PERIODIC REVIEW REPORT
PERIOD ENDING 31 AUGUST 2011
TARRYTOWN FORMER MGP SITE
TARRYTOWN, NEW YORK
BROWNFIELD CLEANUP AGREEMENT NO. C3600064

by

Haley & Aldrich of New York Rochester, New York

for

Ferry Landings, LLC Greenwich, Connecticut

File No. 28590-020 30 September 2011



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30 September 2011 File No. 28590-019

New York State Department of Environmental Conservation Division of Environmental Remediation Remedial Bureau C, 11th Floor 625 Broadway Albany, New York 12233-7014

Attention: Lech Dolata

Project Manager

Subject: Tarrytown Former MGP Site

Site Management Periodic Review Report Period Ending 8/31/11.

Brownfield Cleanup Agreement No. C3600064

Dear Mr. Dolata:

On behalf of Ferry Landings, LLC, Haley & Aldrich has prepared this Site Management Periodic Review Report (PRR) for the period ending 31 August 2011, in response to the letter from the New York State Department of Environmental Conservation (NYSDEC) dated 13 July 2011. During the period covered by this PRR, the revised "Site Management Plan Tarrytown Former MGP Site, Tarrytown, NY," dated August 2010 and accepted by the NYSDEC on 26 August 2010, was in force.

Sincerely yours,

HALEY & ALDRICH OF NEW YORK

onathan D. Babwark

Jonathan D. Babcock, P.E.

Project Manager

Vincent B. Dick Vice President

Enclosure

c: Ferry Landings, LLC, C. Monheit

NYSDEC, Amen Omorogbe

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EXECUTIVE SUMMARY

This Site Management Periodic Review Report (PRR) for the period ending 31 August 2011 was prepared by Haley & Aldrich of New York (Haley & Aldrich) on behalf of Ferry Landings, LLC. During the period covered by this PRR, the revised "Site Management Plan Tarrytown Former MGP Site, Tarrytown, NY," dated August 2010 and accepted by the NYSDEC on 26 August 2010, was in force.

This PRR provides a description of the pre-remediation and post-remediation site conditions, and provides a summary of site activities conducted under the SMP (including continued site development) during the reporting period.



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1. OVERVIEW

This Periodic Review Report (PRR) for the Tarrytown Former Manufactured Gas Plant (MGP) Site covers the period 20 August 2010 through 31 August 2011. The Periodic Review Report Form for this period is provided in Appendix A.



2. INTRODUCTION

This PRR narrative presents a brief summary of site history, past and current conditions, remedial actions taken, and post-remediation operations, maintenance, and monitoring. For more detailed information, the following reports prepared by Haley & Aldrich of New York (Haley & Aldrich) and previously submitted to NYSDEC may be consulted:

- Final Engineering Report Tarrytown Former MGP Site, Tarrytown, NY, 2005;
- Final Engineering Report Addendum Tarrytown Former MGP Site, Tarrytown ,NY, 2006; and
- Site Management Plan Tarrytown Former MGP Site, Westchester County, NY, August 2010, by Haley & Aldrich of New York. Approved by NYSDEC 26 August 2010.
- Periodic Review Report Tarrytown Former MGP site, 10 October 2010.

2.1 Summary of Site, Nature of Contamination and Remedial Actions

2.1.1 Site

A site locus is given in Figure 1 and site plans are given on Figures 2 and 3. The site is located on the east side of the Hudson River north of the Tappan Zee Bridge in the Village of Tarrytown, New York. Division and River Streets bound the site on the north, Railroad Avenue on the east, West Main Street on the south and the Hudson River on the west. The site encompasses approximately 20 acres, and was primarily used for industrial-commercial purposes prior to remediation. Remediation was performed between June 2004 and January 2005.

Prior to remediation, the main activities on the site were an asphalt batch plant in the northwest portion and a trucking terminal and maintenance facility in the southeast portion. The central portion of the site included a former manufactured gas plant (MGP), reportedly operated between 1873 and 1938. The MGP was last operated by the Westchester Lighting Company, which has been succeeded in ownership by Con Edison.

2.1.2 Nature of Contamination

This section presents a summary of the nature of contamination and objectives of the remedial actions for that contamination by area of interest, organized according to four areas of the site (Figure 2):

- Holder and Tar Well Area,
- Light Non-Aqueous Phase Liquid (LNAPL) Area,
- Northern Dense Non-Aqueous Liquid (DNAPL) Area, and
- Western DNAPL and Sediment Removal Area.
 - 2.1.2.1 Holder and Tar Well Area: During site investigations in 2003, some flowing MGP DNAPL was present in Holders A, B, and C, but not in Holder D. Soils in the Tar Well Area, located south of Holder A were found to contain zones saturated with MGP DNAPL. The remedial action for this area is described in Section 2.1.3.
 - 2.1.2.2 LNAPL Area: Measurements in 1998 and 1999 by Handex Group, Inc. identified a zone of measurable free floating LNAPL (primarily diesel fuel) in a triangular area defined by MW-2, MW-3, and MW-6. Additionally, residual contamination due to historic LNAPL releases was evident between the triangular area of free-floating



LNAPL and West Main Street. April 2003 and July 2003 investigations confirmed previous data regarding residual contamination in that area. No petroleum-related contamination was observed in the top four feet of soil in this area. The remedial action for this area is described in Section 2.1.3.

