

## B. MILLENS METAL RECYCLING FACILITY 230 EAST STRAND STREET CITY OF KINGSTON, NEW YORK

## INTERIM REMEDIAL MEASURES WORK PLAN

## Prepared for:

B. Millens Metal Recycling Facility 290 East Strand Street Kingston, New York 12401

## Prepared by:

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June 26, 2015

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## INTERIM REMEDIAL MEASURES WORK PLAN

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## **CERTIFICATION**

I, Mark P. Millspaugh, P.E., certify that I am a New York State registered professional engineer and that this Interim Remedial Measures (IRM) Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities will be performed in accordance with the DER-approved work plan and any DER-approved modifications.

Mark P. Millspaugh, P.E.

June 26, 2015

Date



#### **EXECUTIVE SUMMARY**

This Interim Remedial Measures (IRM) Work Plan describes the actions that will be conducted to address potential threats to the environment and public health posed by the B. Millens Scrapyard (Millens) site, located at 230 East Strand Street in the City of Kingston, Ulster County, New York (Site ID 356030) (see Figure 1). The IRM takes into consideration the planned end use of the site as a paved parking lot.

The property will be remediated to allow the owner to utilize the site for parking near the existing building. Discussions are also underway with the City of Kingston regarding possible conveyance of the property to the City after a Certificate of Completion (COC) for remediation is issued. STERLING further understands that the City is interested in using the property as a parking lot in furtherance of redevelopment of the area consistent with the Local Waterfront Redevelopment Plan. The remedial measures proposed herein are based on the intended use of the property as a parking lot and incorporate limited paved parking surface as part of the site remediation.

The IRM will consist of the following:

- 1) Covering the portion of site within the fenceline with a minimum 12 inch thickness of soil or an asphalt cap where exposed soils exceed Commercial Use Soil Cleanup Objectives (SCOs);
- 2) In-situ treatment of groundwater in the southeastern portion of the site by direct injection; and
- 3) Excavation of soils immediately offsite exceeding Commercial SCOs, impacted by prior remedial activities at the Millens site, will be relocated and placed beneath the asphalt cap.

Millens served as a metal recycling facility utilized for the management of scrap metal for approximately 60 years. Reportedly, the existing brick building was constructed in the early 1900s and was used by Millens for material storage and offices.

Scrap metals were stockpiled on the property over the operating history of the facility. Reportedly, electrical transformers were provided by local utility companies and dismantled at the property in the early 1950s and 1960s. Also, car crushing activities have reportedly been conducted in the northeastern corner of the property. Periodic scraping and screening of onsite soils has been conducted to recover salable metal commodities since the 1980s. In approximately 1997, the separated soil from a scraping effort was stockpiled or containerized followed by offsite disposal of these soils, and no further metal recovery from soil operations has occurred.

Site investigations over the last decade are summarized in the following reports:

- Site Investigation for the Property Known as B. Millens, Inc. (November 16, 1998), Ecosystems Strategies, Inc.
- Remedial Investigation / Feasibility Study Report prepared by Ecosystems Strategies, Inc. dated September 30, 2004.
- Supplemental Site Investigation reported in the October 15, 2007 letter from Rodney L. Aldrich, P.E., Director of Environmental Services, STERLING to Mr. James Candiloro, NYSDEC.
- Remedial investigation by NYSDEC as reported by EA Engineering, P.C. (EA) dated August 2014.

Data generated to date indicates that soils have been sampled and tested for Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), heavy metals, and Total Polychlorinated biphenyls (PCBs).

