Department of Environmental Conservation

Division of Environmental Remediation

Record of Decision

Quanta Resources Site
State Superfund Project
City of Syracuse, Onondaga County New York
Site Number 734013

March 2011

New York State Department of Environmental Conservation
Andrew M. Cuomo, *Governor* Joe Martens, *Commissioner*

DECLARATION STATEMENT - RECORD OF DECISION

Quanta Resources
State Superfund Project
City of Syracuse, Onondaga County New York
Site No. 734013

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedy for the Quanta Resources site, a Class 2 inactive hazardous waste disposal site. The selected remedial program was chosen in accordance with the New York State Environmental Conservation Law, 6 NYCRR Part 375, and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Quanta Resources Site and the public's input to the Proposed Remedial Action Plan (PRAP) presented by the Department. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Description of Selected Remedy

Based on the results of the remedial investigation feasibility study (RI/FS) for the Quanta Resources site and the criteria identified for evaluation of alternatives, the Department has selected Excavation, Capping and LNAPL Recovery as the remedy for this site.
The components of the remedy are as follows:

1. A remedial design program would be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program.

2. Excavation of subsurface soils impacted by free-phase oil at a depth of two-and-a-half to twelve feet (Figure 2) for off-site disposal at an approved facility.

3. Re-grading of contaminated surface soils outside of the free-phase oil impact area (Figure 5) to accommodate construction of a one-foot soil cover. Placement of excess graded material in the bottom of the free phase oil impact area excavation prior to being backfilled with clean material.

4. A site cover will be installed to allow for the industrial use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the industrial use soil cleanup objectives (SCOs). Where the soil

cover is required, it will be a minimum of one foot of soil, meets the commercial use SCOs for cover material as set forth in 6 NYCRR Part 375-6.8 (b).
The soil cover will be placed over a demarcation layer. The excavation and the demarcation layer will be backfilled with either on- site soil or imported off-site soil meets the backfill material requirements for commercial use as set forth in 6 NYCRR Part 375-6.8(b), with the upper six inches of the soil of sufficient quality to maintain a vegetation layer.

5. Vacuum-enhanced LNAPL recovery from the bedrock groundwater surface.

6. The operation of the components of the remedy would continue until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.

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

(a) requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
(b) land use is subject to local zoning laws; the remedy allows the use and development of the controlled property for industrial use;
(c) restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the Department, NYSDOH or County DOH;
(d) prohibits agriculture or vegetable gardens on the controlled property;
(e) requires compliance with the Department approved Site Management Plan.

8. Since the remedy results in contamination remaining at the site that does not allow for unrestricted use, a Site Management Plan is required, which includes the following:

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

Institutional Controls: The Environmental Easement discussed in Paragraph 7 above.

Engineering Controls: The soil cover discussed in Paragraph 4 and the LNAPL recovery system discussed in Paragraph 5 above.

This plan includes, but is not limited to:

(i) Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
(ii) descriptions of the provisions of the environmental easement including any land use and/or groundwater use restrictions;
(iii) provisions for the management and inspection of the identified engineering controls;
(iv) maintaining site access controls and Department notification; and
(v) The steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

(vi) provision to evaluate the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion.

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

(i) monitoring of groundwater and free product (LNAPL) recovery to assess the performance and effectiveness of the remedy;
(ii) a schedule of monitoring and frequency of submittals to the Department; and

(iii) monitoring for vapor intrusion for any buildings occupied or developed on the site, as may be required pursuant to item 8 (a) (vi) above.

(c) an Operation and Maintenance Plan to assure continued operation, maintenance, monitoring, inspection, and reporting of for any mechanical or physical components of the remedy. The plan includes, but is not limited to:

(i) compliance monitoring of treatment systems to assure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
(ii) maintaining site access controls and Department notification; and
(iii) providing the Department access to the site and O&M records.

9. To maximize the net environmental benefit, Green remediation and sustainability efforts are considered in the design and implementation of the remedy to the extent practicable.

New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy selected for this site is protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

MAR 29 2011

Date

Dale A. Desnoyers, Director
Division of Environmental Remediation

RECORD OF DECISION
Quanta Resources
State Superfund Project
City of Syracuse, Onondaga County New York
Site No. 734013
March 2011

SECTION 1: SUMMARY OF THE RECORD OF DECISION

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the Quanta Resources Site. The presence of hazardous waste has created significant threats to public health and the environment that are addressed by the remedy. As more fully described in Sections 3 and 5 of this document, the facility operated as waste oil recovery and recycling facility from the 1920s to 1981. The operations and handling of petroleum products along with poor housekeeping practices, have resulted in the release of hazardous and non-hazardous waste including petroleum products, solvents along with waste oils containing PCBs (polychlorinated biphenyl) into the environment. These wastes have contaminated the soil and groundwater at the site and have resulted in:

- Significant environmental threat associated with the current and potential impacts of contaminants to the sub-surface soils and groundwater.

To eliminate or mitigate these threats, the Department has selected Excavation of Impacted Soils, Soil Capping, Recovery of free product along with Treatment of Groundwater. There will also be administrative controls which include Environmental Easements and Periodic Certification as reporting requirements

The selected remedy, discussed in detail in Section 8, is intended to attain the remediation goals identified for this site in Section 6. The remedy must conform to officially promulgated standards and criteria that are directly applicable, or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, criteria and guidance are hereafter called SCGs.

SECTION 2: SITE DESCRIPTION AND HISTORY

2.1: Location and Description

The 0.75-acre Quanta Resources site is located at 2802-2810 Lodi Street in the City of Syracuse in Onondaga County (Figure 1). The surrounding parcels are currently zoned as commercial and industrial. There is an automobile repair and sales business next door as well as a small diner located across the street. An intersection one block northeast of the site serves as an exchange for Interstate 81.

The site is located on the northeastern edge of the former Oswego Canal in Syracuse. The Oswego Canal, closed in the early 1900s, was located where Lodi Street and Oswego Boulevard are currently situated and is now filled with eight to 10 feet of non-native material. To the southwest lies Interstate 81 at an elevation approximately 18 feet below the general site grade.

The site geology consists of a surficial layer of non-native fill material consisting of sand and gravel with bricks, concrete chunks, glass and wood debris. This unit is typically three to four feet thick, generally pervious and will readily allow rainwater infiltration. Underlying the fill unit is a dense gray-green silt unit that is widely perforated by plant roots. The permeability of the silt is lower than the overlying soils, as evidenced by numerous locations where water perched and free phase oil seeped into test pits and test trenches at the fill/silt interface. In general, the hydraulic conductivity of the silt is quite low. This unit varies in thickness from zero to 11 feet.

The underlying bedrock is Vernon shale, which varies in color from green to gray to red. Drilling logs for the site monitoring wells show the top of the surface of the Vernon shale to be heavily weathered, indicating the rock is fragmented and capable of transmitting water in this weathered zone. The water table has been observed at depths between 22 to 30 feet below ground surface. Based on the drilling logs, the water table surface is below the surface of the weathered Vernon shale. Groundwater flow is generally to the south with a westward component of flow in the northern portion of the site.