- 2.1.2.3 Northern DNAPL Area: The Northern DNAPL Area is located partially underneath the existing County Asphalt office building, and is approximately 500 ft long and 200 ft wide. The primary affected media in this area is soil containing discrete zones of MGP DNAPL (apparently derived from coal tar), as observed during site investigations prior to remediation in soil borings SB-7, SB-10, SB-16, and SB-19 and in monitoring wells MW-11, MW-13, and MW-26. The subject zones are located between 12 and 15 ft below ground surface (bgs) on the west side of the building and between 9 and 13 ft bgs on the east side. The remedial action for this area is described in Section 2.1.3.
- 2.1.2.4 Western DNAPL and Sediment Removal Area: The Western DNAPL and Sediment Removal Area is located approximately 450 feet north of the southern site property line. The Western DNAPL Area has an east-to-west length of about 240 feet. The primary affected media in this area is soil containing discrete zones of DNAPL (apparently derived from coal tar). These soils are located between 22 and 26 feet bgs. The zone was observed during site investigations to be at the bottom of the fill, and exhibits very limited penetration of the natural soil layer.

In April 2003, borings SB-301, SB-302 and SB-303 were completed to better define the northern and southern limits of the DNAPL. The borings indicated that the width of the Western DNAPL Area, measured north to south, is less than 40 feet.

DNAPL-contaminated river sediment was also identified during site investigation prior to remediation to be west of the Western DNAPL Area within the immediately adjoining portion of the Hudson River. The contamination extended about 160 ft along the existing sea wall, and outward into the river by varying distances, up to about 120 ft. Sediment contaminated with DNAPL was identified in river borings RB-1, RB-3, RB-6 through RB-9, RB-11, RB-12, RB-15A, and RB-17 through RB-19. DNAPL contamination in the form of blebs and heavy sheens was also identified in river borings RB-2, RB-13, RB-23, and RB-24. The depth of the observed DNAPL ranged from one foot up to 8 feet below the top of sediment.

The remedial action for this area is described in Section 2.1.3.



2.1.3 Remedial Actions

The following is a summary of the Remedial Actions performed at the site:

- 2.1.3.1 Holder and Tar Well Area- The remediation consisted of removing the contents, walls and floor of three former MGP holders and excavation of contaminated soils adjacent to the holders, including an area believed to be associated with the former MGP tar wells. Contaminated soil and debris was taken off site to a permitted facility for disposal and the excavations were backfilled with a combination of on-site and imported fill meeting quality standards established for the project.
- 2.1.3.2 LNAPL Area The remediation consisted of two parts, excavation of contaminated soil and installation of a recovery trench and skimmer system for residual floating petroleum product. Contaminated soil was taken off site to a permitted facility for disposal and the excavation was backfilled with a combination of on-site and imported fill meeting quality standards established for the project. The LNAPL recovery system was operated through September 2007. The monitoring results through August 2007 supported a request for NYSDEC approval to discontinue operation and to dismantle the system. In response, the NYSDEC agreed with the recommendation to discontinue operation of the LNAPL recovery system in its letter dated 10 September 2007. The system was subsequently dismantled and is no longer operational.
- 2.1.3.3 Northern DNAPL Area The remediation consisted of installing a 360-foot long sheet pile barrier extending from about 3 feet below the ground surface, downward through the fill soils into the native clayey soils to a depth of about 22 feet below ground surface. The barrier prevents westward migration of DNAPL contained in a two to three foot thick zone generally found at the bottom of fill (9 to 15 feet below ground surface). The clayey soils impede further downward migration of the DNAPL. A 360-foot long DNAPL recovery trench, containing six DNAPL recovery wells, was constructed adjacent to the east face of the barrier.

One area of contaminated soil at the south end of the barrier was excavated and taken off site for disposal. The excavation was backfilled with a combination of on-site and imported fill meeting quality standards established for the project.

The recovery trench allows removal of DNAPL to the extent it accumulates on the east side of the barrier.

2.1.3.4 Western DNAPL and Sediment Removal Area – The remediation performed here was conceptually the same as for the Northern DNAPL Area. The remediation consisted of installing a 160-foot long sheet pile barrier extending from the river bottom at the face of the relieving platform down to bedrock. The barrier prevents westward migration of DNAPL contained in a two to three foot thick zone generally found at the bottom of fill (22 to 26 feet below ground surface).



The Western DNAPL recovery trench is 60-ft long, about 26 to 28 feet deep, and is situated about 65 feet inland from the new sheet pile barrier. The recovery trench contains 6 recovery wells. An observation well is located approximately 10-15 feet beyond each end of the recovery trench.

The Sediment Removal Area included the area beneath the relieving platform (about 160 feet by 20 feet by 4 feet deep) and an area of the river bottom running along the new sheet pile barrier and extending various distances out into the river, with a maximum extent of about 120 ft. Sediment was removed to depths ranging from about three to eight feet below the river bottom.

The containment of residual DNAPL was completed with the construction of a 4-foot thick, 20-foot wide underwater cap over the sediments found under the relieving platform. The underwater cap is located between the new sheet pile barrier, and the existing vertical timber wall at the eastern side of the relieving platform.

- 2.1.3.5 Construction of a Cover System A clean soil cover was placed in areas that are not beneath structures, pavement, or other similar surfaces. The clean soil cover is a minimum two feet thick and was placed over a demarcation layer, consisting of an orange geotextile. The cover system was completed in December 2006. In its 9 January 2007 letter, NYSDEC said that it had performed a site inspection on 28 December 2006 and the letter stated "the clean soil cover was installed as required in the approved Work Plan."
- 2.1.3.6 Sub-Slab Soil Vapor Management Systems Per the SMP, new buildings are to be constructed with passive sub-slab soil vapor management systems which are configured to be converted to active systems, if required by the NYSDEC or NYSDOH.

