day notice required for utility mark out)
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline:	(800) 457-7362

Table B: Contact Numbers

Jeffrey Danzinger, Environmental Professional, Day Environmental, Inc.	(585) 454-0210
Charlotte Theobald, Project Manager, NYSDEC	(585) 226-5354

* Note: Contact numbers subject to change and should be updated as necessary

2.3.2 Map and Directions to Nearest Health Facility

Site Location: 118 Petten Street, Rochester, New York

Nearest Hospital Name: Rochester General Hospital

Hospital Location: 1425 Portland Avenue, Rochester, New York

Hospital Telephone: (585) 922-4000

Emergency Department Telephone: (585) 922-5462

Directions to the Hospital:

1. West on Petten Street (0.1 Miles
2. South on Lake Avenue (3.8 Miles)
3. East on NY Route 104E/Ridge Road East (2.0 Miles)
4. South on Carter Street (0.1 Miles)

Total Distance: Approximately 6 Miles

Total Estimated Time: 15 Minutes

A map to the hospital is included in the HASP in Appendix C.

2.3.3 Response Procedures

As appropriate, the fire department and other emergency response group will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan (Table A). The list will also be posted prominently at the site and made readily available to all personnel at all times.

3.0 SITE MONITORING PLAN

Since the remedy for the Site has not yet been implemented, A Site Monitoring Plan is not included in this Interim SMP. Once the remedy has been substantially completed, a final SMP will be prepared that includes a Site Monitoring Plan, if necessary.

4.0 OPERATION AND MAINTENANCE PLAN

Since the remedy for the Site has not yet been implemented, an Operation and Maintenance Plan is not included in this Interim SMP. Once the remedy has been substantially completed, a final SMP will be prepared that includes an Operation and Maintenance Plan, if necessary.

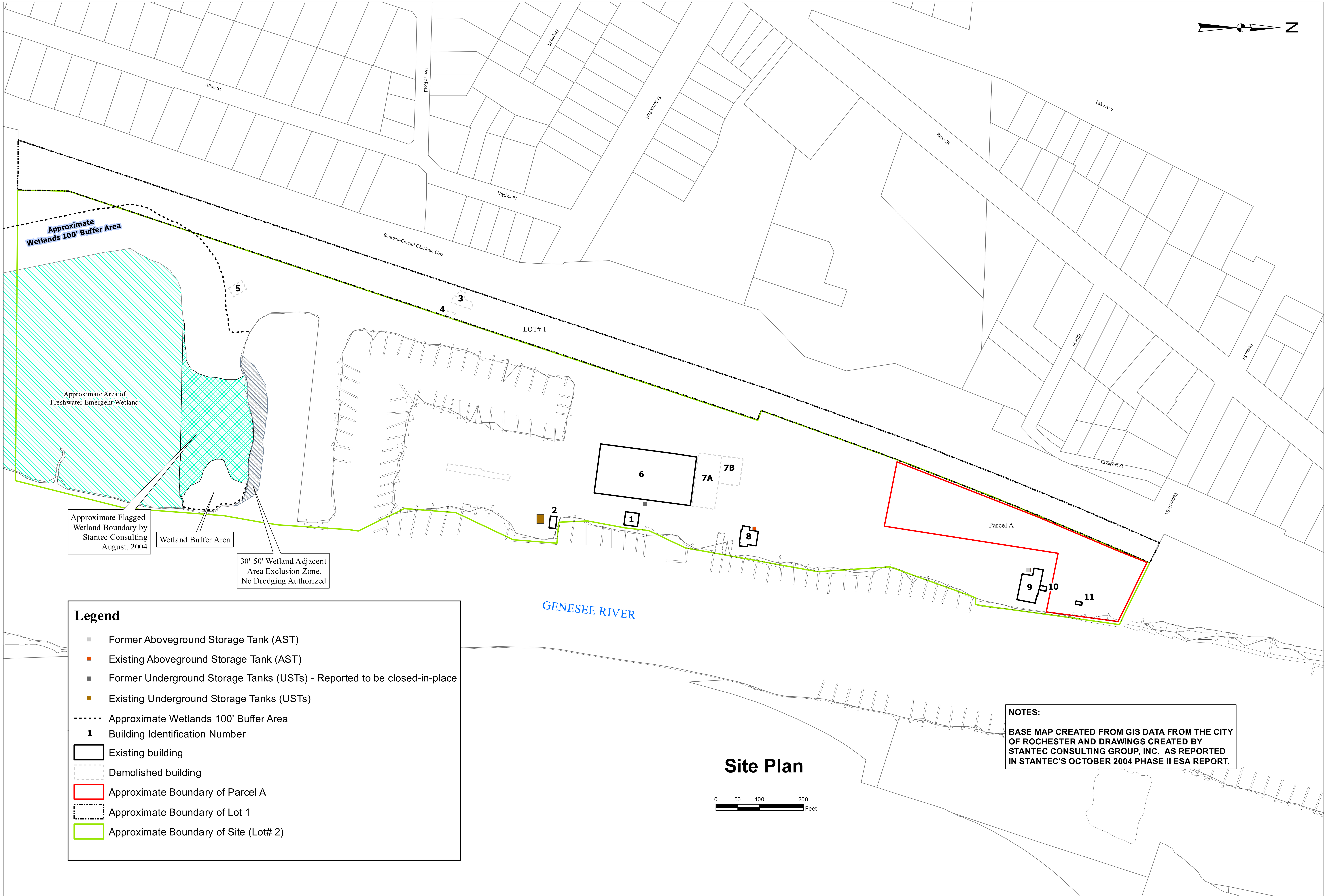
5.0 INSPECTIONS, REPORTING AND CERTIFICATIONS

Since the remedy for the Site has not yet been implemented, Inspections and Certifications are not included in this Interim SMP. Reporting of documentation associated with the ISMP activities such as, but not limited to, laboratory data packages, DUSRs, waste disposal documentation, figures, photographic log, CAMP data, and certificates of origin for imported soil/fill material to the site, will be provided in monthly progress reports that are submitted to the NYSDEC on the 10th day of each month as per the BCA. Once the remedy has been substantially completed, a final SMP will be prepared that includes a section on Inspections, Reporting and Certifications.

FIGURES

Last Date Saved: 17 Oct 2012 Document Path: E:\GIS\GIS Mapping\Genesee_Marina\4741R-12Genmar\4741R-12Genmar - Figure 1.mxd

Date: 10-26-2012	**day** **DAY ENVIRONMENTAL, INC.** Environmental Consultants Rochester, New York 14606 New York, New York 10170	Project Title: GENESEE MARINA 118 PETTEN STREET ROCHESTER, NEW YORK (NYSDEC SITE No. C828130) SITE MANAGEMENT PLAN	Project No.: 4741R-12
Drawn By: CPS		Drawing Title: Project Locus Map	FIGURE 1
Scale: AS NOTED			


Allen St
Denise Road
Dugan Pl
St John Park
River St
Lake Ave
Hughes Pl
Railroad-Conrail Charlotte Line
Approximate Wetlands 100' Buffer Area
LOT# 1
Approximate Area of Freshwater Emergent Wetland
Approximate Flagged Wetland Boundary by Stantec Consulting August, 2004
Wetland Buffer Area
30'-50' Wetland Adjacent Area Exclusion Zone. No Dredging Authorized
Parcel A
Lakeport St
Petten St
Ellis Pl
GENESEE RIVER
1
2
3
4
5
6
7A
7B
8
9
10
11
Legend
Former Aboveground Storage Tank (AST)
Existing Aboveground Storage Tank (AST)
Former Underground Storage Tanks (USTs) - Reported to be closed-in-place
Existing Underground Storage Tanks (USTs)
Approximate Wetlands 100' Buffer Area
1 Building Identification Number
Existing building
Demolished building
Approximate Boundary of Parcel A
Approximate Boundary of Lot 1
Approximate Boundary of Site (Lot# 2)
NOTES:
BASE MAP CREATED FROM GIS DATA FROM THE CITY OF ROCHESTER AND DRAWINGS CREATED BY STANTEC CONSULTING GROUP, INC. AS REPORTED IN STANTEC'S OCTOBER 2004 PHASE II ESA REPORT.
Site Plan
0 50 100 200 Feet
N

DESIGNED BY: DJG — DATE: 10-2012
DRAWN BY: CPS — DATE: 10-2012
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APPROVED BY: TKH — DATE: 10-2012
SCALE: AS NOTED — DATE: 10-26-2012

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DRAWING ALTERATION

REVISIONS	DATE	BY
Addition of Building #3 and Building #4	09/20/11	CAH

day
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ENVIRONMENTAL CONSULTANTS
ROCHESTER, NEW YORK 14606
NEW YORK, NEW YORK 10170

PROJECT TITLE:
GENESEE MARINA
118 PETTEN STREET
ROCHESTER, NEW YORK
SITE MANAGEMENT PLAN (NYSDEC SITE NO. C828130)

DRAWING TITLE:
SITE PLAN

PROJECT NO.:
4741R-12

FIGURE 2

N
Approximate Wetlands 100' Buffer Area
Approximate Area of Freshwater Emergent Wetland
Approximate Flagged Wetland Boundary by Stantec Consulting August, 2004
Wetland Buffer Area
30'-50' Wetland Adjacent Area Exclusion Zone. No Dredging Authorized
GENESEE RIVER
Afton St
Hughes Pl
Railroad-Conrail Charlotte Line
St Johns Park
River St
Lake Ave
Lakeport St
Petten St
Legend
Estimated Fill Thickness (feet)
11 - 12
10 - 11
9 - 10
8 - 9
7 - 8
6 - 7
5 - 6
4 - 5
3 - 4
2 - 3
1 - 2
0 - 1
Fill Thickness Contour Line (feet)
Approximate Wetlands 100' Buffer Area
Approximate Boundary of Parcel A
Approximate Boundary of Site (Lot# 2)
0 50 100 200 Feet
NOTES:
BASE MAP CREATED FROM GIS DATA FROM THE CITY OF ROCHESTER AND DRAWINGS CREATED BY STANTEC CONSULTING GROUP, INC. AS REPORTED IN STANTEC'S OCTOBER 2004 PHASE II ESA REPORT.
FILL THICKNESSES BASED ON TEST PIT AND TEST BORING LOGS DEVELOPED DURING THE REMEDIAL INVESTIGATION STUDY

DESIGNED BY: TKH	DATE: 10-2012
DRAWN BY: CAH	DATE: 10-2012
CHECKED BY: TKH	DATE: 10-2012
APPROVED BY: DDD	DATE: 10-2012
SCALE: AS NOTED	DATE: 10-26-2012

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ROCHESTER, NEW YORK 14606
NEW YORK, NEW YORK 10170

PROJECT TITLE:
GENESEE MARINA
118 PETTEN STREET
ROCHESTER, NEW YORK

SITE MANAGMENT PLAN (NYSDEC SITE NO. C828130)

DRAWING TITLE:
ESTIMATED FILL THICKNESS ISOPACH MAP

PROJECT NO.:
4741R-12

FIGURE 3

Approximate Wetlands 100' Buffer Area
Approximate Area of Freshwater Emergent Wetland
GM-DAY-MW8 (246.87')
GM-MW27 (247.57')
GM-MW31 (Not Measured)
GM-DAY-MW1 (246.77')
GM-DAY-MW3 (247.72')
GM-DAY-MW9 (246.95')
GM-DAY-MW4 (246.82')
GM-MW22R (Not Measured)
GM-MW23 (246.73')
GM-DAY-MW5 (247.75')
GM-MW16 (246.80')
GM-MW15 (246.43')
GM-DAY-MW2 (246.75')
GM-MW10 (244.05')
GM-MW14 (246.83')
GM-MW34R (246.87')
GM-DAY-MW6 (246.89')
GM-MW37 (Damaged)
GM-MW36 (247.25')
GM-DAY-MW7 (246.56')
GM-DAY-MW10 (247.60')
GM-MW9 (246.73')
GM-MW7R (246.90')
247.5
247
246.5
GENESEE RIVER
Approximate Flagged Wetland Boundary by Stantec Consulting August, 2004
Wetland Buffer Area
30'-50' Wetland Adjacent Area Exclusion Zone. No Dredging Authorized
N
0 50 100 200 Feet
Legend
Former Aboveground Storage Tank (AST)
Existing Aboveground Storage Tank (AST)
Former Underground Storage Tanks (USTs) - Reported to be closed-in-place
Existing Underground Storage Tanks (USTs)
Approximate Wetlands 100' Buffer Area
Existing building
Demolished building
Approximate Boundary of Parcel A
Approximate Boundary of Site (Lot# 2)
Monitoring well locations with groundwater elevations in feet
Potentiometric groundwater contour
Approximate groundwater flow direction
NOTES:
BASE MAP CREATED FROM GIS DATA FROM THE CITY OF ROCHESTER AND DRAWINGS CREATED BY STANTEC CONSULTING GROUP, INC. AS REPORTED IN STANTEC'S OCTOBER 2004 PHASE II ESA REPORT.
GM-MW10: GROUNDWATER ELEVATION BELIEVED ANOMALOUS DUE TO LOCATION OF WELL NEAR DRAINAGE DITCH, THEREFORE THIS WELL WAS NOT USED IN THE COMPUTER MODELING OF GROUNDWATER FLOW
GM-MW37: NON FUNCTIONAL WELL
REMEDIAL INVESTIGATION MONITORING WELL LOCATIONS AS DETERMINED BY JIM PARKER, LICENSED SURVEYOR.