2.2: Operational/Disposal History

The site was formerly a waste oil recycling facility that operated from 1920 to 1981. Originally the property consisted of three cinder block buildings, surface and underground oil storage tanks, drum and container storage areas, and underground sumps. The facility was operated by many different companies over the years, including Seitz Oil Products, Anchor Oil (Northeast Oil Services), Ag-Met Oil Service, Newton Refining, Hudson Oil, The Portland Holding Corporation and Quanta Resources. Quanta Resources went bankrupt in 1981 and abandoned the site, leaving behind a large volume of product and waste material.

2.3: Remedial History

1. Remedial Parties and Program.

In May 1983, the Department first identified the site as a Class 2a site. A Class 2a site is a temporary classification assigned to a site that had inadequate and/or insufficient data for inclusion in any of the other classifications in the Registry of Inactive Hazardous Waste Disposal Sites in New York. As a result of identified hazardous waste disposal, the Department listed the site as a Class 2 site in the Registry of Inactive Hazardous Waste Disposal Sites in New York on March 24, 1994. A Class 2 site is a site where hazardous waste presents a significant threat to human health or the environment and action is required.

2. Investigation/Actions

- Phase I investigation completed in 1983
- USEPA emergency removal action performed from 1990 to 1992
- Phase II investigation completed in 1992
- Additional site investigation completed in 1998
- Additional USEPA removal action completed in 1999

SECTION 3: LAND USE

The Department may consider the current, intended, and reasonable anticipated future land use of the site and its surroundings when assessing the nature and extent of contamination. For this site alternatives that may restrict the use of the site to restricted industrial use criteria as described in Part 375-1.8 (g) are being evaluated in addition to unrestricted SCGs (Standards, Criteria, Guidance) because the Quanta Resources site is presently zoned for industrial use by the City of Syracuse. Further, the site is surrounded by other industrial and commercial properties which are also zoned industrial and/or commercial by the City. Therefore, the Department will evaluate the industrial use SCGs found in Part 375-6.8 (b) in assessing the nature and extent of contamination.

A comparison of the appropriate SCGs for the identified land use against the unrestricted use SCGs for the site contaminants is included in the Tables for the media being evaluated in Section 5.1.2.

SECTION 4: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The Department and the Quanta Resources/Syracuse Site PRP Group entered into a Consent Order on November 17, 2007; a complete list of the PRPs are provided at the end of this document in Appendix B- *Administrative Record*, page B-2. The Order obligates the responsible parties to implement a RI/FS-only remedial program. After the remedy is selected, the Department will approach the PRPs to implement the selected remedy.

SECTION 5: SITE CONTAMINATION

A remedial investigation has been conducted to determine the nature and extent of contamination and to evaluate the alternatives for addressing the significant threats to human health and the environment.

5.1: Summary of the Remedial Investigation

The purpose of the Remedial Investigation (RI) was to define the nature and extent of any contamination resulting from previous activities at the site. The RI was conducted between November 2008 and July 2009. The field activities and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Geophysical survey to determine the lateral extent of wastes,
- Test pits, soil borings, and monitoring well installations,
- Sampling of waste, surface soil, subsurface soils, groundwater and soil vapor
- Ecological and Human Health Exposure Assessments.

5.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable, or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and surface and subsurface soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in the following Sections list the applicable SCG in the footnotes. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/2393.html.

Based on the RI results, in comparison to the SCGs and potential public health and environmental exposure routes, certain media and areas of the site require remediation. These are summarized in Section 5.1.2. More complete information can be found in the RI Report.

5.1.2: Nature and Extent of Contamination

This section describes the findings of the remedial investigation. As described in the RI report, waste/source materials were identified at the site and are impacting groundwater, soil, and soil vapor.

Waste/Source Areas

Wastes are defined in 6 NYCRR Part 375-1.2 (aw) and include solid, industrial and/or hazardous wastes. Source Areas are defined in 6 NYCRR Part 375 (au). Source areas are areas of concern at a site were substantial quantities of contaminants are found which can migrate and release significant levels of contaminants to another environmental medium. Wastes and Source areas were identified

at the site, including free-phase oil in subsurface soils above the silt layer (Figure 2). In addition, a light non-aqueous phase liquid (LNAPL) with PCB concentrations in excess of the hazardous waste threshold (i.e., 50 parts per million) is present on the water table within the shale (refer to Figures 2C, 2D, and 3). This is believed to be the result of the downward migration of the oil, either through root zones in the silt unit or where the shale is in direct contact with the oil-contaminated soil. The migration of the LNAPL is limited to the east and west, as evidenced by the lack of LNAPL in off-site monitoring wells. An underground storage tank (UST) filled with an oil-water mixture was also discovered during the RI. The waste/source areas identified will be addressed in the remedy selection process.

This section also describes the findings for all environmental media that were evaluated. As described in the RI report, groundwater, soil, and soil vapor samples were collected to characterize the nature and extent of contamination.

For each media, a table summarizes the findings of the investigation. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site. The contaminants are arranged into four categories; volatile organic compounds (VOCs), semi volatile organic compounds (SVOCs), pesticides/ polychlorinated biphenyls (PCBs), and in-organics (metals). For comparison purposes the SCGs are provided for each medium that allows for unrestricted use. For soil, if applicable, the Restricted Use SCG identified in Section 3 is also presented.

Groundwater

Groundwater samples were collected from bedrock monitoring wells. The samples were collected to assess groundwater conditions on- and off-site. The results indicate that contamination in groundwater at the site exceeds the SCGs for volatile organic compounds (VOCs), inorganic compounds (i.e., metals) and PCBs as presented in Table 1 (for groundwater well information refer to Figures 2C, 2D, and 3).

Table 1 – Groundwater (Based on 14 samples obtained)			
Detected Constituents	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)	Frequency Exceeding SCG
VOCs			
2 Butanone (MEK)	7,800 to52,000	50	2/14
1,2,4-Trimethylbenzene	6 to 100	5	2/14
Benzene	2 to 41	1	4/14
1,2-Dichlorobenzene	5 to 18	3	3/14
1,3-Dichlorobenzene	5	3	1/14
1,4-Dichlorobenzene	4	3	2/14
Chlorobenzene	30 to 48	5	2/14
Vinyl Chloride	5 to 23	2	2/14
Isopropylbenzene	9 to 23	5	2/14
n-propylbenzene	12 to 26	5	2/14
1,2,3-Trimethylbenzene	22	5	1/14
1,2,4-Trimethylbenzene	100	5	1/14
1,3,5-Trimethylbenzene	25	5	1/14
1,2-Dibromo-3-Chloropropane	2	0.4	1/14
m/p-Xylenes	83	5	1/14
o-xylenes	11	5	1/14
Toluene	16	5	1/14
Metals			
Lead	227	25	1/14
Manganese	386 to 1,850	300	5/14
Cyanide	590	200	1/14
PCBs	0.13 to 0.93	0.09	2/14

a - ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.
b- SCG: Standard Criteria or Guidance - Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1), 6 NYCRR Part 703, Surface water and Groundwater Quality Standards, and Part 5 of the New York State Sanitary Code (10 NYCRR Part 5).

