

Periodic Review Report

Austin Avenue Landfill BCP Site BCP Site #C360066 September 27, 2017 to September 27, 2018 Reporting Period

Morris Westchester Junior Retail Associates, LLC







#### **Executive Summary**

The Austin Avenue Landfill Brownfield Cleanup Program (BCP) Site (BCP Site #C360066) consists of approximately 14.1 acres of land located at 323 Sprain Road in the City of Yonkers, Westchester County, New York. This Periodic Review Report (PRR) is being submitted to the New York State Department of Environmental Conservation (NYSDEC) in accordance with the Site Management Plan (SMP) for the Site.

Site soil and groundwater were historically determined to have detected concentrations of polychlorinated biphenyls (PCBs), metals, and semi-volatile organic compounds (SVOCs). In addition, Site soil vapor was considered to have the potential for accumulation of explosive gases associated with the historic landfill operations which would require the assessment of the potential for soil vapor intrusion in any future buildings constructed on-Site. The Site was remediated to restricted-residential use cleanup standards and received a Certificate of Completion (COC) from the NYSDEC on June 10, 2015.

Since the issuance of the COC, the Property has been divided into three (3) parcels, which are currently owned by: Morris Westchester Retail Associates, LLC (Parcel 3-3244-4); Morris Westchester Junior Retail Associates, LLC (Parcel 3-3244-7); and the City of Yonkers, New York (Parcel 3-3244-1). The parcels and the COC were transferred to the new owners in June 2016 as described in previous reports. The Site Remedial Party is Austin Avenue Brownfield Redevelopment, LLC.

In accordance with the SMP, Site monitoring currently includes semi-annual groundwater sampling and inspections and an annual Site inspection. Semi-annual groundwater monitoring and Site inspections are currently being conducted on behalf of one of the Site owners, Morris Westchester Junior Retail Associates, LLC, in May and November of each year. The annual Site inspection is also occurring and corresponds to the closure of the PRR certification period. The institutional and engineering controls certification form, as issued by NYSDEC, has been completed and is included as Appendix A.

Based on the Site inspection conducted on September 21, 2018, the institutional controls and engineering controls for the Site remain in place and effective for protecting human health and the environment. The soil cover engineering controls remain in place, and no structures have been built on-Site. The Site is currently in the monitoring stage with groundwater samples being taken from on-Site groundwater monitoring wells on a semi-annual basis. In general, stable or decreasing concentrations appear to be observed at the Site.

The requirements necessary to discontinue Site monitoring and Site engineering and institutional controls have not been met at this time. However, a request to modify the groundwater monitoring requirements to annually and to eliminate SVOCs and PCBs from the parameter list was included in the spring 2018 groundwater monitoring report (GHD, August 14, 2018). Until the NYSDEC and NYSDOH approve the requested modification to the monitoring program, groundwater monitoring will continue on a semi-annual basis. Based on the observed stability of the soil cover system and the well-established vegetative cover, a request should be submitted to the NYSDEC to reduce Site inspections to annually. Until the NYSDEC and NYSDOH approve the requested modification, Site inspections will continue to be performed on a semi-annual basis. There is no need to revise the frequency of PRR submittals at this time.



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#### 1. Introduction

#### 1.1 Purpose

This Periodic Review Report (PRR) is being submitted for the Austin Avenue Landfill Brownfield Cleanup Program (BCP) Site (BCP Site No. C360066) (Site) located at 323 Sprain Road, City of Yonkers, Westchester County, New York (Figure 1), on behalf of one of the Site Owners, Morris Westchester Junior Retail Associates, LLC (MWJRA). The purpose of this PRR and attached documents is to document that institutional and engineering controls, as described in the New York State Department of Environmental Conservation (NYSDEC)-approved Site Management Plan (SMP) and Environmental Easement (EE), are in place in accordance with 6NYCRR Part 375-3. The following elements are included in this report:

- A description of all institutional and/or engineering controls employed at the Site.
- An evaluation of the plans developed for implementation of the engineering and institutional controls, regarding the continued effectiveness of any institutional and/or engineering controls required by the decision document for the Site.
- A certification prepared by a professional engineer or qualified environmental professional that the institutional controls and/or engineering controls employed at the Site during the period are:
  - Unchanged from the previous certification, unless approved by NYSDEC.
  - Consistent with the SMP.
  - In place and effective.
  - Performing as designed, and that nothing has occurred that would (1) impair the ability of the controls to protect public health and the environment, or (2) constitute a violation or failure to comply with any operation and maintenance plan for such controls.
- The institutional and engineering controls certification form, as issued by NYSDEC, has been completed and is included as Appendix A.
- Data tables and figures depicting results of semi-annual groundwater monitoring activities conducted on-Site.

#### 1.2 Certification Period

NYSDEC requested that this Periodic Review Report (PRR) cover the period between September 27, 2017 and September 27, 2018. During this period, one of the parcel owners, MWJRA, has opted to conduct the groundwater monitoring, Site inspections, and prepare the annual PRR as required by the SMP. MWJRA retained GHD Consulting Services Inc. (GHD) to perform semi-annual groundwater monitoring, to perform semi-annual visual inspections of engineering controls on-Site, to perform an annual visual inspection of the Site, and to prepare this PRR.



#### 1.3 Scope and Limitations

This report has been prepared by GHD for Morris Westchester Junior Retail Associates, LLC and may only be used and relied on by Morris Westchester Junior Retail Associates, LLC for the purpose agreed between GHD and Morris Westchester Junior Retail Associates, LLC as set out in this report.

GHD otherwise disclaims responsibility to any person other than Morris Westchester Junior Retail Associates, LLC arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

GHD has prepared this report based in part on information provided by Morris Westchester Junior Retail Associates, LLC and others who provided information to GHD (including Government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

The opinions, conclusions and any recommendations in this report are based on information obtained from, and testing undertaken at or in connection with, specific sample points. Site conditions at other parts of the Site may be different from the Site conditions found at the specific sample points.

Investigations undertaken in respect of this report are constrained by the particular Site conditions, such as the location of buildings, services and vegetation. As a result, not all relevant Site features and conditions may have been identified in this report.

Site conditions (including the presence of hazardous substances and/or Site contamination) may change after the date of this Report. GHD does not accept responsibility arising from, or in connection with, any change to the Site conditions. GHD is also not responsible for updating this report if the Site conditions change without further authorization to do so by Morris Westchester Junior Retail Associates, LLC.



#### Site Overview

The Site is located in the City of Yonkers, Westchester County, New York and is a part of multiple tax parcels of land (Property). After issuance of the Certificate of Completion, the Property was subdivided into three (3) parcels to accommodate future development and establish designated park land. The parcels are identified as Parcel 3-3244-1, Parcel 3-3244-4, and Parcel 3-3244-7 on the NYSDEC Institutional and Engineering Controls Certification Form. The three parcels are further described as follows:

- Parcel 3-3244-1 Approximately 9.89 acres of land reportedly owned/operated by the City of Yonkers, New York.
- Parcel 3-3244-4 Approximately 3.24 acres of land reportedly owned/operated by Morris Westchester Retail Associates, LLC.
- Parcel 3-3244-7 Approximately 5.13 acres of land reportedly owned/operated by Morris Westchester Junior Retail Associates, LLC.

The Property as a whole is approximately 18.26 acres and was investigated with approximately 14.1 acres being remediated to a Track 4 Restricted Residential Use, which represents the area of the BCP Site. Figure 2 depicts the location and extent of each parcel, the extents of the BCP Site and engineering controls, and the extents of the property. The Site is bound by Austin Avenue to the north, Home Depot's back parking lot to the south, Sprain Brook and Sprain Road to the east, and an unimproved road and similar vacant land (Lot 4 – Austin Avenue and Prior Place BCP Site, Site #C360116), to the west (Figure 2).

The Site is currently undeveloped with a minimum of a 2-foot thick soil cover system, consisting of clean off-site fill placed over a geotextile demarcation layer with established vegetation at the surface, covering its entirety.

The Remedial Investigation (RI), which was conducted under Brownfield Cleanup Agreement (BCA Index #A3-0542-0306) and BCP Site #C360066 during 2006 and 2007, as well as previous investigations conducted by others, characterized the nature and extent of contamination at the Site. The results of the RI, as reported in the *Remedial Investigation Report* (S&W Redevelopment of North America, LLC, August 2007) determined that contaminants of potential concern are present in Site soil/historic fill and groundwater. It was determined that Site surface and subsurface soil/historic fill contains metals, specifically cadmium, chromium, copper, lead, and mercury at concentrations that exceed the Residential Use Soil Cleanup Objectives (SCOs). Analytical results of Site groundwater samples identified one polychlorinated biphenyl (PCB, Aroclor 1260); one pesticide (dieldrin); and multiple metals, including arsenic, barium, beryllium, cadmium, chromium, copper, iron, lead, magnesium, manganese, mercury, nickel, sodium, and zinc at concentrations that exceed the Technical and Operational Guidance Series (TOGS) 1.1.1 Class GA groundwater standards or guidance values. In addition, there was little to no evidence of explosive gas associated with the former landfill operations detected at the Site.



A Remedial Work Plan (RWP) was prepared by S&W Redevelopment of North America, LLC (November 2009). The remedial goals for the Site included:

- Eliminate or mitigate, to the extent practicable, on-Site environmental or public health exposures to on-Site metals contamination that may remain in soil/historic fill or groundwater.
- Eliminate or mitigate, to the extent practicable, the potential for concentrations of soil gases (i.e., explosive gases) to enter future Site buildings, if any.

The proposed remedial approach was to remediate the Site to a Track 4 Restricted Residential Use by implementing engineering/institutional controls at the Site, including: placing a minimum of 2 feet of clean fill, underlain by a geotextile demarcation layer, across the entirety of the Site; requiring the evaluation and mitigation, if necessary, of soil vapor intrusion in any future buildings constructed on-Site; and implementing an Environmental Easement for the Site, which included Site use and groundwater use restrictions. Remedial activities were completed at the Site between October 2010 and February 2011 and included the placement of approximately 141,500 cubic yards of clean fill, underlain by a demarcation layer, to act as a soil cover engineering control.

The engineering controls for the Site consist of maintaining the soil cover system and evaluating the potential for vapor intrusion for any building(s) developed on-Site, with any potential impacts that are identified being monitored or mitigated. The institutional controls include a Site groundwater use restriction, a Site use restriction restricting the use to restricted residential use or higher uses (i.e., commercial or industrial uses, subject to local zoning), and evaluating the potential for soil vapor intrusion in any future building(s) constructed on-Site.

An EE for the Site was filed with the Westchester County Clerk's Office on April 22, 2015. A SMP, which outlines Site restrictions and requirements of future maintenance and monitoring, was completed in May 2011 and Revised in April 2015. A Certificate of Completion allowing for restricted residential, commercial, and industrial use of the Site was received from the NYSDEC on June 10, 2015.

The reader of this PRR may refer to previous reports for more detail, as needed. These reports include:

- DFH Environmental Services, Inc., January 10, 1990, "Project Update Report"
- Leggette, Brashears & Graham, Inc. (LBG), April 5, 1995, "Austin Avenue Landfill Surface and Ground-Water Investigation"
- Leggette, Brashears & Graham, Inc. (LBG), May 1995, "Supplemental Investigation of Bedrock Ground-Water Quality"
- Leggette, Brashears & Graham, Inc. (LBG), November 1996, "Phase I Environmental Site Assessment"
- Leggette, Brashears & Graham, Inc. (LBG), March 4, 1997, "Soil Sampling Letter Report"
- Geraghty & Miller, Inc., June 1997, "Hydrogeologic Investigation of Selected Landfills in Westchester County, New York"



- Leggette, Brashears & Graham, Inc. (LBG), February 19, 1998, "Semi-Annual Surface and Ground-Water Monitoring Letter Report"
- Leggette, Brashears & Graham, Inc. (LBG), August 21, 1998, "Semi-Annual Surface and Ground-Water Monitoring Letter Report"
- Leggette, Brashears & Graham, Inc. (LBG), September 7, 1999, "Update to November 1996
   Phase I Environmental Site Assessment"
- Leggette, Brashears & Graham, Inc. (LBG), October 8, 1999, "Semi-Annual Surface and Ground-Water Monitoring Letter Report"
- Leggette, Brashears & Graham, Inc. (LBG), October 3, 2000, "Supplemental Site Characterization Activities, Former Austin Avenue Landfill, Yonkers, New York"
- S&W Redevelopment of North America, LLC, August 2007, "Remedial Investigation Report, Austin Avenue Landfill Brownfield Site, City of Yonkers, Westchester County, NY"
- S&W Redevelopment of North America, LLC, November 2009, "Remedial Work Plan, Austin Avenue Landfill Brownfield Site, City of Yonkers, Westchester County, NY"
- S&W Redevelopment of North America, LLC, May 2011, Revised by: GHD Consulting Engineers, LLC, April 2015, "Site Management Plan, Former Austin Avenue Landfill Site, Westchester County, New York"
- S&W Redevelopment of North America, LLC, May 2011, Revised by: GHD Consulting Engineers, LLC, April 2015, "Final Engineering Report, Former Austin Avenue Landfill Site, Westchester County, New York"
- New York State Department of Environmental Conservation, June 10, 2015, "Certificate of Completion, Austin Avenue Landfill Site"
- GHD Consulting Services Inc., Lot 1 Austin Avenue Landfill BCP Site (Site #C360066) Semi-Annual Post-Remediation Groundwater Monitoring – Fall 2016, December 21, 2016
- GHD Consulting Services Inc., Periodic Review Report, Austin Avenue Landfill Brownfield Cleanup Program Site (Site #C360066), June 10, 2015 to September 27, 2016 Reporting Period, December 21, 2016
- GHD Consulting Services Inc., Lot 1 Former Austin Avenue Landfill BCP Site (Site #C360066)
   Semi-Annual Post-Remediation Groundwater Monitoring Spring 2017, September 29, 2017
- GHD Consulting Services Inc., Lot 1 Former Austin Avenue Landfill BCP Site (Site #C360066)
   Semi-Annual Post-Remediation Groundwater Monitoring Fall 2017, February 2, 2018
- GHD Consulting Services Inc., Periodic Review Report, Austin Avenue Landfill Brownfield Cleanup Program Site (Site #C360066), September 27, 2016 to September 27, 2017 Reporting Period, October 31, 2017
- GHD Consulting Services Inc., Lot 1 Former Austin Avenue Landfill BCP Site (Site #C360066)
   Semi-Annual Post-Remediation Groundwater Monitoring Spring 2018, August 14, 2018



#### Institutional and Engineering Controls

Based on identified soil and groundwater contamination, the potential for explosive gases from historic operations, and the Site's past, present, and reasonably anticipated future use, institutional and engineering controls are utilized at the Site to limit exposure risks. These institutional and engineering controls are described below.

