

RECORD OF DECISION

26-28 Whitesboro Street
Environmental Restoration Project
Utica, Oneida County
Site No. B00063
March 2011



Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - RECORD OF DECISION

26-28 Whitesboro Street
Environmental Restoration Project
Utica, Oneida County
Site No. B00063
March 2011

Statement of Purpose and Basis

This document presents the remedy for the 26-28 Whitesboro Street site, an environmental restoration site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the 26-28 Whitesboro Street site and the public's input to the proposed remedy 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

The estimated present worth cost to implement the remedy is \$267,000. The cost to construct the remedy is estimated to be \$228,000 and the estimated average annual cost is \$14,000.

The elements of the selected 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. Green remediation principals and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows;

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

sustainable re-development.

2. Approximately 1,300 cubic yards of contaminated surface and subsurface soils from four areas on-site will be excavated for off-site disposal at a permitted facility. Soil will be excavated with the goal of reaching the lower of the protection of groundwater or commercial SCOs for VOCs. If it is not possible to attain the protection of groundwater SCOs, additional measures to meet the protection of groundwater SCOs will be evaluated and/or post closure monitoring may be required.

3. A site-wide cover will be required to allow for commercial use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of one foot of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer.

4. Imposition of an institutional control in the form of an environmental easement that will: (a) limit the use and development of the property to commercial uses only; (b) restrict use of groundwater as a source of potable or process water without necessary water quality treatment as determined by the New York State Department of Health; (c) require the property owner to complete and submit to the NYSDEC a periodic certification; and (d) the implementation of the required site management plan.

5. Development of a site management plan which will include the following: (a) identification and mapping of materials and areas which must be managed in accordance with the site management plan; (b) an excavation plan to establish how soils will be tested and properly handled to protect the health and safety of workers and the nearby community if they are encountered during future excavations; (c) a restoration plan to identify how the site will be restored at the conclusion of any redevelopment. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d); (d) a groundwater monitoring plan to confirm the effectiveness of the remedy; and (e) an evaluation of the potential for vapor intrusion for any existing or new buildings must be performed upon redevelopment of the site and the evaluation must include provisions for the monitoring or mitigation, if deemed necessary by the Department.

6. The City of Utica or subsequent property owner will provide a periodic certification of institutional and engineering controls for the site, prepared and submitted by a professional engineer or such other expert, acceptable to the Department, until the Department notifies the property owner in writing that this certification is no longer needed. This submittal will: (a) contain certification that the institutional controls and engineering controls put in place are still in place, and are either unchanged from the previous certification or are compliant with Department-approved modifications; (b) allow the Department access to the site; and (c) state that nothing has occurred that will impair the ability of the control to protect public health or the environment, or constitute a violation or failure to comply with the site management plan unless otherwise approved by the Department.

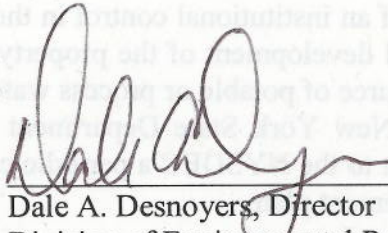
New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy 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 24 2011



Date

Dale A. Desnoyers, Director
Division of Environmental Remediation

RECORD OF DECISION

26-28 Whitesboro Street
Utica, Oneida County
Site No. B00063
March 2011

SECTION 1: SUMMARY AND PURPOSE

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 above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum. The remedy is intended to attain the remedial action objectives identified for this site for the protection of public health and the environment. This Record of Decision (ROD) identifies the selected remedy, summarizes the other alternatives considered, and discusses the reasons for selecting the remedy.

The 1996 Clean Water/ Clean Air Bond Act provides funding to municipalities for the investigation and cleanup of brownfields. Brownfields are abandoned, idled, or under-used properties where redevelopment is complicated by real or perceived environmental contamination. They typically are former industrial or commercial properties where operations may have resulted in environmental contamination. Brownfields often pose not only environmental, but legal and financial burdens on communities. Under the Environmental Restoration Program, the state provides grants to municipalities to reimburse up to 90 percent of eligible costs for site investigation and remediation activities. Once remediated, the property can then be reused.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: SITE DESCRIPTION AND HISTORY

Location: The site is located in an urban area. The 1.61 acre site is located at 26-28 Whitesboro Street in Utica, Oneida County, New York. The site is situated adjacent to a railroad line on the north side and Genesee Street to the east. The Utica Harbor and Mohawk River are located approximately 0.25 miles north of the property.

Site Features: The site is vacant and covered with a mixture of concrete sidewalks, asphalt parking and weedy vegetation.

Current Zoning/Uses: The site is currently inactive, and is zoned for commercial use. The surrounding parcels are currently vacant or used for a combination of commercial, public recreation and light industrial.

Historical Uses: The west side of the site was historically used for the manufacturing of fishing rods and accessories, and the east side of the site was occupied by various hotels from 1925 until 1973. In 1993, the City of Utica acquired the property in lieu of back taxes. All on-site structures were demolished after a fire in 1994 and the site is currently vacant.

Site Geology and Hydrogeology: The site contains historic backfill material to a depth of approximately 4 - 6 feet. Soils found beneath the fill are characterized as sandy, clayey silt. The depth to groundwater in the overburden soil is approximately 10 feet and flows in a northerly direction towards the Mohawk River.

A site location map is attached as Figure 1.

SECTION 3: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to restricted-residential use (which allows for commercial use and industrial use) as described in Part 375-1.8(g) is/are being evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the investigation to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is included in the Tables for the media being evaluated in Exhibit A.

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.

No PRPs have been documented to date.

Since no viable PRPs have been identified, there are currently no ongoing enforcement actions. However, legal action may be initiated at a future date by the state to recover state response costs should PRPs be identified. The City of Utica will assist the state in its efforts by providing all information to the state which identifies PRPs. The City of Utica will also not enter into any agreement regarding response costs without the approval of the Department.

SECTION 5: SITE CONTAMINATION

5.1: Summary of the Remedial Investigation

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. 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 and subsurface soils, groundwater, and soil vapor,
- Sampling of surface water and sediment,
- 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 soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in Exhibit A list the applicable SCGs in the footnotes. For a full listing of all SCGs see: <http://www.dec.ny.gov/regulations/61794.html>

5.1.2: RI Information

The analytical data collected on this site includes data for:

- groundwater
- soil

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized in Exhibit A. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

vinyl chloride	chromium
trichloroethene (tce)	copper
benzene	lead
toluene	manganese
ethylbenzene	mercury
xylene (mixed)	selenium
1,2,4-trimethylbenzene	zinc
benz(a)anthracene	fluoranthene
benzo(b)fluoranthene	pyrene
benzo(k)fluoranthene	dibenz[a,h]anthracene
benzo(a)pyrene	polychlorinated biphenyls (pcb)
chrysene	nickel
indeno(1,2,3-cd)pyrene	acenaphthene
beryllium	anthracene
cadmium	fluorene
	phenanthrene

As illustrated in Exhibit A, the contaminant(s) of concern exceed the applicable SCGs for:

- groundwater
- soil

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.