Based on the findings of the RI, the disposal of hazardous waste has resulted in the contamination of groundwater.

The primary groundwater contaminants are the VOCs MEK and benzene, toluene and xylene (BTX), and PCBs which are associated with operation of the former waste oil recycling facility. However, there is a relatively minor presence of these compounds in groundwater at the site and that presence is likely associated with the LNAPL impact. The inorganic compounds found in groundwater were limited to a single detection (lead, cyanide), or were also found in upgradient monitoring wells (manganese) and are considered to be representative of site background conditions. Therefore, they are not considered site-specific contaminants of concern.

Soil

Surface and subsurface soil samples were collected at the site during the RI. Surface soil samples were collected from a depth of zero to two inches to assess direct human exposure. Subsurface soil samples were collected from a depth of two to 36 feet to assess soil contamination impacts to groundwater. The results indicate that soils at the site exceed the unrestricted SCG for VOCs, semi-volatile organic compounds (SVOCs), metals and PCBs as presented in Table 2 (for soil sampling locations and cross-sections refer to Figures 2, 2C, and 2D).

Table 2 - Soil					
Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b] (ppm)	Frequency Exceeding Unrestricted SCG	Industrial Use SCG[c] (ppm)	Frequency Exceeding Restricted SCG
VOCs					
1,2,4Trimethylbenzene	0.003 J to 68	3.6	2/25	380	0/25
1,2-Dichloroethene	0.01 to 18	0.33	1/25	1000	0/25
1,3,5Trimethylbenzene	0.003 J to 21	8.4	1/25	380	0/25
Acetone	0.01 J to 1.0 J	0.05	15/25	1000	0/25
Benzene	0.001 J to 1.90	0.06	4/25	89	0/25
Ethylbenzene	0.001 J to 8.90	1.0	1/25	780	0/25
n-Propylbenzene	0.005 J to 7.0	3.9	1/25	1000	0/25
Toluene	0.002 J to 1.6	0.7	1/25	1000	0/25
Xylene (total)	0.002 J to 30.70	0.26	5/25	1000	0/25
SVOCs					
Benzo(a)anthracene	0.04 J to 12	1	3/33	11	1/33
Benzo(a)pyrene	0.04 J to 9.5	1	3/33	1.1	3/33
Benzo(b)fluoranthene	0.05 J to 13	1	3/33	11	1/33
Benzo(k)fluoranthene	0.04 J to 5.4	0.8	2/33	110	0/33
Chrysene	0.04 J to 11	1	4/33	110	0/33
Dibenz(a,h,)anthracene	0.04 J to 2.5	0.33	1/33	1	1/33
Indeno(1,2,3-cd) pyrene	0.05 J to 5.5	0.5	3/33	11	0/33
Metals					
Arsenic	2.11 to 21.9	13	6/33	16	6/33
Barium	18.7 to 694	350	2/33	10 000	0/33
Cadmium	0.257 to 16.6	2.5	3/33	60	0/33
Chromium, trivalent	6.6 to 52.3	30	18/33	6 800	0/33
Copper	2.19 to 176	50	8/33	10 000	0/33
Lead	0.939 J to 3,370	63	11/33	3 900	0/33
Manganese	256 to 2,110	1600	1/33	10 000	0/33
Total Mercury	0.0147 J to 0.875	0.18	9/33	5.7	0/33
Nickel	10.9 to 107	30	18/33	10 000	0/33
Zinc	31.6 to 469	109	7/33	10 000	0/33
PCBs					
PCB-1242	0.061 to 2.4	0.1	5/33	25 (Total)	0/33
PCB-1248	0.008 J to 0.69	0.1	2/33	25 (Total)	0/33
PCB-1254	0.0062 J to 1:3	0.1	5/33	25 (Total)	0/33
PCB-1260	0.0058 J to 2.3	0.1	5/33	25 (Total)	0/33

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.
c - SCG: Part 375-6.8(b), Industrial Soil Cleanup Objectives.
J- Estimated Concentration

The primary soil contaminants are VOCs, SVOCs and PCBs associated with operation of the former waste oil recycling facility.

Metals contamination in soil is most likely naturally occurring, with some probable contribution from historical urban fill activity (Section 2.1). Therefore, metals are not considered site-specific contaminants of concern.

Based on the findings of the Remedial Investigation, the disposal of hazardous waste has resulted in the contamination of soil. The site contaminants identified in soil which are considered to be the primary contaminants of concern, to be addressed by the remedy selection process are VOCs, SVOCs and PCBs.

Soil Vapor

The potential for soil vapor intrusion resulting from site-related soil or groundwater contamination was evaluated by sampling soil vapor at the site. Soil vapor samples were collected at a depth of approximately five feet below the ground surface at four locations on- and off-site to evaluate whether additional soil vapor sampling was warranted. VOCs were detected at low concentrations in the soil vapor samples. However, an elevated concentration of Trichloroethene (TCE) was detected in a single soil vapor sample, which was located near the north property boundary within ten feet of a suspected area of historical solvent usage in an adjacent automotive repair facility. Overall, the presence of TCE at the site in soil and groundwater samples was rare. Based on the soil vapor sampling results, the groundwater and soil sampling results (Tables 1 and 2), and our experience at other environmentally-impacted sites in New York State, the agencies determined that no further investigation of site- related soil vapor or site-related soil vapor intrusion beyond the site boundary was necessary.

Based on the results of the soil vapor sampling, and the presence of petroleum contaminants in areas beneath the site, there is a potential for on-site soil vapor contamination. There is also a potential for people to come into contact with this contamination due to soil vapor intrusion if new buildings are constructed on the site. Therefore, the potential for on-site soil vapor intrusion will be addressed by the remedy selection process.

5.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Record of Decision.

There were no IRMs performed at this site during the RI. However, two previous IRMs were conducted in the 1990s by the USEPA. From 1990 through 1992, the USEPA addressed several aboveground storage tanks (ASTs) and their contents. The ASTs were emptied and dismantled or disabled. One hundred eighty-five (185) tons of scrap steel from dismantling of the storage tanks and piping were decontaminated and shipped from the site for recycling. Forty-two thousand five hundred (42,500) gallons of hazardous wastes were removed from the ASTs, drums and sumps. The

wastes were analyzed, bulked into compatible waste streams and transported and disposed of at CERCLA-approved disposal facilities. Fourteen thousand (14,000) gallons of wastewater were generated from the decontamination of the ASTs. The wastewater was pre-treated on-site and discharged to the local publicly owned treatment works (POTW). At the conclusion of this action, the site buildings and three 20,000-gallon underground storage (USTs) remained.

In 1999 the USEPA completed a second removal action, which included demolition of the site buildings and removal of the three USTs. A suspect fourth tank was determined to be a sump and was subsequently removed. The contents of the tanks were identified as containing petroleum and solvents were disposed of at a permitted facility.