During the most recent RI performed by EA:

- VOCs (primarily benzene, toluene, ethylbenzene, and xylene [BTEX] constituents) were detected above Unrestricted Use SCOs in 5 of 44 subsurface soil samples collected onsite between 1 and 5 feet below ground surface (bgs). VOCs were not detected in onsite soils above Commercial Use SCOs.
- SVOCs (primarily polycyclic aromatic hydrocarbons [PAHs]) were detected above Unrestricted Use SCOs in 4 of 44 subsurface soil samples collected onsite between 1 and 5 feet bgs, and detections above the Commercial Use SCOs were reported in 3 of the 4 samples. No exceedances of SVOCs were reported in samples collected between the 4 sample locations where exceedances were reported.
- Metals were detected above Unrestricted Use SCOs in 17 of 44 subsurface soil samples collected onsite between 1 and 7 feet bgs, and detections above the Commercial Use SCOs were reported in 2 of the 17 samples.
- PCBs were detected above Unrestricted Use and Commercial Use SCOs in 7 of 44 subsurface soil samples collected onsite between 1 and 6 feet bgs. PCBs were mainly detected in the location of the former roadway that crosses the center of the site east to west.

#### 1.0 INTRODUCTION

This Interim Remedial Measures (IRM) Work Plan sets forth the design objectives, construction sequence, project schedule and supporting plan requirements for the implementation of the IRM focused upon the elimination of significant threats to public health and the environment.

The scope of the IRM Work Plan is intended to eliminate or substantially reduce significant threats to the environment and public health which may be present based upon the investigations completed to date.

The IRM provides for:

- 1) Covering areas of the site within the fenceline where surficial soils exceed Commercial Use Soil Cleanup Objectives (SCOs) with a 12 inch minimum layer of clean soil or by capping with asphalt pavement. The extent of pavement verses soil will be clarified prior to construction;
- 2) In-situ treatment of groundwater in the southeastern portion of the site by direct injection; and
- 3) Excavation of soils immediately offsite, impacted by prior remedial actions at the Millens site and which exceed Commercial SCOs, will be relocated and placed beneath the asphalt cap.

## 1.1 Site Description, Setting & Background

Section 1.0 of the August 2014 Remedial Investigation (RI) Report presented as Appendix A contains the site description and summary of prior investigations and remedial actions.

The RI Report states that the Remedial Action (RA) performed in 2009-2010 was effective in reducing concentrations of contaminants in subsurface soil. However, based on conditions observed onsite during the RI performed for the New York State Department of Environmental Conservation (NYSDEC), the RA was not completed consistently. This is most likely the result of the RA being completed in sections while scrapyard operations continued. The RA resulted in a large quantity of material emplaced at the site that was not properly characterized for backfill. During the RI, the liner was observed to be neither consistent in material, nor placed properly to prevent recontamination of soils. Additionally, the liner is not connected between excavated cells and does not provide continuous protection.

## 2.0 SUMMARY OF SITE CONDITIONS

The site environmental and hydrogeologic conditions are thoroughly described in the RI Report located in Appendix A. Section 3.0 of the RI Report summarizes the site environmental conditions.

#### 3.0 IMPLEMENTATION OF THE IRM

#### 3.1 General

The IRM is designed to eliminate or reduce potential significant threats to the public health or environment and include the following discrete remedial actions:

1. Construction of a minimum 12 inch thick soil cover or an asphalt cover to prevent human exposure and future releases to the environment in areas where surficial soils exceed the

Commercial Use SCOs (6 NYCRR 375-6.8(b)).

- 2. In-situ treatment of groundwater by direct injection of Oxygen Release Compound (ORC). Impacted groundwater is present in the southeast corner of the property as shown in Figures 3-12 and 3-13 of the RI Report.
- 3. Excavation of soils immediately offsite, impacted by prior remedial action at the Millens site and exceeding Commercial SCOs, for placement beneath the cover soils.

## 3.2 Initial Pre-Construction Activities

Implementation of the IRM will necessitate the following steps:

## 1. Pre-Construction Sampling

Prior to implementing the IRM, offsite surficial soil sampling is necessary to identify the horizontal and vertical excavation limits. Surficial soil sampling of selected areas onsite may also be conducted to refine the extent of the final cover required within the fenceline. Absent additional onsite soil data, the full extent of the site within the perimeter fenceline will be covered.

Sources of imported fill material will also require testing in accordance with DER-10 acceptance criteria prior to delivery to the site.

## 2. Obtain Approvals and Notifications

Approvals necessary for the IRM include:

- NYSDEC and New York State Department of Health (NYSDOH) approval of the IRM Work Plan;
- Underground Injection Control (UIC) notification to the United States Environmental Protection Agency (USEPA); and
- Notification to Dig Safely New York to obtain utility clearance.

