

3/23/2007



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
PRAP/ROD ROUTING SLIP



TO: Sal Ervolina, Assistant Division Director

FROM: The attached is submitted for your approval by:

NAME	INITIAL	DATE
Project Manager: RALPH KEATING	<i>RK</i>	3/13/07
Section Chief/RHWRE: JAMES QUINN	<i>JQ</i>	3/28/7
Bureau Director: P. DAVID SMITH	<i>PDS</i>	3/28/7

DATE: 3/23/2007

RE: **Site Name** Former Bright Outdoors
City Johnson City

Site Code 704023
County Broome

PRAP

- Draft PRAP
- Clean copy of the PRAP
- Redline/Strikeout version of the PRAP
- Copies of edits to PRAP (Sal's/Dale's)
- Site Briefing Report
- NYSDOH concurrence letter
- USEPA concurrence letter

PRAP Release Approvals
Ass't Div Director: _____ Sal Ervolina
Division Director: _____ Dale Desnoyers

ROD FINAL 99974

- Draft ROD
- Signature-ready copy of the ROD
- Redline/Strikeout version of the ROD
- Copies of edits to ROD (Sal's/Dale's)
- Site Briefing Report
- NYSDOH concurrence letter - ~~To be final 3/28/07 am.~~
- USEPA concurrence letter

ROD Signoff
Ass't Div Director: _____ Sal Ervolina 3/22/07

BRIEFING

Date: _____ **Time:** _____ **Room:** _____

c: Dale Desnoyers
Other reviewers who are invited to Briefing



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
Site Briefing Report



Site Code	704023	Site Name	Former Bright Outdoors	
Classification	02	Address	631 Field Street	
Region	7	City	Johnson City	Zip 13790-
Latitude	42:07:17.0	Town	Union	Project Manager RALPH KEATING
Longitude	75:58:30.0	County	Broome	
Site Type	Structure			Estimated Size 1.7700

Site Description

The Former Bright Outdoors site is located at 631 Field Street in Johnson City, NY. The Site is bordered by NYS Route 17 to the south, a self storage building to the east, a Wegman's grocery store to the north and residential properties along Marie St. to the west. The area surrounding the site is a mixed commercial and residential neighborhood served by public water. The Site consists of 1.77 acres of commercial/industrial property that has been vacant since January 2006. Portions of the property are fenced. The site is situated over a USEPA designated sole-source aquifer known as the Clinton Street - Ballpark aquifer. The Camden St. Municipal Well Field of the Village of Johnson City is located approximately 0.6 mile south/southwest of this site. A remedial investigation was complete in 2005 and a feasibility study completed in July 2006. The PRAP was approved in February 2007.

Materials Disposed at Site	Quantity Disposed
1,1,1 TCA	unknown
TRICHLOROETHENE (TCE)	UNKNOWN
TOLUENE	UNKNOWN

Analytical Data Available for : Groundwater, Soil, Soil Vapor

Applicable Standards Exceeded for: Groundwater

Assessment of Environmental Problems

Contamination is present in the aquifer under the property of the Former Bright Outdoors site. The type of contamination present are chlorinated solvents, mostly 1,1,1-TCA and TCE, that have been found to exceed groundwater standards. In recent sampling, the highest level detected for 1,1,1-TCA was 270 ppb and for TCE was 260 ppb and the standard for these compounds is 5 ppb. These contaminant levels have been found east and west of the site, respectively. Historically, the area of highest concentration of these compounds was found downgradient of the property.

The site is located over the USEPA designated sole-source aquifer known as the Clinton Street - Ballpark aquifer. In 1991, 1,1,1-TCA was detected in the Village of Johnson City's Camden St. Municipal Well Field located approximately 0.6 mile south of this site. The level found at that time was 12 ppb. This event prompted the Village to install a water treatment system for the water supply. No other incidence of contamination above the groundwater standard has been found except once in August 1994.