5.3: Qualitative Exposure Assessment

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by site-related contamination. Since the site is fenced and covered with gravel, people will not come into contact with site-related soil and groundwater contamination unless they dig below the ground surface.

Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Because the site is vacant, the inhalation of site-related contaminants due to soil vapor intrusion does not represent a concern for the site in its current condition. However, the potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site redevelopment and occupancy.
Sampling indicates that soil vapor intrusion is not a concern for off-site buildings.

5.4: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water.

The Quanta Resources site is currently a vacant lot in an urban, mixed commercial and industrial area. Based on the location of the site, a Fish and Wildlife Impact Analysis (FWIA) was not included in the RI report.

No surface water bodies are located on the site. The nearest surface water bodies are approximately 2,800 feet away. Accordingly, no current or potential site-related surface water impacts have been identified.

Groundwater resources at the site include a bedrock groundwater unit. The depth to the water table ranges from 22 to 30 feet below ground surface. Flow direction is generally to the south with a western component of flow in the northern portion of the site. Site-related contamination is impacting groundwater. The groundwater is not used as a source of potable water. Protection of the groundwater resource will be addressed in the remedy selection process.

SECTION 6: SUMMARY OF THE REMEDIATION OBJECTIVES

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial objectives for this site are:

Public Health Protection

Groundwater

- Prevent people from drinking groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatile organic compounds, from contaminated groundwater.

Soil

- Prevent inhalation of, or exposure from, contaminants volatilizing from contaminants in soil.

Soil Vapor

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

Environmental Protection

Groundwater

- Restore the groundwater aquifer to meet ambient groundwater quality criteria, to the extent feasible.

Soil

- Prevent migration of contaminants that would result in groundwater contamination.

SECTION 7: SUMMARY OF THE EVALUATION OF ALTERNATIVES

To be selected the remedy must be protective of human health and the environment, be cost-effective, comply with other statutory requirements, and utilize permanent solutions, alternative technologies or resource recovery technologies to the maximum extent practicable. Potential remedial alternatives for the Site were identified, screened and evaluated in the feasibility study report which is available at the document repositories established for this site.

A summary of the remedial alternatives that were considered for this site is presented below. Cost information is presented in the form of present worth, which represents the amount of money invested in the current year that would be sufficient to cover all present and future costs associated with the alternative. This enables the costs of remedial alternatives to be compared on a common basis.

7.1: Description of Remedial Alternatives

The following alternatives were considered to address the contaminated media identified at the site as described in Section 5:

Alternative 1: No Action

The No Action Alternative is evaluated as a procedural requirement and as a basis for comparison. This alternative leaves the site in its present condition and does not provide any additional protection to public health and the environment.

Alternative 2:
Restoration to Pre-Disposal or Unrestricted Conditions with LNAPL Recovery

This alternative achieves all of the SCGs discussed in Section 5.1.1 and soil meets the unrestricted soil clean-up objectives listed in Part 375-6.8 (a). This alternative would include excavation to a depth of 12 feet with the removal of approximately 14,500 cubic yards of contaminated soil with off-site disposal. The removal of the remaining underground storage tank (refer to Figure 4) would be included in this effort as well. In addition, the impacted groundwater would be address by utilizing vacuum-enhanced LNAPL recovery and treatment technology.

Present Worth: ..... **$3,734,000 - $3,834,000**
Capital Cost: **$3,603,000**
Annual Costs (3-7 years): ..... **$40,000 - $48,000**

Alternative 3: Excavation, Soil Cover, LNAPL Recovery

Alternative 3 would include the excavation and off-site disposal of the remaining underground storage tank and all oil-impacted soil, grading and backfilling the excavation with clean soil that meets the requirements of 6 NYCRR Part 375 Commercial Use Soil Cleanup Objectives (SCOs) (refer to Figure 5), and utilization of vacuum-enhanced LNAPL recovery and treatment technology to address the impacted groundwater. This alternative would include excavation up to a depth of approximately 12 feet with the removal of approximately 7,000 cubic yards of contaminated soil.

In addition, an institutional control in the form of an environmental easement would be imposed for the controlled property that:

(a) requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
(b) specifies that land use is subject to local zoning laws; the remedy allows the use and development of the controlled property for industrial use;
(c) restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the Department, NYSDOH or County DOH;
(d) prohibits agriculture or vegetable gardens on the controlled property;
(e) requires compliance with the Department-approved Site Management Plan

Present Worth: ..... **$1,656,000 - $1,756,000**
Capital Cost: **$1,525,000**
Annual Costs (3-7 years): ..... **$40,000 - $48,000**

Alternative 4: In Situ Chemical Oxidation (ISCO), Soil Cover, LNAPL Recovery

Alternative 4 would include the excavation and off-site disposal of the remaining underground storage tank, the in-situ treatment of the oil-impacted soil- (approximately 4,600 cubic yards) by utilizing chemical oxidation, followed by backfilling the excavation with clean soil that meets the requirements of 6 NYCRR Part 375 Commercial Use SCOs. The impacted groundwater would be addressed by utilizing vacuum-enhanced LNAPL recovery and treatment technology. In addition, an institutional control in the form of an environmental easement would be imposed for the controlled property that:

(a) requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
(b) specifies that land use is subject to local zoning laws; the remedy allows the use and development of the controlled property for industrial use;
(c) restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the Department, NYSDOH or County DOH;
(d) prohibits agriculture or vegetable gardens on the controlled property;
(e) requires compliance with the Department-approved Site Management Plan

Present Worth: ..... **$1,531,000 - $1,631,000**
Capital Cost: **$1,400,000**
Annual Costs (3-7 years): ..... **$40,000 - $48,000**

7.2 Evaluation of Remedial Alternatives

The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375, which sets forth the requirements for the remediation of inactive hazardous waste disposal sites in New York. A detailed discussion of the evaluation criteria and comparative analysis is included in the feasibility study.

The first two evaluation criteria are termed "threshold criteria" and must be satisfied in order for an alternative to be considered for selection.

1. Protection of Human Health and the Environment. This criterion is an overall evaluation of each alternative's ability to protect public health and the environment.

2. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether a remedy will meet environmental laws, regulations, and other standards and criteria. In addition, this criterion includes the consideration of guidance which the Department has determined to be applicable on a case-specific basis.

The next six "primary balancing criteria" are used to compare the positive and negative aspects of each of the remedial strategies.

3. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation. If wastes or treated residuals remain on-site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the engineering and/or institutional controls intended to limit the risk, and 3) the reliability of these controls.

4. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

5. Short-term Impacts and Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared against the other alternatives.

6. Implementation The technical and administrative feasibility of implementing each alternative is evaluated. Technical feasibility includes the difficulties associated with the construction of the remedy and the ability to monitor its effectiveness. For administrative feasibility, the availability of the necessary personnel and materials is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, institutional controls, and so forth.