5.3: Summary of Human Exposure Pathways

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*.

The site is not fenced and persons who enter the site could contact contaminants in the soil by walking on the site, digging or otherwise disturbing the soil. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination.

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 there is no on-site building, inhalation of site contaminants in indoor air 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 development.

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.

Based upon the resources and pathways identified and the toxicity of the contaminants of ecological concern at this site, a Fish and Wildlife Resources Impact Analysis (FWRIA) was deemed not necessary for OU 01.

Surface and subsurface soils have been impacted by the disposal of hazardous wastes from the previous site operations. Surface soils exceed the unrestricted and commercial SCOs for SVOCs and metals in the eastern portion of Area 2. Subsurface soils are contaminated by VOCs, SVOCs, metals and pesticides/PCBs above the unrestricted and commercial SCOs. Groundwater has been impacted by the disposal of chlorinated and non chlorinated solvents. Site related contamination is impacting groundwater. Areas of grossly contaminated soils exist in the vicinity of Boring 18 (B-18) and Boring 3 (B-3) in Area # 1 and in the vicinity of MW-6 in Area 2.

SECTION 6: 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. The remedy must also attain the remedial action objectives identified for the site, which are presented in Exhibit B. Potential remedial alternatives for the Site were identified, screened and evaluated in the alternatives analysis (AA) report.

A summary of the remedial alternatives that were considered for this site is presented in Exhibit C. 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. As a convention, a time frame of 30 years is used to evaluate present worth costs for alternatives with an indefinite duration. This does not imply that operation, maintenance, or monitoring would cease after 30 years if remediation goals are not achieved. A summary of the Remedial Alternatives Costs is included as Exhibit D.

6.1: Evaluation of Remedial Alternatives

The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375. A detailed discussion of the evaluation criteria and comparative analysis is included in the AA report.

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. Implementability. The technical and administrative feasibility of implementing each alternative are 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.
8. Land Use. 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 investigation, the evaluation of alternatives, and the PRAP are evaluated. A responsiveness summary will be prepared that describes public comments received and the manner in which the Department will address the concerns raised. If the selected remedy differs significantly from the proposed remedy, notices to the public will be issued describing the differences and reasons for the changes.

6.2: Elements of the Remedy

The basis for the Department's remedy is set forth at Exhibit E.

The estimated present worth cost to implement the remedy is \$267,000. The cost to construct the remedy is estimated to be \$228,000 and the estimated average annual cost is \$14,000.

The elements of the selected 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. Green remediation principals and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows;

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

2. Approximately 1,300 cubic yards of contaminated surface and subsurface soils from four areas on-site will be excavated for off-site disposal at a permitted facility. Soil will be excavated with the goal of reaching the lower of the protection of groundwater or commercial SCOs for VOCs. If it is not possible to attain the protection of groundwater SCOs, additional measures to meet the protection of groundwater SCOs will be evaluated and/or post closure monitoring may be required.

3. A site-wide cover will be required to allow for commercial use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed

the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of one foot of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer.

4. Imposition of an institutional control in the form of an environmental easement that will: (a) limit the use and development of the property to commercial uses only; (b) restrict use of groundwater as a source of potable or process water without necessary water quality treatment as determined by the New York State Department of Health; (c) require the property owner to complete and submit to the NYSDEC a periodic certification; and (d) the implementation of the required site management plan.

5. Development of a site management plan which will include the following: (a) identification and mapping of materials and areas which must be managed in accordance with the site management plan; (b) an excavation plan to establish how soils will be tested and properly handled to protect the health and safety of workers and the nearby community if they are encountered during future excavations; (c) a restoration plan to identify how the site will be restored at the conclusion of any redevelopment. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d); (d) a groundwater monitoring plan to confirm the effectiveness of the remedy; and (e) an evaluation of the potential for vapor intrusion for any existing or new buildings must be performed upon redevelopment of the site and the evaluation must include provisions for the monitoring or mitigation, if deemed necessary by the Department.

6. The City of Utica or subsequent property owner will provide a periodic certification of institutional and engineering controls for the site, prepared and submitted by a professional engineer or such other expert, acceptable to the Department, until the Department notifies the property owner in writing that this certification is no longer needed. This submittal will: (a) contain certification that the institutional controls and engineering controls put in place are still in place, and are either unchanged from the previous certification or are compliant with Department-approved modifications; (b) allow the Department access to the site; and (c) state that nothing has occurred that will impair the ability of the control to protect public health or the environment, or constitute a violation or failure to comply with the site management plan unless otherwise approved by the Department.

Exhibit A

Nature and Extent of Contamination

As described in the RI report, many soil and groundwater samples were collected to characterize the nature and extent of contamination. As summarized in Table 1, the main categories of contaminants that exceed their SCGs are volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), and inorganics (metals). For comparison purposes, where applicable, SCGs are provided for each medium.

Chemical concentrations are reported in parts per billion (ppb) for water and parts per million (ppm) for waste, soil, and sediment. Air samples are reported in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). The following are the media which were investigated and a summary of the findings of the investigation.

Groundwater

Groundwater samples were collected from twenty (20) temporary and permanent overburden monitoring wells to assess groundwater conditions on-site and off-site. The groundwater data indicate that contamination in shallow groundwater exceeds the SCGs for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs) and metals.

VOCs are the primary groundwater contaminants and consist of trichloroethene, cis-1, 2-dichloroethene, benzene, and toluene. The contamination is isolated in the northern corner of Area 1 (see Figure 2) and appears to be associated with a historical spill or poor waste management practices.

The SVOC contamination is predominantly comprised of polyaromatic hydrocarbons (PAHs) and was found at low levels primarily in one boring in the northwest corner of the site near the railroad tracks. SVOC contamination in the groundwater is limited and is believed to be related to historic fill and not the result of operations at the site.

The inorganic compounds found in groundwater are considered related to the historic fill at the site, but may also be attributed to sample turbidity. Metals in the groundwater were also found in up gradient monitoring wells and are considered to represent site background conditions. Therefore, the metal compounds are not considered site specific contaminants of concern.

A summary of the analytical results and the frequency at which they exceed their SCGs are found in the table below.