## 3. Site Survey

The existing site survey of the project site will be field verified and updated in order to produce current site topographic mapping suitable for producing the final grading plan. It is anticipated that the site grading plan will preserve existing drainage patterns to the maximum extent possible. Pre-construction surveying will also include the establishment of appropriate survey benchmarks at the property for use during construction.

#### 4. Groundwater Monitoring and Well Abandonment

The groundwater monitoring program will be conducted on a quarterly basis following the implementation of the IRM. Certain wells may require permanent removal or decommissioning to permit implementation of the IRM. Previous sampling demonstrates groundwater flow is to the south and/or southeast in wells completed in the overburden. The presumed direction of groundwater flow in bedrock is also to the south and/or southeast.

The post-treatment groundwater monitoring program is described in Section 3.3.

The following wells will be decommissioned in accordance with Commissioner's Policy-43 Groundwater Monitoring Well Decommissioning Policy (CP-43): MW-1, MW-2, MW-4R, MW-7R, MW-10, MW-11, and MW-12. MW-3 and MW-8 were not located during the December 17, 2012 site inspection performed by EA.

## 5. Community Air Monitoring Plan (CAMP)

Site activities involving the management of impacted soils have the potential to generate dust which could migrate from the site. A Community Air Monitoring Plan (CAMP) will be developed prior to construction and will contain the details provided in Section 5.3. The CAMP will be based on the most recent NYSDOH Generic Community Air Monitoring Plan (DER-10 Appendix 1A). The CAMP will be reviewed and approved by the NYSDEC and NYSDOH prior to commencement of construction activities. The CAMP will include real time monitoring for total particulates and VOCs with a mechanism for immediate reporting to the site where activities are causing an offsite impact.

## 6. Health and Safety Plan (HASP)

Because the project involves the remediation of a regulated site, all construction/remedial activity must be carried out in accordance with a site Health and Safety Plan (HASP). Such a plan must satisfy the requirements of 40 Code of Federal Regulations (CFR) 1910 and 1926. The required elements of the HASP are presented in Section 5.2.

## 3.3 IRM Construction Activity and Sequence

All construction will be in accordance with the approved IRM Work Plan.

Certain preliminary site work will be required in order to implement the remedy including improving security measures, drainage improvements, etc. The building will either remain in-place or will be demolished to accommodate the needs of the future owner. Certain groundwater monitoring wells will be properly abandoned prior to cover construction. Prior to the commencement of construction, the selected contractor(s) will be required to make a series of "shop submittals" including but not limited to a Project Schedule, construction HASP, CAMP, etc.

## **Groundwater Treatment**

Impacted groundwater will be managed by focused in-situ treatment to reduce concentrations of VOCs in the groundwater. In-situ treatment of groundwater involves the injection of oxygen release compound (ORC) in the area of well MW-12, as shown on Figure 3-13 of the RI Report, to produce a controlled release of oxygen, which will accelerate the rate of biodegradation of VOCs in groundwater over time. The main VOCs of concern are benzene and methyl tert-butyl ether (MTBE).

## 1. Injection of ORC

The selected contractor will mix and inject the proper amount of ORC in the treatment area. The quantity of ORC to be injected at each location will be determined based upon the concentration of VOCs in the groundwater. Injection will be accomplished by Geoprobe direct push injection. The density of injection points will be determined based on design data submitted to the ORC supplier, Regenesis and the nature of the unconsolidated material.

Prior to injection of the ORC, it will be mixed with water to form an injectable slurry, then pumped into the identified zone of contamination. Once present in the aquifer, the ORC particles will produce a controlled release of oxygen for up to 12 months, which will enhance aerobic biodegradation of the VOCs. The byproduct of the biodegradation is Magnesium hydroxide (Mg(OH)<sub>2</sub>), a non-toxic compound.