As of the end of the reporting period covered by this PRR, the sub-slab systems for Buildings 1 through 5 and the Club House had been completed and the system for Lookout Building 1 was under construction. Refer also to Section 4 of this report.

2.2 Effectiveness of the Remedial Program

The remedial action, with the exception of placement of site cover, was completed in January 2005. Site cover placement was completed in October 2006. The 2005 Final Engineering Report and 2006 Final Engineering Report Addendum concluded that the remedial actions were performed in accordance with the Work Plans (and approved deviations). The Final Engineering Report was accepted by NYSDEC in its letter dated 25 May 2005 and the Final Engineering Report Addendum was accepted by NYSDEC in its letter dated 9 January 2007.

2.3 Compliance

One area of non-compliance with the SMP determined by NYSDEC is the maintenance of site cover as an engineering control in some areas of the site. Due to the construction for site development, there were parts of the site where the site cover was disturbed during the period ending 31 August 2011. The approximate extent of site cover disturbance was provided in the 2 September 2011 letter from Haley & Aldrich to NYSDEC. The disturbance included the a portion of the area north of Building 5 where two new buildings (Lookout Buildings) are being constructed. Notification of this construction was made to



NYSDEC in the Haley & Aldrich letter dated 3 December 2010 per the NYSDEC-approved August 2010 Site Management Plan (SMP), specifically per section 2.2.2 of the Excavation Work Plan contained in Appendix A of the SMP.

NYSDEC replied to the 2 September 2011 letter with a letter dated September 20, 2011 requesting that a schedule for replacement of the site cover disturbed during this construction project be submitted no later than 4 October 2011. That submittal will present milestones and specific dates for each milestone for cover replacement.

Note that risks due to potential exposure to the exposed soil are low because the soils are not grossly contaminated and because the cover is missing in construction areas, not areas generally accessible to the public. The surface soils which were not covered may be characterized as urban fill, and based on soil sampling data from various locations at the site, do not contain BTEX or PAH compounds in concentrations greater than acceptable for re-use on site. The soils are above the water table, generally non-odorous, and when detectable readings are present, they exhibit very low readings on a photo-ionization detector. Workers who are involved in excavation of the soil must wear appropriate personal protective equipment as prescribed in the NYSDEC-approved Excavation Work Plan.

2.4 Recommendations

Use of the SMP and Periodic Review Reports should continue. The SMP was revised during 2010, the August 2010 Revised SMP was accepted by the NYSDEC on 26 August 2010 and remains applicable to the site during the next reporting period.



3. SITE OVERVIEW

3.1 Site Location and Significant Features

Refer to Section 2.1, above.

3.2 Chronology, Cleanup Goals, and Main Features of the Remedial Program

For chronology of the remedial program, refer to Section 2.1, above. In terms of cleanup goals, as given in the August 2010 SMP, the criteria for re-use of soil on site, below site cover are:

- Total benzene, toluene, ethylbenzene, and xylenes (BTEX) must be less than 10 ppm, and
- Total polycyclic aromatic hydrocarbons (PAH) must be less than 500 ppm.

The criteria for clean soil cover are those presented in 6 NYCRR Part 375 Table 367-6.8(b) for Restricted Residential use.

The main features of the remedial program are provided in Section 2.1, above. The only change to the site remedy since the remedy was selected is the closure of the LNAPL recovery system. Refer to Section 2.1.3, above.

3.3 Site Activities During the Reporting Period

Several activities took place during the reporting period related to site construction, maintenance and the SMP, all of which are described in this section.

3.3.1 Ongoing Construction Associated with Buildings 4, 5, the Club House, and Lookout Building No. 1

This work consisted primarily of structural, mechanical, electrical, interior finish and exterior finish for the buildings, except for the Lookout Building. At the time of Haley & Aldrich's site inspection on 31 August 2011, the floor slab of the Lookout Building No. 1 was complete and framework for the aboveground building construction was being erected.

3.3.2 Construction of the Pierson Park Extension along the Hudson River Waterfront

Notice of the construction of the Pierson Park Extension within the brownfield boundary was submitted in accordance with the SMP to NYSDEC on 10 November 2009 indicating start of construction on or after 16 November 2009. NYSDEC accepted the notice via email dated 12 November 2009. Construction began as of the site meeting on 25 November 2009. Ground-intrusive work was completed by 1 July 2011 and the site cover placement was completed soon afterward. The site cover in the Park was observed by Haley & Aldrich on 31 August 2011 to be in place and complete. The Park parcel was under Village of Tarrytown ownership throughout this reporting period ending 31 August 2011. This work was performed by Bradhurst Construction under a contract with the Village of Tarrytown.

3.3.3 Replacement of Site Cover

The Replacement of Disturbed Site Cover Plan was submitted to NYSDEC dated 15 January 2010 and accepted by NYSDEC via letter dated 21 January 2010. During the reporting period disturbed site



cover was replaced in areas that were not under construction. Site cover was replaced at the Club House and Pierson Park during this reporting period.

3.3.4 Repair of Sinkholes at the Relieving Platform

As reported in the previous PRR, sinkhole repair work was initiated in August 2010. The work was completed by mid-June 2011, which allowed for park construction to proceed to completion. This work was in the area of the Pierson Park construction for the Village of Tarrytown.