#### 3.1 Institutional Controls

The institutional controls (ICs) for this Site are outlined in the NYSDEC-approved SMP (S&W Redevelopment of North America, LLC, May 2011; Revised by: GHD Consulting Engineers, LLC, April 2015), and adherence to these ICs is required by the Environmental Easement. The ICs for the Site include the following:

- The Site may only be used for Track 4 Restricted Residential, Commercial, or Industrial use
  provided that the long-term engineering and institutional controls included in the SMP are
  employed and local zoning laws allow the use.
- The Site may not be used for a higher level of use, such as Unrestricted Use or Residential Use, without amendment of the Environmental Easement, and review and approval by the NYSDEC.
- All future activities on-Site that will disturb remaining contaminated material must be conducted in accordance with the SMP.
- The use of groundwater underlying the Site is prohibited without treatment rendering it safe for the intended use and prior written approval from the NYSDEC.
- The potential for vapor intrusion must be evaluated for any building(s) developed on-Site, and any potential impacts that are identified must be monitored or mitigated.
- Vegetable gardens and farming on-Site are prohibited.
- The Site Owner or Remedial Party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Site are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitutes a violation or failure to comply with the SMP. NYSDEC retains the right to access the Site at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow, and will be made by an expert that the NYSDEC finds acceptable.

#### 3.1.1 Environmental Easement

The Environmental Easement was filed with the Westchester County Clerk's office and remains unchanged.



#### 3.1.2 Site Use

Although the Site Ownership has changed, as described above, the Site use has not changed since the NYSDEC issued the COC. The Site is currently vacant and consists of a vegetated soil cover system with associated drainage control features.

#### 3.1.3 Groundwater

Groundwater is not being used at the Site.

Semi-annual groundwater monitoring and Site inspections were conducted as outlined in the NYSDEC-approved SMP during this PRR's certification period, on November 14 and 15, 2017 and June 4 and 5, 2018. Additional information is provided in Section 4.

#### 3.1.4 Excavations

No excavations have occurred on-Site during this PRR's certification period.

During this PRR's certification period, MWJRA arranged for the installation of three (3) bollards around SWRMW-1 to prevent potential damage to the well from periodic vehicular use of the Site. The bollards were installed by hand digging holes that did not extend below the soil cover engineering control's demarcation layer, placing steel pipes, filling the pipes with concrete, and backfilling around the pipes with excavated soils. Given the isolated area of this work and since the work was performed by hand and the soil cover engineering control was not breached, no community air monitoring was performed during these activities.

#### 3.2 Engineering Controls

The engineering controls (ECs) for this Site are outlined in the NYSDEC-approved SMP (S&W Redevelopment of North America, LLC, May 2011; Revised by: GHD Consulting Engineers, LLC, April 2015), and include the following:

#### 3.2.1 Soil Cover System

Direct contact with potentially contaminated soil/historic fill at the Site is mitigated by a soil cover system in place over the entirety of the BCP Site. This soil cover system is comprised of a geotextile demarcation layer overlain by a minimum of 2 feet of clean soil, which was seeded to promote vegetative growth. The location of the soil cover system is depicted in Figure 3.

An annual inspection was completed on September 21, 2018 by GHD Consulting Services Inc. personnel. There was no record of the soil cover system being breached during the reporting period. Based on field observations, the soil cover system was generally unchanged for the duration of this certification period, and no maintenance was required to amend the soil cover system. The vegetative cover on-Site is well established, and no substantive erosion was observed.

In general, the soil cover system should be periodically mowed to discourage woody growth. Based on Site inspection field observations, there was woody growth observed in the rock retaining wall on the eastern perimeter of the Site and in other isolated areas of the soil cover system. The observed woody growth did not appear to be adversely impacting the soil cover system at this time.



Additional information can be found in the Institutional and Engineering Controls Certification Form (Appendix A) and the Annual Site Inspection Form (Appendix B).

#### 3.2.2 Soil Vapor Mitigation System

The potential for vapor intrusion must be evaluated for any building(s) developed on-Site and any potential impacts that are identified must be monitored or mitigated.

At the time of the annual Site inspection (September 21, 2018), no buildings had been constructed on-Site; therefore, no soil vapor intrusion investigation, monitoring, or mitigation is required at this time.



#### Operations and Monitoring

The NYSDEC-approved SMP (S&W Redevelopment of North America, LLC, May 2011; Revised by: GHD Consulting Engineers, LLC, April 2015) requires semi-annual groundwater monitoring and reporting, semi-annual soil cover system inspections, and annual Site inspection, as well as monitoring and reporting requirements for a future soil vapor mitigation or monitoring system, if applicable.

The semi-annual groundwater monitoring is intended to assess the performance of the remedy. Semi-annual groundwater monitoring and Site inspections were completed in accordance with the NYSDEC-approved SMP during this PRR's certification period, on November 14 and 15, 2017 and June 4 and 5, 2018 (Figure 4 and Table 1). Semi-annual groundwater monitoring reports for each of these monitoring events were transmitted to the NYSDEC on February 2, 2018 and August 14, 2018, respectively. Groundwater monitoring results for the fall 2017 and spring 2018 monitoring events were also uploaded in the NYSDEC EQuIS Database, were approved by the EQuIS Team, and are ready for use (Appendix C).

#### 4.1 Groundwater Monitoring Results

Based on the laboratory analytical results, concentrations of contaminants of potential concern in groundwater have shown decreases over time as a result of the remedial action completed at the Site. The groundwater sample analytical results from this PRR's certification period (November 2017 and June 2018 monitoring events, Table 1) indicate:

- No polychlorinated biphenyls (PCBs) have been detected above Class GA standards in any of
  the groundwater samples taken, with the exception of the March 2007 sample from SWRMW-1.
  In addition, PCBs have not been detected above laboratory method detection limits in any of the
  groundwater samples taken, with the exception of Aroclor 1248 in four (4) of the five (5) samples
  taken in November 2017.
- Several semi-volatile organic compounds (SVOCs) were detected in samples taken from the Site
  above laboratory detection limits. Analytes that exceed the Class GA standards or guidance
  values are limited to the samples taken from SWRMW-1 and include: benzo(a)anthracene
  (November 2017), benzo(b)fluoranthene (November 2017), and bis(2-ethylhexyl)phthalate (June
  2018)
- Concentrations of various metals were detected above laboratory detection limits in each of the groundwater samples, of which the following exceeded Class GA standards or guidance values:
  - Antimony SWRMW-5 (June 2018)
  - o Chromium SWRMW-1 (June 2018), SWRMW-4 (June 2018)
  - Iron SWRMW-1 (November 2017 and June 2018), SWRMW-3 (November 2017 and June 2018), SWRMW-4 (November 2017 and June 2018), SWRMW-5 (November 2017 and June 2018), and Duplicate (November 2017 taken from SWRMW-1 and June 2018 taken from SWRMW-3)
  - o Lead SWRMW-1 (June 2018)



- Magnesium SWRMW-1 (November 2017 and June 2018), SWRMW-4 (November 2017 and June 2018), SWRMW-5 (November 2017 and June 2018), and Duplicate (November 2017 taken from SWRMW-1)
- Manganese SWRMW-1 (November 2017 and June 2018), SWRMW-4 (June 2018), and Duplicate (November 2017 – taken from SWRMW-1)
- Sodium SWRMW-1 (November 2017 and June 2018), SWRMW-4 (November 2017 and June 2018), SWRMW-5 (November 2017 and June 2018), and Duplicate (November 2017 – taken from SWRMW-1)

In general, PCBs are not detected at concentrations that exceed Class GA standards in samples taken from any Site monitoring wells since the implementation of the selected remedy. Also, SVOC impacts appear minor in nature, with bis(2-ethylhexyl)phthalate being the only SVOC commonly detected, typically below Class GA standards, in groundwater samples taken from Site monitoring wells. To date, the only exceedance of Class GA standards for bis(2-ethylhexyl)phthalate was in the sample taken from SWRMW-1 during the June 2018 monitoring event. To date, only two (2) other identified SVOC concentrations have exceeded the applicable Class GA standards or guidance values during the November 2017 monitoring event and are limited to samples taken from SWRMW-1. The two identified SVOCs were non-detect during the June 2018 monitoring event. Future monitoring events will determine if the exceedances noted were transient occurrences or if trends can be discerned.

Identified concentrations of metals are highly variable across the Site and over-time, with the most recent round of monitoring (June 2018) generally identifying commonly occurring natural elements in excess of Class GA standards or guidance values. The exception to this is for antimony, chromium, and lead concentrations that were identified in excess of Class GA standards or guidance values during the June 2018 monitoring event, which could, at least in part, be attributed to elevated turbidity levels in the groundwater samples during the June 2018 monitoring event.

Based on the groundwater data received to date, the qualitative exposure assessment assumptions regarding on-Site and off-Site contamination have not changed and are still valid. A request was submitted with the spring 2018 groundwater monitoring report (GHD, August 14, 2018) to reduce groundwater monitoring frequency to annual sampling occurring in the spring of each year. Until such time that the NYSDEC approves this request, semi-annual groundwater monitoring, as outlined in the NYSDEC-approved SMP, will occur, with the next round of monitoring tentatively scheduled for November 2018.

#### 4.2 Soil Vapor Mitigation

There are currently no structures located on-Site, and, as such, no soil vapor intrusion evaluation, mitigation, or monitoring was conducted. If structures are planned to be built in the future, a soil vapor intrusion evaluation will be conducted and reviewed, appropriate monitoring and/or mitigation measures will be implemented, and inspection of the soil vapor mitigation system and/or monitoring documentation will occur, as appropriate.



#### Recommendations

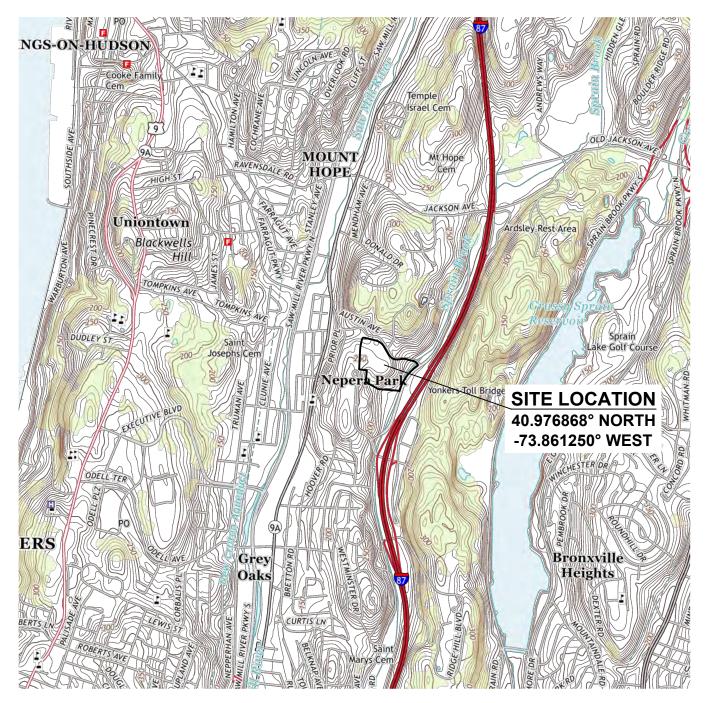
Based on a review of the semi-annual groundwater data, it is recommended that the ICs and ECs currently in place for the Site remain in place in order to ensure the continued effectiveness and protectiveness of the remedy; however, the following recommended modifications should be considered:

- The request for a reduction in groundwater monitoring frequency to annual sampling occurring during May of each year, which was submitted with the spring 2018 groundwater monitoring report, should be reviewed with NYSDEC and NYSDOH for their acceptance. The effectiveness of the remedy relative to contaminants of potential concern, which are predominantly metals, could continue to be effectively evaluated through the annual groundwater monitoring results, especially given the fact that groundwater monitoring is identifying generally decreasing contamination trends. If the frequency is approved by the NYSDEC, then the SMP should be revised accordingly to reflect the change.
- The request for the removal of SVOCs and PCBs from the groundwater sample analytical program (i.e., analyze future samples for TAL metals only), which was submitted with the spring 2018 groundwater monitoring report, should reviewed with NYSDEC and NYSDOH for their acceptance. The analysis of future groundwater samples for only metals, which are the primary contaminants of potential concern for the Site, will continue to provide an effective evaluation of Site groundwater quality. If the modification to the analyte list is approved by the NYSDEC, then the SMP should be revised accordingly to reflect the change.
- Given the well-established nature of the vegetative cover at the Site and the documented stability of the cover system since placed in 2011, a request to reduce Site inspections to an annual frequency (corresponding with the end of the PRR certification period in September of each year) to ensure that the Site use has not changed and the engineering and institutional controls are in place and functioning as intended should be prepared and provided to NYSDEC for review and approval.