DESIGNED BY: DJG DATE 10-2012
DRAWN BY: CPS DATE 10-2012
CHECKED BY: RJM DATE 10-2012
APPROVED BY: DDD DATE 10-2012
SCALE: AS NOTED DATE 10-26-2012

REVISIONS | DATE | BY

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ROCHESTER, NEW YORK 14606
NEW YORK, NEW YORK 10170

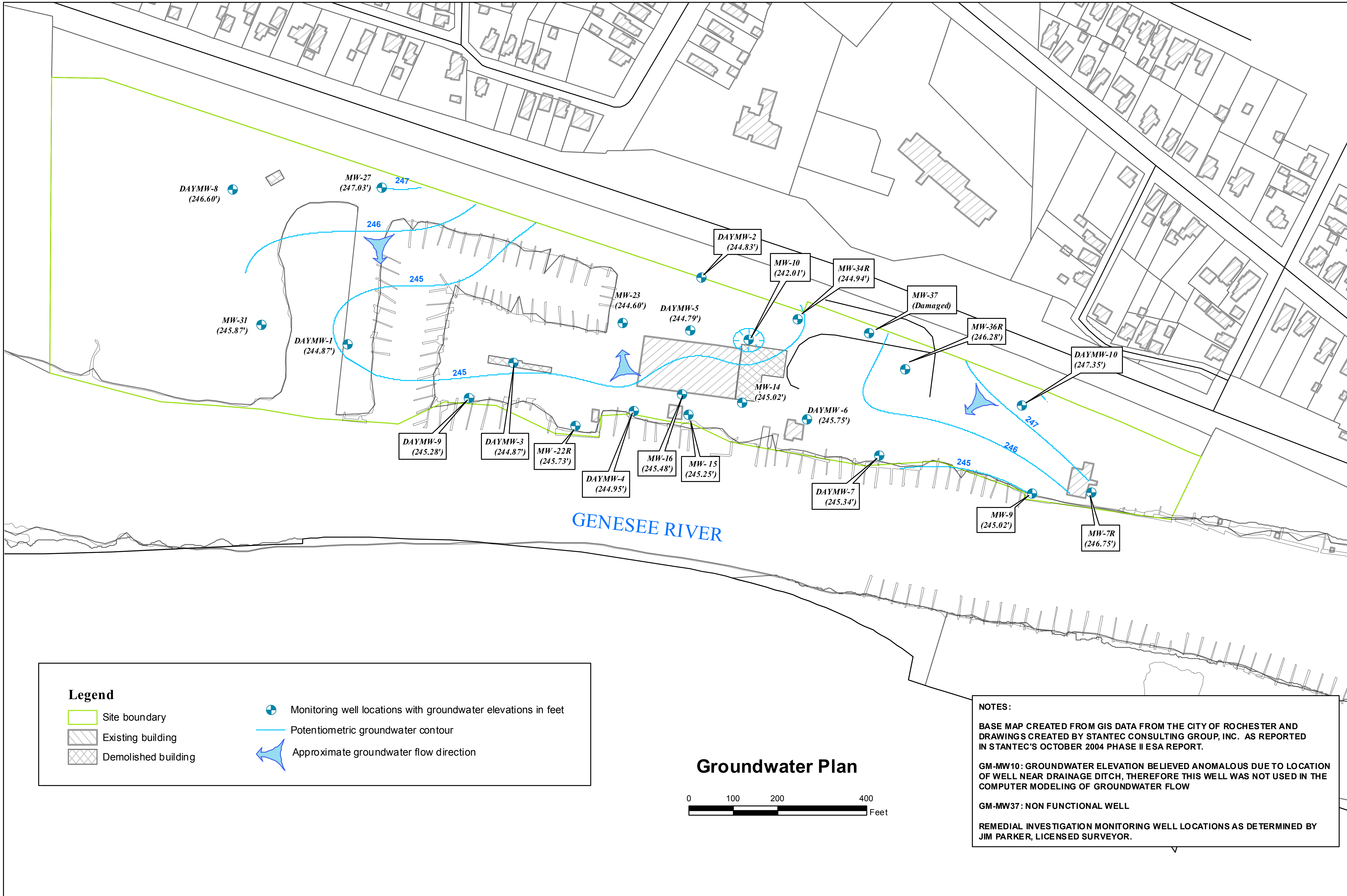
PROJECT TITLE: GENESEE MARINA
118 PETTEN STREET
ROCHESTER, NEW YORK
SITE MANAGEMENT PLAN (NYSDEC SITE NO. C828130)

DRAWING TITLE: POTENTIOMETRIC GROUNDWATER CONTOUR MAP
FOR AUGUST 8, 2008

PROJECT NO.: 4741R-12

FIGURE 4A

Document Path: E:\GIS\GIS Mapping\Genesee_Marina\4741R-12Genmar\4741R-12Genmar - Figure 4B.mxd



NOTES:

BASE MAP CREATED FROM GIS DATA FROM THE CITY OF ROCHESTER AND DRAWINGS CREATED BY STANTEC CONSULTING GROUP, INC. AS REPORTED IN STANTEC'S OCTOBER 2004 PHASE II ESA REPORT.

GM-MW10: GROUNDWATER ELEVATION BELIEVED ANOMALOUS DUE TO LOCATION OF WELL NEAR DRAINAGE DITCH, THEREFORE THIS WELL WAS NOT USED IN THE COMPUTER MODELING OF GROUNDWATER FLOW

GM-MW37: NON FUNCTIONAL WELL

REMEDIAL INVESTIGATION MONITORING WELL LOCATIONS AS DETERMINED BY JIM PARKER, LICENSED SURVEYOR.

DESIGNED BY: DJG	DATE: 10-2012	
DRAWN BY: CPS	DATE: 10-2012	
CHECKED BY: TKH	DATE: 10-2012	
APPROVED BY: DJG	DATE: 10-2012	
SCALE: AS NOTED	DATE: 10-26-2012	

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NEW YORK, NEW YORK 10170

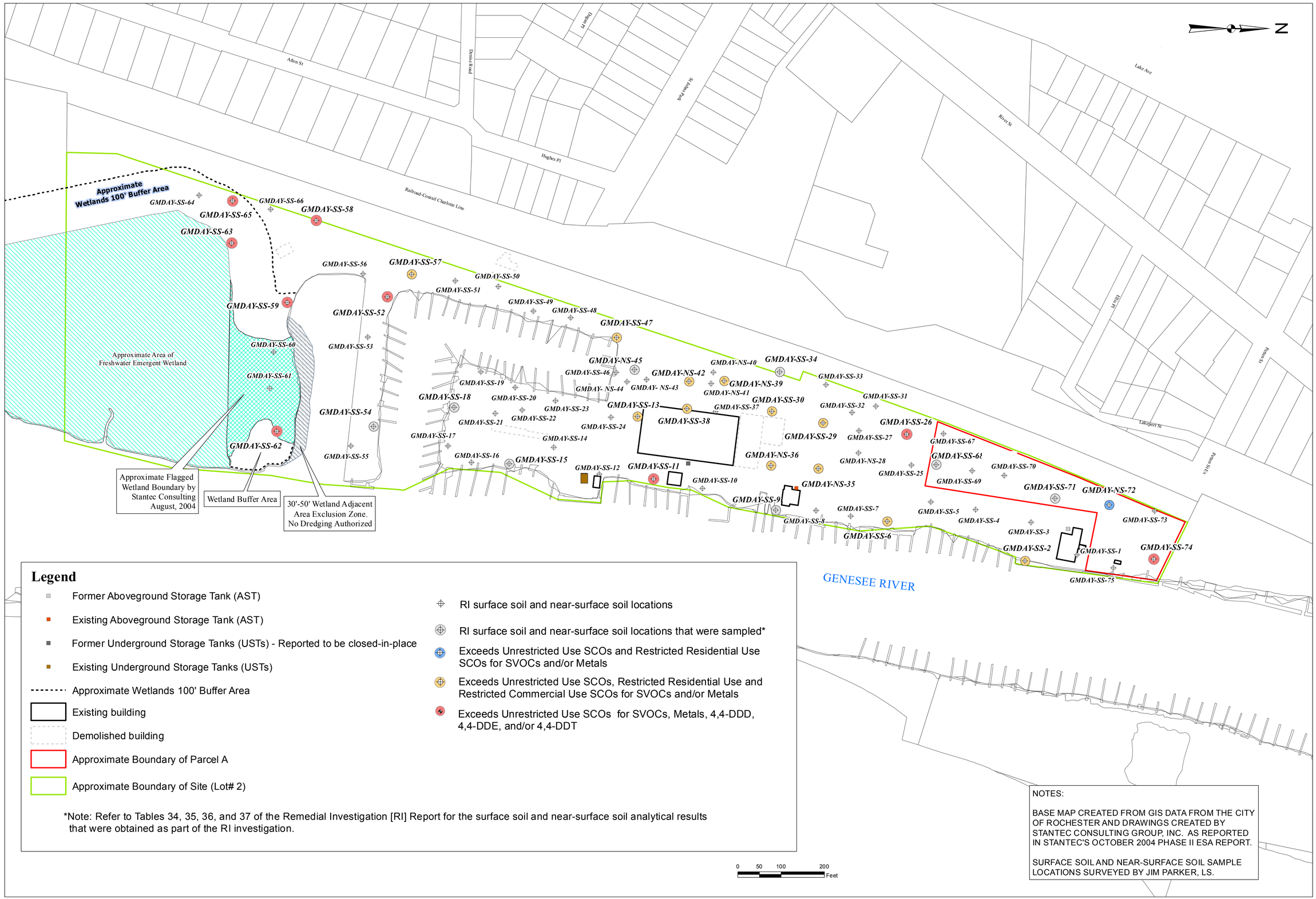
PROJECT TITLE:
GENESEE MARINA
118 PETTEN STREET
ROCHESTER, NEW YORK

SITE MANAGEMENT PLAN (NYSDEC SITE NO. C828130)

DRAWING TITLE:
POTENTIOMETRIC GROUNDWATER CONTOUR MAP FOR DECEMBER 15, 2008

PROJECT NO.:
4741R-12

FIGURE 4B



Legend

- Former Aboveground Storage Tank (AST)
- Existing Aboveground Storage Tank (AST)
- Former Underground Storage Tanks (USTs) - Reported to be closed-in-place
- Existing Underground Storage Tanks (USTs)
- Approximate Wetlands 100' Buffer Area
- Existing building
- Demolished building
- Approximate Boundary of Parcel A
- Approximate Boundary of Site (Lot# 2)

- RI surface soil and near-surface soil locations
- RI surface soil and near-surface soil locations that were sampled*
- Exceeds Unrestricted Use SCOs and Restricted Residential Use SCOs for SVOCs and/or Metals
- Exceeds Unrestricted Use SCOs, Restricted Residential Use and Restricted Commercial Use SCOs for SVOCs and/or Metals
- Exceeds Unrestricted Use SCOs for SVOCs, Metals, 4,4-DDD, 4,4-DDE, and/or 4,4-DDT

*Note: Refer to Tables 34, 35, 36, and 37 of the Remedial Investigation [RI] Report for the surface soil and near-surface soil analytical results that were obtained as part of the RI investigation.

NOTES:

BASE MAP CREATED FROM GIS DATA FROM THE CITY OF ROCHESTER AND DRAWINGS CREATED BY STANTEC CONSULTING GROUP, INC. AS REPORTED IN STANTEC'S OCTOBER 2004 PHASE II ESA REPORT.

SURFACE SOIL AND NEAR-SURFACE SOIL SAMPLE LOCATIONS SURVEYED BY JIM PARKER, LS.

DESIGNED BY:	DATE
DJG	10-2012
DRAWN BY:	DATE
CPS	10-2012
CHECKED BY:	DATE
RJM	10-2012
APPROVED BY:	DATE
TKH	10-2012
SCALE:	DATE
AS NOTED	10-26-2012

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DATE	BY	REVISIONS
08-2011	CAH	Color designations and legend definition for ecological SCO samples.
08-2011	CAH	Addition of Building #3 and Building #4.

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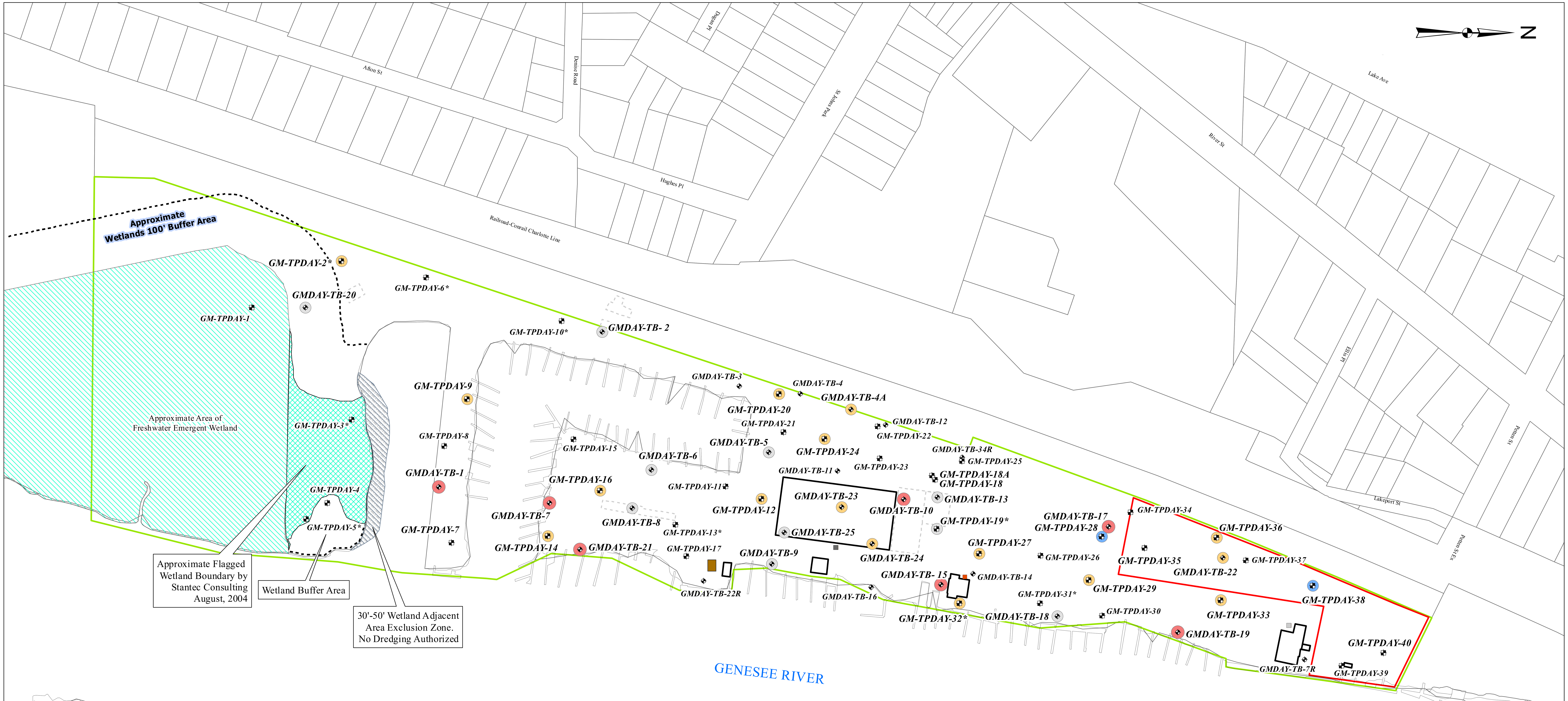
NEW YORK, NEW YORK 10170