Table 1 – Groundwater			
Detected Concentrations	Concentration Range Detected (ppb) ^a	SCG ^b (ppb)	Frequency Exceeding SCG
VOCs			
Vinyl Chloride	1 – 5	2	1 of 20
cis-1,2-Dichloroethene	2 – 200	5	3 of 20
Trichloroethene	4 – 120	5	5 of 20

Table 1 – Groundwater			
Detected Concentrations	Concentration Range Detected (ppb) ^a	SCG ^b (ppb)	Frequency Exceeding SCG
Benzene	11 – 43	1	3 of 20
Toluene	3 – 23	5	3 of 20
Ethylbenzene	3 – 73	5	1 of 20
Xylenes (total)	2 – 66	5	1 of 20
Isopropylbenzene	1 – 21	5	1 of 20
n-Propylbenzene	7	5	1 of 20
1,3,5-Trimethylbenzene	29	5	1 of 20
1,2,4-Trimethylbenzene	3 – 120	5	1 of 20
Naphthalene	5 – 1,100	10	1 of 20
SVOCs			
Benzo(a)anthracene	ND – 6 J	0.002	1 of 12
Chrysene	ND – 6 J	0.002	2 of 12
Benzo(b)fluoranthene	ND – 6 J	0.002	1 of 12
Benzo(k)fluoranthene	ND – 3 J	0.002	1 of 12
Benzo(a)pyrene	ND – 4 J	ND	1 of 12
Indeno(1,2,3-cd)pyrene	ND – 3 J	0.002	1 of 12
METALS			
Arsenic	1.7 – 618	25	6 of 37
Barium	30.7 – 6430	1000	4 of 37
Beryllium	0.15 – 27.7	3	5 of 37
Cadmium	0.13 – 47.8	5	5 of 37
Chromium	0.49 – 2600	50	5 of 37
Copper	6.4 – 4190	200	5 of 37

Detected Concentrations	Concentration Range Detected (ppb) ^a	SCG ^b (ppb)	Frequency Exceeding SCG
Lead	0.62 – 2250	25	8 of 37
Manganese	3.1 – 95900	300	26 of 37
Total Mercury	0.068 – 8.6	0.7	5 of 37
Nickel	1.4 – 3810	100	7 of 37
Selenium	1.5 – 72.7	10	2 of 37
Zinc	4.8 – 7680	2000	3 of 37

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).

J- Estimated values

Based on the findings of the RI, the disposal of hazardous waste has resulted in the contamination of groundwater. The site contaminants that are considered to be the primary contaminants of concern are: trichloroethene, cis-1, 2-dichloroethene, benzene, and toluene. The area of VOC contaminated groundwater is in the vicinity of B-18 and MW-2 (see Figure 3). PAH's found in groundwater were associated with historic fill and is predominately with Well No. B-1 near the north side of the site, adjacent to Water Street and the railroad tracks. Chrysene was detected at 1 ppb (estimated concentration) in monitoring well B-7.

Surface Soil

Surface soil samples were collected at the site during the RI to assess the potential for direct human exposure. Samples were collected from a depth of 0-2 inches below grade. The results indicate that soils at the site exceed the unrestricted SCOs for semi-volatile organics, pesticides, polychlorinated biphenyls, and metals.

A summary of the analytical results and the frequency at which they exceed their SCOs are found in the table below.

Detected Constituents	Concentration Range Detected (ppm) ^a	Unrestricted SCO ^b (ppm)	Frequency Exceeding Unrestricted SCO	Commercial SCO ^c (ppm)	Frequency Exceeding Commercial SCO
SVOCs					
Fluoranthene	0.27 – 200	100	1 / 15	500	0 / 15
Pyrene	0.24 – 170	100	1 / 15	500	0 / 15
Benzo(a)anthracene	0.16 – 79	1	9 / 15	5.6	3 / 15

Table 2 – Surface Soils					
Detected Constituents	Concentration Range Detected (ppm) ^a	Unrestricted SCO ^b (ppm)	Frequency Exceeding Unrestricted SCO	Commercial SCO ^c (ppm)	Frequency Exceeding Commercial SCO
Chrysene	0.16 – 75	1	10 / 15	56	1 / 15
Benzo(b)fluoranthene	0.26 – 110	1	14 / 15	5.6	5 / 15
Benzo(k)fluoranthene	0.081 – 33	0.8	8 / 15	56	0 / 15
Benzo(a)pyrene	0.15 – 76	1	12 / 15	1	11 / 15
Indeno(1,2,3-cd)pyrene	0.085 – 38	0.5	9 / 15	5.6	1 / 15
Dibenzo(a,h)anthracene	0.073 – 1.4	0.33	3 / 15	0.56	2 / 15
PCBs / PESTICIDES					
4-4' DDD	ND - 0.0078	0.0033	1 / 8	92	0 / 8
4-4' DDE	ND - 0.0051	0.0033	1 / 8	62	0 / 8
4-4' DDT	0.0068 – 0.026	0.0033	6 / 8	47	0 / 8
Polychlorinated biphenyls	0.087 – 0.35	0.1	2 / 8	1.0	0 / 8
METALS					
Copper	9.1 – 397	50	4 / 15	270	1 / 15
Lead	11.2 – 1290	63	13 / 15	1000	1 / 15
Total Mercury	0.063 – 8.9	0.18	9 / 15	2.8	1 / 15
Nickel	4.4 – 39.9	30	1 / 15	310	0 / 15
Zinc	42.7 - 315	109	10 / 15	10000	0 / 15

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;

b - SCO: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives;

c - SCO: Part 375-6.8(b), Commercial Soil Cleanup Objectives for surface soils

Based on the findings of the RI, the sites surface soils are consistent with historic fill and not the disposal of hazardous waste. However, the eastern portion of Area 2 has been impacted by SVOCs and metals above both the unrestricted and commercial SCOs will require remediation and long-term site management (see Figure 4).

Subsurface Soils

Subsurface soil samples, through the use of soil borings, were collected at the site during the RI to assess the extent of contaminated soils and their impacts on groundwater. Samples were collected from a depth of 2 to 10 feet below grade. Test pitting was also conducted and soils were examined for visual and olfactory evidence of contamination. The results indicate that subsurface soils at the site exceed the unrestricted SCOs for VOCs, SVOCs, pesticides,

PCBs, and metals. Subsurface soil samples identified several areas that are impacted with chlorinated solvents that are likely to be contributing to groundwater contamination.

The primary subsurface soil contamination is PAHs and mercury which appears to be associated with historic fill. One location in Area 1 has been found to be contaminated with chlorinated VOCs. This area appears to be associated with a historical spill and/or poor waste management practices.