3/23/2007

A series of investigations started after the detection of 1,1,1-TCA in 1991 that eventually lead to the Former Bright Outdoors property being listed as a suspected source of contamination.

Assessment of Health Problems

Abandoned drywells located on the site are suspected to be the source of the volatile organic compound (VOC) contamination, primarily trichloroethane and trichloroethene, in subsurface soil and groundwater. The site is covered by a building and pavement, therefore contact with contaminated soil is unlikely. The area is served by public water. Although groundwater contamination appears to be moving downgradient toward the Camden Street Wellfield, a groundwater treatment system currently treats drinking water before distribution to homes. Indoor air and sub-slab soil vapor samples have been collected at nearby homes and one commercial facility. Samples at one structure indicate the need for monitoring.

Remedy Description and Cost

Remedy Description for Operable Unit 01

The elements of the selected 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. Implementation of a ground water monitoring program to determine trends in groundwater quality and observe the expected attenuation of residual ground water contamination. This program would allow the effectiveness of the remedy to be monitored and confirm or refute the existence of an upgradient source of groundwater contamination, which may require additional investigation or remediation.
3. Construction of a soil vapor extraction (SVE) treatment system in the area under the building where the highest concentration of VOCs were found.
4. Removal and off-site disposal of contaminated soils from below the floor drains of the building if they are found to be contaminated during installation of the SVE system.
5. Development of a site management plan which would include the following institutional and engineering controls: (a) continued evaluation of the potential for vapor intrusion in the remainder of the Bright Outdoors building should it be re-occupied and for any buildings developed on the site, including provision for mitigation of any impacts identified; (b) monitoring of groundwater; (c) sample one off-site home for potential soil vapor intrusion once per heating season and provide a mitigation system, if necessary. This monitoring program may be terminated or expanded to other structures based upon future sampling results; and (d) provisions for the continued proper operation and maintenance of the components of the remedy until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.
6. Imposition of an institutional control in the form of an environmental easement that would require (a) compliance with the approved site management plan; (b) restricting the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by NYSDOH; (c) the property owner to complete and submit to the Department a periodic certification of institutional and engineering controls; and (d) restricting the future of the property to a use no less restrictive than "restricted-residential use" as defined by 6NYCRR Part 375.
7. The responsible party or property owner would provide a periodic certification of institutional and engineering controls, 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 would: (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 would 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.

8. 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.

Total Cost	\$389,000
Capital Cost	\$127,000
OM&M Cost	\$18,000

Issues / Recommendations

The comment period for the ROD ended on 3/15/07. Comments that were received from the public at the public meeting were addressed in the responsiveness summary. Also, written comments were received on March 15,2007 and were added to the responsiveness summary as well. The DOH reviewed the ROD and responsiveness summary and found it to be acceptable.

We recommend approval of the ROD.



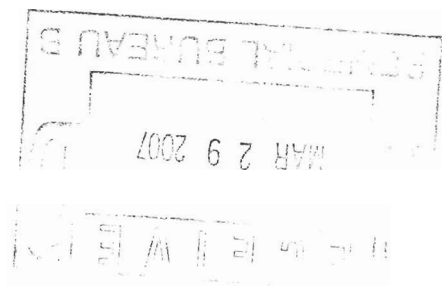
STATE OF NEW YORK DEPARTMENT OF HEALTH

Dave S.
✓
Jim A

Flanigan Square, 547 River Street, Troy, New York 12180-2216

March 28, 2007

Mr. Dale Desnoyers, Director
NYS Dept. of Environmental Conservation
Division of Environmental Remediation
625 Broadway – 12th Floor
Albany, NY 12233-7011



Re: **Record of Decision**
Former Bright Outdoors
Site #704023
Johnson City, Broome County

Dear Mr. Desnoyers:

Staff reviewed the March 2007 *Record of Decision* for the above-referenced site. Based on that review, I understand that the selected remedy for the Former Bright Outdoors site includes: (a) implementing a groundwater monitoring program to determine trends in groundwater quality and observe the expected attenuation of residual groundwater contamination, which will allow for the effectiveness of the remedy to be monitored and confirm or refute the existence of an upgradient groundwater source; (b) constructing a soil vapor extraction (SVE) treatment system in the area known as the plate welding room, where the highest concentration of volatile organic compounds were found; and (c) removing and disposing of off-site contaminated soils from below the floor drains of the building if they are found to be contaminated during installation of the SVE system.