PROJECT TITLE:
GENESEE MARINA
118 PETTEN STREET
ROCHESTER, NEW YORK

DRAWING TITLE:
SITE MANAGEMENT PLAN (NYSDEC SITE NO. C828130)
SURFACE SOIL AND NEAR-SURFACE SOIL SAMPLE LOCATIONS (PLUS LOCATIONS THAT HAD EXCEEDANCES OF SCOs ARE SHOWN)

PROJECT NO.:
4741R-12

FIGURE 5



Legend

- Former Aboveground Storage Tank (AST)
- Existing Aboveground Storage Tank (AST)
- Former Underground Storage Tanks (USTs) - Reported to be closed-in-place
- Existing Underground Storage Tanks (USTs)
- Approximate Wetlands 100' Buffer Area
- Existing building
- Demolished building
- Approximate Boundary of Parcel A
- Approximate Boundary of Site (Lot# 2)
- Remedial Investigation (RI) Test Pit Locations
- RI Test Boring Locations
- Remedial Investigation (RI) Test Pit Locations that were sampled*
- RI Test Boring Locations that were sampled*
- Exceeds Unrestricted Use SCOs and Restricted Residential Use SCOs for SVOCs and/or Metals
- Exceeds Unrestricted Use SCOs, Restricted Residential Use and Restricted Commercial Use SCOs for SVOCs and/or Metals
- Exceeds Unrestricted Use SCOs for VOCs, Metals, 4,4-DDD, 4,4-DDT, and/or Dieldrin

*Note: Refer to Tables 38, 39, 40, and 41 of the RI Report for the subsurface soil analytical results that were obtained as part of the RI Investigation.

0 50 100 200 Feet

NOTES:

BASE MAP CREATED FROM GIS DATA FROM THE CITY OF ROCHESTER AND DRAWINGS CREATED BY STANTEC CONSULTING GROUP, INC. AS REPORTED IN STANTEC'S OCTOBER 2004 PHASE II ESA REPORT.

TEST PIT AND TEST BORING LOCATIONS FOR REMEDIAL INVESTIGATION AS DETERMINED BY JIM PARKER, LS.

* = Location was not surveyed due to missing stake / marker. Locations were tape measured in the field and coordinates were determined from CAD drawings. Coordinates for these locations are considered approximate.

DESIGNED BY:	DATE
DJG	10-2012
DRAWN BY: CPS	10-2012
CHECHED BY: RJM	10-2012
APPROVED BY: TKH	10-2012
SCALE: AS NOTED	10-26-2012

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REVISIONS	DATE	BY
Addition of Building #3 and Building #4	09/2011	CAH

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ENVIRONMENTAL CONSULTANTS
ROCHESTER, NEW YORK 14606
NEW YORK, NEW YORK 10170

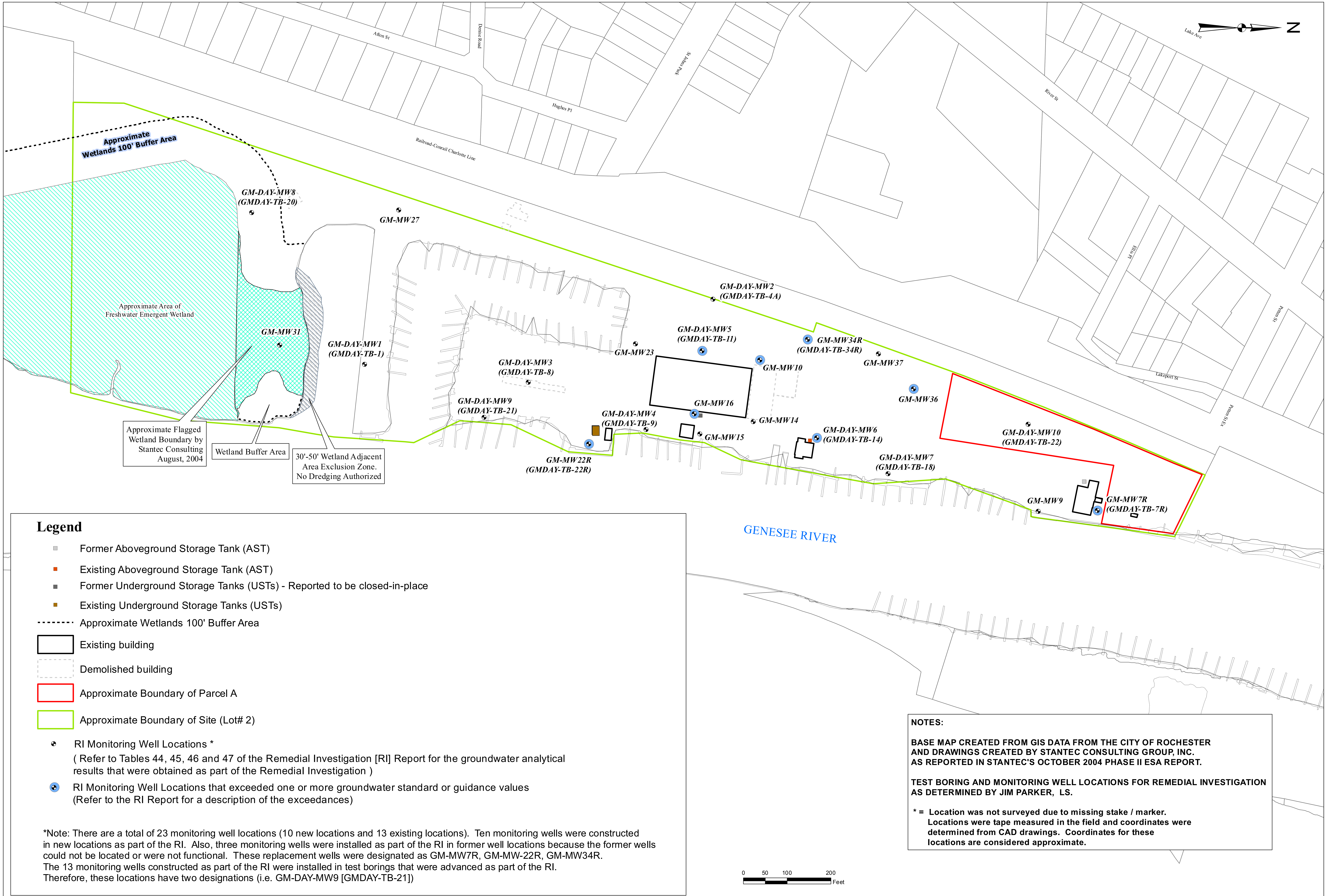
PROJECT TITLE:
GENESEE MARINA
118 PETTEN STREET
ROCHESTER, NEW YORK

SITE MANAGEMENT PLAN (NYSDEC SITE NO. C828130)

DRAWING TITLE:
TEST PIT AND TEST BORING LOCATIONS (PLUS LOCATIONS THAT HAD EXCEEDANCES OF SCOs ARE SHOWN)

PROJECT NO.:
4741R-12

FIGURE 6



Legend

- Former Aboveground Storage Tank (AST)
- Existing Aboveground Storage Tank (AST)
- Former Underground Storage Tanks (USTs) - Reported to be closed-in-place
- Existing Underground Storage Tanks (USTs)
- Approximate Wetlands 100' Buffer Area
- Existing building
- Demolished building
- Approximate Boundary of Parcel A
- Approximate Boundary of Site (Lot# 2)
- RI Monitoring Well Locations *
  (Refer to Tables 44, 45, 46 and 47 of the Remedial Investigation [RI] Report for the groundwater analytical results that were obtained as part of the Remedial Investigation)
- RI Monitoring Well Locations that exceeded one or more groundwater standard or guidance values
  (Refer to the RI Report for a description of the exceedances)

*Note: There are a total of 23 monitoring well locations (10 new locations and 13 existing locations). Ten monitoring wells were constructed in new locations as part of the RI. Also, three monitoring wells were installed as part of the RI in former well locations because the former wells could not be located or were not functional. These replacement wells were designated as GM-MW7R, GM-MW-22R, GM-MW34R. The 13 monitoring wells constructed as part of the RI were installed in test borings that were advanced as part of the RI. Therefore, these locations have two designations (i.e. GM-DAY-MW9 [GMDAY-TB-21])

NOTES:

BASE MAP CREATED FROM GIS DATA FROM THE CITY OF ROCHESTER AND DRAWINGS CREATED BY STANTEC CONSULTING GROUP, INC. AS REPORTED IN STANTEC'S OCTOBER 2004 PHASE II ESA REPORT.

TEST BORING AND MONITORING WELL LOCATIONS FOR REMEDIAL INVESTIGATION AS DETERMINED BY JIM PARKER, LS.

* = Location was not surveyed due to missing stake / marker. Locations were tape measured in the field and coordinates were determined from CAD drawings. Coordinates for these locations are considered approximate.

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REVISIONS	DATE	BY
Addition of Building #3 and Building #4	09/2011	CAH
Change in designation of monitoring well GM-MW-36 to depict exceedance	09/2011	CAH

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ENVIRONMENTAL CONSULTANTS
ROCHESTER, NEW YORK 14606
NEW YORK, NEW YORK 10170

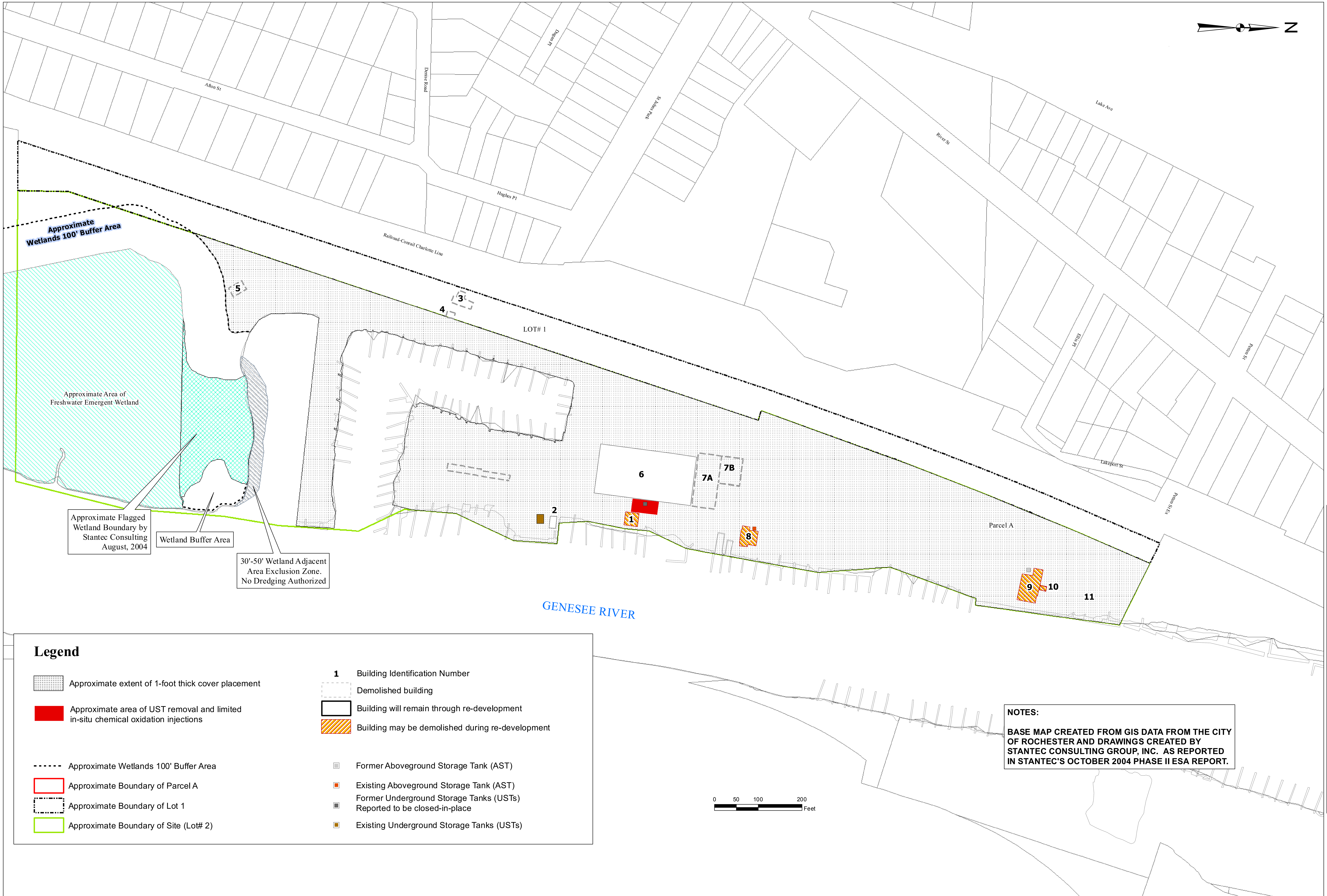
PROJECT TITLE:
GENESEE MARINA
118 PETTEN STREET
ROCHESTER, NEW YORK

SITE MANAGEMENT PLAN (NYSDEC SITE NO. C828130)