Metals and PAHs are the most prevalent contamination in subsurface soil at the site. However, their levels are consistent with background samples collected in the vicinity of the site and are most likely the result of historic fill. Therefore, metal and PAH contamination is not considered site specific contaminants of concern.

A summary of the analytical results and the frequency at which they exceed their SCOs are found in the table below.

Table 3 Subsurface Soil					
Detected Constituents	Concentration Range Detected (ppm) ^a	Unrestricted SCO ^b (ppm)	Frequency Exceeding Unrestricted SCO	Protection of Groundwater SCO ^c (ppm)	Frequency Exceeding Protection of Groundwater SCO
VOCs					
Vinyl Chloride	0.002 – 0.26	0.02	1 / 30	0.02	1 / 30
Methylene Chloride	0.002 – 0.084	0.05	2 / 30	.05	1 / 30
cis-1,2-Dichloroethene	1 – 1.5	0.25	1 / 30	0.25	1 / 30
Trichloroethene	0.002 – 5.7	0.47	1 / 30	0.47	1 / 30
Xylenes	0.003 – 1.6	0.26	1 / 30	1.6	0 / 30
1,2,4-Trimethylbenzene	ND - 3.9	3.6	1 / 30	3.6	1 / 30
SVOCs					
Phenol	1.7 – 1.8	0.33	2 / 30	0.33	2 / 30
Naphthalene	0.05 – 61	12	1 / 30	12	1 / 30
Acenaphthene	0.057 - 36	20	1 / 30	98	0 / 30
Fluorene	0.089 - 50	30	1 / 30	1000	0 / 30
Phenanthrene	0.045 - 410	100	1 / 30	1000	0 / 30
Anthracene	0.053 - 120	100	1 / 30	1000	0 / 30
Fluoranthene	0.057 - 470	100	1 / 30	1000	0 / 30
Pyrene	0.045 - 430	100	1 / 30	1000	0 / 30
Benzo(a)anthracene	0.058 – 200	1	7 / 30	1	7 / 30
Chrysene	0.057 – 210	1	9 / 30	1	9 / 30
Benzo(b)fluoranthene	0.054 – 150	1	9 / 30	1.7	6 / 30
Benzo(k)fluoranthene	0.028 – 91	0.8	6 / 30	1.7	2 / 30
Benzo(a)pyrene	0.044 – 130	1	6 / 30	22	1 / 30
Indeno(1,2,3-cd)pyrene	0.041 – 59	0.5	7 / 30	8.2	1 / 30
Dibenzo(a,h)anthracene	0.054 - 15	0.33	2 / 30	1000	0 / 30
PCBs / PESTICIDES					
4,4' DDD	0.0026 – 0.0053	0.0033	1 / 12	14	0 / 12

4,4' DDE	0.0034 – 0.0096	0.0033	3 / 12	17	0 / 12
4,4' DDT	0.0046 – 0.044	0.0033	5 / 12	136	0 / 12
Dibenzofuran	0.061 - 36	7	1 / 30	210	0 / 30
METALS					
Arsenic	3.0 – 16.7	13	1 / 12	16	1 / 12
Barium	15.3 – 884	350	1 / 12	820	1 / 12
Copper	20.7 - 180	50	2 / 12	1720	0 / 12
Lead	7.1 – 314	63	3 / 12	450	0 / 12
Total Mercury	0.16 – 12.4	0.18	6 / 12	0.73	1 / 12
Nickel	10.8 – 551	30	2 / 12	130	1 / 12
Zinc	46.1 - 639	109	2 / 12	2480	0 / 12

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), Protection of Groundwater Soil Cleanup Objectives

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, trichloroethene, cis-1,2-dichloroethene, , vinyl chloride, xylene, 1,2,4-trimethylbenze and naphthalene. Three (3) areas of concern have been identified on-site which exceed SCOs for the protection of groundwater and will require remediation. Subsurface soils in the vicinity of B-18 and B-3 have been impacted by chlorinated VOCs above the protection of groundwater SCO. Subsurface soils in the vicinity of MW-6 have been impacted by petroleum based VOCs above the protection of groundwater SCOs (see Figure 4).

Exhibit B

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 action objectives (RAOs) for this site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil

RAOs for Environmental Protection

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

Soil Vapor

RAOs for Public Health Protection

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

Exhibit C

Description of Remedial Alternatives

The following alternatives were considered based on the remedial action objectives (see Exhibit B) to address the contaminated media identified at the site as described in Exhibit A:

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: No Action with Long-Term Monitoring

This alternative provides no active remediation and relies solely on natural attenuation for remediation of contaminated soil. Long term monitoring of the overburden groundwater using existing groundwater monitoring wells would be performed for a period of 30 years or more. This alternative would also include a soil vapor investigation to determine if future building construction would require a soil vapor intrusion evaluation to be performed. An environmental easement would be placed on the property to ensure future use/control of the site that would protect human health and the environment.

Present Worth:	\$95,000
Capital Cost:	\$14,000
Annual Costs:	\$5,000

Alternative 3: Pavement Cap with Long-Term Monitoring

This alternative would include placement of a 12 inch impermeable asphalt or concrete cover over the entire site. The cap would consist of 6 inches gravel sub-base with a 6 inch thick asphalt or concrete cap to mitigate contact with and erosion of contaminated soil. Long term monitoring of the overburden groundwater using existing groundwater monitoring wells would be performed for a period of 30 years or more. This alternative would also include a soil vapor investigation to determine if future building construction would require a soil vapor intrusion evaluation to be performed. An environmental easement would be placed on the property to ensure future use/control (restricted commercial) of the site that would protect human health and the environment.

Present Worth:	\$501,000
Capital Cost:	\$265,000
Annual Costs:	\$14,000

Alternative 4: Hot Spot Removal Meeting Commercial Use SCOs for all Contaminants Including PAHs and Permeable Cover with Monitoring

This alternative would include excavation of surface and subsurface soils with contaminant concentrations exceeding Part 375-6.8(b) Commercial Use Soil Cleanup Objectives (SCOs) for off-site disposal, backfilling with clean material, and placement of a 12 inch permeable soil cover not exceeding the commercial use SCOs. A short term groundwater monitoring program would be implemented to evaluate the effectiveness of the remedial program.

Under this alternative, remaining soils would be left in place and managed under a Site Management Plan (SMP). This alternative would also include a soil vapor investigation to determine if future building construction would require a soil vapor intrusion evaluation to be performed. An environmental easement would be placed on the property to ensure future use/control of the site that would protect human health and the environment.