4. REMEDY PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS

The remedy performance and effectiveness has been previously reported to NYSDEC in annual reports. It was also previously reported in PRRs dated August 2010, September 2009, and July 2008. The performance and effectiveness of the remedy during the reporting period continued to be similar to those previously reported. A brief synopsis of the remedy performance for this reporting period follows:

- As stated above, the LNAPL system achieved its purpose of removing practically-recoverable floating product. The system has been dismantled, with NYSDEC approval.
- The DNAPL recovery systems continue to operate as intended. Thickness of DNAPL in the recovery wells continues to be monitored and recovery is ongoing.
- As reported previously, the subaqueous cap within the Hudson River was inspected in 2007. The condition of the cap was reported to be satisfactory. The next inspection is scheduled per the SMP for 2012
- The site cover was disturbed in parts of the site, as described in Sections 2.3 and 3.3.3, above.

Testing and evaluation of the passive sub-slab soil vapor management systems in Building 5 and the Clubhouse was performed during this reporting period, in accordance with the SMP. All systems in Buildings 1 through 5 and the Clubhouse passed leak and pressure tests conducted per the SMP. Documentation of the testing was provided in attachments to the "Mitigation System Installation Record" submitted to NYSDEC on 2 August 2011



5. INSTITUTIONAL CONTROLS/ENGINEERING CONTROLS PLAN COMPLIANCE REPORT

5.1 Institutional Controls/Engineering Controls Requirements and Compliance

The ICs and ECs are listed and described in tabular format in Box 3 and Box 4 of the attached Institutional and Engineering Controls Certification Form.

5.2 Institutional Controls/Engineering Controls Certification

Based on the data collected, the remedial actions (with the exception of the area of disturbed site cover) are effective and no changes in the monitoring program are recommended.

5.3 Corrective Measures Work Plan

As stated in Section 2.3, NYSDEC requested a schedule for replacement of the site cover disturbed during the ongoing construction project be submitted no later than 4 October 2011. That submittal will present milestones and specific dates for each milestone for cover replacement and will constitute the Corrective Measures Work Plan.



6. MONITORING PLAN COMPLIANCE REPORT

6.1 Components of the Monitoring Plan

Monitoring requirements of the SMP include:

- Annual groundwater monitoring
- Monitoring of DNAPL observation and recovery wells during DNAPL extraction events, which occur generally on a monthly basis.
- Inspection of the subaqueous cap, completed in 2007 and scheduled for 2012, with the frequency of inspections continuing every five years after 2012.
- Annual site inspection.

6.2 Summary of Monitoring Completed

Monitoring has been completed, per the SMP during the reporting period, and is reported separately. During the reporting period, groundwater wells were sampled once, DNAPL wells were monitored six times, and an annual site inspection was performed. The subaqueous cap was inspected in 2007 and is scheduled to be inspected again in 2012.

6.3 Comparison with Remedial Objectives

During the reporting period, the groundwater monitoring program exhibited no exceedances of Class GA Groundwater standards in downgradient monitoring wells, with the exception of iron and manganese in downgradient well MW-21 and, for the first time, the compound benzo(a)anthracene was detected in downgradient wells MW-20 and MW-24. The concentrations of iron and manganese in MW-21 were 12.7 and 1.54 mg/l, respectively. In comparison, the upgradient wells had comparable concentrations of iron (5.97 mg/l in MW-29 and 22.9 mg/l in MW-12) and of manganese (1.17 mg/l in MW-29 and 0.216 mg/l in MW-12). Therefore, the concentrations of iron and manganese in MW-21 are not considered to be related to the former MGP operations.

The concentrations of benzo(a)anthracene in downgradient wells MW-20 and MW-24 were 0.023 and 0.024 ug/l respectively. In comparison the upgradient well MW-12 had a higher concentration of benzo(a)anthracene, 0.084 ug/l. The compound was not detected in upgradient well MW-29. Since this is the first time that benzo(a)anthracene has been detected in any downgradient well, no conclusions can be drawn regarding any trends over time.

Through the end of this reporting period, the DNAPL monitoring program shows a trend of generally declining DNAPL thickness since the beginning of the monitoring and extraction program.

Based on the 2007 inspection, the subaqueous cap performed its intended function; the next inspection is scheduled for 2012.

In terms of overall annual inspection, the ECs are in place and operating as intended, with the exception of the site cover, as discussed previously.

6.4 Monitoring Deficiencies

There were no deficiencies in the monitoring program identified during the reporting period.



6.5 Conclusions and Recommendations for Changes

Based on the data collected, the remedial actions are effective and no changes in the monitoring program are recommended



7. OPERATION AND MAINTENANCE PLAN COMPLIANCE REPORT

With the closure of the LNAPL recovery system, there are no mechanical systems that are operated or maintained at the site. Recovery of DNAPL is performed using a vacuum truck.



8. OVERALL PRR CONCLUSIONS AND RECOMMENDATIONS

8.1 Compliance with the SMP

As discussed above, the only IC/EC element that was in non-compliance during the reporting period was the temporary disturbance to the site cover during active construction of the Lookout Buildings. A schedule for replacing the site cover will be submitted by 4 October 2011 per NYSDEC's 20 September 2011 letter.

8.2 Performance and Effectiveness of the Remedy

As described in Section 4, above, based on site monitoring data and inspections, with the exception of site cover, the remedial action is performing and is as effective as required by the SMP.

8.3 Future PRR Submittals

The current annual schedule for submitting the PRR is satisfactory. The next PRR will cover the year between 1 September 2011 and 31 August 2012.



9. COMMENTARY FOR THE PERIODIC REVIEW REPORT FORM

The PRR Form is contained in Appendix A to this report. The following commentary is organized according to the Form.