DRAWING TITLE:
MONITORING WELL LOCATIONS (PLUS LOCATIONS THAT HAD EXCEEDANCES OF GROUNDWATER STANDARDS OR GUIDANCE VALUES ARE SHOWN)

PROJECT NO.: **4741R-12**

FIGURE 7



N
Alton St
Denise Road
Dugan Pl
St Johns Park
Hughes Pl
Railroad-Conrail Charlotte Line
River St
Lake Ave
Ellis Pl
Petten St
Lakeport St
Petten St Ex
Approximate Wetlands 100' Buffer Area
Approximate Area of Freshwater Emergent Wetland
Approximate Flagged Wetland Boundary by Stantec Consulting August, 2004
Wetland Buffer Area
30'-50' Wetland Adjacent Area Exclusion Zone. No Dredging Authorized
LOT# 1
Parcel A
1
2
3
4
5
6
7A
7B
8
9
10
11
GENESEE RIVER
Legend
Approximate extent of 1-foot thick cover placement
Approximate area of UST removal and limited in-situ chemical oxidation injections
Approximate Wetlands 100' Buffer Area
Approximate Boundary of Parcel A
Approximate Boundary of Lot 1
Approximate Boundary of Site (Lot# 2)
1 Building Identification Number
Demolished building
Building will remain through re-development
Building may be demolished during re-development
Former Aboveground Storage Tank (AST)
Existing Aboveground Storage Tank (AST)
Former Underground Storage Tanks (USTs) Reported to be closed-in-place
Existing Underground Storage Tanks (USTs)
NOTES:
BASE MAP CREATED FROM GIS DATA FROM THE CITY OF ROCHESTER AND DRAWINGS CREATED BY STANTEC CONSULTING GROUP, INC. AS REPORTED IN STANTEC'S OCTOBER 2004 PHASE II ESA REPORT.
0 50 100 200
Feet

DESIGNED BY: TKH	DATE: 10-2012
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CHECKED BY: TKH	DATE: 10-2012
APPROVED BY: DDD	DATE: 10-2012
SCALE: AS NOTED	DATE: 10-26-2012

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ROCHESTER, NEW YORK 14606
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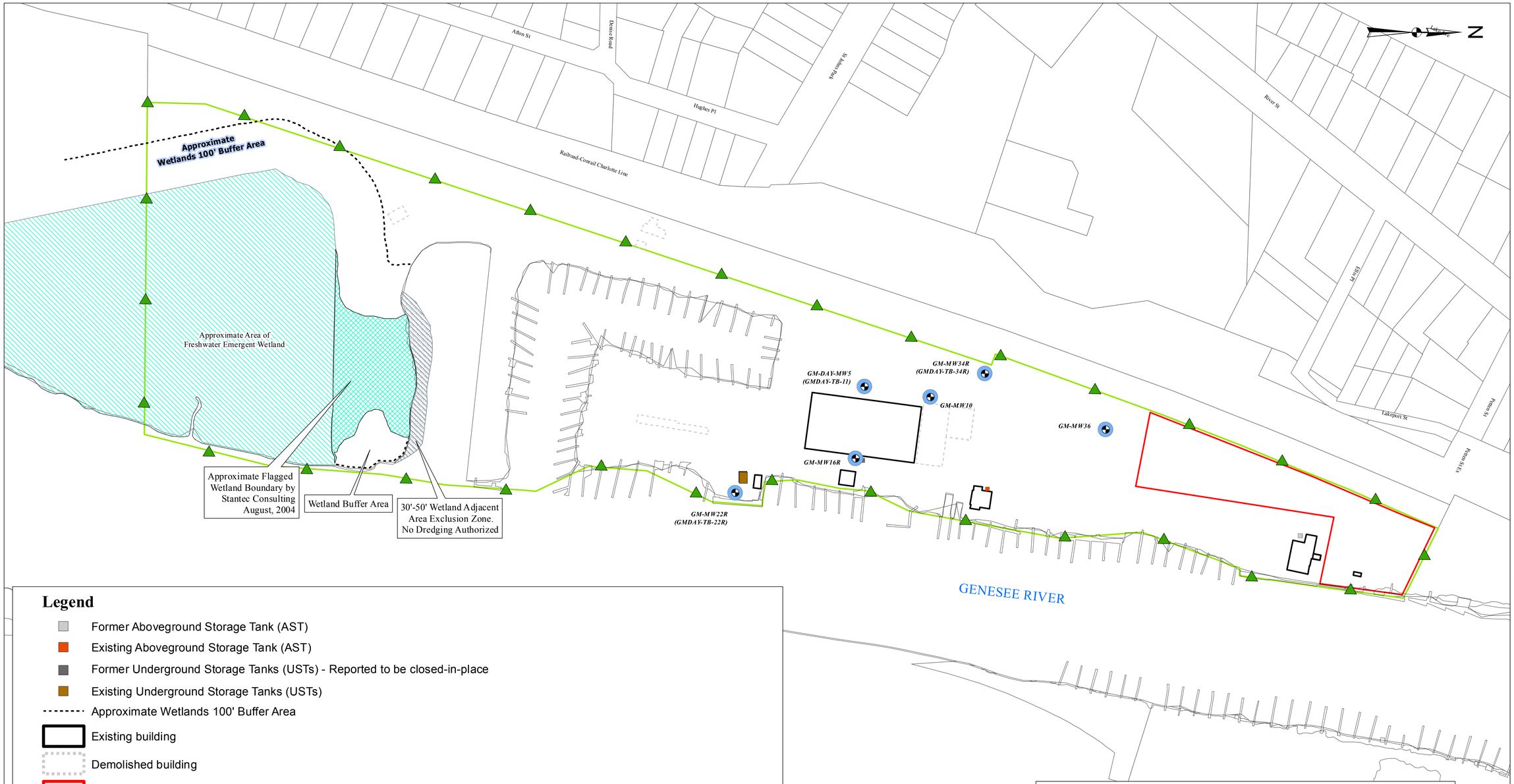
PROJECT TITLE:
GENESEE MARINA
118 PETTEN STREET
ROCHESTER, NEW YORK
SITE MANAGEMENT PLAN (NYSDEC SITE NO. C828130)

DRAWING TITLE:
SITE PLAN SHOWING TRACK 4 REMEDIAL ELEMENTS / AREAS

PROJECT NO.:
4741R-12

FIGURE 8



Legend

- Former Aboveground Storage Tank (AST)
- Existing Aboveground Storage Tank (AST)
- Former Underground Storage Tanks (USTs) - Reported to be closed-in-place
- Existing Underground Storage Tanks (USTs)
- Approximate Wetlands 100' Buffer Area
- Existing building
- Demolished building
- Approximate Boundary of Parcel A
- Approximate Boundary of Site (Lot# 2)
- Proposed CAMP Air Monitoring Locations
- Groundwater Monitoring Well Locations

*Note: There are a total of 23 monitoring well locations (10 new locations and 13 existing locations). Ten monitoring wells were constructed in new locations as part of the RI. Also, three monitoring wells were installed as part of the RI in former well locations because the former wells could not be located or were not functional. These replacement wells were designated as GM-MW7R, GM-MW-22R, GM-MW34R. The 13 monitoring wells constructed as part of the RI were installed in test borings that were advanced as part of the RI. Therefore, these locations have two designations (i.e. GM-DAY-MW9 [GMDAY-TB-21])

NOTES:

CAMP MONITORING LOCATIONS ARE SUBJECT TO CHANGE BASED ON CONDITIONS IN THE FIELD.

BASE MAP CREATED FROM GIS DATA FROM THE CITY OF ROCHESTER AND DRAWINGS CREATED BY STANTEC CONSULTING GROUP, INC. AS REPORTED IN STANTEC'S OCTOBER 2004 PHASE II ESA REPORT.

TEST BORING AND MONITORING WELL LOCATIONS FOR REMEDIAL INVESTIGATION AS DETERMINED BY JIM PARKER, LS.

*** = Location was not surveyed due to missing stake / marker. Locations were tape measured in the field and coordinates were determined from CAD drawings. Coordinates for these locations are considered approximate.**

0 50 100 200 Feet

DESIGNED BY: DJG — DATE 10-2012
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APPROVED BY: DDD — DATE 10-2012
SCALE: AS NOTED — DATE 10-26-2012

DAY ENVIRONMENTAL, INC.
DRAWING ALTERATION

DATE	BY	REVISIONS
09/2011	CAH	Addition of Building #3 and Building #4
09/2011	CAH	Change in delegation of monitoring well GM-MW-36 to object exceedance

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NEW YORK, NEW YORK 10170

PROJECT TITLE:
GENESEE MARINA
118 PETTEN STREET
ROCHESTER, NEW YORK

SITE MANAGEMENT PLAN (NYSDEC SITE NO. C828130)

DRAWING TITLE:
MONITORING WELL LOCATIONS AND CAMP AIR MONITORING LOCATIONS

PROJECT NO.:
4741R-12

FIGURE 9

APPENDIX A

NYSDEC Part 375 Soil Cleanup Objectives

375-6.8 Soil cleanup objective tables.

(a) Unrestricted use soil cleanup objectives.

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
Metals		
Arsenic	7440-38-2	13 [c]
Barium	7440-39-3	350 [c]
Beryllium	7440-41-7	7.2
Cadmium	7440-43-9	2.5 [c]
Chromium, hexavalent [e]	18540-29-9	1[b]
Chromium, trivalent [e]	16065-83-1	30 [c]
Copper	7440-50-8	50
Total Cyanide [e, f]		27
Lead	7439-92-1	63 [c]
Manganese	7439-96-5	1600 [c]
Total Mercury		0.18 [c]
Nickel	7440-02-0	30
Selenium	7782-49-2	3.9[c]
Silver	7440-22-4	2
Zinc	7440-66-6	109 [c]
PCBs/Pesticides		
2,4,5-TP Acid (Silvex) [f]	93-72-1	3.8
4,4'-DDE	72-55-9	0.0033 [b]
4,4'-DDT	50-29-3	0.0033 [b]
4,4'-DDD	72-54-8	0.0033 [b]
Aldrin	309-00-2	0.005 [c]
alpha-BHC	319-84-6	0.02
beta-BHC	319-85-7	0.036
Chlordane (alpha)	5103-71-9	0.094

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
delta-BHC [g]	319-86-8	0.04
Dibenzofuran [f]	132-64-9	7
Dieldrin	60-57-1	0.005 [c]
Endosulfan I [d, f]	959-98-8	2.4
Endosulfan II [d, f]	33213-65-9	2.4
Endosulfan sulfate [d, f]	1031-07-8	2.4
Endrin	72-20-8	0.014
Heptachlor	76-44-8	0.042
Lindane	58-89-9	0.1
Polychlorinated biphenyls	1336-36-3	0.1
Semivolatile organic compounds		
Acenaphthene	83-32-9	20
Acenapthylene [f]	208-96-8	100 [a]
Anthracene [f]	120-12-7	100 [a]
Benz(a)anthracene [f]	56-55-3	1 [c]
Benzo(a)pyrene	50-32-8	1 [c]
Benzo(b)fluoranthene [f]	205-99-2	1 [c]
Benzo(g,h,i)perylene [f]	191-24-2	100
Benzo(k)fluoranthene [f]	207-08-9	0.8 [c]
Chrysene [f]	218-01-9	1 [c]
Dibenz(a,h)anthracene [f]	53-70-3	0.33 [b]
Fluoranthene [f]	206-44-0	100 [a]
Fluorene	86-73-7	30
Indeno(1,2,3-cd)pyrene [f]	193-39-5	0.5 [c]
m-Cresol [f]	108-39-4	0.33 [b]
Naphthalene [f]	91-20-3	12
o-Cresol [f]	95-48-7	0.33 [b]

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
p-Cresol [f]	106-44-5	0.33 [b]
Pentachlorophenol	87-86-5	0.8 [b]
Phenanthrene [f]	85-01-8	100
Phenol	108-95-2	0.33 [b]
Pyrene [f]	129-00-0	100
Volatile organic compounds		
1,1,1-Trichloroethane [f]	71-55-6	0.68
1,1-Dichloroethane [f]	75-34-3	0.27
1,1-Dichloroethene [f]	75-35-4	0.33
1,2-Dichlorobenzene [f]	95-50-1	1.1
1,2-Dichloroethane	107-06-2	0.02 [c]
cis -1,2-Dichloroethene [f]	156-59-2	0.25
trans-1,2-Dichloroethene [f]	156-60-5	0.19
1,3-Dichlorobenzene [f]	541-73-1	2.4
1,4-Dichlorobenzene	106-46-7	1.8
1,4-Dioxane	123-91-1	0.1 [b]
Acetone	67-64-1	0.05
Benzene	71-43-2	0.06
n-Butylbenzene [f]	104-51-8	12
Carbon tetrachloride [f]	56-23-5	0.76
Chlorobenzene	108-90-7	1.1
Chloroform	67-66-3	0.37
Ethylbenzene [f]	100-41-4	1
Hexachlorobenzene [f]	118-74-1	0.33[b]
Methyl ethyl ketone	78-93-3	0.12
Methyl tert-butyl ether [f]	1634-04-4	0.93
Methylene chloride	75-09-2	0.05

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
n - Propylbenzene [f]	103-65-1	3.9
sec-Butylbenzene [f]	135-98-8	11
tert-Butylbenzene [f]	98-06-6	5.9
Tetrachloroethene	127-18-4	1.3
Toluene	108-88-3	0.7
Trichloroethene	79-01-6	0.47
1,2,4-Trimethylbenzene [f]	95-63-6	3.6
1,3,5-Trimethylbenzene[f]	108-67-8	8.4
Vinyl chloride[f]	75-01-4	0.02
Xylene (mixed)	1330-20-7	0.26

All soil cleanup objectives (SCOs) are in parts per million (ppm).