Present Worth:	\$636,000
Capital Cost:	\$598,000
Annual Costs:.....	\$14,000

Alternative 5: Removal Meeting SCOs for
VOCs and Institutional Controls

This alternative would include excavation and off-site disposal of approximately 1300 cubic yards of subsurface soils with contaminant concentrations exceeding Part 375-6.8(b) SCOs for the protection of groundwater. The excavation would then be backfilled with clean material. A soil cover would be installed over any areas not meeting the commercial SCOs in the top 2 feet. This cover would consist of buildings, pavement/sidewalks or soil. If a soil cover is used it must consist of a minimum of twelve inches of soil, meeting the commercial requirements for cover material set forth in 6 NYCRR Part 375-6.8(d) and must be placed over a demarcation layer. The upper six inches of the soil would be of sufficient quality to maintain a vegetation layer. A site management plan (SMP) would be developed to address future use, soil excavation and handling and site cover requirements. An environmental easement would be placed on the property to ensure future use/control (restricted commercial) of the site that would protect human health and the environment. The SMP would also require that either a soil vapor investigation be conducted with any new building construction. A groundwater monitoring program would be implemented to evaluate the effectiveness of the remedial program.

Present Worth:	\$267,000
Capital Cost:	\$228,200
Annual Costs (For 3 years-Post Closure Monitoring):.....	\$14,000

Alternative 6: Removal Meeting SCOs for all Contaminants,
Cover System with Monitoring

This alternative would include excavation of soils with contaminant concentrations exceeding Part 375-6.8(b) Protection of Groundwater SCOs for off-site disposal, backfilling with clean material, and placement of a 12 inch soil cover. Under this alternative, remaining soils would be left in place and managed under a Site Management Plan (SMP). A groundwater monitoring program would be implemented to evaluate the effectiveness of the remedial program. This alternative would also include a soil vapor investigation to determine if future building construction would require a soil vapor intrusion evaluation to be performed. An environmental easement would be placed on the property to ensure future use/control of the site that would protect human health and the environment.

Present Worth:	\$700,000
Capital Cost:	\$662,000
Annual Costs:.....	\$14,000

Alternative 7: Excavation and Off Site Disposal Meeting Unrestricted Use SCOs
for all Contaminants Except PAHs, and Monitoring

This alternative would include excavation of soils with contaminant concentrations exceeding Part 375-6.8(a) Unrestricted Use SCGs except for PAHs for off-site disposal, and backfilling with clean material. Under this alternative, remaining PAH contaminated soils would be left in place and managed under a Site Management Plan (SMP). A short term groundwater monitoring program would be implemented using existing groundwater monitoring wells for a minimum of 3 years. This alternative would also include a soil vapor investigation to determine if future building construction would require a soil vapor intrusion evaluation to be performed. An environmental easement would be placed on the property to ensure future use/control of the site that would protect human health and the environment.

Present Worth:	\$893,000
Capital Cost:	\$882,000
Annual Costs:	\$14,000

Alternative 8: Restoration to Pre-Disposal or Unrestricted SCOs

This alternative achieves all of the SCGs discussed in Section 6.1.1 and soil meets the unrestricted soil clean objectives listed in Part 375-6.8 (a). This alternative would include removal of soils with site related contaminants exceeding Part 375-6.8(a) unrestricted SCOs, disposal off-site of the contaminated soils, backfilling with clean material meeting 6 NYCRR 375-6.8(d), and site restoration with 6" of top soil with grass seeding and mulching.

Capital Cost:	\$950,000
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Exhibit D

Remedial Alternative Costs

Remedial Alternatives	Capital Cost (\$)	Annual Costs (\$)	Present Worth Cost (\$)
1. No Action	0	0	0
2. No Action, Long-Term Monitoring	13,500	5,000	95,000
3. Pavement Cap, Long-Term Monitoring	265,000	14,000	501,000
4. Hot Spot and surface soil removal above commercial SCOs including PAHs Short-Term Monitoring	598,000	14,000	636,000
5. Hot Spot Removal, Except PAHs, Protect Groundwater SCOs, Short-Term Monitoring	228,000	14,000	267,000
6. Hot Spot Removal, Including PAHs, Protect Groundwater SCOs, Cover, Short-Term Monitoring	662,000	14,000	700,000
7. Excavation, Off Site Disposal, Unrestricted Use SCOs, Except PAHs, Short-Term Monitoring	882,000	4,000	893,000
8. Unrestricted	950,000	0	950,000

Exhibit E

SUMMARY OF THE PROPOSED REMEDY

The Department is proposing Alternative 5 Hot Spot Removal Meeting the Protection of Groundwater SCOs for VOCs and Institutional Controls, as the remedy for this site. The elements of this remedy are described at the end of this section.

Basis for Selection

The proposed remedy is based on the results of the RI and the evaluation of alternatives.

Alternative 5 (Hot Spot Removal Meeting the Protection of Groundwater SCOs for VOCs and Institutional Controls) is being proposed because, as described below, it satisfies the threshold criteria and provides the best balance of the balancing criterion described in Section 7.2. It would achieve the remediation goals for the site by removing contaminated soils which are causing contraventions of groundwater SCGs and which may cause exceedances of indoor soil vapor concentration in buildings constructed in the future. Alternative 5 addresses the most significant threat to public health and the environment, and it creates the conditions necessary to restore groundwater quality to the extent practical. This alternative is effective at removing major source of contamination, yet recognizes that the wide spread SVOCs and metal contamination associated with historic fill can be managed through a site management plan and an environmental easement.

Alternative 1 (No Action) does not provide any protection to public health and the environment and will not be evaluated further. Alternative 8, by removing all soil contaminated above the "unrestricted" soil cleanup objective, meets the threshold criteria. Alternatives 4, 5, 6, and 7 also comply with this criterion but to a lesser degree because the removal is not to unrestricted SCOs. Alternatives 2 and 3 leave the site in the current condition with monitoring and/or capping. Because all the Alternatives, except for 1, satisfy the threshold criteria, the remaining criteria are particularly important in selecting a final remedy for the site.

Alternatives 3 through 8 all have short-term impacts which could easily be controlled, however, Alternative 2 would have the smallest impact because monitoring is the only remedial activity to be conducted. The time needed to achieve the implement the remedy is the shortest for Alternative 2 and longest for Alternative 8. Besides Alternative 8, alternatives 3, 4, 5, 6, and 7 take the longest to implement the remedy.