## 2. <u>Long Term Groundwater Monitoring</u>

Following treatment, groundwater monitoring events will be performed consisting of sampling designated monitoring wells for VOCs. The initial monitoring event will take place one to two (1 to 2) months following treatment, followed by quarterly monitoring for one (1) year. Additional monitoring events will be determined based on an evaluation of the data following the first year.

Designated wells will be sampled utilizing low-flow methodology.

The following wells will be sampled: MW-5, MW-6, MW-9, MW-14, and upgradient well MW-13.

The following parameters will be measured in the field: Temperature, pH, Specific Conductivity, Oxidation Reduction Potential (ORP) and Dissolved Oxygen (DO). Groundwater samples will be collected and analyzed for VOCs using USEPA Method SW8260 by a NYSDOH-certified laboratory with Category B deliverables.

All groundwater samples will be collected in accordance with the NYSDEC Department of Environmental Remediation DER-10 – Technical Guidance for Site Investigation and Remediation (May 3, 2010), as follows:

- At least ten (10) percent of all samples will be collected in duplicate for Quality Assurance/Quality Control (QA/QC).
- Monitoring wells to be sampled in duplicate will be selected randomly at the time of sampling.

A Data Usability Summary Report (DUSR) will be prepared for the groundwater monitoring data in accordance with DER-10.

## 3. Soil Vapor Intrusion (SVI) Investigation

If it is determined the onsite building will be revised, a Soil Vapor Intrusion (SVI) investigation will be completed during the heating season. Prior to conducting the investigation, a SVI investigation work plan following Final NYSDOH "Guidance for Evaluating SVI investigation in the State of New York", dated October 2006, will be submitted to the NYSDEC and NYSDOH for review and approval. The investigation will determine whether additional actions are necessary to prevent vapor intrusion into the building prior to its reuse.

## **Excavation of Offsite Soils**

Soils immediately offsite impacted by prior remedial activities at the Millens site and which exceed Commercial SCOs will be excavated, relocated and placed beneath the soil cover. Offsite soils data is summarized by Figures 3-10 and 3-11 of the RI Report provided in Appendix A. These figures indicate surficial soils exceed the Commercial Use SCOs for PCBs. Certain SVOC concentrations in surface soils proximate to the former discharge area also exceed the Commercial Use SCOs. Post excavation soil sampling will be conducted in accordance with DER-10 requirements to confirm commercial SCOs are attained.

Prior to excavation, the aerial extent of contaminated soil in offsite areas will be delineated. Impacted soils will then be excavated to an estimated depth of approximately two to four (2 to 4) feet. Excavated soils will be placed underneath the site cover system.

## **Cover Construction**

All onsite soils within the existing fenceline exceeding the Commercial Use SCOs will be capped with a minimum 12 inch layer of clean soil or with an asphalt cover. This proposed IRM will support the intended future use of the property by providing parking near the existing building. The extent of the cover soils and/or pavement required will be clarified for NYSDEC prior to construction.

## 3.4 Pre-Demolition Asbestos Survey

In the event the building is to be demolished, an industrial building asbestos inspection of the building structures will be performed by a New York State licensed asbestos inspector. Any materials determined to contain asbestos will be removed and managed by a qualified asbestos abatement contractor in accordance with the regulations specified in 12 NYCRR Part 56 and USEPA Region 2 guidance. All non-asbestos containing materials will be handled and managed as construction debris.

## 3.5 **Building Demolition**

Prior to demolition of the building, a walk-through inspection will be conducted to identify items that will be removed prior to demolition. This inspection will be performed by the property owner and the demolition contractor. Prior to demolition, a Demolition Permit Application will be submitted to the City of Kingston.

- Filing of a Building Permit (the requirements for the Building Permit Application and payment of \$100.00 application fee);
- Photographs depicting the property and structure;
- Documentation with the dates of disconnect for all utilities; and
- Asbestos removal certification.

Given that the property is located within the Rondout Creek District on the Zoning Map of the City of Kingston, the Fire Officer is required by the Zoning Code to refer Building Permit Applications for demolition to the Kingston Landmark Preservation Commission within five (5) days of receipt and shall not issue a Building Permit for at least 30 days thereafter.