Footnotes

[a] The SCOs for unrestricted use were capped at a maximum value of 100 ppm. See Technical Support Document (TSD), section 9.3.

[b] For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.

[c] For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.

[d] SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate.

[e] The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

[f] Protection of ecological resources SCOs were not developed for contaminants identified in Table 375-6.8(b) with "NS". Where such contaminants appear in Table 375-6.8(a), the applicant may be required by the Department to calculate a protection of ecological resources SCO according to the TSD.

(b) Restricted use soil cleanup objectives.

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Metals							
Arsenic	7440-38-2	16[f]	16[f]	16[f]	16[f]	13[f]	16[f]
Barium	7440-39-3	350[f]	400	400	10,000 [d]	433	820
Beryllium	7440-41-7	14	72	590	2,700	10	47
Cadmium	7440-43-9	2.5[f]	4.3	9.3	60	4	7.5
Chromium, hexavalent [h]	18540-29-9	22	110	400	800	1[e]	19
Chromium, trivalent [h]	16065-83-1	36	180	1,500	6,800	41	NS
Copper	7440-50-8	270	270	270	10,000 [d]	50	1,720
Total Cyanide [h]		27	27	27	10,000 [d]	NS	40
Lead	7439-92-1	400	400	1,000	3,900	63[f]	450
Manganese	7439-96-5	2,000[f]	2,000[f]	10,000 [d]	10,000 [d]	1600[f]	2,000[f]
Total Mercury		0.81[j]	0.81[j]	2.8[j]	5.7[j]	0.18[f]	0.73
Nickel	7440-02-0	140	310	310	10,000 [d]	30	130
Selenium	7782-49-2	36	180	1,500	6,800	3.9[f]	4[f]
Silver	7440-22-4	36	180	1,500	6,800	2	8.3
Zinc	7440-66-6	2200	10,000 [d]	10,000 [d]	10,000 [d]	109[f]	2,480
PCBs/Pesticides							
2,4,5-TP Acid (Silvex)	93-72-1	58	100[a]	500[b]	1,000[c]	NS	3.8
4,4'-DDE	72-55-9	1.8	8.9	62	120	0.0033 [e]	17
4,4'-DDT	50-29-3	1.7	7.9	47	94	0.0033 [e]	136
4,4'- DDD	72-54-8	2.6	13	92	180	0.0033 [e]	14
Aldrin	309-00-2	0.019	0.097	0.68	1.4	0.14	0.19
alpha-BHC	319-84-6	0.097	0.48	3.4	6.8	0.04[g]	0.02
beta-BHC	319-85-7	0.072	0.36	3	14	0.6	0.09
Chlordane (alpha)	5103-71-9	0.91	4.2	24	47	1.3	2.9

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
delta-BHC	319-86-8	100[a]	100[a]	500[b]	1,000[c]	0.04[g]	0.25
Dibenzofuran	132-64-9	14	59	350	1,000[c]	NS	210
Dieldrin	60-57-1	0.039	0.2	1.4	2.8	0.006	0.1
Endosulfan I	959-98-8	4.8[i]	24[i]	200[i]	920[i]	NS	102
Endosulfan II	33213-65-9	4.8[i]	24[i]	200[i]	920[i]	NS	102
Endosulfan sulfate	1031-07-8	4.8[i]	24[i]	200[i]	920[i]	NS	1,000[c]
Endrin	72-20-8	2.2	11	89	410	0.014	0.06
Heptachlor	76-44-8	0.42	2.1	15	29	0.14	0.38
Lindane	58-89-9	0.28	1.3	9.2	23	6	0.1
Polychlorinated biphenyls	1336-36-3	1	1	1	25	1	3.2
Semivolatiles							
Acenaphthene	83-32-9	100[a]	100[a]	500[b]	1,000[c]	20	98
Acenapthylene	208-96-8	100[a]	100[a]	500[b]	1,000[c]	NS	107
Anthracene	120-12-7	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Benz(a)anthracene	56-55-3	1[f]	1[f]	5.6	11	NS	1[f]
Benzo(a)pyrene	50-32-8	1[f]	1[f]	1[f]	1.1	2.6	22
Benzo(b)fluoranthene	205-99-2	1[f]	1[f]	5.6	11	NS	1.7
Benzo(g,h,i)perylene	191-24-2	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Benzo(k)fluoranthene	207-08-9	1	3.9	56	110	NS	1.7
Chrysene	218-01-9	1[f]	3.9	56	110	NS	1[f]
Dibenz(a,h)anthracene	53-70-3	0.33[e]	0.33[e]	0.56	1.1	NS	1,000[c]
Fluoranthene	206-44-0	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Fluorene	86-73-7	100[a]	100[a]	500[b]	1,000[c]	30	386
Indeno(1,2,3-cd)pyrene	193-39-5	0.5[f]	0.5[f]	5.6	11	NS	8.2
m-Cresol	108-39-4	100[a]	100[a]	500[b]	1,000[c]	NS	0.33[e]
Naphthalene	91-20-3	100[a]	100[a]	500[b]	1,000[c]	NS	12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
o-Cresol	95-48-7	100[a]	100[a]	500[b]	1,000[c]	NS	0.33[e]
p-Cresol	106-44-5	34	100[a]	500[b]	1,000[c]	NS	0.33[e]
Pentachlorophenol	87-86-5	2.4	6.7	6.7	55	0.8[e]	0.8[e]
Phenanthrene	85-01-8	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Phenol	108-95-2	100[a]	100[a]	500[b]	1,000[c]	30	0.33[e]
Pyrene	129-00-0	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Volatiles							
1,1,1-Trichloroethane	71-55-6	100[a]	100[a]	500[b]	1,000[c]	NS	0.68
1,1-Dichloroethane	75-34-3	19	26	240	480	NS	0.27
1,1-Dichloroethene	75-35-4	100[a]	100[a]	500[b]	1,000[c]	NS	0.33
1,2-Dichlorobenzene	95-50-1	100[a]	100[a]	500[b]	1,000[c]	NS	1.1
1,2-Dichloroethane	107-06-2	2.3	3.1	30	60	10	0.02[f]
cis-1,2-Dichloroethene	156-59-2	59	100[a]	500[b]	1,000[c]	NS	0.25
trans-1,2-Dichloroethene	156-60-5	100[a]	100[a]	500[b]	1,000[c]	NS	0.19
1,3-Dichlorobenzene	541-73-1	17	49	280	560	NS	2.4
1,4-Dichlorobenzene	106-46-7	9.8	13	130	250	20	1.8
1,4-Dioxane	123-91-1	9.8	13	130	250	0.1[e]	0.1[e]
Acetone	67-64-1	100[a]	100[b]	500[b]	1,000[c]	2.2	0.05
Benzene	71-43-2	2.9	4.8	44	89	70	0.06
Butylbenzene	104-51-8	100[a]	100[a]	500[b]	1,000[c]	NS	12
Carbon tetrachloride	56-23-5	1.4	2.4	22	44	NS	0.76
Chlorobenzene	108-90-7	100[a]	100[a]	500[b]	1,000[c]	40	1.1
Chloroform	67-66-3	10	49	350	700	12	0.37
Ethylbenzene	100-41-4	30	41	390	780	NS	1
Hexachlorobenzene	118-74-1	0.33[e]	1.2	6	12	NS	3.2
Methyl ethyl ketone	78-93-3	100[a]	100[a]	500[b]	1,000[c]	100[a]	0.12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Methyl tert-butyl ether	1634-04-4	62	100[a]	500[b]	1,000[c]	NS	0.93
Methylene chloride	75-09-2	51	100[a]	500[b]	1,000[c]	12	0.05
n-Propylbenzene	103-65-1	100[a]	100[a]	500[b]	1,000[c]	NS	3.9
sec-Butylbenzene	135-98-8	100[a]	100[a]	500[b]	1,000[c]	NS	11
tert-Butylbenzene	98-06-6	100[a]	100[a]	500[b]	1,000[c]	NS	5.9
Tetrachloroethene	127-18-4	5.5	19	150	300	2	1.3
Toluene	108-88-3	100[a]	100[a]	500[b]	1,000[c]	36	0.7
Trichloroethene	79-01-6	10	21	200	400	2	0.47
1,2,4-Trimethylbenzene	95-63-6	47	52	190	380	NS	3.6
1,3,5- Trimethylbenzene	108-67-8	47	52	190	380	NS	8.4
Vinyl chloride	75-01-4	0.21	0.9	13	27	NS	0.02
Xylene (mixed)	1330-20-7	100[a]	100[a]	500[b]	1,000[c]	0.26	1.6

All soil cleanup objectives (SCOs) are in parts per million (ppm).
NS=Not specified. See Technical Support Document (TSD).

Footnotes

[a] The SCOs for residential, restricted-residential and ecological resources use were capped at a maximum value of 100 ppm. See TSD section 9.3.

[b] The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

[c] The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

[d] The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.

[e] For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

[f] For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

[g] This SCO is derived from data on mixed isomers of BHC.

[h] The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

[i] This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

[j] This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.

APPENDIX B

Excavation Work Plan

EXCAVATION WORK PLAN

A-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the site owner or their representative will notify the Department. Currently, this notification will be made to:

Batholomew H. Putzig, P.E

Regional Hazardous Waste Remediation Engineer

6274 East Avon-Lima Road, Avon, New York 14414This notification will include:

- A detailed description of the work to be performed, including the location and areal extent, plans for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control,
- A summary of environmental conditions anticipated in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work,
- A summary of the applicable components of this EWP
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120,
- A copy of the contractor's health and safety plan, in electronic format, if it differs from the HASP provided in Appendix C of this document,
- Identification of disposal facilities for potential waste streams,
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

A-2 SOIL SCREENING METHODS

Visual, olfactory and instrument-based soil screening will be performed by a qualified environmental professional during all remedial and development excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed regardless of when the invasive

work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the COC.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal, material that requires testing, material that can be returned to the subsurface, and material that can be used as cover soil. Material with PID soil screening values greater than 10 ppm total VOCs will be segregated and deemed contaminated unless actual analytical laboratory testing proves otherwise.

A-3 STOCKPILE METHODS

Depending on the quantity of material excavated, impacted materials may be loaded directly into trucks for transport off-site for disposal, placed within roll-off containers and/or placed in a soil stockpile that is underlain and covered with a minimum of 12 millimeters of poly plastic sheeting. Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points. As an option, small volumes of soil/fill that are generated can be placed in NYSDOT-approved open head 55-gallon drums.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC.

A-4 MATERIALS EXCAVATION AND LOAD OUT

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the property and its contractors are solely responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the site.

Loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements). Before leaving the Site, loaded and unloaded outbound trucks must be decontaminated (e.g., swept, scraped, washed off) to the extent deemed necessary to ensure Site materials (e.g., soil, fill) are not tracked off-site. In addition, the truck tailgates must be checked to ensure they are free of Site materials and adequately secured. If required based on the type and extent of invasive

work proposed, a truck wash will be operated on-site. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the site until the activities performed under this section are complete.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

A-5 MATERIALS TRANSPORT OFF-SITE

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State and federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

As necessary, trucks will be decontaminated (i.e., swept, scraped washed off) prior to leaving the site. Any resulting decontamination wastes will be collected and handled in accordance with Sections A-6 and A-7.

A map and directions from the Site via approved truck transport routes will be obtained by the transporter prior to transporting contaminated materials off-site. Trucks loaded with site materials will exit the vicinity of the site using only these approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport; [(g) community input [where necessary]]

Trucks will be prohibited from stopping and idling in the neighborhood outside the project site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

A-6 MATERIALS DISPOSAL OFF-SITE

All soil/fill/solid waste excavated and removed from the Site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6 NYCRR Part 360) and Federal regulations. If disposed of soil/fill from the Site is proposed for unregulated off-site disposal (e.g., clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this Site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in a Monthly Progress Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Track 1 unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

A-7 MATERIALS REUSE ON-SITE

In the event that excavation activities at the Site encounter potentially contaminated materials, the materials may be re-used on-site in accordance with guidelines as set forth below in this Interim SMP. Chemical criteria for unrestricted on-site re-use or off-site reuse are presented within the text provided below. The qualified environmental professional will ensure that procedures defined for materials re-use in this Interim SMP are followed, and that unacceptable material does not remain on-site. Since this is an Interim SMP, and this Site will ultimately utilize a cover system as an engineering control, contaminated on-site material (including historic fill and contaminated soil that is acceptable for re-use on-site) does not require analytical testing, and will be placed below: a) a demarcation layer and a minimum half foot of clean soil or stone; or b) an impervious surface. Unless the material is found to meet the criteria specified below, it will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

In order to qualify for unrestricted on-site re-use (i.e. as cover within landscaping berms, or as backfill for subsurface utilities), or off-site re-use, the material must:

- Comply with the remedial action objectives identified in the RWP.
- Be free of extraneous debris or solid waste.

- Consist of soil or other unregulated material as set forth in 6NYCRR Part 360.
- Meet Part 375 Unrestricted Use SCOs for all compounds.

Be tested at the rate outlined in Table A.

Table A

Required number of Soil Samples to determine re-use suitability of excavated on-site soils.