Long-term effectiveness is best accomplished by those alternatives involving excavation of the contaminated overburden soils (Alternatives 4 through 8). Since most of the contamination of concern is associated with the chlorinated solvent found in the vicinity of B-18, Alternative 5 results in removal of almost all of the chemical contamination associated with the greatest threat to human health and the environment. Alternatives 4, 6, 7, and 8 remove contaminants associated with urban fill found throughout this area. The long-term effectiveness of these alternatives is greater than alternative 5; however the overall impacts to human health and the environment are not greatly improved.

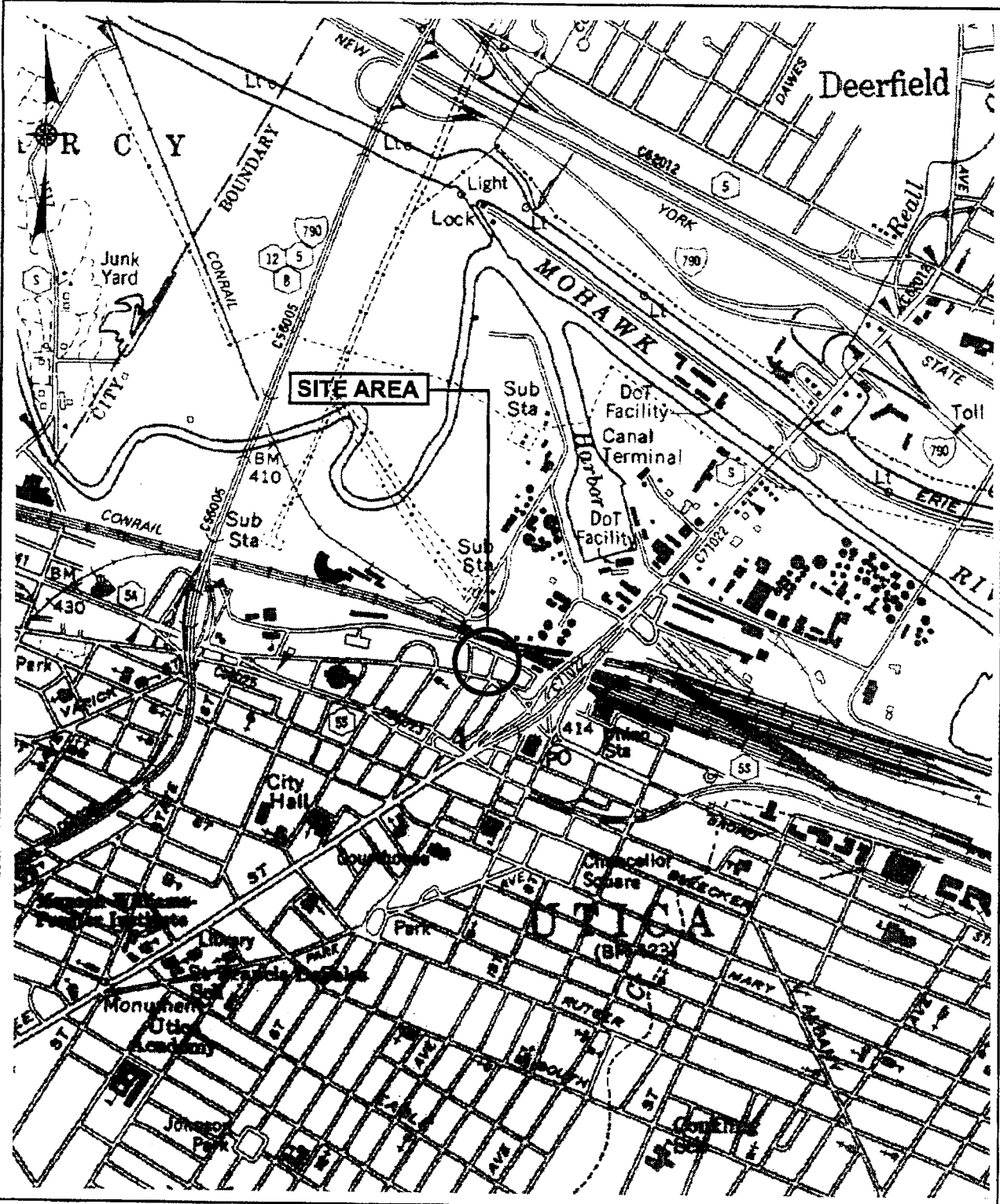
Alternative 2 and 3 would control potential exposures with institutional controls and/or capping but will not reduce the toxicity, mobility or volume of contaminants remaining. Alternatives 4 though 7 include excavation and off-site disposal, thereby reducing the toxicity, mobility and volume of on-site waste by transferring the material to an approved off-site location. Only Alternative 8 would eliminate the toxicity, mobility and volume of contaminants through excavation of soils to meet the unrestricted SOCs.

Alternatives 2 and 8 are all readily implementable. Standard techniques are used for each of the alternatives. No special equipment and/or techniques are needed for monitoring, capping and/or excavation.

The costs of the alternatives vary significantly. Alternative 2 has the lowest cost, but the contaminated soil would not be addressed other than by institutional controls. Alternative 5 has the second lowest cost with the source removal and institutional controls. Alternative 3, which paves the whole site, is the third most costly. With its large volume of soil to be handled, Alternatives 7 and 8 (excavation and off-site disposal) would have the highest present work cost. Alternatives 4 and 6 are less costly than Alternatives 8 and 9 and range in price from \$636,000 to \$700,000.

Since the anticipated use of the site is commercial, Alternatives 7 and 8 would be less desirable because the cleanup exceeds the future use criterion for the site. Alternatives 4 through 6 would address the known sources of contamination and properly manage the residual contamination with engineering and/or institutional controls. Alternatives 7 and 8 would address the known sources of contamination be protective of public health and the environment but at a greater cost (3 times the cost of Alternative 5) without an incremental benefit to the environment or public health.

The estimated present worth cost to implement the remedy is \$217,000. The cost to construct the remedy is estimated to be \$178,000 and the estimated average annual costs for \$14,000 for three years to conduct performance monitoring of the remedial action.