7. Cost-Effectiveness. Capital costs and annual operation, maintenance, and monitoring costs are estimated for each alternative and compared on a present worth basis. Although cost-effectiveness is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the other criteria, it can be used as the basis for the final decision. The costs for each alternative are presented in the Remedial Alternatives Cost Table 3

Table 3
Remedial Alternative Costs

Remedial Alternative	Capital Cost ($)	Annual Costs ($)	Total Present Worth ($)
No Action	0	0	0
Restoration to Pre-Disposal or Unrestricted Conditions with LNAPL Recovery	3,603,000	44,000	3,784,000
Excavation, Soil Cover, With LNAPL Recovery	1,525,000	44,000	1,706,000
In Situ Chemical Oxidation (ISCO), Soil Cover, with LNAPL Recovery	1,400,000	44,000	1,581,000

8. Land Use. When cleanup to pre-disposal conditions is determined to be infeasible, the Department may consider the current, intended, and reasonable anticipated future land use of the site and its surroundings in the selection of the soil remedy.

The final criterion, Community Acceptance, is considered a "modifying criterion" and is taken into account after evaluating those above. It is evaluated after public comments on the Proposed Remedial Action Plan have been received.

9. Community Acceptance. Concerns of the community regarding the RI/FS reports and the PRAP have been evaluated. The responsiveness summary (Appendix A) presents public comments received and the manner in which the Department addressed the concerns raised.

There were no significant public comments regarding the proposed remedy.

SECTION 8: SUMMARY OF THE PROPOSED REMEDY

Based on the Administrative Record (Appendix B) and the discussion presented below, the Department has selected Alternative 3, Excavation, Capping and LNAPL Recovery as the remedy for this site. The elements of this remedy are described at the end of this section.

8.1 Basis for Selection

The selected remedy is based on the results of the RI and the evaluation of alternatives presented in the FS.

Alternative 3 has been selected because, as described below, it satisfies the threshold criteria and provides the best balance of the balancing criterion described in Section 7.2. It will achieve the remediation goals for site soils by removing oil-contaminated soil from the subsurface to an average depth of twelve feet and capping contaminated surface soil. Alternative 3 also addresses the source of the groundwater contamination by removal of the oil-contaminated soil and the LNAPL, and it creates the conditions necessary to restore groundwater quality to the extent practicable. This alternative is as effective as restoration to pre-disposal conditions, yet will be implemented at a considerably lower cost.

Alternative 1 (No Action) does not provide any protection to public health and the environment and would not be evaluated further. (Where the following text refers to each alternative, this excludes Alternative 1.) Alternative 2, by removing all soil contaminated above the "Unrestricted" soil cleanup objective, meets the threshold criteria. Alternatives 3 and 4 also comply with these criteria but to a lesser degree or with lower certainty. Because Alternatives 2, 3 and 4 satisfy the threshold criteria, the remaining criteria are particularly important in selecting a final remedy for the site.

Alternatives 2, 3 and 4 all have short-term impacts which would include increased truck/ heavy equipment traffic to the area during the contaminated soil removal and replacement operation efforts.

Alternative 2 would have greater short term impacts than Alternative 3 and 4 given the much greater volumes of contaminated soils to be excavated and transported off-site for disposal. Within two to three months of the soil removal efforts, Alternative 3's LNAPL vacuum enhanced recovery system would be implemented. It is estimated that it would take three to seven years to address the LNAPL and improve groundwater quality. Alternative 4 includes a very limited disposal of contaminated soil during the removal of the remaining underground storage tank. The remaining contaminated soil would be treated on site (in-situ). A pilot test would be required to determine proper oxidant (chemical) and dosing amount. During in-situ treatment and mixing, localized odors may occur. Treatment may take up to one year, however it may take an additional year for re-compaction, re-grading and to conduct required confirmatory sampling and analysis to determine the effectiveness of treatment. As with Alternatives 2 and 3, Alternative 4 would utilize vacuum enhanced LNAPL recovery and treatment technology to address the Site's current impacted groundwater conditions.

Long-term effectiveness is best accomplished by those alternatives involving excavation of the contaminated overburden soils (Alternatives 2 and 3). Since Alternative 2 results in the removal of all of the soil contamination at the site, a Soil Management Plan would not be required, however the operation and monitoring of the LNAPL recovery system would continue between three and seven years. Alternative 3 would result in the removal of the majority of the contaminated soil at the site, but it would also require an environmental easement and a Soil Management Plan. Significant uncertainty exists with Alternative 4 in terms of determining an accurate oxidant dose and whether the oxidant can be fully delivered to all soil voids containing oil. Pilot studies would be necessary to identify a suitable oxidant and an in situ mixing technology. Each of the alternatives would require an environmental easement and long-term monitoring to evaluate the effectiveness of the LNAPL recovery system.

Each of the alternatives would permanently reduce the toxicity, mobility and volume of the on-site contamination,
with Alternative 2 having the greatest reduction due to the volume of material removed and Alternative 4 the least due to uncertainty with the effectiveness. However, because of the uncertainties associated with the efficacy of in-situ chemical oxidation at this site, Alternative 4 may be limited in its ability to address soil contamination.
Alternatives 2 and 3 would be favorable in that they are readily implementable. Alternative 4 is also implementable, but there are a number of uncertainties associated with in situ chemical oxidation that would require the completion of pilot studies.

Alternatives 3 and 4 have similar in capital and present worth costs, yet the excavation and off-site disposal of the oil-contaminated soil (Alternative 3) is preferable to in situ treatment (Alternative 4) given the uncertainties regarding successful implementation and long-term effectiveness. The capital and present worth costs of Alternative 3 are less than half those of Alternative 2, yet Alternative 3 is considered equally protective of public health and the environment through implementation of a Soil Management Plan as part of an overall Site Management Plan.

The estimated present worth cost to implement the remedy (Alternative 3) is $1,706,000. The cost to construct the remedy is estimated to be $1,525,000 and the estimated average annual costs during operation of the LNAPL recovery system estimated for three to seven years is $44,000. Once the recovery system is turned off, the estimated average annual costs are $10,000.

8.2 Elements of the Selected Remedy

The elements of the selected restricted use remedy are as follows:

1. A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program.

2. Excavation of subsurface soils impacted by free-phase oil at a depth of two-and-a-half to twelve feet (Figure 2) for off-site disposal at an approved facility.

3. Re-grading of contaminated surface soils outside of the free-phase oil impact area (Figure 5) to accommodate construction of a one-foot soil cover. Placement of excess graded material in the bottom of the free phase oil impact area excavation prior to being backfilled with clean material.

4. A site cover will be installed to allow for the industrial use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the industrial use soil cleanup objectives (SCOs). Where the soil cover is required, it will be a minimum of one foot of soil, meets the commercial use SCOs for cover material as set forth in 6 NYCRR Part 375-6.8 (b).
   The soil cover will be placed over a demarcation layer. The excavation and the demarcation layer will be backfilled with either on- site soil or imported off-site soil meets the backfill material requirements for commercial use as set forth in 6 NYCRR Part 375-6.8(b), with the upper six inches of the soil of sufficient quality to maintain a vegetation layer.

5. Vacuum-enhanced LNAPL recovery from the bedrock groundwater surface.

6. The operation of the components of the remedy will continue until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.