Contaminant	**VOCs**	**SVOCs, Inorganics & PCBs/Pesticides**	
Soil Quantity ($yd^{3)}$	**Discrete Samples**	**Composite**	**Discrete Samples/Composite**
0-50	1	1	3-5 discrete samples from different locations in the fill or soil to be re-used will comprise a composite sample for analysis
50-100	2	1	
100-200	3	1	
200-300	4	1	
300-400	4	2	
400-500	5	2	
500-800	6	2	
800-1000	7	2	
> 1000	Add an additional 2 VOC and 1 composite for each additional 1,000 cubic yards, or consult with NYSDEC DER Project Manager		

Based on the testing outcome, soil may be used in the following manner under this Interim SMP:

- Soil originating on the Site that complies with Unrestricted Use SCOs for all compounds set forth in 6NYCRR Part 375 Table 375-6.8(a) may be re-used without restriction on or off the Site. Table 375-6.8(a) is included in Appendix A.
- Soil that meets the more stringent of Restricted Commercial Use SCOs or Protection of Groundwater SCOs for all compounds [set forth in 6 NYCRR Part 375 Table 375-6.8(b) that is included in Appendix A] may be re-used on-site without restriction.

- Soil that exceeds Restricted Commercial Use SCOs or Protection of Groundwater SCOs [set forth in 6 NYCRR Part 375 Table 375-6.8(b) that is included in Appendix A] may be re-used on-site; however, it must be placed below 1) a demarcation layer and a minimum half foot of Site soil/fill that meets the more stringent of Restricted Commercial Use SCOs or Protection of Groundwater SCOs, or with imported soil/fill that meets the more stringent of Restricted Residential Use SCOs or Protection of Groundwater SCOs; or 2) an impervious surface. The location(s) where it is re-used must be documented so that it is addressed in the future in accordance with the components of the final remedy for the Site.
- Soil that exceeds Unrestricted Use SCOs set forth in 6 NYCRR Part 375 Table 375-6.8(a) in Appendix A may not be re-used off-site, unless first approved by the NYSDEC for re-use at a property with Institutional Control subject to a 6 NYCRR Part 360 Beneficial Use Determination.

Demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

A-8 FLUIDS MANAGEMENT

Liquids to be removed from the site, including excavation dewatering and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will be managed off-site, or appropriately tested, treated, and discharged on-site on a case by case basis in accordance with applicable regulations with NYSDEC approval.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) will be performed under a SPDES permit.

A-9 COVER SYSTEM RESTORATION

Under the Interim SMP there is no cover system in place; however, any area of excavation will be restored to the previous grade with similar material that was in place prior to the excavation activities, unless being covered by new structures or improvements that have been approved by the NYSDEC.

A-10 BACKFILL FROM OFF-SITE SOURCES

Materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the site.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site.

Imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards for imported backfill and cover soils at the Site is the lesser of the SCOs for Restricted Residential Use and the Protection of Groundwater as referenced in 6 NYCRR Part 375 Table 375-6.8(b) included in Appendix A. The Protection of Ecological Resources SCOs in 6 NYCRR Part 375 Table 375-6.8(b) must also be met for imported materials that are to be placed within the boundary of the regulated wetland and associated buffer zone on the southern portion of the Site. Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the site without prior approval by NYSDEC. Solid waste will not be imported onto the Site.

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Unless immediately being used, imported soil/fill will be covered with and staged on tarps/poly sheeting, separate from excavated materials, to prevent wind and precipitation erosion.

A-11 STORMWATER POLLUTION PREVENTION

During excavation activities barriers and hay bale checks will be installed and inspected once a week and after every storm event in accordance with applicable regulations. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters

Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

A-12 CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the periodic reports prepared pursuant to Section 5 of the SMP.

A-13 COMMUNITY AIR MONITORING PLAN

The CAMP is included in the HASP that has been developed for the Site (refer to Appendix C). CAMP continuous monitoring will be implemented for all ground intrusive activities at the Site, and CAMP periodic monitoring will be implemented for non-intrusive activities. The locations of air sampling stations that will be used based on generally prevailing wind conditions, and also on where Site work is being performed, are shown in Figure 9 of the SMP. These locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least two downwind monitoring stations. In addition, fixed monitoring stations will be located at the Site perimeter next to residential areas in proximity to areas being worked at the Site, regardless of wind direction, since they are considered sensitive receptors.

Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

A-14 ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors off-site and on-site. Specific odor control methods to be used on a routine basis may include limiting the extent of open excavations, the use of physical barriers or ventilation systems (i.e. in the event interior excavations are required), or other methods deemed appropriate at the time of excavation. If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the property

owner's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

Necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods .

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

A-15 DUST CONTROL PLAN

This dust suppression plan addresses dust management during invasive on-site work and includes, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-site water truck, water tank, or existing water supply for road wetting. The equipment will be capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water spraying .

A-16 OTHER NUISANCES

As necessary, a plan for rodent control will be developed and utilized by the contractor prior to and during site clearing and site grubbing, and during all remedial work.

As necessary, a plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

APPENDIX C

Health and Safety Plan and Community Air Monitoring Plan

HEALTH AND SAFETY PLAN

BROWNFIELD CLEANUP PROGRAM
118 PETTEN STREET
ROCHESTER, NEW YORK
NYSDEC SITE No. C828130

Prepared For:	Genesee Marina, Inc. 118 Petten Street Rochester, New York
Prepared by:	Day Environmental, Inc. 1563 Lyell Avenue Rochester, New York 14606
Project No.:	4741R-12
Date:	November 2013

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ATTACHMENTS

1.0 INTRODUCTION

This Health and Safety Plan (HASP) outlines the policies and procedures under the New York State Department of Environmental Protection (NYSDEC) Brownfield Cleanup Program (BCP) that are necessary to protect workers and the public from potential environmental hazards posed during activities that have the potential to disturb contaminated media (e.g. soil, gravel, water, fill, etc.).. The subject property (Site) is a marina located in an urban setting and consists of approximately 25 acres, with an estimated 2,500 feet of frontage along the western shore of the Genesee River south of the Port of Rochester. The marina includes multiple buildings and more than 200 boat slips. There are two boat ramps located along the riverfront. The Site also contains asphalt and gravel roadways and parking areas, woods, and wetlands that are regulated federally and by the NYSDEC. The property is addressed as118 Petten Street, City of Rochester, County of Monroe, New York (NYSDEC Site ID C828130). Attachment 1 depicts the general location of the Site. As outlined in this HASP, the above activities with the potential to disturb contaminated media shall be conducted in a manner to minimize the probability of exposure, injury, accident, or incident occurrence.

Although the HASP focuses on the specific work activities planned for this Site, it must remain flexible due to the nature of this work. Conditions may change and unforeseen situations can arise that require deviations from the original HASP.

1.1 Site History/Overview

In May 2005, the Site property was subdivided into two lots to allow development of the Genesee Riverway Trail by the City of Rochester (City) on Lot #1. For purposes of this report, the Site is defined as Lot #2 in its entirety. The Site is currently bounded to the west by Lot #1, which is now owned by the City. An active railroad spur owned by New York Central Lines LLC is located on the west side of Lot #1. The Site is bounded to the west by an active railroad spur, to the north by land owned by the City, to the east by the Genesee River, and to the south by land (vacant) owned by the City. Residential properties are located across the Genesee River and on the opposite side of the railroad spur to the west.

The Site has been operated commercially as a marina including boat slips, a boat repair shop, storage for boats and boat parts, and a retail boat refueling facility from approximately 1947 to the present. The Site has multiple areas that were historically filled with construction and demolition (C&D) debris and dredge spoils. The Site also contains offices, a shop, and a parking area for the former *Spirit of Rochester* cruise boat, which ceased operations in 2003. Historic petroleum releases have occurred at the Site in the refueling area and the parking lot area. Drums that contain chemicals associated with marina operations, portable gasoline tanks, aboveground storage tanks (ASTs), and underground storage tanks (USTs) have been or are located at the Site. The Site is a registered bulk petroleum storage facility with three registered fuel tanks located at the refueling area. The Site currently has three septic systems, and sanitary/storm sewers are not present at the Site.

The New York Central Railroad prior to the marina operation used a portion of the Site as a railroad yard. Railroad spurs traversed the northern portion of the Site from approximately 1918 to 1978. The off-site railroad spur along the western property boundary is still active. In the area formerly used as a railroad yard, the fill material contains railroad cinder and slag.

The Site is a Monroe County Environmental Management Council (EMC) Waste Disposal Site (Number RO-109). The Site was used for the disposal of C&D debris from the 1960's until recently. The dumping observed by Monroe County also included dredge spoils.

The Site is serviced by the public water system. The Monroe County Department of Public Health (MCDPH) has no records of public or private drinking water wells or process water wells within a 0.25-mile radius of the Site. A review of a document titled "Ground Water Resources of Monroe County," (1935) revealed no groundwater supply wells on, or in the immediate area of, the Site.

Previous environmental work identified that various media (soil, groundwater, fill) on portions of the Site were contaminated with volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, and/or polychlorinated biphenyls (PCBs). Constituents on-site that exceed NYSDEC Part 375 Unrestricted Use soil cleanup objectives SCOs and/or NYSDEC groundwater standards/guidance values include VOCs, SVOCs, pesticides, and metals.

1.2 Planned Activities Covered by HASP

Planned activities covered by this HASP include:

- Intrusive activities including investigation of closed in-place USTs and possible removal of the UST(s) and contaminated soil, if present;
- Activities during redevelopment and on-going property maintenance under protocols set forth in a Site Management Plan (SMP);
- In-situ bioremediation in the open USTs excavation, if warranted;
- Site cover engineering control system for most of the Site;
- Groundwater monitoring to evaluate the effectiveness of the remedy; and
- Miscellaneous tasks that may arise.

This HASP can be modified to cover other site activities as deemed appropriate. The owner of the property, its contractors, and other site workers will be responsible for the development and/or implementation of health and safety provisions associated with normal construction activities or site activities.

2.0 KEY PERSONNEL AND MANAGEMENT

The Project Manager (PM) and Site Safety Officer (SSO) are responsible for formulating and enforcing health and safety requirements, and implementing the HASP on behalf of Day Environmental, Inc. (DAY) representatives.

2.1 Project Manager

The PM has the overall responsibility for the project and will coordinate with the SSO to ensure that the goals of the Site activities are attained in a manner consistent with the HASP requirements.

2.2 Site Safety Officer

The SSO has responsibility for administering the HASP relative to site activities, and will be in the field full-time while site activities are in progress. The SSO's operational responsibilities will be monitoring, including personal and environmental monitoring, ensuring personal protective equipment maintenance, and assignment of protection levels. The SSO will be the main contact in any on-site emergency situation. The SSO will direct field activities involved with safety and be responsible for stopping work when unacceptable health or safety risks exist. The SSO is responsible for ensuring that on-site personnel understand and comply with safety requirements.

2.3 Employee Safety Responsibility

Each employee is responsible for personal safety as well as the safety of others in the area. The employee will use the equipment provided in a safe and responsible manner as directed by the SSO.

2.4 Key Safety Personnel

The following DAY individuals are anticipated to share responsibility for health and safety of DAY employees at the site.

Project Manager	Jeffrey A. Danzinger
Site Safety Officer	Charles A. Hampton

DAY's safety personnel will share environmental monitoring information, etc. with other on-site entities (e.g., contractors, regulators). However, these other on-site entities are responsible for their own health and safety and should provide their own safety personnel (e.g., SSO) as deemed necessary depending upon the activities they are performing at the Site (refer to Section 3.0).

3.0 SAFETY RESPONSIBILITY

Contractors, consultants, state or local agencies, or other parties, and their employees, involved with intrusive activities at this Site, will be responsible for their own safety while on-site. Their employees will be required to understand the information contained in this HASP, and must follow the recommendations that are made in this document. As an alternative, contractors, consultants, state or local agencies, or other parties, and their employees, involved with this project can utilize their own health and safety plan for this project as long as it is found acceptable to the New York State Department of Health (NYSDOH), MCDPH and/or NYSDEC.

4.0 JOB HAZARD ANALYSIS

There are many hazards associated with intrusive work on a site, and this HASP discusses some of the anticipated hazards for this Site. The hazards listed below deal specifically with those hazards associated with the disturbance of potentially contaminated media (e.g., soil, groundwater, fill, etc.).

4.1 Chemical Hazards

Chemical substances can enter the unprotected body and can cause damage to the point of contact or can act systemically, causing a toxic effect at a part of the body distant from the point of initial contact.

A list of VOCs, SVOCs, pesticides, and metals that are have been historically detected at the Site are provided below. This list also presents the Occupational Safety and Health Administration (OSHA) permissible exposure limits (PELs), National Institute for Occupational Safety and Health (NIOSH) recommended exposure limits (RELs), and NIOSH immediately dangerous to life or health (IDLH) levels.

CONSTITUENT	OSHA PEL	NIOSH REL	NIOSH IDLH
Acetone	1000 ppm	250 ppm	2500 ppm
Benzene	1 ppm	0.1 ppm	500 ppm
Chloroform	50 ppm	2 ppm	500 ppm
Ethylbenzene	100 ppm	100 ppm	800 ppm
Isopropylbenzene	50 ppm	50 ppm	900 ppm
Methyl-Tert-Butyl-Ether	40 ppm*	NA	NA
Methylene Chloride	25 ppm	NA	2300 ppm
Nitrobenzene	1 ppm	1 ppm	200 ppm
Toluene	200 ppm	100 ppm	500 ppm
Xylene	100 ppm	100 ppm	900 ppm
Benzo (a) anthracene	NA	NA	NA
Benzo (a) pyrene	0.2 mg/m^3	0.1 mg/m^3	80 mg/m^3
Benzo (b) fluoranthene	0.2 mg/m^3	0.1 mg/m^3	80 mg/m^3
Benzo (k) fluoranthene	0.2 mg/m^3	NA	80 mg/m^3
Chrysene	0.2 mg/m^3	0.1 mg/m^3	80 mg/m^3
Dibenzo(a,b)anthracene	NA	NA	NA
Indeno (1,2,3-cd) pyrene	NA	NA	NA
Naphthalene	10 ppm	10 ppm	250 ppm
Phenanthrene	0.2 mg/m^3	0.1 mg/m^3	80 mg/m^3
Phenol	5 ppm	5 ppm	250 ppm
Arsenic	0.01 mg/m^3	0.002 mg/m^3	5 mg/m^3
Barium	0.5 mg/m^3	0.5 mg/m^3	50 mg/m^3
Cadmium	0.005 mg/m^3	NA	9 mg/m^3
Chromium	0.5 mg/m^3	0.5 mg/m^3	250 mg/m^3
Cobalt Dust	0.1 mg/m^3	0.05 mg/m^3	20 mg/m^3
Copper Dust	1 mg/m^3	1 mg/m^3	100 mg/m^3
Lead	0.05 mg/m^3	0.05 mg/m^3	100 mg/m^3
Mercury	0.1 mg/m^3	0.05 mg/m^3	10 mg/m^3
Nickel	1 mg/m^3	0.015 mg/m^3	10 mg/m^3
Silver	0.01 mg/m^3	0.01 mg/m^3	10 mg/m^3
Zinc	5 mg/m^3	5 mg/m^3	500 mg/m^3
Dieldrin	0.25 mg/m^3	0.25 mg/m^3	50 mg/m^3
Aroclor 1254	0.5 mg/m^{3**}	0.001 mg/m^3	5 mg/m^3
4,4'-DDT	1 mg/m^3	0.5 mg/m^3	500 mg/m^3

NA – Not Available
* Proposed ACGIH
** Skin Notation

The potential routes of exposure for these analytes and chemicals include inhalation, ingestion, skin absorption and skin/eye contact. The potential for exposure through any one of these routes will depend on the activity conducted. The most likely routes of exposure for intrusive activities include inhalation and skin contact.