26-28 WHITESBORO STREET SITE
CITY OF UTICA, NEW YORK

SITE LOCATION MAP

Figure 1

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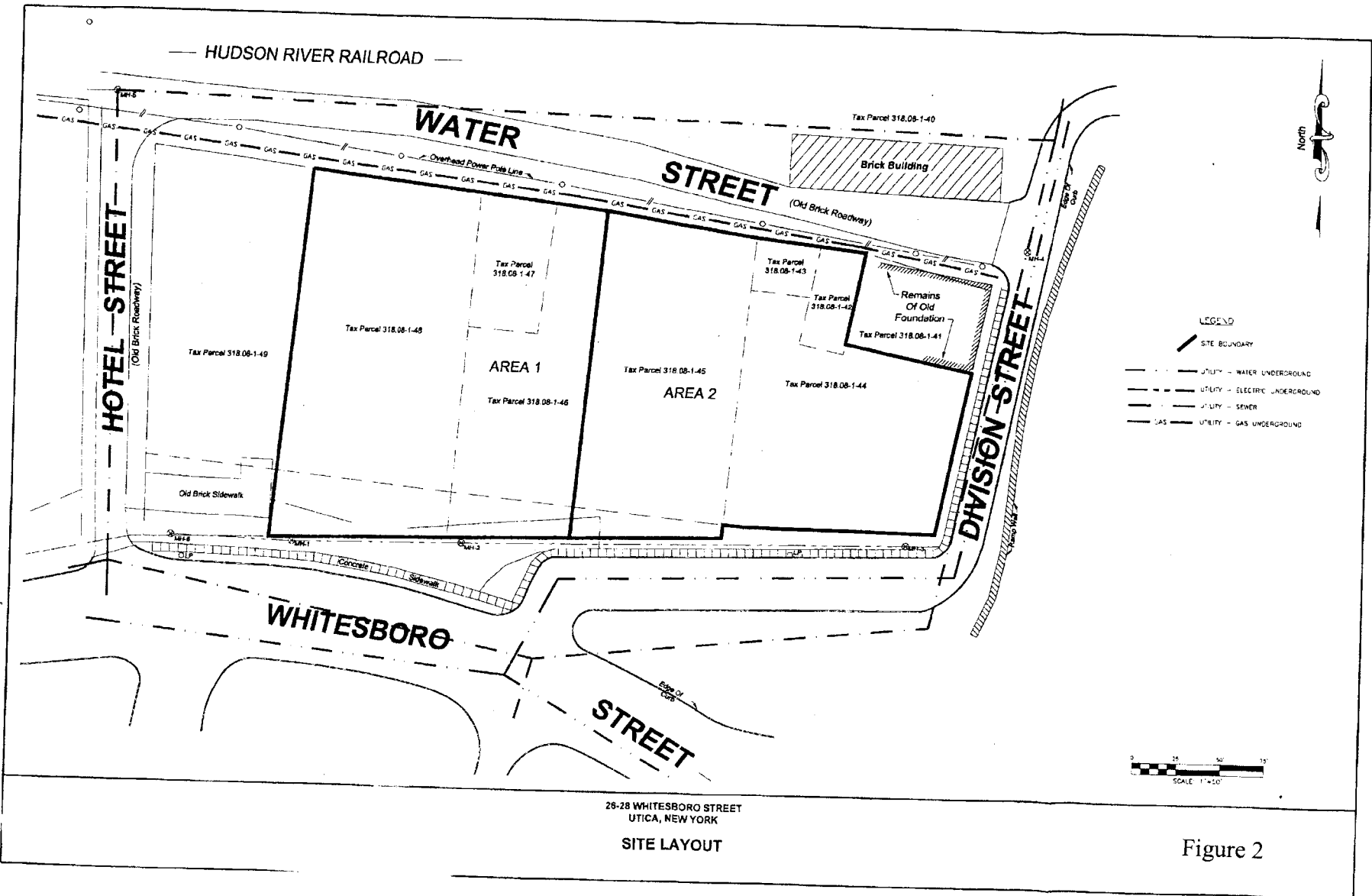


Figure 2

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db Dirka and Bartucci
Consulting Engineers
A Division of William F. Casulini Associates, P.C.

26-28 WHITESBORO STREET
UTICA, NEW YORK
**ISOCONTOUR MAP
SUBSURFACE SOIL - TCE**

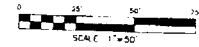
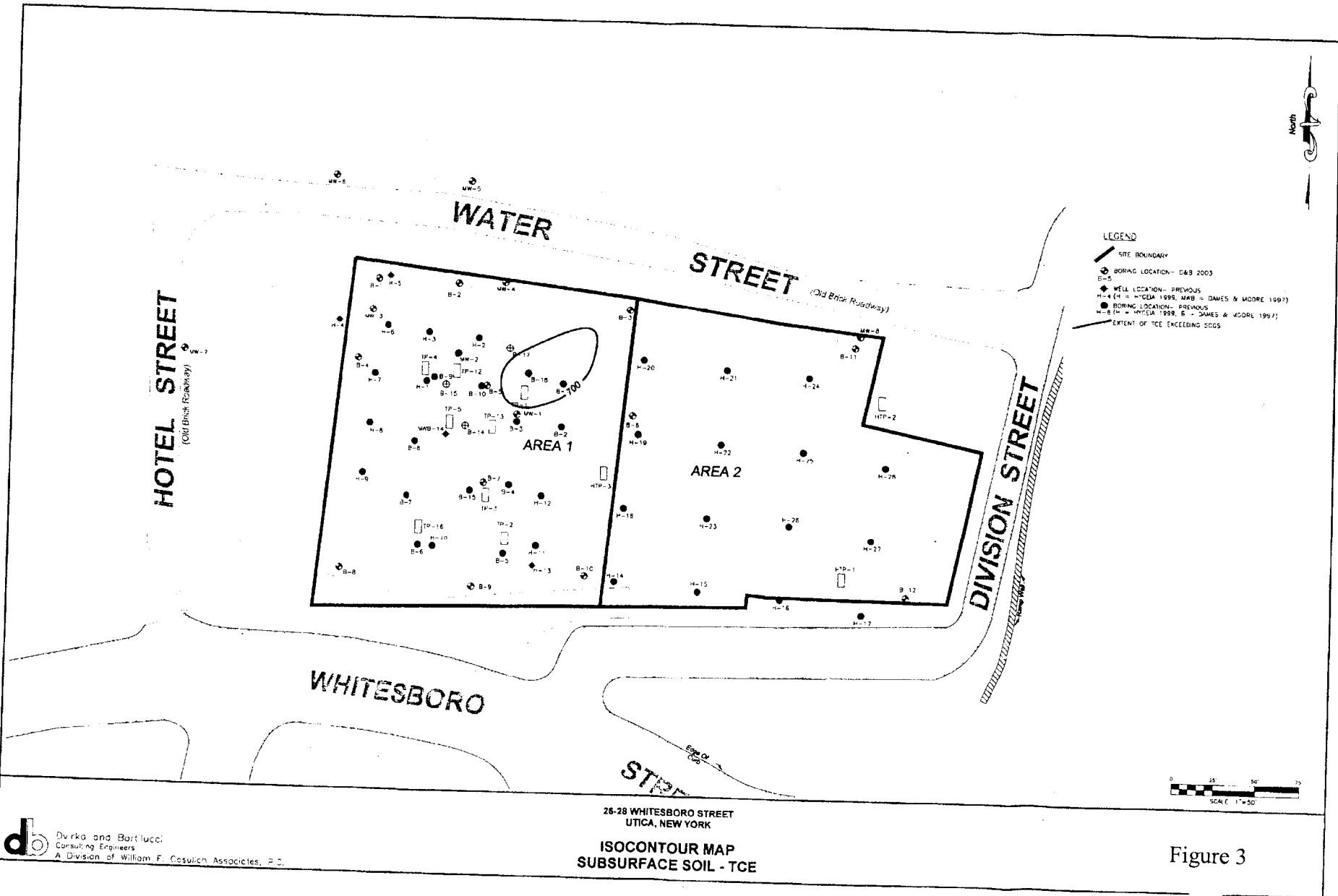