Utility companies will be notified and connecting utility lines to the parking area will be shutoff prior to demolition. Demolition of the structures will commence following review and approval of the demolition permit application documents by the City. All construction debris will be removed from the site.

#### 3.6 Post-Construction

Consistent with DER-10 Chapter 6, a Site Management Plan (SMP) will be prepared to address future activities at the site following completion of the remedy. The SMP will provide for the proper monitoring and maintenance of the soil and asphalt cover, maintenance of storm drainage, future site excavations and associated soil management, future use, etc. It is anticipated the SMP will include both institutional controls (environmental easement and deed restrictions) and engineering controls (pavement, security fencing, signage, groundwater monitoring, etc.).

Institutional Controls will be detailed in an Environmental Easement.

#### 4.0 REMEDIATION SCHEDULE

It is anticipated the project will follow the general sequence outlined below, although a number of site activities are expected to overlap:

#### • Pre-Remediation:

<u>Permits and Approvals</u>: All necessary permits and/or approvals will be applied for and obtained to authorize the work. The following summarizes the anticipated approvals and permits.

NYSDEC	IRM Work Plan	
USEPA	• UIC approval (30 days prior to injections and groundwater treatment)	
Dig Safely NY	• Notify at least three (3) days prior to injections and excavations	
NYSDOH	<ul><li>Community Air Monitoring Plan (CAMP)</li><li>Health and Safety Plan (HASP)</li></ul>	
City of Kingston	• Demolition Permit (in the event of building demolition)	

Under prevailing NYSDEC policy, a separate SPDES General Permit for a Construction Activity is not anticipated for stormwater runoff.

## • Remediation:

- > Injection of ORC
- > Excavation of Offsite Soils
- Construction of Soil and Asphalt Cap

The groundwater injection and treatment are expected to be completed in one day. The excavation of offsite soil, grading/capping of the site, and site restoration of disturbed areas is expected to require up to one-half (1/2) construction season.

#### 5.0 IRM DESIGN

## 5.1 General

Following the pre-construction sampling, if any, the IRM limits for the pavement and soil cover will be finalized. Unless otherwise determined by soil sampling, all areas within the existing fenceline will be paved or otherwise covered with a minimum 12" soil cover.

#### Plans:

Prior to commencement of construction, a construction drawing will be prepared at a scale of 1":50" with one (1) foot contours. The drawing will reflect the proposed finished grades and extent of the soil cover and/or paved surfaces.

## • Specifications:

Material sources will be identified and tested in accordance with DER-10 Section 5.4(e) requirements. Prior to construction, test results will be furnished to NYSDEC using the "Request to Import/Reuse Fill or Soil" form seeking approval at each source.

## 5.2 Health and Safety Plan (HASP)

Selected contractor(s) will be required to provide a HASP developed in accordance with the Occupational Safety & Health Administration (OSHA) and other regulations pertaining to working in the vicinity of contaminated materials. The HASP must include all the items listed in Appendix B.

## 5.3 Community Air Monitoring Plan (CAMP)

The Community Air Monitoring Plan (CAMP) must be prepared and implemented in conformance with the NYSDOH Generic Community Air Monitoring Plan as contained in Appendix 1A of the "DER-10 Technical Guidance for Site Investigation and Remediation", May 3, 2010. Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells. The particulate monitoring at the perimeter of the Exclusion Zone will be with a MIE PDM-3 MiniRam or equal.

Prior to construction, the site specific CAMP will be submitted to the appropriate agencies for approval, including the NYSDEC and NYSDOH.

In particular, the following sections of the NYSDOH Generic Community Air Monitoring Plan must be followed:

## VOC Monitoring, Response Levels and Actions

VOCs must be monitored at the downwind perimeter of the immediate work area (i.e., the Exclusion Zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be

present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- 1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- 2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of five (5) ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less but in no case less than 20 feet, is below five (5) ppm over background for the 15-minute average.
- 3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.
- 4. All 15-minute readings must be recorded and be available for State (NYSDEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

## Particulate Monitoring, Response Levels, and Actions

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

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m³) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m³ above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m³ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m³ of the upwind level and in preventing visible dust migration.