Box 1 Site Details

- 1. The reporting period needed to be corrected to align with the reporting period of the previous PRR. This PRR covers the period 20 August 2010 through 31 August 2011.
- 2. The property ownership for the subject site did not change during the reporting period.
- 3. There was no change of use during the reporting period. As reported above, construction of the Pierson Park Extension, which was the subject of previous notifications to NYSDEC, was completed during the reporting period.
- 4. No permits were issued for the property during the reporting period.
- 5. As described above, the site is currently under development for the two planned Lookout Buildings.

Box 2

- 1. The site use (residential, commercial, and park) is consistent with restricted residential, commercial and industrial uses.
- 2. With the exception of the temporary disturbed area of site cover all of the ICs and ECs are in place. Due to the exception, this item is marked 'No.' The Corrective Measures Work Plan for replacing the disturbed site cover is described in Section 5.3 of this PRR.

Box 3 Description of Institutional Controls

The Institutional Controls listed for each of the seven parcels in Box 3 are all in place.

Box 4 Description of Engineering Controls.

A short description of the status of the Engineering Controls at the site is given on the completed PRR Form in Attachment A. Additional information is presented below; using the organization of the section of the PRR entitled "Control Description for Site No. C360064" that follows Box 4 in the PRR form. Note that Institutional Controls listed for each of the seven parcels are all in place.

Engineering Control (i)

For all parcels, the Engineering Control (i) refers to site cover requirements of the Site Management Plan (SMP). Due to the construction for site development, there were parts of the site where the site cover was disturbed during the period ending 31 August 2011. The extent of site cover disturbance was provided in the 2 September 2011 letter from Haley & Aldrich to NYSDEC. The disturbance included a portion of the area north of Building 5 where two new buildings (Lookout Buildings) are being constructed.

In terms of rectifying the condition of disturbed site cover, a schedule for replacing the site cover will be submitted by 4 October 2011 per NYSDEC's 20 September 2011 letter.



Engineering Control (ii)

For all parcels, the Engineering Control (ii) refers to the soil vapor management for buildings required in the SMP. For parcels 1-P-15, 1-P-20, and 1-P-21 soil vapor management systems were completed and confirmation testing was performed in Buildings 1 through 5 and the Club House. For Parcel 1-P-21, the vapor management system for the Lookout Building No. 1 was under construction. When the building is completed the vapor management system will be tested per the SMP. For parcels 1-P-22, 1-P-23, 1-P-24, and 1-P-24A no buildings were under construction and so there are no vapor management systems in place or necessary.

Engineering Control (iii)

For parcels 1-P-22, 1-P-23, and 1-P-24, Engineering Control (iii) refers to the Northern DNAPL Recovery System. For parcel 1-P-21, Engineering Control (iii) refers to the Western DNAPL Recovery System. Both of these systems are in place and functioning per the SMP.

For parcel 1-P-20, Engineering Control (iii) refers to the LNAPL Recovery System. In its letter dated 10 September 2007, NYSDEC agreed to discontinue operation of the LNAPL Recovery System. Thereafter, the system was dismantled and is no longer in place or functional.

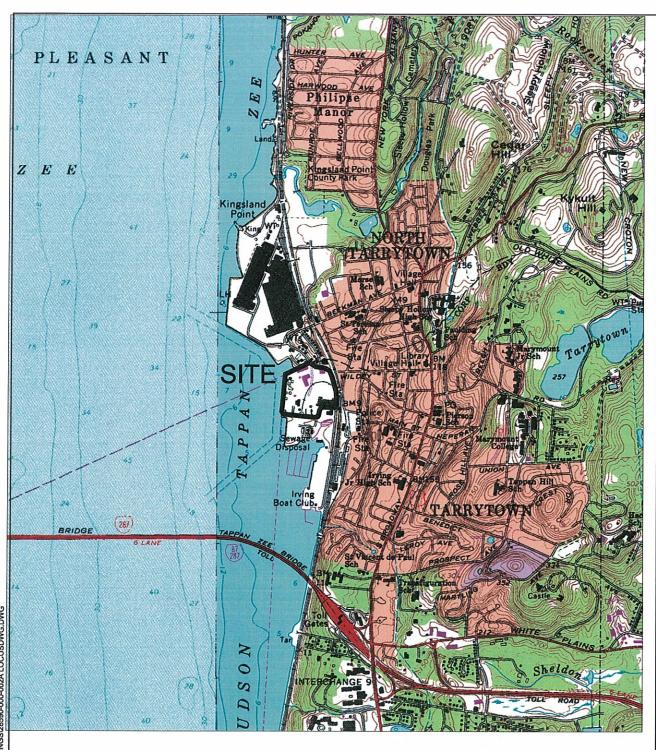
Box 5 Periodic Review Report (PRR) Certification Statements

- 1. The response is "Yes."
- 2. (a) The response is "No" because the site cover was disturbed in areas of the site due to construction activities during the period ending 31 August 2011.
 - (b) The response is "No" because the site cover was disrupted due to construction during the period ending 31 August 2011 (see Box 4).
 - (c) The response is "Yes," NYSDEC has access to the site.
 - (d) The response is "No" because the site cover was disturbed in areas of the site due to construction activities during the period ending 31 August 2011.
 - (e) This does not apply; there is no financial assurance mechanism required.

According to the instructions, because the response to Box 5 is 'No,' the remainder of the form, specifically Boxes 6 and 7 are not completed.

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QUADRANGLE LOCATION: WHITE PLAINS, N.Y.