Figure 3



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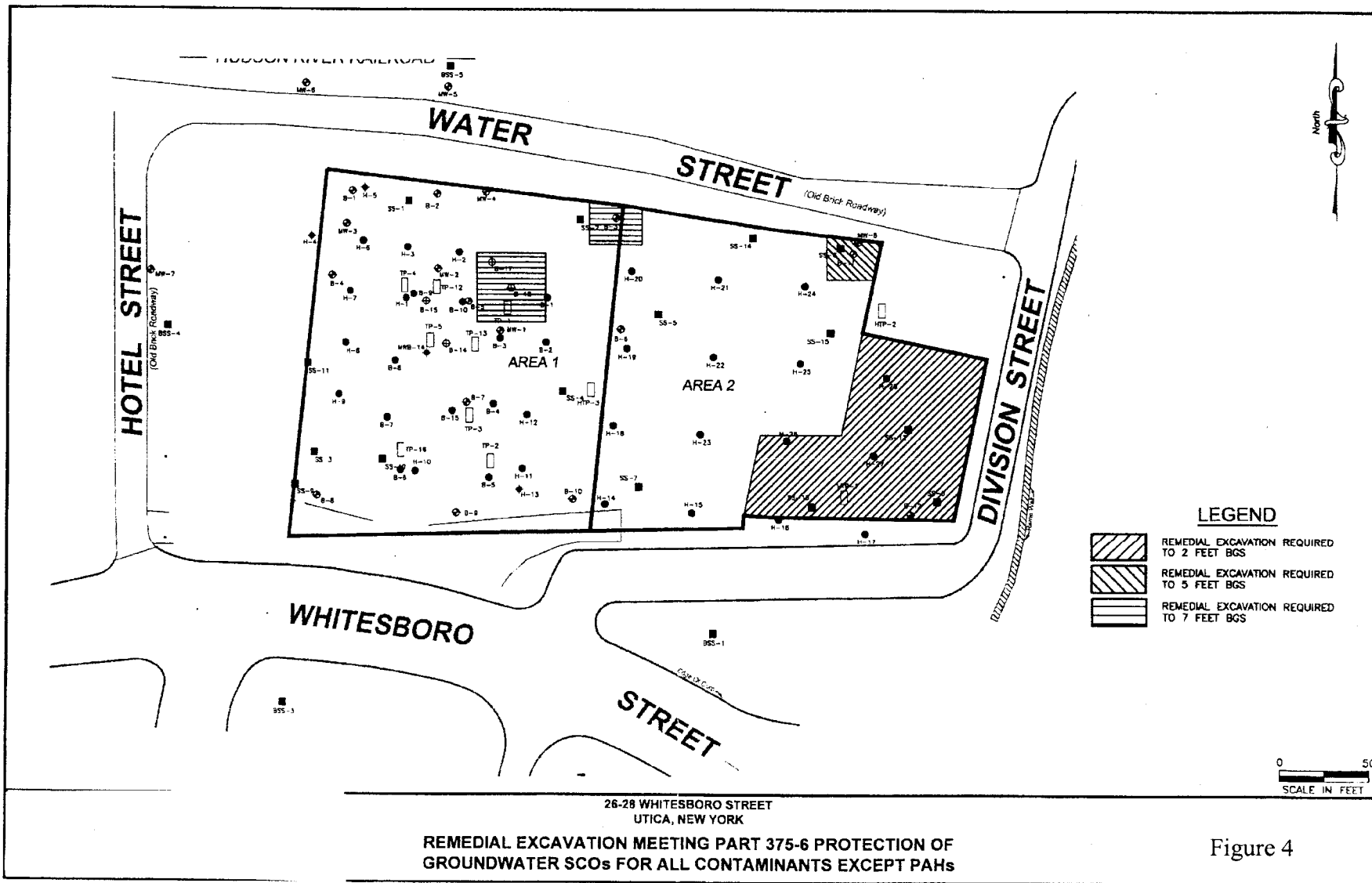


Figure 4

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

**26-28 Whitesboro Street
Environmental Restoration Project
Utica, Oneida County, New York
Site No. B00063**

The Proposed Remedial Action Plan (PRAP) for the 26-28 Whitesboro Street 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 3, 2011. The PRAP outlined the remedial measure proposed for the contaminated soil and groundwater at the 26-28 Whitesboro Street 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/alternative analysis (RI/AA) for the 26-28 Whitesboro Street site, 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 23, 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: Where will the money come from for the cleanup?

RESPONSE 1: The source of funding for the cleanup is unknown. It is noted that in an effort to spur the cleanup and redevelopment of brownfields, New Yorkers approved a \$200 million Environmental Restoration Fund as part of the \$1.75 billion Clean Water/Clean Air Bond Act of 1996 (Bond Act). Under the Environmental Restoration Program, the State provides grants to municipalities to reimburse up to 90 percent of on-site eligible costs and 100% of off-site eligible costs for site investigation and remediation activities. Currently, requests for funding exceed the \$200 million authorized under the 1996 Clean Water/Clean Air Bond Act for the ERP. Applications have not been approved since 2008 and new applications are not being accepted due to lack of funding.

APPENDIX B

Administrative Record

Administrative Record

**26-28 Whitesboro Street
Environmental Restoration Project
Utica, Oneida County, New York
Site No. B00063**

Proposed Remedial Action Plan for the 26-28 Whitesboro Street site, dated February 2011, prepared by the Department.

Site Investigation and Remedial Alternatives Report Work Plan, dated June 2002, prepared by Dvirka and Bartilucci Consulting Engineers.

Site Investigation Report, dated December 2008, prepared by Dvirka and Bartilucci Consulting Engineers.

Remedial Alternatives Report, dated December 2009, prepared by Dvirka and Bartilucci Consulting Engineers.