Periodic routine maintenance of the soil cover system should continue to be conducted, including the following:

- Mowing/brush hogging should be performed periodically to discourage woody growth on the soil cover system.
- Woody vegetative growth that forms in areas of the Site soil cover system where steep slopes
  preclude periodic mowing/brush hogging should be cut and removed on a periodic basis. In
  particular, the current woody growth that has become established in the rock retaining wall on
  the eastern perimeter should be cut and removed to maintain the integrity of the retaining wall.
- Periodic trimming (i.e., annually) should also occur around the groundwater monitoring wells to
  provide free and easy access during future sampling events and to maintain the integrity of the
  monitoring points, particularly SWRMW-4 and SWRMW-5, which are outside the limits of the soil
  cover engineering control.
- The monitoring wells should be periodically maintained, including replacing locks or damaged covers. In addition, the location of the monitoring wells should be staked and flagged for ease of identification in the field.

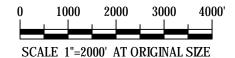
Figures





MAP TAKEN FROM: USGS 7.5 MINUTE SERIES TOPOGRAPHIC QUADRANGLES: MOUNT VERNON, NY (2013) & YONKERS, NY-NJ (2013) (U.S. GEOLOGICAL SURVEY WEBSITE)









Lot 1 - Austin Avenue Landfill BCP Site Periodic Review Report Site Location Map

Revision A Date 10.10.2018

Figure 1



**New Subdivided Tax Parcels** (Approximate) Extent of Lot 1 Geotextile **Demarcation Layer and BCP Site** (Approximate)

**Groundwater Monitoring Well** Location and ID (Approximate)

Property Boundary (Approximate)

NOTES:

1. AERIAL PHOTOGRAPHS ARE 6-INCH RESOLUTION AERIAL PHOTOGRAPHS DATED 2013 AND TAKEN FROM THE NYSGIS CLEARINGHOUSE WEBSITE.

2. LOT 1 BASE MAP FROM A FIELD SURVEY CONDUCTED BY CONTRACTORS LINE AND GRADE SOUTH, LLC, MAY 11, 2011.

3. LOT 4 BASE MAP FROM A FIELD SURVEY CONDUCTED BY JOHN MEYER CONSULTING, P.C. JUNE 30, 2011.

4. NEW TAX PARCEL SUBDIVISION AREAS TAKEN FROM EXHIBIT MAP OF FORMER TAX LOT 1 COMPLETED BY JMC, JULY 2016.



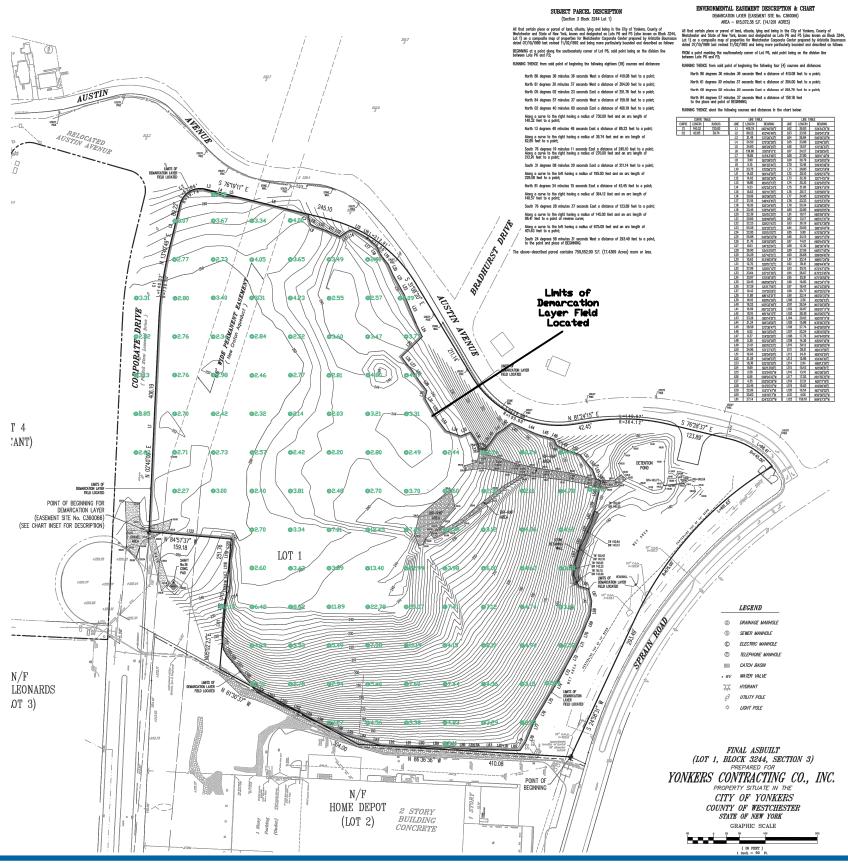
Morris Westchester Junior Retail Associates, LLC Job Number | 11134282 Lot 1 - Austin Avenue Landfill BCP Site Periodic Review Report

Site Layout

Revision A Date 10.10.2018

Figure 2

SCALE 1"=140' AT ORIGINAL SIZE



#### Legend:

•2.20 Soil Cover Thickness in Feet

#### Notes:

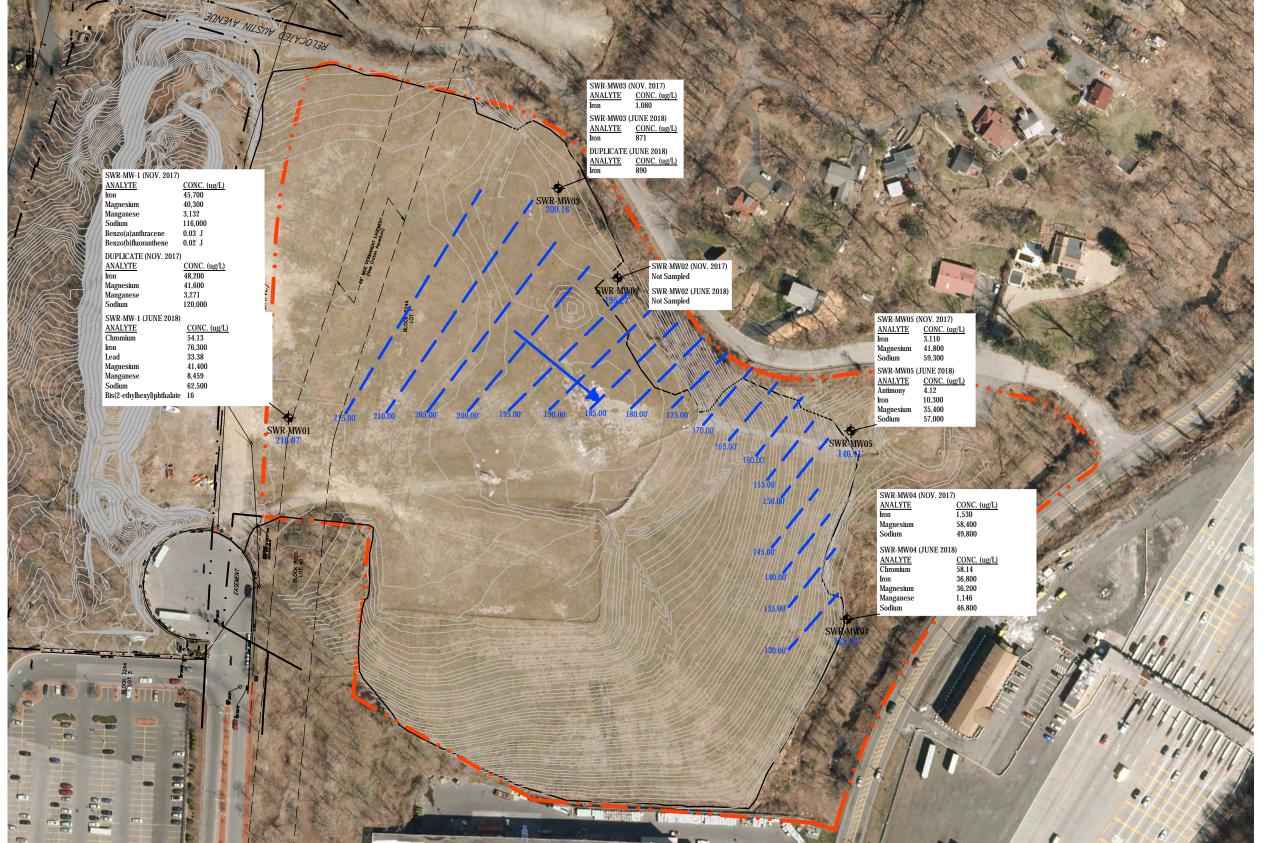
- 1. Minimum of 2-feet of clean fill placed over entire BCP Site to the limits of demarcation layer.
- Survey provided by Contractors Line & Grade South LLC (May, 2011).



Morris Westchester Junior Retail Associates, LLC Job Number | 11134282 Lot 1 - Austin Avenue Landfill BCP Site

Periodic Review Report Soil Cover Areas

Revision A Date 10.10.2018



#### LEGEND:

Property Boundary (Approximate)

Extent of Lot 1 Geotextile **Demarcation Layer and BCP Site** 

(Approximate)



**Groundwater Monitoring Well** Location and ID (Approximate)

195.27

**Groundwater Elevation (June 2018** Sampling Event)



**Groundwater Elevation Contour** and Presumed Flow (June 2018 Sampling Event, Approximate)

Detected Concentration in ug/L ug/L - micrograms per liter, parts per billion

Only exceedances of the Class GA groundwater standards or guidance values are shown here. For a complete summary of analytical results, refer to the



AERIAL PHOTOGRAPHS ARE 6-INCH RESOLUTION AERIAL PHOTOGRAPHS DATED 2013 AND TAKEN FROM THE NYSGIS CLEARINGHOUSE WEBSITE.

LOT 1 BASE MAP FROM A FIELD SURVEY CONDUCTED BY CONTRACTORS LINE AND GRADE SOUTH, LLC,

MAY 11, 2011.

LOT 4 BASE MAP FROM A FIELD SURVEY CONDUCTED BY JOHN MEYER CONSULTING, P.C. JUNE 30, 2011.

EXTENT OF ASH FROM EXISTING CONDITIONS, PLATE 1, MORRIS WESTCHESTER CONSTRUCTION COMPANY, L.L.P. HISTORIC AUSTIN AVENUE LANDFILL CLOSURE PLAN, LEGGETTE, BRASHEARS, & GRAHAM ENGINEERING SERVICES, P.C. MARCH 1988. REVISED BY S&W REDEVELOPMENT OF NORTH AMERICA, LLC, MAY 2011. FURTHER REVISED BY GHD CONSULTING ENGINEERS, LLC, DECEMBER 2012.



Morris Westchester Junior Retail Associates, LLC Lot 1 - Austin Avenue Landfill BCP Site Periodic Review Report