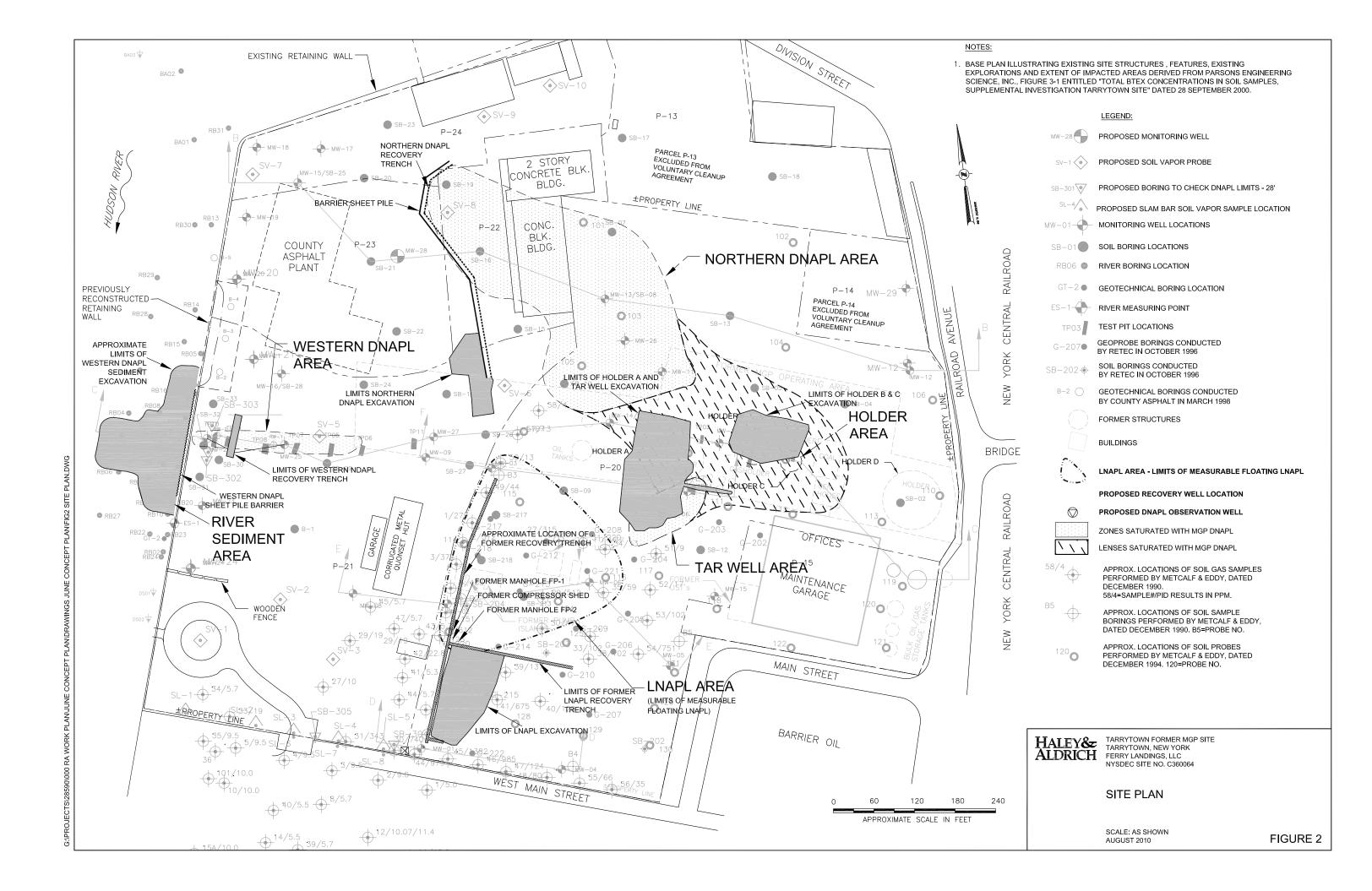
TARRYTOWN FORMER MGP SITE TARRYTOWN, NEW YORK FERRY LANDINGS, LLC NYSDEC SITE NO. C360064