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

   (a) requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

(b) land use is subject to local zoning laws; the remedy allows the use and development of the controlled property for industrial use;
(c) restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the Department, NYSDOH or County DOH;

(d) prohibits agriculture or vegetable gardens on the controlled property;
(e) requires compliance with the Department approved Site Management Plan.

8. Since the selected remedy results in contamination remaining at the site that does not allow for unrestricted use, a Site Management Plan is required, which includes the following:

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

Institutional Controls: The Environmental Easement discussed in Paragraph 7 above.

Engineering Controls: The soil cover discussed in Paragraph 4 and the LNAPL recovery system discussed in Paragraph 5 above.

This plan includes, but is not limited to:

(i) Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
(ii) descriptions of the provisions of the environmental easement including any land use and/or groundwater use restrictions;
(iii) provisions for the management and inspection of the identified engineering controls;
(iv) maintaining site access controls and Department notification; and
(v) The steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

(vi) provision to evaluate the potential for soil vapor intrusion for any buildings
developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion.

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

(i) monitoring of groundwater and free product (LNAPL) recovery to assess the performance and effectiveness of the remedy;
(ii) a schedule of monitoring and frequency of submittals to the Department; and

(iii) monitoring for vapor intrusion for any buildings occupied or developed on the site,
as may be required pursuant to item 8 (a) (vi) above.

(c) an Operation and Maintenance Plan to assure continued operation, maintenance, monitoring, inspection, and reporting of for any mechanical or physical components of the remedy. The plan includes, but is not limited to:

(i) compliance monitoring of treatment systems to assure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
(ii) maintaining site access controls and Department notification; and
(iii) providing the Department access to the site and O&M records.

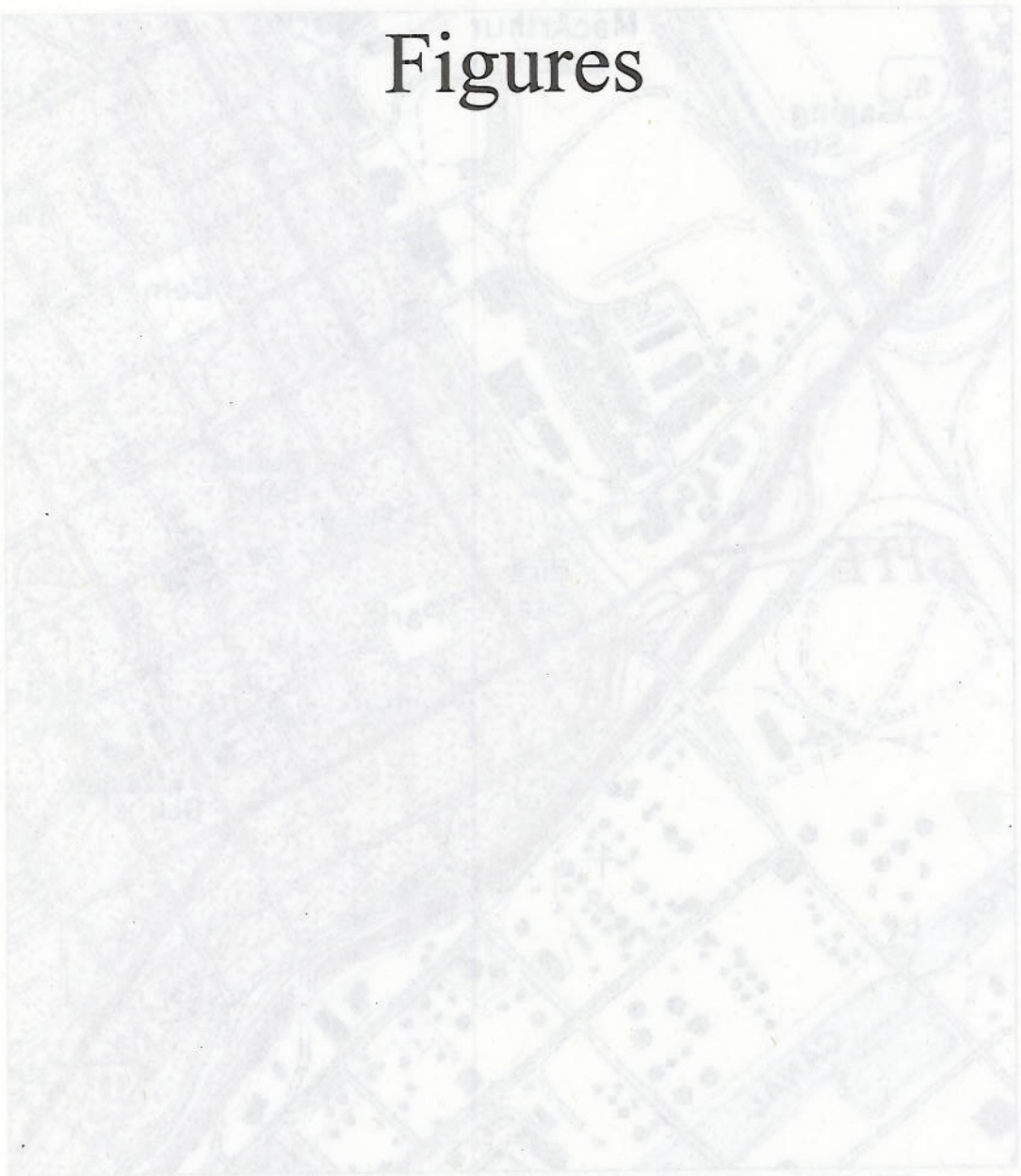
9. To maximize the net environmental benefit, Green remediation and sustainability efforts are considered in the design and implementation of the remedy to the extent practicable.