**Groundwater Elevation Contours and Exceedances of Groundwater Standards** 

Job Number | 11134282 Revision A Date | 10.11.2018

Figure 4

SCALE 1"=140' AT ORIGINAL SIZE

# Tables



Seminaria   Semi	Anglyte	Class GA					SWR	WRMW-1					
	Analyte (ug/L)		3/14/20	07	6/5/20	07			, :	11/15/20	117	6/4/20	18
12.4-Trichirobenzene			3/14/20	· ·	0/0/20		11/1//2010	0/20/2011	-	11/10/2	,,,	0/4/20	
12.45   Telarchiorobenzene		5		U		U	-	-	i	-	i	_	
1-2-Decinorbenzeme		-	-	Ť	-		NS		U		U		U
1.4-Dichrobrenzeme 3 U U U		3		U		U	-	-				-	
2 2-09/job (1-chicopropenel)	1 3-Dichlorobenzene	3		U		U	-	-				-	
2.4.4 F-frichtorphenol	1 4-Dichlorobenzene	3		U		U	-	-	. !			-	
2 45 - Trichtoprophenol	2 2-oxybis (1-chloropropane)			U		U	-	-	i		i	-	
2 4 - Frichirophenol 1	2,3,4,6-Tetrachlorophenol		-		-		NS		U		U		
2 4-Dintophenol 1 0 0 0 NS 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0													
2 4-Dinichylphenol													
2 4-Dnintophenol													
2 4-Dinitrolluene		50(G)											
2-6-Dintroloulene													
2-Chloropenhalmen													
2-Chlorophenol 2-Methylphenol 3-Methylphenol 4-Chloro-cresol 5													
2-Methytphenol		10(G)											
2-Methylphenol													
2-Nitropandinine							NS		U		U		U
2-Nitrophenol		_					-	-		-		-	
3-Dichlorobenzidine		5											
3-Nitroadnilne		F(0)	1										
4 6-Dinitro-acresol 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			1										
4-6-Dinthro-2-methylphenol 4-Chioro-3-methylphenol 4-Chioro-3-methylphenol 5		5	1	U		U	NS	İ	U		U		
-Bromophenyl phenyl ether			l -	11	-	.,,	NS	-		-	!		U
4-Chloro-3-methylphenol 4-Chlorophenyl phenyl ether 5 U U U NS U U U U U V SS U U U U U V SS U U S-4 U U U V SS U U U U U V SS U U U U U V SS U U U U			1							-		-	
4-Chloropanline  5 U U NS U U U U A-Chloropanly phenyl ether  4-Chloropanly phenyl ether  4-Chloropanly phenyl ether  5 U U U NS U - U U U A-Chloropanly phenyl ether  5 U U U NS U - U U U U NS U U - U U U NS U U - U U U U NS U U - U U U U NS U U - U U U U U NS U U - U U U U U U U U U U U U U U U U	4 Chloro 3 mothylphonol						CNI		U		U		U
4-Chlorophenyl phenyl ether   4-Methylphens   5(G)	4 Chloroppilino	5					NC.	· -	i	-	i	-	- 11
4-Methylphenol		3											
4-Nitrophenol										5.4	١		
4-Nitrophenol 4-Nitrophenol 4-Nitrophenol 4-Nitrophenol 4-Nitrophenol 4-Nitrophenol 4-Cenaphthylene 50(G) 4-Cenaphthylene 50(G) 50(G		5(G)		-		-				J. <del>4</del>			
Acenaphthhene         20(G)         U         U         NS         U         U         U         U         NS         U		3(3)								-	ļ		
Acenaphthylene		20(G)								-	- 11		11
Acetophenone         50(G)         U		20(G)											
Anthracene				ŭ		١							
Arrazine		50(G)	-	- 11	-	- 11							
Benza(a)ehyde		30(0)	_	Ŭ	_	Ü							
Benzo(a)prime													II
Benzo(a)pyrene		0.002(G)		- 11		- 11			-	0.03			
Benzo(b)fluoranthene									-	0.00	_		
Benzo(ghi)perylene										0.02			
Benze(k)fluoranthene   Doug(G)   D		0.002(0)								0.02			
Biphenyl   Biphenyl   Bis(2-chloroethoxy)methane   5		0.002(G)											
Benzyl alcohol   Sis(2-chloroethyl)ether		0.002(0)	_	Ŭ	_	Ü							
Bis(2-chloroethoxy)methane   5				ш		- 11	-	_	Ĭ	_	Ŭ	_	·
Bis(2-chloroethyr)jether Bis(2-chloroethyr)jethes Bis(2-chloroethyr)jethes Bis(2-chloroethyr)jethes Bis(2-chloroethyr)jethes Bis(2-chloroethyr)jethes Bis(2-chloroethyr)jethes Bis(2-chloroethyr)jethes Bis(2-chloroethyr)jethes Bis(2-chloroethyr)jethes Bis(2-chloroethyjethes) Bis(2-chloroethyjethes Bis(2-chloroethyjethes) Bis(2-chloroethyjethes) Bis(2-chloroethyjethes) Bis(2-chloroethyjethes) Bis(2-chloroethyjethes) Bis(2-chloroethyjethes) Bis(2-chloroethyjethes) Bis(2-chloroethyjethes Bis(2-chloroethyjethes) Bis(2-chloroethyjethes) Bis(2-chloroethyjethes) Bis(2-chloroethyjethes) Bis(2-chloroethyjethes) Bis(2-chloroethyjethes) Bis(2-chloroethyjethes) Bis(2-chloroethyjethalate Bis(2-chloroethyjethes) B		5					NS		u		u i		U
Bis(2-chloroisopropy)ethet le													
Bis(2-ethylhexyl)phthalate			_		_								
Butyl benzyl phthalate         50(G)         U         U         NS         U<		5	3.2	J		U						16	_
Caprolactam							NS						IJ
Carbazole         U         U         NS         U		, ,	_		_								
Dibenzofuran				U		U							
Dibenzofuran	Chrysene	0.002(G)	1	U		U	NS		U		U		
Diberzofuran	Dibenzo(a h)anthracene			U		U	NS		U		U		U
Dimethyl phthalate				-				İ	- 1				U
Din-butyl phthalate			1										
Di-n-octyl phthalate   50(G)   U   U   NS   U   U   U   U   U   U   U   U   U		50(G)											
Fluoranthene   50(G)			1										
Fluorene													
Hexachlorobenzene		50(G)											
Hexachlorobutadiene			1								٠.		
Hexachlorocyclopentadiene			1										
Hexachloroethane													U
Indeno(1 2 3-cd)pyrene			1									-	
Sophorone													
Naphthalene         10         U         U         NS         U         <			1						-				
NDPA/DPA								i					
Nitrobenzene         0.4         U         U         NS         U		10		U		U			U				
n-Nitroso-di-n-propylamine		0.4	· ·	!	-	, , <u>,</u>		-					
n-Nitrosodiphenylamine		0.4											
p-Chloro-m-cresol		50/01	1				IND	i İ	U		U		U
Pentachlorophenol         U         U         NS         U         U         U           Phenanthrene         50(G)         U         0.72         J         NS         U         0.02         J         0.11           Phenol         -         -         -         NS         U         U         U         U           Pyrene         50(G)         U         U         NS         U         U         0.11		50(G)	1	U		U	NS	-		-	- 11	-	
Phenanthrene         50(G)         U         0.72         J         NS         U         0.02         J         0.11           Phenol         -         -         -         I         NS         U         U         U         U         U         U         U         U         U         U         U         0.11         U         U         0.11         U         0.11         U         0.11         U         0.11         0			· ·	- 11	-	- 11			- 1				
Phenol   NS   U   U   U   Pyrene   50(G)   U   U   NS   U   U   0.11		50(G)	1		0.72					0.02	1.1	0.11	U
Pyrene 50(G) U U NS U U 0.11		30(0)	1	J	0.72	J				0.02	-	0.11	- 11
7 Total SVOCs 32 0.72 NS 2.5 5.47 16.22		50(G)	1	ш	-	ш					- :	0.11	U
	Total SVOCs	55(5)	3.2		0.72			2.5	ĭ	5.47	-		

- (G) Signifies a NYSDEC guidance value where a standard has not been established.
- U The compound was not detected above the laboratory detection limit.
- J Indicates an estimated value detected between the laboratory detection limit and laboratory reporting limit.
- ( ) Indicates analyte was not analyzed for ND Non-Detect

NS - Not Sampled during monitoring round. SWRMW-2 not part of ongoing monitoring.

Bold Thick Outlined Cell indicates an exceedance of applicable NYSDEC Class GA Standard or Guidance Value



Analyte	Class GA				SWF	RMW-2		
(ug/L)	Standards	3/14/2007	6	/5/2007	11/17/2016	5/23/2017	11/15/2017	6/4/2018
SVOCs by EPA Method 8270D			+					
1 2 4-Trichlorobenzene	5	ι	J	U	-	-	-	-
1,2,4,5-Tetrachlorobenzene		-	ļ	-	NS	NS	NS	NS
1 2-Dichlorobenzene	3	Ų	- 1	U	ļ -	-	ļ -	-
1 3-Dichlorobenzene	3	L.		U	i -	i -	-	i -
1 4-Dichlorobenzene	3	L.		U	-	-	-	-
2 2-oxybis (1-chloropropane)		U	J !	U	- NC	- NO	- NO	-
2,3,4,6-Tetrachlorophenol		٠.	.!	- 11	NS NS	NS NS	NS NS	NS NS
2 4 5-Trichlorophenol 2 4 6-Trichlorophenol		Ĺ	٠.	U	I NS	NS NS	NS NS	NS NS
2 4-Dichlorophenol	1	l		U	I NS	I NS	I NS	NS NS
2 4-Dimethylphenol	50(G)	ĺ		U	NS NS	NS NS	NS NS	NS
2 4-Dinitrophenol	10(G)	i		U	NS NS	NS NS	NS NS	NS NS
2 4-Dinitrotoluene	5(G)	i			l NS	l NS	l NS	l NS
2 6-Dinitrotoluene	5	i		Ü	NS	NS	NS	NS
2-Chloronaphthalene	10(G)	i		Ū	NS	NS	NS	NS
2-Chlorophenol	- ( - )	ı		Ü	NS	NS	NS	NS
2-Methylnaphthalene		ı	J	U	NS	NS	NS	NS
2-Methylphenol		i		Ū	-	-	-	-
2-Nitroaniline	5	ı	! ر	U	NS	NS	NS	NS
2-Nitrophenol		Ü	ار	U	l NS	NS	l NS	NS.
3 3-Dichlorobenzidine	5(G)	Ü		Ū	NS	NS	NS	NS
3-Nitroaniline	5	Ü		U	NS	NS	NS	NS
4 6-Dinitro-o-cresol		- '	!	-	<u> </u>	-	-	NS
4 6-Dinitro-2-methylphenol		ι	J	U	NS	NS	NS	NS
4-Bromophenyl phenyl ether		Ų		U	NS	NS	NS	NS
4-Chloro-3-methylphenol		Ų		U	-	-	-	-
4-Chloroaniline	5	U	J	U	NS	NS	NS	NS
4-Chlorophenyl phenyl ether		U	J	U	NS	NS	NS	NS
4-Methylphenol		Ų		U	NS	NS	NS	NS
4-Nitroaniline	5(G)	U		U	NS	NS	NS	NS
4-Nitrophenol		L		U	NS	NS	NS	NS
Acenaphthene	20(G)	Ų		U	NS	NS	NS	NS
Acenaphthylene		Ų	J	U	NS	NS	NS	NS
Acetophenone		-		-	NS	NS	NS	NS
Anthracene	50(G)	L	) į	U	NS	NS	NS	NS
Atrazine		-	i	-	NS	NS	NS	NS
Benzaldehyde		-	1	-	NS	NS	NS	NS
Benzo(a)anthracene	0.002(G)	L	- 1	U	NS	NS	NS	NS
Benzo(a)pyrene	ND	L		U	NS	NS	NS NS	NS
Benzo(b)fluoranthene	0.002(G)	Ų		U	NS	NS	NS	NS
Benzo(ghi)perylene		Ų		U	NS	NS	NS	NS
Benzo(k)fluoranthene	0.002(G)	L	,	U	NS	NS	NS	NS
Biphenyl			. !	-	NS	NS	NS	NS
Benzyl alcohol	-	Ų		U	NS	NS	NS	NS
Bis(2-chloroethoxy)methane Bis(2-chloroethyl)ether	5 1	l L		U	NS NS	I NS	NS NS	NS NS
Bis(2-chloroisopropyl)ether	'		,	U	NS	NS NS	NS NS	NS NS
Bis(2-ethylhexyl)phthalate	5	- (	.! ,	- 2.6 J	NS NS	NS NS	NS NS	NS NS
Butyl benzyl phthalate	50(G)	l		1.6 J	NS NS	NS NS	NS NS	NS NS
Caprolactam	30(G)		, i	U	I NS	I NS	I NS	I NS
Carbazole		- ر		- U	NS	NS	NS	NS NS
Chrysene	0.002(G)	i		Ü	NS	NS	NS	NS NS
Dibenzo(a h)anthracene	(0)	ĺ		U	l NS	NS NS	l <sub>NS</sub>	l NS
Dibenzofuran		i		Ü	NS NS	NS NS	NS NS	NS NS
Diethyl phthalate	50(G)	ì		Ü	NS	NS	NS	NS
Dimethyl phthalate	50(G)	i		Ü	NS	NS	NS	NS
Di-n-butyl phthalate		ì			l NS	l NS	l NS	l NS
Di-n-octyl phthalate	50(G)	i		U	NS	NS	NS	NS
Fluoranthene	50(G)	Ü	J	U	NS	NS	NS	NS
Fluorene	50(G)	į,		U	NS	NS	NS	NS
Hexachlorobenzene	0.04	Ü		U	NS	NS	NS	NS
Hexachlorobutadiene	0.5	Ü	J	U	NS	NS	NS	NS
Hexachlorocyclopentadiene	5	ι		U	NS	NS	NS	NS
Hexachloroethane	5	ι		U	NS	NS	NS	NS
Indeno(1 2 3-cd)pyrene	0.002(G)	ι		U	NS	NS	NS	NS
Isophorone	50(G)	U		U	NS	NS	NS	NS
Naphthalene	10	ι	J	U	NS	NS	NS	NS
NDPA/DPA		-	ļ	-	NS	NS	NS	NS
Nitrobenzene	0.4	L	- 1	U	NS	NS	NS	NS
n-Nitroso-di-n-propylamine		L		U	NS	NS	NS	NS
n-Nitrosodiphenylamine	50(G)	Ų	J !	U	-	-	-	-
p-Chloro-m-cresol		-	, I	-	NS	NS	NS	NS
Pentachlorophenol		Ų		U	NS	NS	NS	NS
Phenanthrene	50(G)	Ų	J	U	NS	NS	NS	NS
Phenol		-	. !	-	NS	NS	NS	NS
Pyrene Total SVOCs	50(G)	L		U	NS	NS	NS	NS
		ND	. 4	1.9	NS	NS	NS	NS

(G) Signifies a NYSDEC guidance value where a standard has not been established.

U - The compound was not detected above the laboratory detection limit.

J - Indicates an estimated value detected between the laboratory detection limit and laboratory reporting limit.

( - ) - Indicates analyte was not analyzed for ND - Non-Detect

 $\ensuremath{\mathsf{NS}}$  - Not Sampled during monitoring round. SWRMW-2 not part of ongoing monitoring.