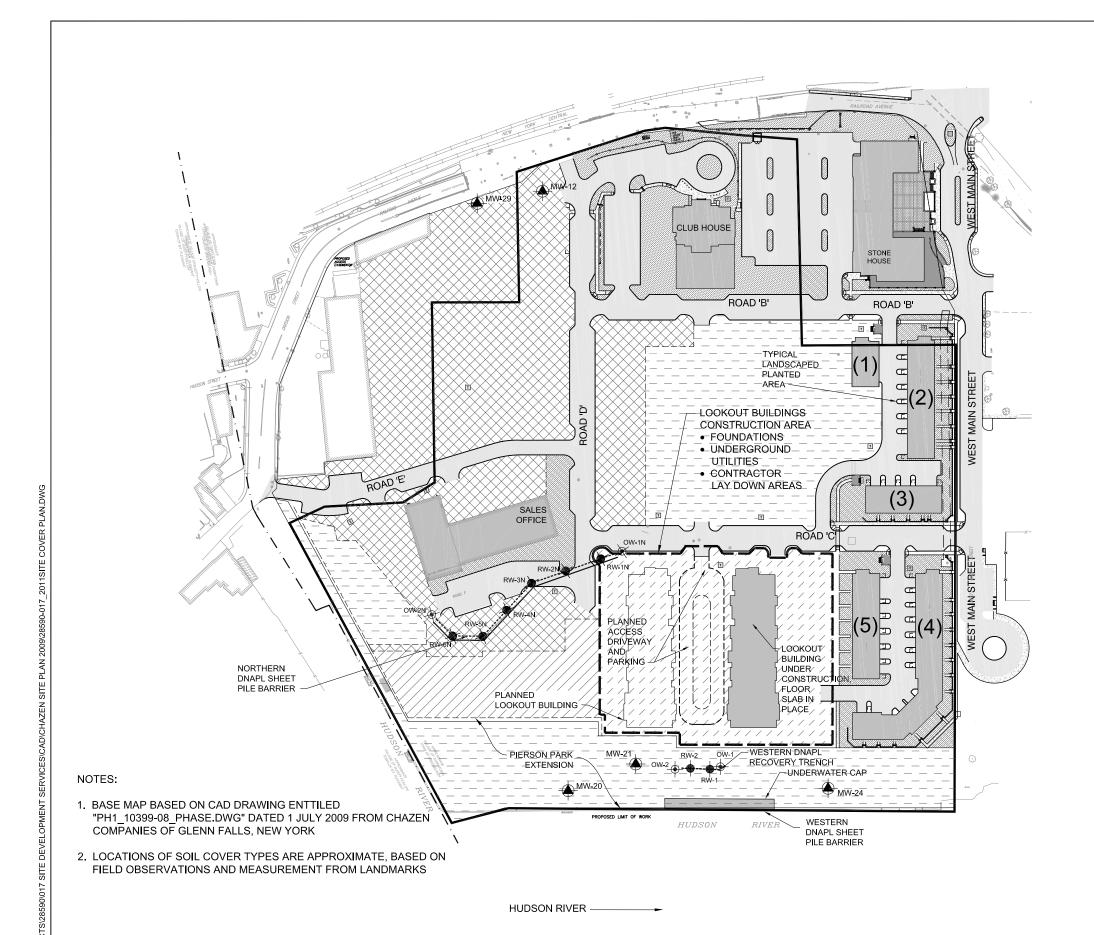
SITE LOCUS

SCALE: AS SHOWN AUGUST 2010

FIGURE 1

G:\PROJECTS\28590\000 RA WORK PLAN\DRAWINGS\28590-000-002A LOCUSDWG.DWG





LEGEND:

GROUNDWATER MONITORING WELL

DNAPL RECOVERY WELL

DNAPL OBSERVATION WELL

APPROXIMATE AREA ENCOMPASSED BY THE BROWNFIELD CLEAN-UP AGREEMENT #C36OO64

LOOKOUT BUILDINGS CONSTRUCTION AREA- SITE COVER DISTURBED

EXISTING ROADS AND PARKING AREAS

EXISTING BUILDING

ASPHALT COVER

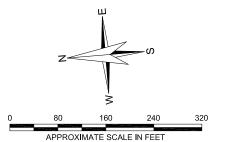
CLEAN GRAVEL ("ITEM 4") COVER (MIN 2 FT)

LANDSCAPED AREA (MIN 2 FT)

INTERIM SOIL COVER (UNDETERMINED THICKNESS)

CLEAN SOIL COVER (MIN 2 FT)

(5)BUILDING NUMBER



HALEY& TARRYTOWN FORMER MGP SITE TARRYTOWN, NEW YORK FERRY LANDINGS, LLC NYSDEC SITE NO. C360064

SITE PLAN SITE COVER TYPES AUGUST 31, 2011

SCALE: AS SHOWN SEPTEMBER 2011

FIGURE 3

APPENDIX A

Periodic Review Report Form





Enclosure 1 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form



Sit	e No. C3	Site Deta	ils	Box 1	
Sit	e Name CE - T	arrytown MGP			
Cit Co Site	y/Town: Tarryto unty: Westchest e Acreage: 20.0	er			
		ee previous PRR)			
		- ,e	•	YES	NO
1.	Is the informati	on above correct?			X
	If NO, include I	andwritten above or on a separate	e sheet.		
2.		l of the site property been sold, su Iment during this Reporting Period	bdivided, merged, or undergone a		
3.	Has there beer (see 6NYCRR	any change of use at the site duri 375-1.11(d))?	ing this Reporting Period		
4.		al, state, and/or local permits (e.g. perty during this Reporting Period	, building, discharge) been issued?		
			clude documentation or evidence nitted with this certification form		
5.	Is the site curre	ntly undergoing development?		X	
				Box 2	
;				YES	NO
6.		te use consistent with the use(s) lidential, Commercial, and Industria		X	
7.	Are all ICs/ECs	in place and functioning as design	ned?		X
	IF THE A	NSWER TO EITHER QUESTION 6 DO NOT COMPLETE THE	OR 7 IS NO, sign and date below REST OF THIS FORM.	and	
۸.	orrective Meas	ikes Work Plan must be submitted	d along with this form to address t	hese iss	ues.