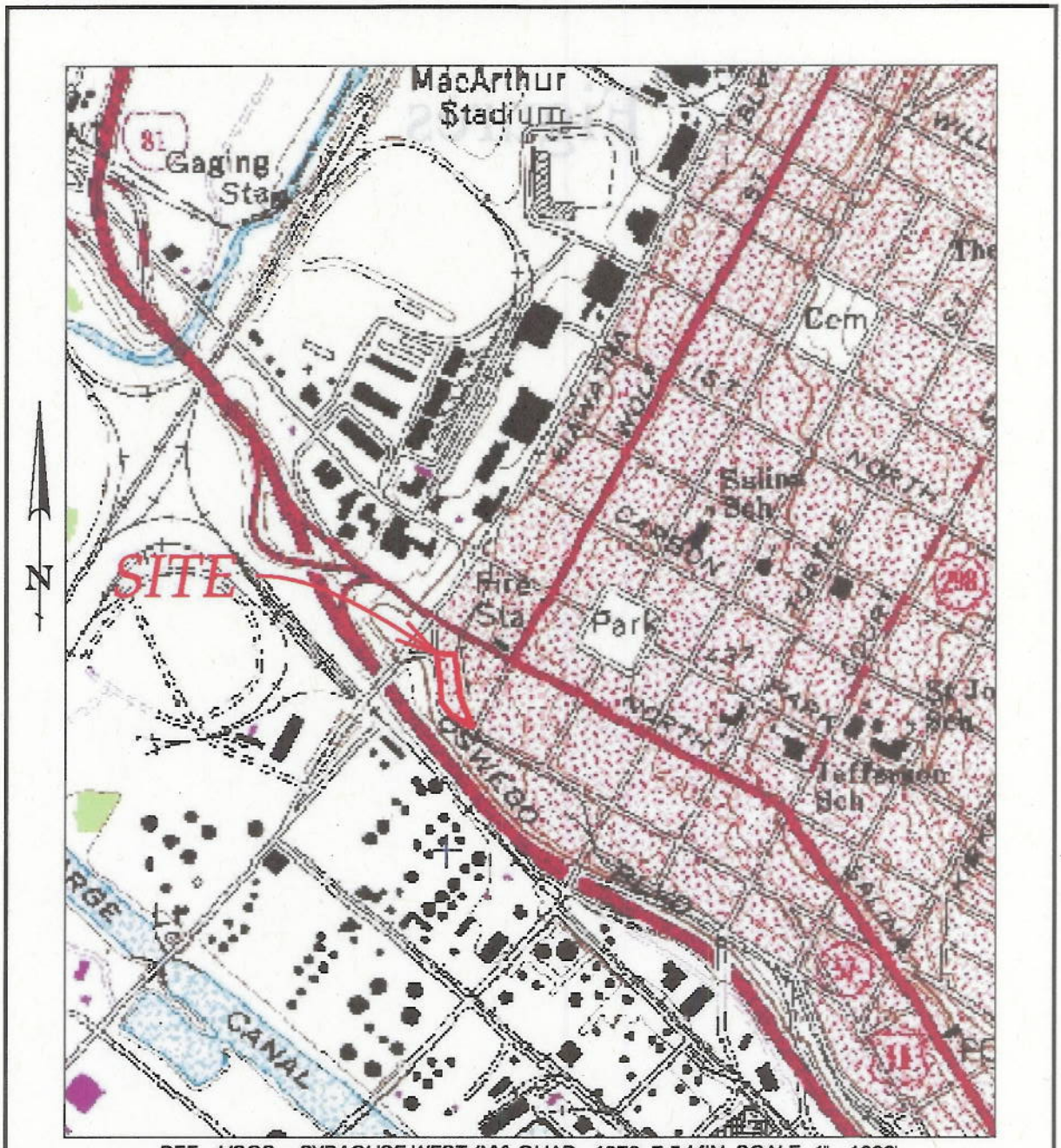
SECTION 9: HIGHLIGHTS OF COMMUNITY PARTICIPATION

As part of the remedial investigation process, a number of Citizen Participation activities were undertaken to inform and educate the public about conditions at the site and the potential remedial alternatives. The following public participation activities were conducted for the site:

- Repositories for documents pertaining to the site were established.
- A public contact list, which included nearby property owners, elected officials, local media and other interested parties, was established
- A public meeting was held on March 2, 20011 to present and receive comment on the PRAP.
- A responsiveness summary (Appendix A) was prepared to address the comments received during the public comment period for the PRAP.

Figures





REF.: USGS - SYRACUSE WEST (NY) QUAD., 1978, 7.5 MIN. SCALE: 1"=1000'

PLUMLEY ENGINEERING

Civil and Environmental Engineering

PLUMLEY ENGINEERING, P.C.
8232 LOOP ROAD
BALDWINSVILLE, NY 13027

TELEPHONE: (315) 638-8587
FAX: (315) 638-9740
WWW.PLUMLEYENG.COM

SITE LOCATION MAP

QUANTA RESOURCES - SYRACUSE

QUANTA RESOURCES SYRACUSE/ PRP GROUP

CITY OF SYRACUSE, ONONDAGA COUNTY, NEW YORK

Figure 1

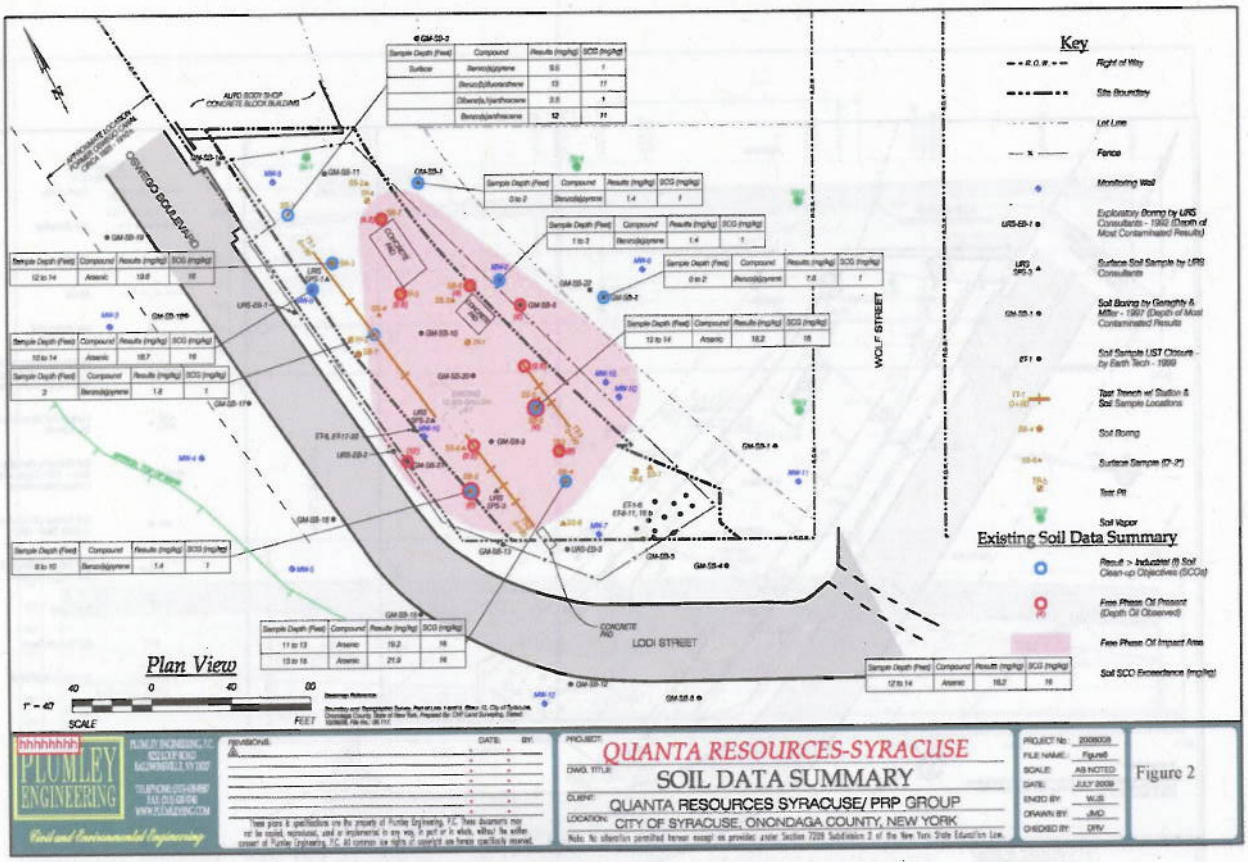

Key
Existing Soil Data Summary
Plan View
WOLF STREET
LODI STREET
OSWEGO BOULEVARD
QUANTA RESOURCES-SYRACUSE
SOIL DATA SUMMARY
QUANTA RESOURCES SYRACUSE/ PRP GROUP
CITY OF SYRACUSE, ONONDAGA COUNTY, NEW YORK
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Figure 2