4.2 Physical Hazards

There are physical hazards that might compound the chemical hazards. Hazard identification, training, adherence to the planned Site measures, and careful housekeeping can prevent many problems or accidents arising from physical hazards. Potential physical hazards associated with this Site and suggested preventative measures include:

- Slip/Trip/Fall Hazards - Some areas may have wet surfaces that will greatly increase the possibility of inadvertent slips. Caution must be exercised when using steps and stairs due to slippery surfaces in conjunction with the fall hazard. Good housekeeping practices are essential to minimize the trip hazards.

- Small Quantity Flammable Liquids - Small quantities of flammable liquids may be stored in "safety" cans and labeled according to contents.

- Electrical Hazards - Electrical devices and equipment shall be de-energized prior to working near them. All extension cords will be kept out of water, protected from crushing, and inspected regularly to ensure structural integrity. Temporary electrical circuits will be protected with ground fault circuit interrupters. Only qualified electricians are authorized to work on electrical circuits. Heavy equipment (e.g., backhoe, drill rig) shall not be operated within 10 feet of high voltage lines, unless proper protection from the high voltage lines is provided by the appropriate utility company.

- Noise - Work around large equipment often creates excessive noise. The effects of noise can include:

  - Workers being startled, annoyed, or distracted.

  - Physical damage to the ear resulting in pain, or temporary and/or permanent hearing loss.

  - Communication interference that may increase potential hazards due to the inability to warn of danger and proper safety precautions to be taken.

  Proper hearing protection will be worn as deemed necessary. In general, feasible administrative or engineering controls shall be utilized when on-site personnel are subjected to noise exceeding an 8-hour time weighted average (TWA) sound level of 90 dBA (decibels on the A-weighted scale). In addition, whenever employee noise exposures equal or exceed an 8-hour TWA sound level of 85 dBA, employers shall administer a continuing, effective hearing conservation program as described in the OSHA Regulation 29 CFR Part 1910.95.

- Heavy Equipment - Each morning before start-up, heavy equipment will be inspected to ensure safety equipment and devices are operational and ready for immediate use.

- Subsurface and Overhead Hazards - Before any excavation activity, efforts will be made to determine whether underground utilities and potential overhead hazards will be encountered. Notify Underground Facilities Protection Organization (UFPO) 2 business days prior to excavating or drilling at 811 or (800) 962-7962 for utility stakeout.

4.3 Environmental Hazards

Environmental factors such as weather, wild animals, insects, and irritant plants can pose a hazard when performing outdoor tasks. The SSO shall make every reasonable effort to alleviate these hazards should they arise.

4.3.1 Heat Stress

The combination of warm ambient temperature and protective clothing increases the potential for heat stress. In particular:

- Heat rash
- Heat cramps
- Heat exhaustion
- Heat stroke

Site workers will be encouraged to increase consumption of water or electrolyte-containing beverages such as Gatorade® when the potential for heat stress exists. In addition, workers are encouraged to take rests whenever they feel any adverse effects that may be heat-related. The frequency of breaks may need to be increased upon worker recommendation to the SSO.

4.3.2 Exposure to Cold

With outdoor work in the winter months, the potential exists for hypothermia and frostbite. Protective clothing greatly reduces the possibility of hypothermia in workers. However, personnel will be instructed to wear warm clothing and to stop work to obtain more clothing if they become too cold. Employees will also be advised to change into dry clothes if their clothing becomes wet from perspiration or from exposure to precipitation.

5.0 SITE CONTROLS

To prevent migration of contamination caused through tracking by personnel or equipment, work areas, and personal protective equipment staging/decontamination areas will be specified prior to beginning operations.

5.1 Site Zones

In the area where contaminated materials present the potential for worker exposure (work zone), personnel entering the area must wear the mandated level of protection for the area. A "transition zone" shall be established where personnel can begin and complete personal and equipment decontamination procedures. This can reduce potential off-site migration of contaminated media. Contaminated equipment or clothing will not be allowed outside the transition zone (e.g., on clean portions of the Site) unless properly containerized for disposal. Operational support facilities will be located outside the transition zone (i.e., in a "support zone"), and normal work clothing and support equipment are appropriate in this area. If possible, the support zone should be located upwind of the work zone and transition zone.

5.2 General

The following items will be requirements to protect the health and safety of workers during implementation of activities that disturb contaminated material.

- Eating, drinking, chewing gum or tobacco, smoking, or any practice that increases the probability of hand to mouth transfer and ingestion of contamination shall not occur in the work zone and/or transition zone during disturbance of contaminated material.
- Personnel admitted in the work zone shall be properly trained in health and safety techniques and equipment usage.
- No personnel shall be admitted in the work zone without the proper safety equipment.
- Proper decontamination procedures shall be followed before leaving the Site.

6.0 PROTECTIVE EQUIPMENT

This section addresses the various levels of personal protective equipment (PPE) which are or may be required at this job site. Personnel entering the work zone and transition zone shall be trained in the use of the anticipated PPE to be utilized.

6.1 Anticipated Protection Levels

TASK	PROTECTION LEVEL	COMMENTS/MODIFICATIONS
Site mobilization	D	
Site prep/construction of engineering controls	D	
Extrusive work (e.g., surveying, etc.)	D	
Intrusive work (e.g., excavation work, groundwater monitoring, etc.)	C/Modified D/D	Based on air monitoring, and SSO discretion
Support zone	D	
Site breakdown and demobilization	D	

It is anticipated that work conducted, when there is the potential for encountering residual contaminants, will be performed in Level D or modified Level D PPE. If conditions are encountered that require higher levels of PPE (e.g., Level C, B, or A), the work will immediately be stopped. The appropriate government agencies (e.g., NYSDEC, NYSDOH, etc.) will be notified and the proper health and safety measures will be implemented (e.g., develop and implement engineering controls, upgrade in PPE, etc.).

6.2 Protection Level Descriptions

This section lists the minimum requirements for each protection level. Modifications to these requirements can be made upon approval of the SSO. If Level A, Level B, and/or Level C PPE is required, Site personnel that enter the work zone and/or transition zone must be properly trained and certified in the use of those levels of PPE.

6.2.1 Level D

Level D consists of the following:

- Safety glasses
- Hard hat when working with heavy equipment
- Steel-toed or composite-toed work boots
- Protective gloves during sampling or handling of potentially contaminated media
- Work clothing as prescribed by weather

6.2.2 Modified Level D

Modified Level D consists of the following:

- Safety glasses with side shields
- Hard hat when working with heavy equipment
- Steel-toed or composite-toed work boots
- Work gloves
- Outer protective wear, such as Tyvek coverall [Tyveks (Sarans) and polyvinyl chloride (PVC) acid gear will be required when workers have a potential to be exposed to impacted liquids or impacted particulates].

6.2.3 Level C

Level C consists of the following:

- Air-purifying respirator with appropriate cartridges
- Outer protective wear, such as Tyvek coverall [Tyveks (Sarans) and PVC acid gear will be required when workers have a potential to be exposed to impacted liquids or particulates].
- Hard hat when working with heavy equipment
- Steel-toed or composite-toed work boots
- Nitrile, neoprene, or PVC overboots, if appropriate
- Nitrile, neoprene, or PVC gloves, if appropriate
- Face shield (when projectiles or splashes pose a hazard)

6.2.4 Level B

Level B protection consists of the items required for Level C protection with the exception that an air-supplied respirator is used in place of the air-purifying respirator. Level B PPE is not anticipated to be required for this Site. If the need for level B PPE becomes evident, site activities will be ceased until site conditions are further evaluated, and any necessary modifications to the HASP have been approved by the PM and SSO. Subsequently, the appropriate safety measures (including Level B PPE) must be implemented prior to commencing site activities.

6.2.5 Level A

Level A protection consists of the items required for Level B protection with the addition of a fully-encapsulating, vapor-proof suit capable of maintaining positive pressure. Level A PPE is not anticipated to be required for this Site. If the need for level A PPE becomes evident, site activities will be ceased until site conditions are further evaluated, and any necessary modifications to the HASP have been approved by the PM and SSO. Subsequently, the appropriate safety measures (including Level A PPE) must be implemented prior to commencing site activities.

6.3 Respiratory Protection

Any respirator used during activities associated with Site contaminants will meet the requirements of the OSHA 29 CFR 1910.134. Both the respirator and cartridges specified shall be fit-tested prior to use in accordance with OSHA regulations (29 CFR 1910). Air purifying respirators shall not be worn if contaminant levels exceed designated use concentrations. The workers will wear respirators with approval for: organic vapors <1,000 ppm; and dusts, fumes and mists with a TWA < 0.05 mg/m^3.

No personnel who have facial hair, which interferes with respirator sealing surface, will be permitted to wear a respirator and will not be permitted to work in areas requiring respirator use due to Site contaminants.

Only workers who have been certified by a physician as being physically capable of respirator usage shall be issued a respirator for work associated with Site contaminants. Personnel unable to pass a respiratory fit test or without medical clearance for respirator use will not be permitted to enter or work in areas that require respirator protection in relation to Site contaminants.

7.0 DECONTAMINATION PROCEDURES

This section describes the procedures necessary to ensure that both personnel and equipment are free from contamination when they leave the work site.

7.1 Personnel Decontamination

Personnel involved with activities that involve disturbing contaminated media will follow the decontamination procedures described herein to ensure that material which workers may have contacted in the work zone and/or transition zone does not result in personal exposure and is not spread to clean areas of the Site. This sequence describes the general decontamination procedure. The specific stages can vary depending on the Site, the task, and the protection level, etc.

1. Leave work zone and go to transition zone
2. Remove soil/debris from boots and gloves
3. Remove boots
4. Remove gloves
5. Remove Tyvek suit and discard, if applicable
6. Remove and wash respirator, if applicable
7. Go to support zone

7.2 Equipment Decontamination

Contaminated equipment shall be decontaminated in the transition zone before leaving the Site. Decontamination procedures can vary depending upon the contaminant involved, but may include sweeping, wiping, scraping, hosing, or steam cleaning the exterior of the equipment. Personnel performing this task will wear the proper PPE.

7.3 Disposal

Disposable clothing will be treated as contaminated waste and be disposed of properly. Liquids (e.g., decontamination water, etc.) generated by activities involving residual Site contaminants will be disposed of in accordance with applicable local, state and federal regulations.

8.0 AIR MONITORING

During activities that involve potential exposure to Site contaminants, air monitoring will be conducted in order to determine airborne particulate and contamination levels. This ensures that respiratory protection is adequate to protect personnel against the chemicals that are encountered and that chemical contaminants are not migrating off-site. Additional air monitoring may be conducted at the discretion of the SSO. Readings will be recorded and available for review.

The following chart describes the direct reading instrumentation that will be utilized and appropriate action levels.

Monitoring Device	Action level	Response/Level of PPE
Photoionization Detector (PID) Volatile Organic Compound Meter	< 1 ppm in breathing zone, sustained 5 minutes	Level D
	1-25 ppm in breathing zone, sustained 5 minutes	Level C
	26-250 ppm in breathing zone, sustained 5 minutes	Level B, Stop work, evaluate the use of engineering controls
	>250 ppm in breathing zone	Level A, Stop work, evaluate the use of engineering controls
Real Time Aerosol Monitor (RTAM) Particulate Meter	<150 micrograms per meter cubed ($\mu g/m^3$) over an integrated period not to exceed 15 minutes.	Continue working
	>150 $\mu g/m^3$	Cease work, implement dust suppression, change in way work performed, etc. If levels can not be brought below 150 $\mu g/m^3$, then upgrade PPE to Level C.

8.1 Particulate Monitoring

During intrusive activities where contaminated materials may be disturbed on a large scale (e.g., during excavation through contaminated soil or fill), air monitoring will include real-time monitoring for particulates using a Real Time Aerosol Monitor (RTAM) particulate meter at the perimeter of the work zone in accordance with Appendix 1B (Fugitive Dust and Particulate Monitoring) of the NYSDEC document entitled "DER-10, Technical Guidance for Site Investigation and Remediation" dated May 3, 2010. DER-10 uses an action level of 150 $\mu g/m^3$ (0.15 mg/m^3) over an integrated period not to exceed 15 minutes. If the action level is exceeded, or if visible dust is encountered, then work shall be discontinued until corrective actions are implemented. Corrective actions may include dust suppression, change in the way work is performed, and/or upgrade of personal protective equipment.