All readings must be recorded and be available for NYSDEC and NYSDOH personnel to review.

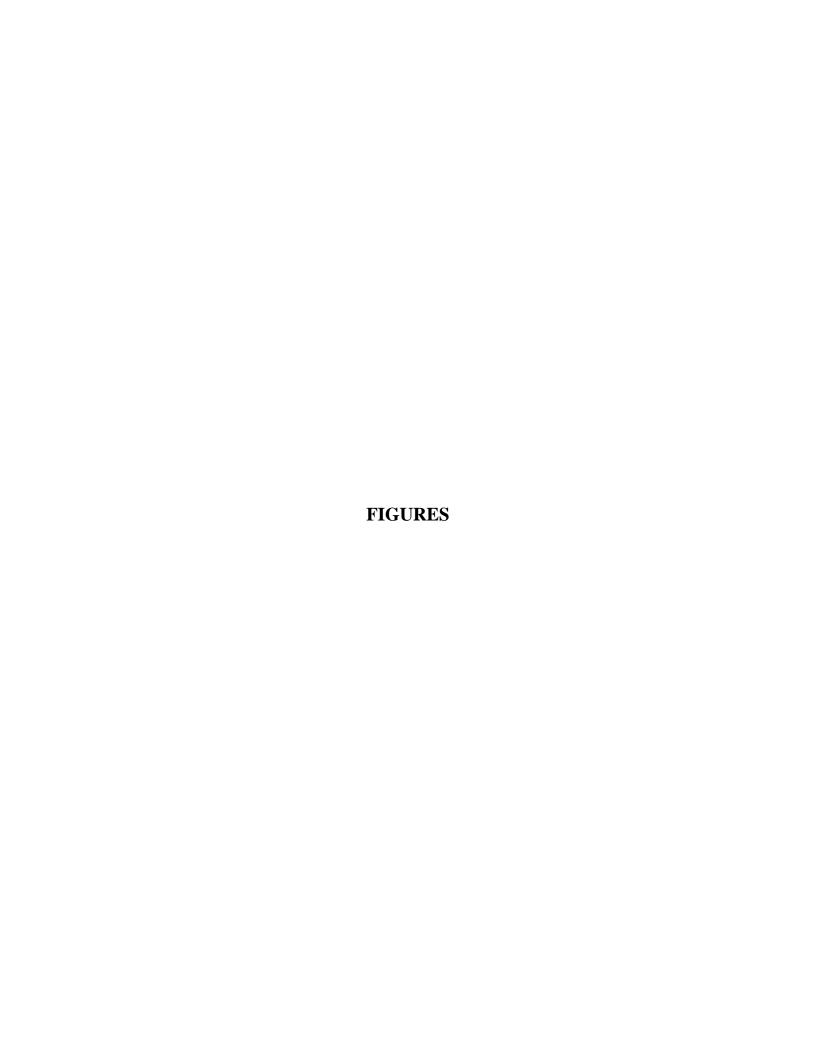
## 6.0 SCHEDULE

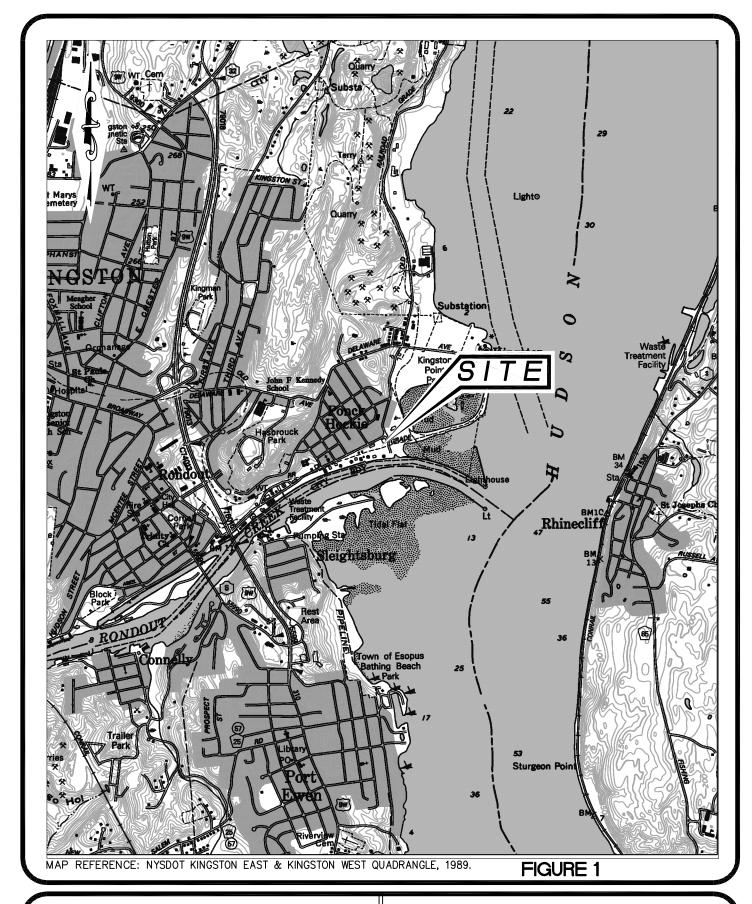
Millens is committed to fully implementing the groundwater treatment and final cover installation set forth in this IRM Work Plan in the 2015 construction season. The vapor intrusion investigation and/or building demolition will be deferred pending discussions with the City of Kingston regarding the future use of the property and building. Such will be clearly expressed in the SMP.

## Anticipated Timeframe:

NYSDEC Approval of IRM Work Plan	July 10, 2015
Millens Submittal of Final Grading Plan	August 1, 2015
NYSDEC Authorization to Proceed (Following Public Notice Period)	August 15, 2015
Construction Activities:	
Soil Testing and Cover Soil Approval	August 15, 2015 – September 1, 2015
Groundwater Treatment	September 1, 2015
Delivery and Placement of Soil Cover and/or Pavement	September 15, 2015 – October 1, 2015
Submit Final Engineering Report Construction Certification; SMP and As-Built Survey	October 15, 2015
Prepare and Submit Environmental Easement	October 15, 2015
NYSDEC Issues Certificate of Completion	December 31, 2015

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# SERLING

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SITE LOCATION MAP