Bold Thick Outlined Cell indicates an exceedance of applicable NYSDEC Class GA Standard or Guidance Value



A 1. d -	01 04	GA SWRMW-3								
Analyte (ug/L)	Class GA Standards	3/14/2007	6/5/2007	11/17/2016	5/23/2017	11/15/2017	6/4/2018			
	Otanuarus	3/14/2007	6/5/2007	11/1//2016	5/23/2017	11/15/2017	6/4/2016			
SVOCs by EPA Method 8270D 1 2 4-Trichlorobenzene	5	U	U	_	! -	. i	_			
1,2,4,5-Tetrachlorobenzene	Ŭ	_	-	NS	ĺυ	U	U			
1 2-Dichlorobenzene	3	U	U	-	i -	-	-			
1 3-Dichlorobenzene	3	U	U	-	-	-	-			
1 4-Dichlorobenzene	3	U	U	-	-	-	-			
2 2-oxybis (1-chloropropane)		U	U	-	-	-	-			
2,3,4,6-Tetrachlorophenol			-	NS	Ü	U	U			
2 4 5-Trichlorophenol 2 4 6-Trichlorophenol		U	U	NS NS	U	U	U U			
2 4-Dichlorophenol	1	U	U	NS	U	U	U			
2 4-Dimethylphenol	50(G)	U	U	NS	U	U	Ü			
2 4-Dinitrophenol	10(G)	ŭ	Ü	NS	Ü	Ü	Ü			
2 4-Dinitrotoluene	5(G)	U	U	NS	l u	Ü	Ü			
2 6-Dinitrotoluene	5	U	U	NS	U	U	U			
2-Chloronaphthalene	10(G)	U	U	NS	U	U	U			
2-Chlorophenol		U	U	NS	U	U	U			
2-Methylnaphthalene		U	U	NS	U	U	U			
2-Methylphenol	_	U	U		i	-	-			
2-Nitroaniline	5	U	U	NS	U	U	U			
2-Nitrophenol 3 3-Dichlorobenzidine	5(G)	U U	U	NS NS	U	U U	U			
3-Nitroaniline	5(G) 5	U	U	NS NS	U	U	U			
4 6-Dinitro-o-cresol	3	ا <sub>-</sub> ا	-	INS	Ι . ΄	_ "	Ü			
4 6-Dinitro-0-cresor 4 6-Dinitro-2-methylphenol		· U	- U	NS	i · u	- U	-			
4-Bromophenyl phenyl ether		Ü	Ü	NS	Ü	Ü	U			
4-Chloro-3-methylphenol		Ü	Ū	-	-		-			
4-Chloroaniline	5	U	U	NS	U	U	U			
4-Chlorophenyl phenyl ether		U	U	NS	Ü	U	U			
4-Methylphenol		U	U	NS	U	U	U			
4-Nitroaniline	5(G)	U	U	NS	U	U	U			
4-Nitrophenol		U	U		U	U	U			
Acenaphthene	20(G)	U	U	NS	U	U	U			
Acetaphanana		U	U	NS	U	U	U			
Acetophenone Anthracene	50(G)	- U	- U	NS NS	U	U I	U			
Atrazine	30(G)	_	_	NS NS	Ü	Ü	Ü			
Benzaldehyde		_	-	NS	Ŭ	Ü	Ü			
Benzo(a)anthracene	0.002(G)	u l	U	NS	l ü	Ū	Ū			
Benzo(a)pyrene	ND	Ū	Ū	NS	Ū	Ū	Ū			
Benzo(b)fluoranthene	0.002(G)	U	Ū	NS	Ü	Ü	U			
Benzo(ghi)perylene		U	U	NS	U	U	U			
Benzo(k)fluoranthene	0.002(G)	U	U	NS	U	U	U			
Biphenyl		-	-	NS	U	U	U			
Benzyl alcohol		U	U	-	¦ -	-	-			
Bis(2-chloroethoxy)methane	5	U	U	NS	U	U	U			
Bis(2-chloroethyl)ether	1	U	U	NS	U U	U	U			
Bis(2-chloroisopropyl)ether	5			NS	į u	U	U			
Bis(2-ethylhexyl)phthalate Butyl benzyl phthalate	50(G)	U	U	NS	1.2 J	U	U			
Caprolactam	50(G)	U	U	NS NS	U	U U	U			
Carbazole		· u	- U	NS	Ü	Ü	Ü			
Chrysene	0.002(G)	Ü	Ü	NS	Ü	Ü	Ü			
Dibenzo(a h)anthracene	( . ,	Ü	Ū	NS	Ū	Ü	Ū			
Dibenzofuran		U	Ü	NS	Ü	U	Ü			
Diethyl phthalate	50(G)	U	U	NS	U	U	U			
Dimethyl phthalate	50(G)	U	U	NS	U	U	U			
Di-n-butyl phthalate		U	U	NS	U	U	U			
Di-n-octyl phthalate	50(G)	U	U	NS	U	U	U			
Fluoranthene	50(G)	U	U	NS	U	U	U			
Fluorene	50(G)	U	U	NS	U	U	U			
Hexachlorobenzene Hexachlorobutadiene	0.04 0.5	U	U	NS NS	U	U	U U			
Hexachlorocyclopentadiene	5	U	U	NS NS	! U	U	U			
Hexachloroethane	5	Ü	U	NS NS	i ü	Ü	Ü			
Indeno(1 2 3-cd)pyrene	0.002(G)	Ü	Ü	NS NS	Ü	Ü	Ü			
Isophorone	50(G)	Ü	Ü	NS	! ŭ	Ü	Ü			
Naphthalene	10	Ü	Ü	NS	! Ü	Ü	Ü			
NDPA/DPA		- 1	-	NS	i -	-	Ü			
Nitrobenzene	0.4	U	U	NS	U	U	U			
n-Nitroso-di-n-propylamine		U	U	NS	U	U	U			
n-Nitrosodiphenylamine	50(G)	U	U	-	ļ -	-	-			
p-Chloro-m-cresol		-	-	NS	U	U	U			
Pentachlorophenol	50.00	U	U	NS	Ü	U	U			
Phenal	50(G)	U	U	NS	U	U	U			
Phenol	50(G)	- U	- U	NS NS	U	U	U U			
Pyrene Total SVOCs	50(0)	ND U	ND U	NS NS	12	ND U	ND U			

(G) Signifies a NYSDEC guidance value where a standard has not been established.

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J - Indicates an estimated value detected between the laboratory detection limit and laboratory reporting limit.

( - ) - Indicates analyte was not analyzed for ND - Non-Detect

NS - Not Sampled during monitoring round. SWRMW-2 not part of ongoing monitoring.

Bold Thick Outlined Cell indicates an exceedance of applicable NYSDEC Class GA Standard or Guidance Value



Analyte	Class GA	ass GA SWRMW-4										
(ug/L)	Standards	3/14/20	007	6/6/20	07	11/17/		5/23/2017	11/15/2	2017	6/4/20	18
SVOCs by EPA Method 8270D									:			
1 2 4-Trichlorobenzene	5		U		U	-		-	-		-	
1,2,4,5-Tetrachlorobenzene	_	-		-		!	U	U	ļ	U		U
1 2-Dichlorobenzene	3		U		U	-		-	-		-	
1 3-Dichlorobenzene 1 4-Dichlorobenzene	3		U		U	· -	j	-	i -	j	-	
2 2-oxybis (1-chloropropane)	3		U		u	· -		-	· -		-	
2,3,4,6-Tetrachlorophenol		_	·	_	U	-	U	- U	-	U	-	U
2 4 5-Trichlorophenol			U		U		Ü	Ü	ļ	Ü		Ü
2 4 6-Trichlorophenol			Ū		Ü		Ū	Ū	ļ	Ü		Ū
2 4-Dichlorophenol	1		U		U	i	U	U	i	U		U
2 4-Dimethylphenol	50(G)		U		U		U	U	i	U		U
2 4-Dinitrophenol	10(G)		U		U		U	U	!	U		U
2 4-Dinitrotoluene	5(G)		U		U		U	U	ļ	U		U
2 6-Dinitrotoluene	5		U		U		U	U	Ì	U		U
2-Chloronaphthalene	10(G)		U		U	i	U	U	i	U		U
2-Chlorophenol			U		U		U	U	i	U		U
2-Methylnaphthalene			U		U		U	U	!	U		U
2-Methylphenol 2-Nitroaniline	5		U		U	1 -	U	- u	l -	u	-	U
2-Nitrophenol	3		Ü		U	i	U	U	i	U		U
3 3-Dichlorobenzidine	5(G)	1	U		U	i	U	U	i	U		U
3-Nitroaniline	5	1	Ü		U		Ü	Ü	i .	Ü		Ü
4 6-Dinitro-o-cresol		-		-	-	-	-	-	! -	- 1		Ŭ
4 6-Dinitro-2-methylphenol	İ	1	U		U	l	U	U	l	U	-	
4-Bromophenyl phenyl ether			U		U	i	U	U	i	U		U
4-Chloro-3-methylphenol			U		U	-		-	-		-	
4-Chloroaniline	5	1	U		U	!	U	U	!	U		U
4-Chlorophenyl phenyl ether			U		U		U	U	!	U		U
4-Methylphenol	5(0)		U		U	i	U	U	i	U		U
4-Nitroaniline	5(G)		U		U		U	U	i	U		U
4-Nitrophenol	20(0)		U		U		U	U	!	U		U
Acenaphthene Acenaphthylene	20(G)		U		U	ļ	U	U U	ļ	U		U
Acetophenone			Ü		U	İ	U	Ü	İ	U		U
Anthracene	50(G)	-	U	-	U		U	i U	i	U		U
Atrazine	30(0)	_	Ŭ	_	Ü		Ü	Ü	!	Ü		Ü
Benzaldehyde		_		_			Ü	Ü	ļ	Ü		Ü
Benzo(a)anthracene	0.002(G)		U		U		U	U	ļ	U		U
Benzo(a)pyrene	ND		U		U	i	U	U	i	U		U
Benzo(b)fluoranthene	0.002(G)		U		U		U	U	i	U		U
Benzo(ghi)perylene			U		U		U	U	!	U		U
Benzo(k)fluoranthene	0.002(G)		U		U		U	U	ļ	U		U
Biphenyl		-	j	-	j	İ	U	U	İ	U		U
Benzyl alcohol			U		U	-	1	-	i -		-	
Bis(2-chloroethoxy)methane	5		U		U		U	U	i	U		U
Bis(2-chloroethyl)ether Bis(2-chloroisopropyl)ether	1		U		U		U	U	!	U		U
Bis(2-ethylhexyl)phthalate	5	-	U	-	U		U	U	1.9	U		U
Butyl benzyl phthalate	50(G)		U		U	i	U	U	1.9	U		U
Caprolactam	30(G)		U		U	i	U	Ü	i	U		U
Carbazole		-	U		U		Ü	Ü		Ü		Ü
Chrysene	0.002(G)		Ü		Ü		Ü	Ü	!	Ü		Ü
Dibenzo(a h)anthracene		1	Ü		Ü		Ü	Ü	ļ	Ü		Ü
Dibenzofuran	İ	1	Ū		Ü	i	Ū	Ū	i	Ū		Ū
Diethyl phthalate	50(G)		U		U	i	U	U	i	U		U
Dimethyl phthalate	50(G)		U		U		U	U	!	U		U
Di-n-butyl phthalate	50:00	1	U		U	!	U	U	!	U		U
Di-n-octyl phthalate	50(G)	1	U		U	l	U	U	l	U		U
Fluoranthene	50(G)		U		U	i	U	U	i	U		U
Fluorene Hexachlorobenzene	50(G) 0.04		U		U		U	U	i .	U		U
Hexachlorobutadiene	0.04	1	U		U	!	U	U	!	U		U
Hexachlorocyclopentadiene	0.5 5	1	U		U		U	U	!	U		U
Hexachloroethane	5		U		U	i	U	Ü	i	U		U
Indeno(1 2 3-cd)pyrene	0.002(G)	1	Ü		Ü	;	Ü	Ü	:	Ü		Ü
Isophorone	50(G)	1	Ü		Ü		Ü	Ü	!	Ü		Ü
Naphthalene	10	1	Ū		U	!	Ū	Ü	!	Ü		Ū
NDPA/DPA	İ	-	ĺ	-			U	- U	- 1			U
Nitrobenzene	0.4		U		U		U	U	i	U		U
n-Nitroso-di-n-propylamine	İ	1	U		U		U	U	ŧ	U		U
n-Nitrosodiphenylamine	50(G)	1	U		U	-		-	! -	ļ	-	
p-Chloro-m-cresol	İ	-	j	-		l	U	U	l	U		U
Pentachlorophenol			U		U	i	U	U	i	U		U
Phenanthrene	50(G)	1	U		U		U	U	i	U		U
Phenol	50(0)					!	U	U	!	U		U
Pyrene Total SVOCa	50(G)	- N:D	U	N'D	U	1.5	U	U		U	N.D.	U
Total SVOCs	l	ND		ND		ND		ND	1.9		ND	

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U - The compound was not detected above the laboratory detection limit.

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( - ) - Indicates analyte was not analyzed for ND - Non-Detect

 $\ensuremath{\mathsf{NS}}$  - Not Sampled during monitoring round. SWRMW-2 not part of ongoing monitoring.

Bold Thick Outlined Cell indicates an exceedance of applicable NYSDEC Class GA Standard or Guidance Value