In addition, a site management plan will be developed to include the following institutional and engineering controls: (a) continued evaluation of the potential for vapor intrusion in the remainder of the Bright Outdoors building should it be re-occupied and for any buildings developed on the site, including provision for mitigation of any impacts identified; (b) monitoring of groundwater; (c) sample one off-site home for potential soil vapor intrusion once per heating season and provide a mitigation system, if necessary. This monitoring program may be terminated or expanded to other structures based upon future sampling results; and (d) provisions for the continued proper operation and maintenance of the components of the remedy.

I further understand that institutional controls in the form of an environmental easement will be placed on the property that would require: (a) compliance with the approved site management plan; (b) restricting the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by NYSDOH; and (c) the property owner to complete and submit a periodic certification that the institutional and engineering controls remain in place and continue to be effective; and (d) restricting the future of the property to a use no less restrictive than "restricted-residential use" as defined by 6NYCRR Part 375.

9 2007

Based on this information, I believe the selected remedy is protective of public health and concur with it. If you have any questions, please contact Mark VanValkenburg at (518) 402-7860.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven M. Bates". The signature is fluid and cursive, with a large, sweeping initial "S" and a distinct "Bates" at the end.

Steven M. Bates, Assistant Director

Bureau of Environmental Exposure Investigation

cc: G.A. Carlson, Ph.D. / A. Grey, Ph.D.
G. Litwin / M. VanValkenburg/ J. Guastella/File
R. Heerkens – SRO
R. Brink – BC HD
S. Ervolina / D. Smith – DEC Central Office
M.J. Peachey – DEC Region 7 Office
G. Townsend – DEC Region 7 Office



Division of Environmental Remediation

Record of Decision
Former Bright Outdoors Site
Village of Johnson City, New York
Site Number 7-04-023

March 2007

DECLARATION STATEMENT - RECORD OF DECISION

Former Bright Outdoors Inactive Hazardous Waste Disposal Site Village of Johnson City, Broome County, New York Site No. 7-04-023

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedy for the Former Bright Outdoors 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 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 Former Bright Outdoors inactive hazardous waste disposal 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.

Assessment of the Site

Actual or threatened releases of hazardous waste constituents from this site, if not addressed by implementing the response action selected in this ROD, presents a current or potential significant threat to public health and/or the environment.

Description of Selected Remedy

Based on the results of the Remedial Investigation and Feasibility Study (RI/FS) for the Former Bright Outdoors site and the criteria identified for evaluation of alternatives, the Department has selected the construction of a soil-vapor extraction system and the implementation of a groundwater monitoring program with institutional controls. The components of the remedy are as follows:

- A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program.
- Implementation of a groundwater monitoring program to determine trends in groundwater quality and observe the expected attenuation of residual groundwater contamination. This program will allow the effectiveness of the remedy to be monitored and confirm or refute the existence of an upgradient source of groundwater contamination, which may require additional investigation or remediation.