B. MILLENS SONS, INC.
290 EAST STRAND STREET

CITY OF KINGSTON ULSTER CO., NY

PROJ. No.: 27023 DATE: 12/26/12 SCALE: 1" = 2000' DWG. NO. 27023006 FIGURE

## **APPENDIX A**

# RI REPORT DATED AUGUST 2014 (PROVIDED ON CD)

## APPENDIX B

# REQUIRED HEALTH AND SAFETY PLAN (HASP) CONTENT

## HEALTH AND SAFETY PLAN (HASP) OUTLINE

## 1.0 GENERAL INFORMATION

#### 2.0 DESIGNATION OF RESPONSIBILITIES

#### 3.0 SITE PROPERTY SPECIFIC HEALTH AND SAFETY CONCERNS

- Airborne Exposure Limits
- Explosive Gas
- Personal Protective Equipment (PPE)
- Suspected Safety Hazards
- Excavator and Drill Rig Operations
- Adverse Weather
- Fire and Explosion
- Requirement to Conduct Utility Mark Out
- Confined Space Entry
- Excavation and Sampling Work Zones
- Natural Hazards
- Heat and Cold Stress Hazards
- Signs and Symptoms of Cold Stress
- Preventing Cold Related Illness/Injury
- Treatment of Cold Related Injuries
- Signs and Symptoms of Heat Stress
- Preventing Heat Related Illness/Injury
- Noise Hazards
- Slip, Trip and Fall Hazards
- Modifications to this Plan

### 4.0 MEDICAL SURVEILLANCE PROGRAM

- General
- Frequency of Medical Exams

## 5.0 EMERGENCY ACTION PLAN

- Notification
- Emergency Services
- Personal Injury
- Fire/Explosion
- Equipment Failure
- Record Keeping

## 6.0 DECONTAMINATION METHODS

- Contamination Prevention Methods
- Decontamination Methods