Analyte (ug/L)  SVOCs by EPA Method 8270D  1 2 4-Trichlorobenzene 1,2,4,5-Tetrachlorobenzene	Class GA Standards	3/14/2	007	6/6/20		44/47/	SWRI					
SVOCs by EPA Method 8270D 1 2 4-Trichlorobenzene		0/14/2				11/17/2016		5/23/2017	11/15/2017		6/4/2018	
1 2 4-Trichlorobenzene	_			0/0/20	,U1	11/1//	2010	5/23/2017	11/15/	2017	6/4/20	10
	5		U		U	-	ļ	_	! -	i	_	
		-	Į	-	ļ		U	U	ļ	U		U
1 2-Dichlorobenzene	3		U		U	-	j	-	j -	į	-	
1 3-Dichlorobenzene	3		U		U	-	i	-	i -	i	-	
1 4-Dichlorobenzene 2 2-oxybis (1-chloropropane)	3		U		U	-		-	-	i	-	
2,3,4,6-Tetrachlorophenol			U		U	-	U	- U	-	U	-	U
2 4 5-Trichlorophenol		_	u		u		Ü	U	ļ	Ü		Ü
2 4 6-Trichlorophenol			υĪ		Ŭ.		ŭ	Ü	ļ.	Ü		Ü
2 4-Dichlorophenol	1		U		U		U	U	i	U		U
2 4-Dimethylphenol	50(G)		U		U		U	U	i	U		U
2 4-Dinitrophenol	10(G)		U		U		U	U	1	U		U
2 4-Dinitrotoluene	5(G)		U		U		U	U	!	U		U
2 6-Dinitrotoluene	5		U		U		U	U	!	U		U
2-Chloronaphthalene 2-Chlorophenol	10(G)		U		U		U	U	i	U		U
2-Methylnaphthalene			υİ		Ü		Ü	U	i	U		Ü
2-Methylphenol			Ü		Ü	-	ŭ	-	-	ŭ	-	•
2-Nitroaniline	5		U		U		U	U	!	U		U
2-Nitrophenol			U		U		U	U	!	U		U
3 3-Dichlorobenzidine	5(G)		U		U		U	U	i	U		U
3-Nitroaniline	5		U		U		U	U	i	U		U
4 6-Dinitro-o-cresol 4 6-Dinitro-2-methylphenol	1	l -	u	-	U	-	U	- U	1 -	U		U
4-Bromophenyl phenyl ether	1	1	U		U		U	U	:	υi		U
4-Chloro-3-methylphenol			U		U	_	U	- 0	! .	U	_	U
4-Chloroaniline	5		υi		υĬ		υĺ	Ū	İ	υİ		U
4-Chlorophenyl phenyl ether			Ū		Ü		Ū	Ū	i	Ü		Ū
4-Methylphenol			U		U		U	U	i	U		U
4-Nitroaniline	5(G)		U		U		U	U	!	U		U
4-Nitrophenol			U		U		U	U	ļ	U		U
Acenaphthene	20(G)		U		U		U	U	I	U		U
Acenaphthylene			U		U		U	U	i	U		U
Acetophenone Anthracene	50(G)	-	U	-	U		U	U	i	U		U
Atrazine	50(G)	_	U	_	U		U	U	!	υİ		Ü
Benzaldehyde		_	ļ	_			ŭ	Ü	ļ	Ü		Ü
Benzo(a)anthracene	0.002(G)		υl		υl		υĪ	Ū	I	υĪ		Ū
Benzo(a)pyrene	ND		Ū		Ü		Ü	Ū	i	Ü		Ū
Benzo(b)fluoranthene	0.002(G)		U		U		U	U	i	U		U
Benzo(ghi)perylene			U		U		U	U	!	U		U
Benzo(k)fluoranthene	0.002(G)		U		U		U	U	!	U		U
Biphenyl		-		-			U	U	1	U		U
Benzyl alcohol Bis(2-chloroethoxy)methane	5		U		U	-	U	- U	i -		-	U
Bis(2-chloroethyl)ether	1		υİ		U		U	U	i	U		U
Bis(2-chloroisopropyl)ether		_		_	Ü		Ü	U	į	υi		Ü
Bis(2-ethylhexyl)phthalate	5		U		U		Ü	Ü	ļ	Ü		Ü
Butyl benzyl phthalate	50(G)		Ü		Ū		Ü	Ū	!	Ü		Ū
Caprolactam		-	Ĩ	-	j		U	U	i	U		U
Carbazole			U		U		U	U	i	U		U
Chrysene	0.002(G)	I	U		U		U	U	i	U		U
Dibenzo(a h)anthracene	1	I	U		U		U	U	:	U		U
Dibenzofuran Diethyl phthalate	50(G)	1	U		U		U	U	!	U		U
Direthyl phthalate	50(G) 50(G)	1	U		U		U	U	ļ	U		U
Di-n-butyl phthalate	33(3)	1	υİ		Ü		Ü	U	i	U		Ü
Di-n-octyl phthalate	50(G)	1	Ü		Ü		Ü	Ü	i	Ü		Ü
Fluoranthene	50(G)	1	Ū		U		U	U	1	U		U
Fluorene	50(G)		U		U		U	U	!	U		U
Hexachlorobenzene	0.04		U		U		U	U	I	U		U
Hexachlorobutadiene	0.5 5	1	U		U		U	U	į	U		U
Hexachlorocyclopentadiene Hexachloroethane	5	I	U U		U		U	U	i	U		U
Indeno(1 2 3-cd)pyrene	0.002(G)	1	U		U		U	U	1	U		U
Isophorone	50(G)	I	U		U		U	U	!	U		U
Naphthalene	10	1	Ü		Ü		Ü	U	ļ	υİ		Ü
NDPA/DPA		-	Ť	-	Ť		Ŭ	-	j -	-		Ü
Nitrobenzene	0.4	I	U		U		Ū	U	i	υİ		Ū
n-Nitroso-di-n-propylamine		I	U		U		U	U	:	U		U
n-Nitrosodiphenylamine	50(G)	I	U		U	-		-	! -	!	-	
p-Chloro-m-cresol	1	-	1	-			U	U	ļ	U		U
Pentachlorophenol Phenanthrene	E0(0)	I	U		U		U	U	i	U		U
Phenanthrene Phenol	50(G)	I	U		U		U	U	i	U		U
Pyrene	50(G)	l -	U	-	U		U	U	:	U		U
Total SVOCs	55(5)	ND		ND		ND		ND O	ND	-	ND	-

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Bold Thick Outlined Cell indicates an exceedance of applicable NYSDEC Class GA Standard or Guidance Value



					DUPL				
Analyte (ug/L)	Class GA Standards	11/17/2	016	5/23/2		11/15/2	0017	6/4/20	110
SVOCs by EPA Method 8270D	Otaliaa a	(SWRM		(SWRM		(SWRM		(SWRM	
1 2 4-Trichlorobenzene	5	-	,	-	,	-	,	-	,
1,2,4,5-Tetrachlorobenzene	_		U		U		U		U
1 2-Dichlorobenzene 1 3-Dichlorobenzene	3	_	ļ	-		-		-	
1 4-Dichlorobenzene	3	_	ļ					-	
2 2-oxybis (1-chloropropane)	-	_	j	-		-		-	
2,3,4,6-Tetrachlorophenol			U		U		U		U
2 4 5-Trichlorophenol			U		U	ĺ	U		U
2 4 6-Trichlorophenol 2 4-Dichlorophenol	1		U U		U		U		U U
2 4-Dimethylphenol	50(G)		U		U		Ü		U
2 4-Dinitrophenol	10(G)		Ü		Ü		Ū		Ū
2 4-Dinitrotoluene	5(G)		U		U		U		U
2 6-Dinitrotoluene	5		U		U		U		U
2-Chloronaphthalene 2-Chlorophenol	10(G)		U		U		U		U
2-Methylnaphthalene			Ü		Ü		Ü		Ü
2-Methylphenol		-		-		-		-	
2-Nitroaniline	5		U		U		U		U
2-Nitrophenol	F(O)		U		U		U		U
3 3-Dichlorobenzidine 3-Nitroaniline	5(G) 5		U		U		U		U
4 6-Dinitro-o-cresol	_	-	Ĭ	-	Ŭ	-	Ŭ		Ü
4 6-Dinitro-2-methylphenol			U		U	-		-	
4-Bromophenyl phenyl ether			U		U		U		U
4-Chloro-3-methylphenol 4-Chloroaniline	5	-	υİ	-	U	-	U	-	U
4-Chlorophenyl phenyl ether	3		U		U		U		U
4-Methylphenol			Ü		Ū	2.8	J		Ū
4-Nitroaniline	5(G)		U		U		U		U
4-Nitrophenol	20/01		U		U		U		U
Acenaphthene Acenaphthylene	20(G)		U		U		U		U
Acetophenone			ŭ		Ü		Ü		Ü
Anthracene	50(G)		U		U		U		U
Atrazine			U		U		U		U
Benzaldehyde Benzo(a)anthracene	0.002(G)		U		U		U		U
Benzo(a)pyrene	0.002(G) ND		U		U		U		U
Benzo(b)fluoranthene	0.002(G)		Ü		Ü		Ü		Ü
Benzo(ghi)perylene			U		U		U		U
Benzo(k)fluoranthene	0.002(G)		U		U		U		U
Biphenyl Benzyl alcohol			U		U		U		U
Bis(2-chloroethoxy)methane	5	-	U	_	U	-	U	-	U
Bis(2-chloroethyl)ether	1		U		U		U		U
Bis(2-chloroisopropyl)ether			U		U		U		U
Bis(2-ethylhexyl)phthalate	5 50(G)		U	1.0	J		U		U
Butyl benzyl phthalate Caprolactam	50(G)		U		U		U		U
Carbazole			Ü		Ü		Ü		Ü
Chrysene	0.002(G)		U		U		U		U
Dibenzo(a h)anthracene			U		U		U		U
Dibenzofuran Diethyl phthalate	50(G)		U		U		U		U
Dimethyl phthalate	50(G)		Ü		U		U		U
Di-n-butyl phthalate	(-)		ŭ		Ü		Ü		Ü
Di-n-octyl phthalate	50(G)		U		U		U		U
Fluoranthene	50(G)		U		U		U		U
Fluorene Hexachlorobenzene	50(G) 0.04		U		U		U		U
Hexachlorobutadiene	0.5		Ü		Ü		Ü		Ü
Hexachlorocyclopentadiene	5		U		U		U		U
Hexachloroethane	5		U		U		U		U
Indeno(1 2 3-cd)pyrene Isophorone	0.002(G) 50(G)		U		U		U		U
Naphthalene	50(G) 10		U		U		U		U
NDPA/DPA			Ü	-	U		U		U
Nitrobenzene	0.4		U		U		Ū		U
n-Nitroso-di-n-propylamine			U		U		U		U
n-Nitrosodiphenylamine p-Chloro-m-cresol	50(G)	-		-		-		-	
Pentachlorophenol			U		U		U		U
Phenanthrene	50(G)		Ü		U		U		U
Phenol			U		U		U		U
Pyrene Total SVOCs	50(G)	.:0	U		U	0.0	U	110	U
Total SVOCs		ND		1.0		2.8		ND	

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Bold Thick Outlined Cell indicates an exceedance of applicable NYSDEC Class GA Standard or Guidance Value



							SWRMW-1						$\neg$
Analyte	Class GA Standards	3/14/2007		6/5/2	2007		11/17/2016	5/23/20	17	11/14/20	17	6/4/201	8
(ug/L)	Standards	Total	Total		Dissolve	d	Total	Total		Total		Total	
Metals by EPA Methods 6020A and 7470A								`					
Aluminum		437,000	870	J	130	J	NS	1,260		33		13,600	
Antimony	3	U		U		U	NS	0.69	J		U		U
Arsenic	25	21 J		U		U	NS	1.51		1.11		3.85	
Barium	1,000	5,900	500		480		NS	67.49		304.7		410.5	
Beryllium	3	9.7 J		U		U	NS		U		U		U
Cadmium	5	29 J		U		U	NS	0.21			U	0.88	
Calcium		298,000	302,000		312,000		NS	62,200		197,000		204,000	
Chromium	50	950	2.9	J	1.5	J	NS	3.32		1.95		54.13	
Cobalt		290		U		U	NS	4.04		2.15		22.25	
Copper	200	990	3.2	J		U	NS	11.52		0.59	J	96.06	
Iron	300	877,000	87,600		83,800		NS	2,760		45,700		76,300	
Lead	25	820 J		U		U	NS	5.21			U	33.38	
Magnesium	35,000 (G)	258,000	112,000		114,000		NS	9,370		40,300		41,400	
Manganese	300	10,900	4,900		5,000		NS	1,974		3,132		8,459	
Mercury	0.7	0.6 J		U		U	NS		U	0.1	J		U
Nickel	100	590	2.9	J	2.8	J	NS	10.94		2.17		56.1	
Potassium		403,000	153,000		152,000	i	NS	11,300		46,100		40,800	
Selenium	10	U		U		U	NS		U		U		U
Silver	50	U		U		U	NS		U		U	1.61	
Sodium	20,000	153,000	148,000		148,000		NS	6,550		116,000		62,500	
Thallium	0.5	U		U		U	NS	Ì	U		U		U
Vanadium		1,200	2.8	J	0.94	J	NS	3.82	J	1.69	J	42.73	
Zinc	2,000	2,500		U		U	NS	20.74			U	169.6	

<sup>\*</sup>Class GA Groundwater standards taken from Technical and Operational Guidance Series (TOGS)

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- ND Non-Detect

NS - Not Sampled during monitoring round. SWRMW-2 not part of on-going monitoring.

Bold Thick Outlined Cell indicates an exceedance of applicable NYSDEC Class GA Standard or Guidance Value

<sup>1.1.1</sup> Class GA ambient water quality standards or guidance values, New York State Department of Environmental Conservation, June 1998 and subsequent addenda



							SWRMW-2			
Analyte	Class GA	3/14/2007		6/5/2	007	!	11/17/2016	5/23/2017	11/14/2017	6/4/2018
(ug/L)	Standards	Total	Total		Dissolve	ed	Total	Total	Total	Total
Metals by EPA Methods 6020A and 7470A						;   				
Aluminum		154,000	740	J	500	U	NS	NS	NS	NS
Antimony	3	U		U		U	NS	NS	NS	NS
Arsenic	25	44 J		U		U	NS	NS	NS	NS
Barium	1,000	2,200	100		120	!	NS	NS	NS	NS
Beryllium	3	6.2 J		U		U	NS	NS	NS	NS
Cadmium	5	11 J		U		U	NS	NS	NS	NS
Calcium		40,400	25,500		38,800	į	NS	NS	NS	NS
Chromium	50	460	2.1	J		υi	NS	NS	NS	NS
Cobalt		130	2	J		U	NS	NS	NS	NS
Copper	200	790	4.5	J		U	NS	NS	NS	NS
Iron	300	320,000	2,300		570		NS	NS	NS	NS
Lead	25	2,400 J	16			U	NS	NS	NS	NS
Magnesium	35,000 (G)	52,500	9,500		14,300	ļ	NS	NS	NS	NS
Manganese	300	7,000	320		340		NS	NS	NS	NS
Mercury	0.7	0.81 J		U		U	NS	NS	NS	NS
Nickel	100	290	1.7	J		U	NS	NS	NS	NS
Potassium		29,100	7,200		9,000	į	NS	NS	NS	NS
Selenium	10	U		U		U	NS	NS	NS	NS
Silver	50	3.9 J		U		U	NS	NS	NS	NS
Sodium	20,000	22,900	14,800		16,300	ļ	NS	NS	NS	NS
Thallium	0.5	U	•	U		υi	NS	NS	NS	NS
Vanadium		420	1.6	J		U	NS	NS	NS	NS
Zinc	2,000	2,700	22	J		U	NS	NS	NS	NS

<sup>\*</sup>Class GA Groundwater standards taken from

(G) Signifies a NYSDEC guidance value where a standard has not been established.