8.2 Volatile Organic Compound Monitoring

During activities where contaminated materials may be disturbed, a PID will be used to monitor total VOCs in the ambient air. The PID will prove useful as a direct reading instrument to aid in determining if current respiratory protection is adequate or needs to be upgraded. The SSO will take measurements before operations begin in an area to determine the amount of VOCs naturally occurring in the air. This is referred to as a background level. Levels of VOCs will periodically be measured in the air at active work sites, and at the transition zone when levels are detected above background in the work zone.

8.3 Community Air Monitoring Plan

This Community Air Monitoring Plan (CAMP) includes real-time monitoring for VOCs and particulates (i.e., dust) at the downwind perimeter of each designated work area when activities with the potential to release VOCs or residual Site contaminants on dust are in progress at the Site. This CAMP is based on the NYSDOH Generic CAMP included as Appendix 1A of DER-10. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of the remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air. Reliance on the CAMP should not preclude simple, common sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Continuous monitoring will be conducted during ground intrusive activities. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, installation of monitoring wells, etc.

Periodic monitoring for VOCs will be conducted during non-intrusive activities such as the collection of groundwater samples from monitoring wells. Periodic monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

8.3.1 VOC Monitoring, Response Levels, and Actions

VOCs must be monitored at the downwind perimeter of the immediate work area (i.e., the work zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 ppm above background for the 15-minute average, work activities must be temporarily halted and monitoring must be continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source or vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less (but in no case less than 20 feet), is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

The 15-minute readings must be recorded and made available for NYSDEC and NYSDOH personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

8.3.2 Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the work zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-l0) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level (i.e., particulate matter less than 10 micrometers in diameter) is 100 $\mu g/m^3$ greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 $\mu g/m^3$ above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 $\mu g/m^3$ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 $\mu g/m^3$ of the upwind level and in preventing visible dust migration.

Readings must be recorded and made available for NYSDEC, NYSDOH, and MCDPH personnel to review.

9.0 EMERGENCY RESPONSE

To provide first-line assistance to field personnel in the case of illness or injury, the following items will be made immediately available on the Site:

- First-aid kit;
- Portable emergency eye wash; and
- Supply of clean water.

9.1 Emergency Telephone Numbers

The following telephone numbers are listed in case there is an emergency at the Site:

Fire/Police Department:	911
Poison Control Center:	(800) 222-1222
NYSDEC	
Charlotte B. Theobald	(585) 226-5354
Spills	(800) 457-7362
NYSDOH	
Justin Deming	(585) 402-7860
MCDPH	
John J. Frazer, P.E.	(585) 753-5476
GENESEE MARINA, INC.	
Steve Gibbs	(585) 663-8990
DAY ENVIRONMENTAL, INC.	
Jeff Danzinger	(585) 454-0210 x114
Ray Kampff	(585) 454-0210 x108
Nearest Hospital	Rochester General Hospital 1425 Portland Avenue Rochester, New York Hospital Telephone: (585) 922-4000 Emergency Dept. Telephone: (585) 922-5462
Directions to the Hospital:	West on Petten Street (0.1 miles). Turn south on Lake Avenue (3.8 miles). Turn east on Route 104E/Redge Road East (2.0 miles). Turn south on Carter Street (0.1 miles). (refer to Attachment 1)

9.2 Evacuation

A log of each individual entering and leaving the Site should be kept for emergency accounting practices. Although unlikely, it is possible that a site emergency could require evacuating all personnel from the site. If required, the SSO will give the appropriate signal for site evacuation (i.e., hand signals, alarms, etc.).

All personnel shall exit the site and shall congregate in an area designated by the SSO. The SSO shall ensure that all personnel are accounted for. If someone is missing, the SSO will alert emergency personnel. The appropriate government agencies will be notified as soon as possible regarding the evacuation, and any necessary measures that may be required to mitigate the reason for the evacuation.

9.3 Medical Emergency

In the event of a medical emergency involving illness or injury to one of the on-site personnel, the work area should be shutdown and immediately secured. The appropriate government agencies should be notified immediately. The area in which the injury or illness occurred shall not be entered until the cause of the illness or injury is known. The nature of injury or illness shall be assessed. If the victim appears to be critically injured, administer first aid and/or cardio-pulmonary resuscitation (CPR) as needed. Instantaneous real-time air monitoring shall be done in accordance with air monitoring outlined in Section 8.0 of this HASP.

9.4 Contamination Emergency

It is unlikely that a contamination emergency will occur; however, if such an emergency does occur, the work area shall be shutdown and immediately secured. If an emergency rescue is needed, notify Police, Fire Department and Emergency Medical Service (EMS) Units immediately. Advise them of the situation and request an expedient response. The appropriate government agencies shall be notified immediately. The area in which the contamination occurred shall not be entered until the arrival of trained personnel who are properly equipped with the appropriate PPE and monitoring instrumentation as outlined in Sections 6.0 and 7.0 of this HASP.

9.5 Fire Emergency

In the event of a fire on-site, the work area shall be shutdown and immediately secured. The area in which the fire occurred shall not be entered until the cause can be determined. All non-essential site personnel shall be evacuated from the site to a safe, secure area. Notify the Fire Department immediately. Advise the Fire Department of the situation and the identification of any hazardous materials involved. The appropriate government agencies shall be notified as soon as possible.

The four classes of fire along with their constituents are as follows:

Class A: Wood, cloth, paper, rubber, many plastics, and ordinary combustible materials.

Class B: Flammable liquids, gases and greases.

Class C: Energized electrical equipment.

Class D: Combustible metals such as magnesium, titanium, sodium, potassium.

Small fires on-site may be actively extinguished; however, extreme care shall be taken while in this operation. All approaches to the fire shall be done from the upwind side if possible. Distance from on-site personnel to the fire shall be close enough to ensure proper application of the extinguishing material, but far enough away to ensure that the personnel are safe. The proper extinguisher shall be utilized for the Class(s) of fire present on the site. If possible, the fuel source shall be cut off or separated from the fire. Care must be taken when performing operations involving the shut-off values and manifolds, if present.

Examples of proper extinguishing agent as follows:

Class A: Water
Water with 1% AFFF Foam (Wet Water)
Water with 6% AFFF or Fluorprotein Foam
ABC Dry Chemical

Class B: ABC Dry Chemical
Purple K
Carbon Dioxide
Water with 6% AFFF Foam

Class C: ABC Dry Chemical
Carbon Dioxide

Class D: Metal-X Dry Powder

No attempt shall be made against large fires. These shall be handled by the Fire Department.

9.6 Spill or Air Release

In the event of spills or air releases of hazardous materials on-site, the work area shall be shutdown and immediately secured. The area in which the spills or releases occurred shall not be entered until the cause can be determined and site safety can be evaluated. All non-essential site personnel shall be evacuated from the Site to a safe and secure area. The appropriate government agencies shall be notified as soon as possible. The spilled or released materials shall be immediately identified and appropriate containment measures shall be implemented, if possible. Real-time air monitoring shall be implemented as outlined in Section 8.0 of this HASP. If the materials are unknown, Level B protection is mandatory. Samples of the materials shall be acquired to facilitate identification.

9.7 Containerized Waste and/or Underground Storage Tanks

In the event that unanticipated containerized waste (e.g., drums) and/or underground storage tanks (USTs) are located during intrusive activities, the work area shall be shutdown and immediately secured. The area where unanticipated containerized wastes and/or tanks are discovered shall not be entered until site safety can be evaluated. Non-essential Site personnel shall be evacuated from the Site to a safe and secure area. The appropriate government agencies shall be notified as soon as possible. The SSO shall monitor the area as outlined in Section 8.0 of this HASP.

Prior to any handling, unanticipated containers will be visually assessed by the SSO to gain as much information as possible about their contents. As a precautionary measure, personnel shall assume that unlabelled containers and/or tanks contain hazardous materials until their contents are characterized. To the extent possible based upon the nature of the containers encountered, actions may be taken to stabilize the area and prevent migration (e.g., placement of berms, etc.). Subsequent to initial visual assessment and any required stabilization, properly trained personnel will sample, test, remove, and dispose of any containers and/or tanks, and their contents. After visual assessment and air monitoring, if the material remains unknown, Level B protection is mandatory.

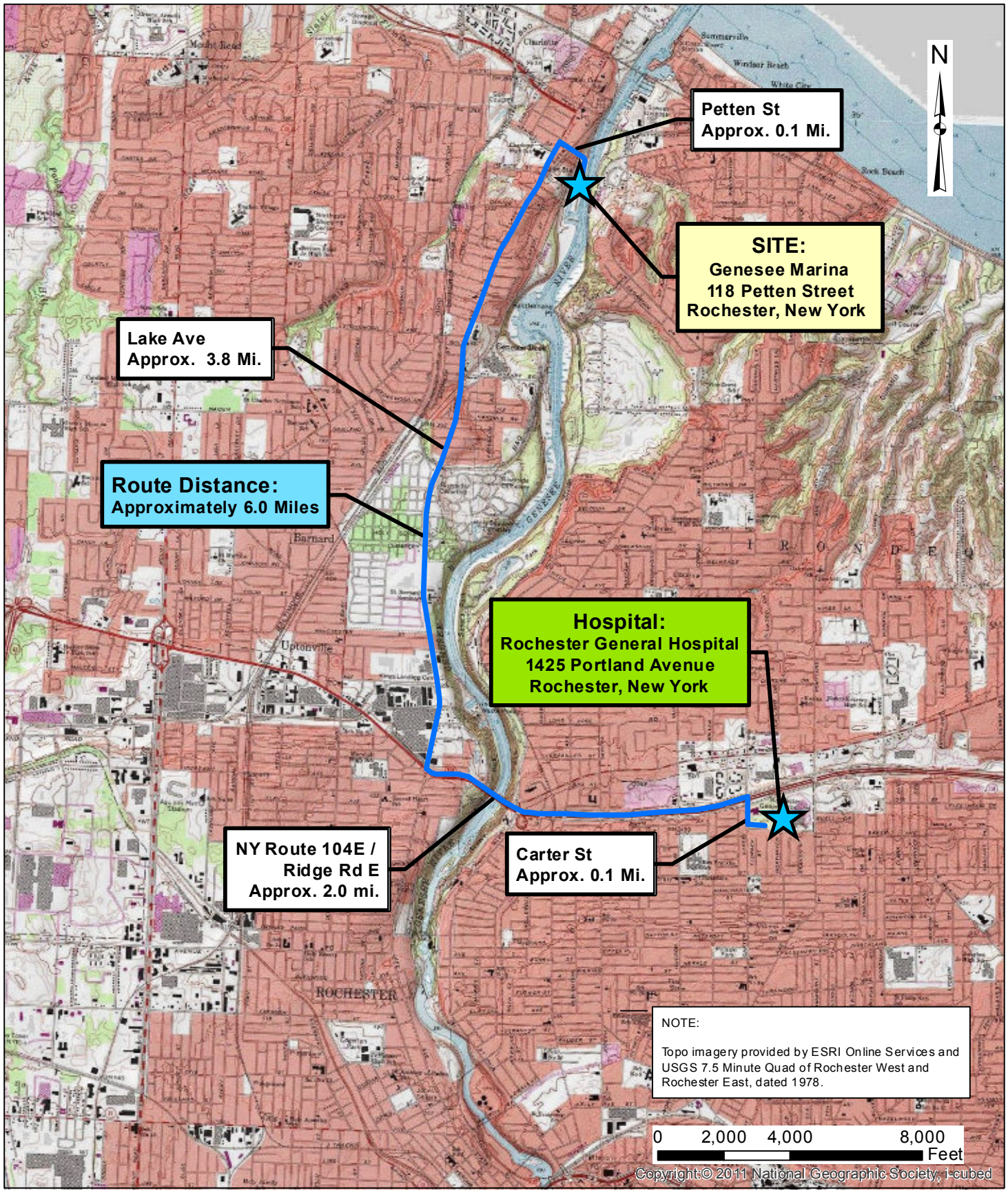
10.0 ABBREVIATIONS

AST	Aboveground Storage Tank
BCP	Brownfield Cleanup Program
C&D	Construction and Demolition
CAMP	Community Air Monitoring Program
CPR	Cardio-Pulmonary Resuscitation
DAY	Day Environmental, Inc.
dBA	Decibels on the A-Weighted Scale
EMC	Environmental Management Council
EMS	Emergency Medical Service
HASP	Health and Safety Plan
IDLH	Immediately Dangerous to Life or Heath
MCDPH	Monroe County Department of Public Health
mg/m^3	Milligram per Meter Cubed
NIOSH	National Institute of Occupational Safety and Health
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OSHA	Occupational Safety and Health Administration
PCB	Polychlorinated Biphenyl
PEL	Permissible Exposure Limit
PID	Photoionization Detector
PM	Project Manager
PM-10	Particulate matter less than 10 micrometers in diameter
PPE	Personal Protection Equipment
ppm	Parts Per Million
PVC	Polyvinyl Chloride
REL	Recommended Exposure Limit
RTAM	Real-Time Aerosol Monitor
SCO	Soil Cleanup Objective
SMP	Site Management Plan
SSO	Site Safety Officer
SVOC	Semi-Volatile Organic Compound
TWA	Time-Weighted Average
$\mu g/m^3$	Microgram Per Meter Cubed
UFPO	Underground Facilities Protection Organization
UST	Underground Storage Tank
VOC	Volatile Organic Compound

ATTACHMENT 1

Figure 1- Route for Emergency Services

Last Date Saved: 29 Oct 2012 Document Path: E:\GIS\GIS Mapping\Genesee_Marina\4741R-12Genmar\4741R-12Genmar - Hospital Map.mxd



Date: 10-26-2012	day DAY ENVIRONMENTAL, INC. Environmental Consultants Rochester, New York 14606 New York, New York 10170	Project Title: GENESEE MARINA 118 PETTEN STREET ROCHESTER, NEW YORK (NYSDEC SITE NO. C828130) HEALTH AND SAFETY PLAN	Project No.: 4741R-12 ATTACHMENT 1
Drawn By: CPS		Drawing Title: Route to Emergency Services	
Scale: AS NOTED			