March 2011

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

Quanta Resources
State Superfund Project
City of Syracuse, Onondaga County New York
Site No. 734013
March 2011

The Proposed Remedial Action Plan (PRAP) for the Quanta Resources site was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on February 16, 2011. The PRAP outlined the remedial measure proposed for the contaminated soil and groundwater at the Quanta Resources site.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on March 3, 2011, which included a presentation of the remedial investigation feasibility study (RI/FS) for the Quanta Resources as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 18, 2011.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the Department's responses:

COMMENT 1: In reference to off-site potential receptors being impacted by Quanta Resources- such as Onondaga Lake, has the location of the old-original Onondaga Creek channel acting as preferential pathway (to the Lake) been considered?

RESPONSE 1: The remedial investigation and related environmental data indicate that the Quanta Resources site does not release contaminants to the former Onondaga Creek channel.

APPENDIX B

Administrative Record

Administrative Record

Quanta Resources
State Superfund Project
City of Syracuse, Onondaga County New York
Site No. 734013
March 2011

Proposed Remedial Action Plan for the Quanta Resources site dated January 2011, prepared by the Department.

Order on Consent, Index No. D7-0001-07-07, between the Department and Quanta Resources/Syracuse PRP Group* executed on November 7, 2007 and amended on March 27, 2009

Listed below are additional documents used as the basis of the Record of Decision

"Groundwater Sampling Work Plan for Quanta Resources Site
2802-2810 Lodi Street City of Syracuse, Onondaga County, New York
NYSDEC Site No. 734013"
February 2008, prepared by Plumley Engineering

"Site Characterization Summary Report for Quanta Resources Site
2802-2810 Lodi Street City of Syracuse, Onondaga County, New York
NYSDEC Site No. 734013"
April 2008, prepared by Plumley Engineering

"Remedial Investigation/Feasibility Study/ Work Plan for the Quanta Resources Site
2802-2810 Lodi Street City of Syracuse, Onondaga County, New York
NYSDEC Site No. 734013"
May 2008, prepared by Plumley Engineering

"Final Remedial Investigation Report for the Quanta Resources Site
2802-2810 Lodi Street City of Syracuse, Onondaga County, New York
NYSDEC Site No. 734013"
August 2009, prepared by Plumley Engineering

"Final Feasibility Study Report for the Quanta Resources Site
2802-2810 Lodi Street City of Syracuse, Onondaga County, New York
NYSDEC Site No. 734013"
March 2010, prepared by Plumley Engineering

*an additional sheet follows that lists all Potential Responsible Parties (PRP)

*Quanta Resources/Syracuse PRP Group

AEP Industries Inc. (Borden Chemical Company)
Alumax Mill Products, Inc.
Atlantic Richfield Company
Auburn Technology, Inc.
Berkley Products Company
Bisson Moving & Storage Company
BorgWarner Inc. on behalf of itself and its corporate predecessors-in-interest, Borg-Warner Automotive, Inc. and Borg-Warner Corporation
Chicago Pneumatic Tool Company c/o Danaher Corp.
Quality Carriers, Inc. (as successor to Chemical Leaman Tank Lines, Inc.)
Chrysler LLC
Consolidated Rail Corporation
Cooper Industries
Cornell University
Corning Incorporated
Crosman Corporation
Crucible Materials Corp.
Ellis Hospital
Environmental Products & Services Inc.
ExxonMobil
Ford Motor Company
Electric Boat Corporation, a General Dynamics Company
General Electric Company
General Motors Corporation
SPX Corporation on behalf of General Railway Signal
Goulds Pumps, Incorporated
GTE Operations Support Incorporated for GTE/Sylvania
Hercules Incorporated
Honeywell International
Ingersoll-Rand Company
International Paper Company
J.L. Clark, Inc.
Kenrich Petrochemicals, Inc.
SPX on behalf of Leeds & Northrop
Mack Trucks, Inc.
Miller Brewing Company
Mohawk Home Comfort Services
NCR Corporation
New York State Electric & Gas Corp.
Niagara Mohawk Corp.
Owens-Illinois, Inc.
Parker- Hannifin Corporation
Pass & Seymour Inc.
The Procter & Gamble Paper Products Company
Reynolds Metals Company
Robert H. Law, Inc.
Rochester Gas & Electric Corp.
Rockwell Automation
Rollway Bearing Company (formerly LipeRollway)
Rome Strip Steel Co., Inc.
Ryder Truck Rental, Inc.
SI Group, Inc. (formerly Schenectady International, Inc.)
Special Metals Corporation
Texaco Inc.
Tyco Electronics (successor to AMP Inc.)
United Technologies Corporation, on behalf of its subsidiaries, Carrier Corporation and Pratt & Whitney Canada Corp., and its Pratt & Whitney Division
Northrop Grumman Space & Mission Systems Corp. for Varity Kelsey Haves Co.
Verizon New York Inc.
Xerox Corporation,

as Respondents; and

American Premier Underwriters
Anheuser-Busch, Incorporated
Buell Automatics Inc.
Camden Central School
Chevron Environmental Management Company (for itself and on behalf of Chevron U.S.A. Inc.)
City of Holyoke
City of New Bedford
Connecticut Dept. of Mental Health & Addiction Services
Consolidated Scrap Processing, Inc.
Danaher Easco Hand Tools
Eastman Kodak Company
Elmwood Tank & Piping
Friendly Ice Cream Corporation
Garlock Sealing Technologies, LLC
Hammond & Irving, Inc.
Hess Corporation
IBM Corporation
Industrial Heat Treating, Inc.
J.C. Penney Corporation, Inc. (f/k/a J. C. Penney Company,Inc.)
John Mezzalingua Associates, Inc.
Lexington Precision Corporation
Macy's East, a Division of Macy's Retail Holdings, Inc.
Berwind Corporation, on behalf of Neapco, Inc. Nestle USA, Inc.
Quincy Oil Company
SPX Corporation on behalf of New York Air Brake
Scott Technologies, Inc.
Sears, Roebuck and Company
State University of New York Oswego
Stott & Davis Motor Express
Sunoco Inc. (R&M) (f/k/a Sun Company, Inc. (R&M))
Symetry Medical TNCO
Syracuse Supply Company
Teale Machine Co. Inc.
Textron Inc.
The Owasco River Railway, Inc.
Thompson & Johnson Equipment Co., Inc.
Tompkins Seneca-Tioga BOCES
Westhill Central School District

as Settling Parties.