U - The compound was not detected above the laboratory detection limit.

J - Indicates an estimated value detected between the laboratory detection limit and laboratory reporting limit.

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ND - Non-Detect

NS - Not Sampled during monitoring round. SWRMW-2 not part of on-going monitoring.

Bold Thick Outlined Cell indicates an exceedance of applicable NYSDEC Class GA Standard or Guidance Value

Technical and Operational Guidance Series (TOGS)

<sup>1.1.1</sup> Class GA ambient water quality standards or guidance values, New York State Department of Environmental Conservation, June 1998 and subsequent addenda



Table 1
Summary of Groundwater Laboratory Analytical Results

							SWRMW-3						
Analyte	Class GA Standards	3/14/2007		6/5/2	007	!	11/17/2016	5/23/20	17	11/15/20	)17	6/4/201	8
(ug/L)	Standards	Total	Total		Dissolv	ed	Total	Total		Total		Total	
Metals by EPA Methods 6020A and 7470A								:    -					
Aluminum		206,000	2,400	J	500	U	NS	751		430		154	
Antimony	3	U		U		U	NS	İ	U		U		U
Arsenic	25	90		U		U	NS	0.75		0.21	J		U
Barium	1,000	1,800	48		28	:	NS	45.17		43.95		44.58	
Beryllium	3	5.5 J		U		U	NS		U		U		U
Cadmium	5	10 J		U		U	NS	ļ	U		U		U
Calcium		55,300	17,900		18,400	ļ	NS	20,500		22,700		22,200	
Chromium	50	620	6.5	J	10	U	NS	3.18		1.94		1.04	
Cobalt		190	4.1	J	2.5	J	NS	1.09		1.5		0.87	
Copper	200	460	6.6	J		U	NS	2.21		1.87		1.46	
Iron	300	353,000	4,100			U	NS	2,880		1,080		871	
Lead	25	460 J	6.9	J		U	NS	4.04		1.04			U
Magnesium	35,000 (G)	107,000	7,000	_	6,100	l	NS	7,290		7,910		7,950	
Manganese	300	3,500	170		400		NS	20.32		32.39		21.97	
Mercury	0.7	0.24 J		U		U	NS	İ	U		U		U
Nickel	100	560	7	J		U	NS	4.26		4.02		2.58	
Potassium		78,700	4,500		4,100	į	NS	6,140		6,030		5,740	
Selenium	10	U		U		U	NS	!	U		U		U
Silver	50	U		U		U	NS	<u> </u>	U		U		U
Sodium	20,000	24,600	8,800		8,500		NS	18,100		17,200		17,100	
Thallium	0.5	U		U		U	NS		U		U		U
Vanadium		500	5.3			U	NS	2.55	J		U		U
Zinc	2,000	990	11	J		U	NS	1	U	4.99	J		U

<sup>\*</sup>Class GA Groundwater standards taken from Technical and Operational Guidance Series (TOGS)

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- J Indicates an estimated value detected between the laboratory detection limit and laboratory reporting limit.
- ( ) Indicates analyte was not analyzed for
- ND Non-Detect

NS - Not Sampled during monitoring round. SWRMW-2 not part of on-going monitoring.

Bold Thick Outlined Cell indicates an exceedance of applicable NYSDEC Class GA Standard or Guidance Value

<sup>1.1.1</sup> Class GA ambient water quality standards or guidance values, New York State Department of Environmental Conservation, June 1998 and subsequent addenda



		SWRMW-4													
Analyte	Class GA Standards	3/14/2007 Total			6/6/2	2007		11/17/20	)16	5/23/20	17	11/15/20	017	6/4/20	18
(ug/L)	Standards			Total		Dissolv	ed	Total		Total		Total		Total	
Metals by EPA Methods 6020A and 7470A								   		   		     		 	
Aluminum		101,000		5,000	J		U	7,430		1,990		810		19,200	
Antimony	3	ĺ	U	,	U		U	i '	U	0.56	J	0.46	J	! !	U
Arsenic	25		U		U		U	0.8		0.44	J	0.29	J	1.2	
Barium	1,000	1,000		90		44		153.7		41.78		90.7		248.7	
Beryllium	3	3.3	J		U		U	0.2	J	!	U		U		U
Cadmium	5	4.8	J		U		U	0.1	J	0.11	J	ļ	U	0.69	
Calcium		99,100		77,400		79,900		154,000		164,000		160,000		72,900	
Chromium	50	280		13			U	21.2		5.79		2.75		58.14	
Cobalt		120		11			U	10.4		3.33		1.5		27.16	
Copper	200	460		28		3	J	40.2		12.77		7.54		98.51	
Iron	300	188,000		8,700		57	J	14,400		3,850		1,530		36,800	
Lead	25	62	J	4.4	J	,	U	4.5		1.21		0.58	J	12.69	
Magnesium	35,000 (G)	81,000		36,400		34,800		49,900		58,700		58,400		36,200	
Manganese	300	2,400		350		19		352.6		264.7		90.25		1,146	
Mercury	0.7		UJ		U	•	U		U	Ī	U	<u> </u>	U	ĺ	U
Nickel	100	250		14		3.2	J	24.4		14.59		6.7		62.8	
Potassium		51,300		19,000		19,200		13,000		18,800		19,400		20,800	
Selenium	10		U		U		U	!	U	!	U	 	U	<u> </u> 	U
Silver	50		U		U		U	ļ	U	ļ	U	l i	U	i I	U
Sodium	20,000	59,400		41,100		45,700		74,200		35,900		49,800		46,800	
Thallium	0.5		U		U	-	U	!	U	!	U		U	 	U
Vanadium		280		13			U	22.2		6.04		2.71	J	55.08	
Zinc	2,000	360		19	J		U	50		9.57	J	3.95	J	104.3	

\*Class GA Groundwater standards taken from Technical and Operational Guidance Series (TOGS) 1.1.1 Class GA ambient water quality standards or guidance values, New York State Department of Environmental Conservation, June 1998 and subsequent addenda

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- U The compound was not detected above the laboratory detection limit.
- J Indicates an estimated value detected between the laboratory detection limit and laboratory reporting limit.
- ( ) Indicates analyte was not analyzed for ND Non-Detect
- NS Not Sampled during monitoring round. SWRMW-2 not part of on-going monitoring.

Bold Thick Outlined Cell indicates an exceedance of applicable NYSDEC Class GA Standard or Guidance Value



		SWRMW-5												
Analyte	Class GA Standards	3/14/2007	!	6/6/2007				16	5/23/20	17	11/15/20	017	6/4/2018	
(ug/L)	Standards	Total	Total	Total		Dissolved			Total		Total		Total	
Metals by EPA Methods 6020A and 7470A							   		     				 	
Aluminum		211,000	950	J		U	i I 1,220		226		2,000		6,070	
Antimony	3	U	i	U		U		U	0.82	J		U	4.12	
Arsenic	25	U	į	U		U	0.2	J	; i	U	0.39	J		U
Barium	1,000	1,700	77		71		118.5		78.38		130.1		146.8	
Beryllium	3	5.6 J		U		U	<u> </u>	U		U		U	į	U
Cadmium	5	8.9 J		U		U		U		U		U		U
Calcium		63,100	51,300		53,600		108,000		67,400		106,000		76,600	
Chromium	50	740	3.2	J		U	5.2		0.84	J	7.97		23.01	
Cobalt		210	2.1	J		U	1.9		0.78		2.71		6.56	
Copper	200	860	4.5	J		U	6.5		1.94		9.24		26.79	
Iron	300	337,000	1,400			U	1,880		360		3,110		10,300	
Lead	25	64 J	i i	U	,	U	0.5	J		U	0.85	J	2.7	
Magnesium	35,000 (G)	138,000	24,700		24,900		40,700		28,200		41,800		35,400	
Manganese	300	5,800	180		180		39		12.76		59.2		160.2	
Mercury	0.7	UJ		U		U		U		U		U	<u> </u>	U
Nickel	100	540	3.4	J		U	4.4		1.35	J	6.27		15.26	
Potassium		88,000	18,100		18,000		30,200		20,300		29,800		22,700	
Selenium	10	U	1	U		U	! !	U	 	U		U	<u> </u> 	U
Silver	50	U		U		U	ļ	U	l i	U		U	i I	U
Sodium	20,000	63,400	53,000		54,000		62,800		58,800		59,300		57,000	
Thallium	0.5	U		U		U		U		U		U	i I	U
Vanadium		520	1.7	J		U	3	J		U	5.22		14.87	
Zinc	2,000	490	¦	U		U	6	J	;	U	6.63	J	16.08	

\*Class GA Groundwater standards taken from Technical and Operational Guidance Series (TOGS) 1.1.1 Class GA ambient water quality standards or guidance values, New York State Department of Environmental Conservation, June 1998 and subsequent addenda

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Bold Thick Outlined Cell indicates an exceedance of applicable NYSDEC Class GA Standard or Guidance Value



	1	DUPLICATE												
Analyte	Class GA	11/17/2	016	5/23/20		11/15/20	17	6/4/201	18					
(ug/L)	Standards	Tota		Total		Total		Total						
		1018		Total		Total		Total						
Metals by EPA Methods 6020A and 7470A		(SWRMV	V-4)	(SWRMV	V-3)	(SWRMV	V-1)	(SWRMW-3)						
Aluminum		7,160		806		37.1		212						
Antimony	3		U	0.92	J		U		U					
Arsenic	25	0.6		0.83		1.27			U					
Barium	1,000	150.4		47.07		314.5		44.11						
Beryllium	3	0.2	J		U		U		U					
Cadmium	5	0.1	J		U		U		U					
Calcium		148,000		20,600		206,000		21,400						
Chromium	50	20.1		2.9		2.03		1.21						
Cobalt		9.9		1.12		2.21		1.02						
Copper	200	39.5		2.04			U	1.59						
Iron	300	13,400		2,820		48,200		890						
Lead	25	4.4		3.94			U		U					
Magnesium	35,000 (G)	48,700		7,340		41,600		7,560						
Manganese	300	341.8		20.19		3,271		22.82						
Mercury	0.7		U	ĺ	U		U		U					
Nickel	100	24.7		3.95		1.97	J	2.86						
Potassium		12,700		6,100		48,100		5,490						
Selenium	10		U		U		U		U					
Silver	50		U		U		U		U					
Sodium	20,000	73,300		17,900		120,000		16,600						
Thallium	0.5	0.2	J		U		U		U					
Vanadium		20.3		2.64	J	1.58	J		U					
Zinc	2,000	47.3		3.67	J		U		U					

\*Class GA Groundwater standards taken from Technical and Operational Guidance Series (TOGS) 1.1.1 Class GA ambient water quality standards or guidance values, New York State Department of Environmental Conservation, June 1998 and subsequent addenda

- (G) Signifies a NYSDEC guidance value where a standard has not been established.
- U The compound was not detected above the laboratory detection limit.
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- ND Non-Detect
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Bold Thick Outlined Cell indicates an exceedance of applicable NYSDEC Class GA Standard or Guidance Value

Analyte	Class GA	SWRMW-1							SWRMW-2							SWRMW-3				
(ug/L)	Standards	3/14/2007	6/5/2007	11/17/2016	5/23/2017	11/14/2017	6/4/2018	3/14/2007	6/5/2007	11/17/2016	5/23/2017	11/15/2017	6/4/2018	3/14/2007	6/5/2007	11/17/2016	5/23/2017	11/15/2017	6/4/2018	
PCBs by EPA Method 8082A					<u> </u> 	<u> </u>						<u> </u> 							<del></del>	
Aroclor 1016		U	l U		l U	l U	į U	U	l l	J   -	-	-	-	U	U		U	ļυ¦	U	
Aroclor 1221		U	U	i İ	U	U	U	U	į	J¦ -	<u> </u>	; -	-	U	U		U	U	U	
Aroclor 1232		U	U	į	U	U	U	U	ι	J -	-	-	-	U	U		U	U	U	
Aroclor 1242		U	U		ļυ	. U	U	U	ι	J	-	-	-	U	U		U	ΙUΙ	U	
Aroclor 1248		U	U	Ţ	ļ U	0.053 J	U	U	ί	J _	-	ļ -	-	U	U		U	0.042 J	U	
Aroclor 1254		U	U	İ	ĺ	į U	U	U	ι	J -	-	i -	-	U	U		U	ļυļ	U	
Aroclor 1260		0.76	U	1	U	U	U	U	ι	J   -	-	-	-	U	U		U	U	U	
Aroclor 1262		-	<u> </u>   -	1	! U	! U	U	-	<u> </u>   -	-	-	-	-	-	-		U	! υ !	U	
Aroclor 1268		-	_		ļυ	U	U	-	_	_	_	_	-	-	-		U	υ	U	
Total PCBs	0.09	0.76	ND	NS	ND	0.053	ND	ND	ND	NS	NS	NS	NS	ND	ND	NS	ND	0.042	ND	

Analyte	Class GA			SWR	MW-4					SWF	RMW-5				DUPI	LICATE	
(ug/L)	Standards	3/14/2007	6/6/2007	11/17/2016	5/23/2017	11/17/2017	6/4/2018	3/14/2007	6/6/2007	11/17/2016	5/23/2017	11/15/2017	6/4/2018	11/17/2016	5/23/2017	11/15/2017	6/4/2018
PCBs by EPA Method 8082A				   !	 	 				   !	<u> </u> 	 		(SWRMW-4)	(SWRMW-3)	(SWRMW-1)	(SWRMW-3)
Aroclor 1016		U	U	U	ļυ	U	U	U	U	ļυ	U	U	U	U	U	U	U
Aroclor 1221		U	l U	I U	l U	l U I	U	U	l U	l U	l U	l Ul	U	U	l U	I U	l U
Aroclor 1232		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Aroclor 1242		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	· υ
Aroclor 1248		U	U	U	U	U	U	U	U	U	U	0.05 J	U	U	U	0.056 J	U
Aroclor 1254		U	U	U	ļυ	U	U	U	U	U	U	U	U	U	U	U	U
Aroclor 1260		U	U	į U	į U	U	U	U	Ū	į U	U	ijŪ	U	U	U	į U	j U
Aroclor 1262		-	-	U	U	U	U	-	-	U	U	U	U	U	U	U	U
Aroclor 1268		-	-	U	U	U	U	-	-	U	U	U	U	U	U	U	U
Total PCBs	0.09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.05	ND	ND	ND	0.056	ND