SITE	NO. C360064		Box 3
D	escription of Institutional Contr	rols	-
<u>Parcel</u>	<u>Owner</u>	,	Institutional Control
1-P15	Ferry Inve	stments, LLC	Ground Water Use Restriction Landuse Restriction O&M Plan Site Management Plan
1-P-20	Ferry Inves	stments, LLC	Ground Water Use Restriction Landuse Restriction O&M Plan
1-P-24	Ferry Land	tings IIC	Site Management Plan
1-P-24	Ferry Land	ungs, elo	Ground Water Use Restriction Landuse Restriction O&M Plan Site Management Plan
1-P24A	Ferry Land	dings, LLC	Ground Water Use Restriction Landuse Restriction O&M Plan
1-P21	Westchest	ter Industries	Site Management Plan Ground Water Use Restriction Landuse Restriction O&M Plan
1-P-23	Westchest	ter Industries	Site Management Plan Ground Water Use Restriction Landuse Restriction O&M Plan Site Management Plan
1-P-22 Note:	Westchest The institutional controls for e are all in place	ter Industries, Inc. each of the seven parcels	Ground Water Use Restriction Landuse Restriction O&M Plan Site Management Plan
			Box 4
<u>Parcel</u>	escription of Engineering Contr	Engineering Control	Notes: 1. Cover system has been disturbed due
1-P15 1-P-20		Cover System Vapor Mitigation	to construction of underground utilities, roads, parking lots, building pads, and building construction.
1-P-24		Cover System Vapor Mitigation	2. Vapor mitigation systems are complete in Buildings 1-5 and the Clubhouse.
1-P24A		Leachate Collection	3. Vapor mitigation system in Lookout Building 1 is under construction.
1-P21		Cover System Vapor Mitigation	
	DNAPL	Cover System Leachate Collection Vapor Mitigation	
1-P-23			

1-P-23

Parcel

Engineering Control

Cover System

DNAPL Leachate Collection

Vapor Mitigation

1-P-22

Cover System

DNAPL Leachate Collection

Subsurface Barriers

Vapor Mitigation

Control Description for Site No. C360064

Parcel: 1-P-20

Inst. Controls:(i) Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance. (ii) The use of untreated groundwater for any purpose is not permitted.

Eng. Controls: (i) In areas not proposed for future building construction or impervious covering, residually contaminated soils on the Controlled Property that meet backfill criteria as stipulated in Section 3.4 of theapproved Site Management Plan, must be covered by a demarcation layer consisting of an orange, non-woven, 4 oz/sy geotextile and must be covered with 2 feet of clean imported fill material. This barrier must be maintained as per the approved Site Management Plan; and

(ii) A passive Soil Vapor Management System (SVMS) must be installed in every new building erected within the Controlled Property. Newly constructed buildings within the Controlled Property shall also be subjected to a Soil Vapor Intrusion (SVI) Investigation, conducted in accordance with the applicable guidance in effect at the time of the investigation. If the results of this SVI investigation demonstrate ineffectiveness of the existing passive SVMS, an appropriate active Soil Vapor Management System shall be designed, constructed and maintained. (iii) Operate and maintain the LNAPL Recovery System depicted in Figure 2 as set forth in Section 3 of OM&MP which is Apendix A to the approved Site Management Plan.

Parcel: 1-P-22

Inst. Controls:(i) Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance. (ii) The use of untreated groundwater for any purpose is not permitted.

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Control Description for Site No. C360064

Parcel: 1-P-23

Inst. Controls:(i) Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance. (ii) The use of untreated groundwater for any purpose is not permitted.

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(ii) A passive Soil Vapor Management System (SVMS) must be installed in every new building erected within the Controlled Property. Newly constructed buildings within the Controlled Property shall also be subjected to a Soil Vapor Intrusion (SVI) Investigation, conducted in accordance with the applicable guidance in effect at the time of the investigation. If the results of this SVI investigation demonstrate ineffectiveness of the existing passive SVMS, an appropriate active Soil Vapor Management System shall be designed, constructed and maintained. (iii) Operate and maintain the Northern DNAPL Recovery System depicted on Figure 2 as set forth in Section 2 of OM&MP which is Apendix A to the approved Site Management Plan.

Parcel: 1-P-24

Inst. Controls:(i) Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance. (ii) The use of untreated groundwater for any purpose is not permitted.

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Parcel: 1-P15

Inst. Controls: (i)Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance.

(ii)The use of untreated groundwater for any purpose is not permitted.

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Control Description for Site No. C360064

Parcel: 1-P21

Inst. Controls:(i) Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance.(ii) The use of untreated groundwater for any purpose is not permitted.

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- (ii) A passive Soil Vapor Management System (SVMS) must be installed in every new building erected within the Controlled Property. Newly constructed buildings within the Controlled Property shall also be subjected to a Soil Vapor Intrusion (SVI) Investigation, conducted in accordance with the applicable guidance in effect at the time of the investigation. If the results of this SVI investigation demonstrate ineffectiveness of the existing passive SVMS, an appropriate active Soil Vapor Management System shall be designed, constructed and maintained.
- (iii) Operate and maintain the Western DNAPL Recovery System depicted on Figure 2 as set forth in Section 2 of OM&MP which is Apendix A to the approved Site Management Plan.

Parcel: 1-P24A

Inst. Controls:(i) Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance. (ii) The use of untreated groundwater for any purpose is not permitted.

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Periodic Review Report (PRR) Certification Statements

- 1. I certify by checking "YES" below that:
 - a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;
 - b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES NO

X 🗆

- 2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:
 - (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;
 - (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;
 - (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;
 - (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and
 - (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

Note: For explanations, refer to the Periodic Review Report.

□ □ X

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

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

Signature of Owner, Remedial Party or Designated Representative

See Periodic Review Report for Corrective Measures Work Plan

Date

IC CERTIFICATIONS SITE NO. C360064

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 2 and/or 3 are true. I understand that a false

	at	
print name	at print business a	address
am certifying as		(Owner or Remedial Party)
for the Site named in the Site Details	s Section of this form.	
- Li de dimensión y c		
Signature of Owner or Remedial Par	rty Rendering Certification	Date
	ICIEC CERTIFICATIONS	
	IC/EC CERTIFICATIONS	
,	Drofoosional Engineer Signatu	Box 7
Ī	Professional Engineer Signatu	
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