<sup>\*</sup>Class GA Groundwater standards taken from Technical and Operational Guidance Series (TOGS) 1.1.1 Class GA ambient water quality standards or guidance values, New York State Department of Environmental Conservation, June 1998 and subsequent addenda

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ND - Non-Detect

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Bold Thick Outlined Cell indicates an exceedance of applicable NYSDEC Class GA Standard or Guidance Value

All concentrations reported in micrograms per liter (ug/L) - parts per billion (ppb)

Appendices GHD | Periodic Review Report | 11134282 (310/311)

## Appendix A Institutional and Engineering Controls Certification Form



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



Site No. C360066	Site Details	Box 1	
Site Name Austin Avenue Land	HIII Marie Antono Seferment dono rec		
Site Address: 323 Sprain Road City/Town: Yonkers County: Westchester Site Acreage: 14.1	<b>Z</b> ip Code: 10710		
Reporting Period: September 27,	2017 to September 27, 2018		
		YES	NO
1. Is the information above corre	ect?	X	
If NO, include handwritten abo	ove or on a separate sheet.		
Has some or all of the site pro- tax map amendment during the	operty been sold, subdivided, merged, or unis Reporting Period?	ndergone a	X
3. Has there been any change o (see 6NYCRR 375-1.11(d))?	f use at the site during this Reporting Perio	od	X
<ol> <li>Have any federal, state, and/o for or at the property during th</li> </ol>	or local permits (e.g., building, discharge) building, discharge) building Period?	peen issued	X
	stions 2 thru 4, include documentation en previously submitted with this certific		
5. Is the site currently undergoin	g development?	0,5	X
		Box 2	
		YES	NO
Is the current site use consistent Restricted-Residential, Communication	ent with the use(s) listed below? nercial, and Industrial	X	
7. Are all ICs/ECs in place and f	unctioning as designed?	X	
	ITHER QUESTION 6 OR 7 IS NO, sign and ETE THE REST OF THIS FORM. Otherwise		
A Corrective Measures Work Plan	n must be submitted along with this form	to address these is	sues.
	<u> </u>		
Signature of Owner, Remedial Party	y or Designated Representative	Date	

		Box 2	A
		YES	NO
8.	Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?		X
	If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.		
9.	Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	X	
	If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.		
SIT	E NO. C360066	Во	x 3
	Description of Institutional Controls		

Parcel	Owner	Institutional Control
3-3244-1	The City of Yonkers	
		Soil Management Plan
		Landuse Restriction
		Monitoring Plan
		Site Management Plan
		IC/EC Plan
		Ground Water Use Restriction
	est toked the said operations a risk	O&M Plan

### Controls at the site include:

- 1. Construction and maintenance of a soil cover system consisting of a minimum of 24 inches of imported clean soil fill that meets the criteria for Track 4 Restricted Residential in order to prevent human exposure to contaminated soil/fill remaining at the Site;
- 2. End use restrictions at the Site limited to Restricted Residential uses, unless there is an expressed written waiver from an appropriate New York State Department;
- 3. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to contamination remaining at the Site:
- 4. Groundwater use restrictions at the Site, unless it is treated prior to use, and written consent is granted by the NYSDEC/NYSDOH;
- 5. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting; and
- 6. Periodic certification of the institutional and engineering controls listed above.

3-3244-4

Morris Westchester Retail Assoc, LLC

**Ground Water Use Restriction** Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

### Controls at the site include:

- 1. Construction and maintenance of a soil cover system consisting of a minimum of 24 inches of imported clean soil fill that meets the criteria for Track 4 Restricted Residential in order to prevent human exposure to contaminated soil/fill remaining at the Site:
- 2. End use restrictions at the Site limited to Restricted Residential uses, unless there is an expressed written waiver from an appropriate New York State Department;
- 3. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to contamination remaining at the Site;
- 4. Groundwater use restrictions at the Site, unless it is treated prior to use, and written consent is granted by the NYSDEC/NYSDOH;
- 5. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting; and
- 6. Periodic certification of the institutional and engineering controls listed above. Morris Westchester Jr Retail Assoc, LLC

**Ground Water Use Restriction** Soil Management Plan Landuse Restriction

3-3244-7

Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

# Controls at the site include:

- 1. Construction and maintenance of a soil cover system consisting of a minimum of 24 inches of imported clean soil fill that meets the criteria for Track 4 Restricted Residential in order to prevent human exposure to contaminated soil/fill remaining at the Site;
- 2. End use restrictions at the Site limited to Restricted Residential uses, unless there is an expressed written waiver from an appropriate New York State Department;
- 3. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to contamination remaining at the Site;
- 4. Groundwater use restrictions at the Site, unless it is treated prior to use, and written consent is granted by the NYSDEC/NYSDOH;
- 5. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting; and
- 6. Periodic certification of the institutional and engineering controls listed above.

		Box 4
Description of Eng	ineering Controls	
<u>Parcel</u> 3-3244-1	Engineering Control	
0-02-1-1	Cover System	
3-3244-4		
	Cover System	
3-3244-7	Cover System	
	Cover System	

# Periodic Review Report (PRR) Certification Statements

I certify by checking "YES" below that:		
<ul> <li>a) the Periodic Review report and all attachments were prepared uncreviewed by, the party making the certification;</li> </ul>	der the direction of	, and
<ul> <li>b) to the best of my knowledge and belief, the work and conclusions are in accordance with the requirements of the site remedial program engineering practices; and the information presented is accurate and con</li> </ul>	n, and generally ac	
engineering practices, and the information processes to declarate and con-	YES	NO
the same and making any are tool to my in the same and are to be a first to be a second as the same and the s	X	
If this site has an IC/EC Plan (or equivalent as required in the Decision Doc or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES following statements are true:		
(a) the Institutional Control and/or Engineering Control(s) employed since the date that the Control was put in-place, or was last approved		
(b) nothing has occurred that would impair the ability of such Control the environment;	l, to protect public	health and
(c) access to the site will continue to be provided to the Department, remedy, including access to evaluate the continued maintenance of t		
(d) nothing has occurred that would constitute a violation or failure to Site Management Plan for this Control; and	comply with the	1
(e) if a financial assurance mechanism is required by the oversight d mechanism remains valid and sufficient for its intended purpose esta		
	YES	NO
	X	
IF THE ANSWER TO QUESTION 2 IS NO, sign and date b DO NOT COMPLETE THE REST OF THIS FORM. Otherwise		
A Corrective Measures Work Plan must be submitted along with this form to	o address these is	sues.
Signature of Owner, Remedial Party or Designated Representative	Date	

# IC CERTIFICATIONS SITE NO. C360066

Box 6

# SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

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

r Keith Morris	Morris Westchester Junio 350 Veterans Boulevard,	or Retail Associates, LLC Rutherford, New Jersey 07070_,
print n		
am certifying as	Owner and Designated Representative	(Owner or Remedial Party)
1/	in the Site Details Section of this form.  er, Remedial Party, or Designated Representative ation  Keith E. Morris	

Vice President

# **IC/EC CERTIFICATIONS**

Box 7

# **Professional Engineer Signature**

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

GHD Consulting Services Inc.

Damian J. Vanetti, P.E.

at One Remington Park Drive, Cazenovia, New York 13035

print name

print business address

am certifying as a Professional Engineer for the Owner and Designated Representative

Owner or Remedial Party)

Signature of Professional Engineer, for the Owner or

Remedial Party, Rendering Certification

Stamp

(Required for PE)

Appendix B Site Inspection Form

# SITE INSPECTION FORM

Inspections to be conducted at least semi-annually

SITE: BCP#	Former Austin Avenue Site (L C3-60-066	OT 1) DATE/TIME: 9-21-18 1:00 PM WEATHER: Orrest 750 F
INSPECT	ORS NAME:	Danian Vanetti
COMPAN	Y NAME:	<u>GHD</u>
<u>GENERA</u>	L SITE CONDITIONS: Site Access Control Change in Use Unauthorized Activities	Nane lautified noted on Cot / Cot?
SOIL CO	SCRING CONTROLS VER Soil Cover Condition Vegetative Cover Breach of the Soil Cover Woody Growth Surface Settling Burrowing Animals Sediment/Erosion Controls Surface Erosion Off-site Sediment Transport POR MITIGATION System In Place	No doubled usives - 5th has well established vegetation will established across 5th home observed - vegetation very fluick across 5the Some wordy 9 high them very thick home observed - vegetation very thick home observed - vegetation very thick of the west of the west of the double of the west with vegetation of the corner in good could not home observed of planeter - parameter spread could not only one observed of planeter - parameter spread to contain an observed of planeter - parameter spread to contain the contains in - place
	System Operating Component Conditions Damaged Equipment	NA
	IMENTAL MONITORING DWATER MONITORING WELLS Condition of Monitoring Wells Well Caps In Place Locks In Place and Secure	For those found - in good shape for those found - in good shape for those found yes mulpe lock wising
Identify (	Groundwater Samples Taken:	None
Identify F	<u>Photos Taken:</u>	Corners Site photos form various
OTHER (	COMMENTS:	woody graph on retaining well on castaile should be removed on site
INSPECT	OR SIGNATURE:	Mary

# Appendix C NYSDEC EQuIS Approvals

# Ian McNamara

**From:** dec.sm.NYENVDATA <NYENVDATA@dec.ny.gov>

**Sent:** Friday, January 26, 2018 12:06 PM

To: Melissa Warshauer
Cc: Omorogbe, Amen (DEC)

**Subject:** RE: EDDs for Austin Avenue Landfill BCP Site (Site #C360066)

CompleteRepository: 011134282

**Description:** MORRIS WESTCHESTER JUNIOR RETAIL

JobNo: 11342 OperatingCentre: 01

**RepoEmail:** 011134282@ghd.com

**RepoType:** Proposal **SubJob:** 82

### Melissa,

Thank you for your EDD submission. The data from the data packages 20180124 1201.C360066.NYSDEC and 20180124 1244.C360066.NYSDEC has been successfully uploaded to Austin Avenue Landfill in the NYSDEC database. The data is available for use within the system.

### Alison



From: Melissa Warshauer [mailto:Melissa.Warshauer@ghd.com]

**Sent:** Wednesday, January 24, 2018 12:47 PM **To:** dec.sm.NYENVDATA <NYENVDATA@dec.ny.gov>

**Cc:** Omorogbe, Amen (DEC) <amen.omorogbe@dec.ny.gov> **Subject:** EDDs for Austin Avenue Landfill BCP Site (Site #C360066)

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

# Hello,

Attached are 2 EDDs for the above referenced site, a field measurement EDD and a chemistry results EDD for the recent sampling conducted on-site. Please let me know if revisions are needed for successful upload.

Thanks, Melissa

Melissa L. Warshauer Engineer

#### GHD

T: 1 315 679 5775 | V: 865775 | F: 1 315 679 5801 | E: <u>Melissa.Warshauer@ghd.com</u> One Remington Park Drive Cazenovia NY 13035 USA| <u>www.ghd.com</u>

# Ian McNamara

From: Dyson Sprouse

Sent: Monday, August 13, 2018 9:29 AM

To: Ian McNamara

**Subject:** FW: EDDs for Austin Avenue Landfill BCP Site (Site #C360066)

**Attachments:** image001.png

OperatingCentre:01JobNo:11342SubJob:82

**CompleteRepository:** 011134282

**RepoEmail:** 011134282@ghd.com

**Description:** MORRIS WESTCHESTER JUNIOR RETAIL

**RepoType:** Proposal

From: dec.sm.NYENVDATA [NYENVDATA@dec.ny.gov]

Sent: Wednesday, August 1, 2018 12:59 PM

To: Dyson Sprouse

Cc: Omorogbe, Amen (DEC)

Subject: RE: EDDs for Austin Avenue Landfill BCP Site (Site #C360066)

Dyson,

EDDs 20180727 1147.C360066.NYSDEC and 20180727 1153.C360066.NYSDEC were successfully uploaded and the data is available for use within the NYSDEC system.

Thank you,

Alison

**NYSDEC EIMS Team** 

[New York State Dept of Environmental Conservation image]

From: Dyson.Sprouse@ghd.com [mailto:Dyson.Sprouse@ghd.com]

Sent: Friday, July 27, 2018 11:57 AM

To: dec.sm.NYENVDATA < NYENVDATA@dec.ny.gov>

Cc: Omorogbe, Amen (DEC) <amen.omorogbe@dec.ny.gov> Subject: EDDs for Austin Avenue Landfill BCP Site (Site #C360066)

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Hello,

Attached are 2 EDDs for the above referenced site, a field measurement EDD and a chemistry results EDD for the recent sampling conducted on-site.

Please let me know if revisions are needed for successful upload.

Thanks, Dyson Sprouse Engineer – Environment

( ¬	н	ш

GHD
T: 1 315 679 5763   M: 1 607 423 7156   V: 865763   E: dyson.sprouse@ghd.com <mailto:dyson.sprouse@ghd.com></mailto:dyson.sprouse@ghd.com>
One Remington Park Drive Cazenovia New York 13035 USA   www.ghd.com <http: www.ghd.com=""></http:>
WATER <a href="http://www.ghd.com/sectors/water/">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WATER<a href="http://www.ghd.com/global/sectors/energy-">WA</a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a></a>
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# about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

Damian Vanetti, P.E. damian.vanetti@ghd.com 315.679.5838

lan McNamara ian.mcnamara@ghd.com 315.679.5732

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