- Construction of a soil vapor extraction (SVE) treatment system in the area under the building where the highest concentration of VOCs were found (Figure 7).
- Removal and off-site disposal of contaminated soils from below the floor drains of the building if they are found to be contaminated during installation of the SVE system.
- Development of a site management plan which will include the following institutional and engineering controls: (a) continued evaluation of the potential for vapor intrusion in the remainder of the Bright Outdoors building should it be re-occupied and for any buildings developed on the site, including provision for mitigation of any impacts identified; (b) monitoring of groundwater; (c) sample one off-site home for potential soil vapor intrusion once per heating season and provide a mitigation system, if necessary. This monitoring program may be terminated or expanded to other structures based upon future sampling results; and (d) provisions for the continued proper operation and maintenance of the components of the remedy until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.
- Imposition of an institutional control in the form of an environmental easement that will require (a) compliance with the approved site management plan; (b) restricting the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by NYSDOH; (c) the property owner to complete and submit to the Department a periodic certification of institutional and engineering controls; and (d) limit the use of the property to “restricted-residential use” as defined by 6NYCRR Part 375. The property may also be used for commercial or industrial uses if approved by local zoning.
- The responsible party or property owner will provide a periodic certification of institutional and engineering controls, 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.
- 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.

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 28 2007

Date



Dale A. Desnoyers, Director
Division of Environmental Remediation

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RECORD OF DECISION

Former Bright Outdoors Site
Village Of Johnson City, Broome County, New York
Site No.7-04-023
March 2007

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 this remedy for the Former Bright Outdoors Site. The presence of hazardous waste has created significant threats to human health and/or the environment that are addressed by this remedy. As more fully described in Sections 3 and 5 of this document, operations of businesses that used solvents and generated wastes in the process of manufacturing products have resulted in the disposal of hazardous wastes, including volatile organic compounds (VOCs) including (1,1,1-trichloroethane (TCA), trichloroethylene (TCE), and associated breakdown products of both chemicals). These wastes have contaminated the soil, soil vapor and groundwater at the site, and have resulted in:

- a significant threat to human health associated with current exposure to contaminated groundwater and the potential threat from exposure to contaminated indoor air due to impacts from soil vapor; and
- a significant environmental threat associated with the current impacts of contaminants to groundwater.

To eliminate or mitigate these threats, the Department has selected the construction of a soil-vapor extraction system and the implementation of a groundwater monitoring program.

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 with 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 LOCATION AND DESCRIPTION

The Former Bright Outdoors site is located at 631 Field Street in the Village of Johnson City (Village), Broome County (Figure 1). The area around the site is a mix of commercial and residential properties. A small light manufacturing business that produces pharmaceutical automation systems is located immediately to the east and a storage mall and a grocery store are located to the north. Private residences are located immediately to the west. To the south of the site is NYS Route 17 near interchange number 70.

The site is zoned manufacturing and consists of 1.77 acres. The topography of the site is relatively flat. Within a mile to the north, the land rises sharply increasing in elevation by 600 feet. To the south, the ground slopes gently toward the Susquehanna River which is located approximately one half-mile away. The aquifer that is situated in this valley is the source of drinking water for the Village and surrounding communities. This aquifer is a Sole Source Aquifer as designated by the US Environmental Protection Agency (USEPA) and is known as the Clinton Street-Ballpark Aquifer. This area has also been identified as a Primary Water Supply Aquifer by NYSDOH and the Department.

SECTION 3: SITE HISTORY

3.1: Operational/Disposal History

The former Bright Outdoors property at 631 Field Street was first improved in 1966. Since about 1966, the 1.77-acre property reportedly was either owned or owned and operated by the following entities:

Operated by Royal Crown Bottling/7-Up Bottling Co./Hanyak Liquidating Corp. from 1966 to 1984 as a soft drink bottling plant.

Owned by American Pipe & Plastics, Inc. (APPI), from 1984 to 2001.

■ Operated by Bright Outdoors, Inc. (a wholly owned subsidiary of APPI), from 1984 to 1996 which assembled casual outdoor furniture from polyvinyl chloride (PVC) pipe and vinyl-coated polyester upholstery during the period 1984 to 1990. From 1990 to 1996, Bright Outdoors manufactured consumer sporting goods from PVC pipe. Operations by Bright Outdoors used small quantities of various materials containing numerous chemical solvents. Several of the materials used contained TCA, 2-butanone, acetone, and toluene, which were detected in various environmental media sampled. From about 1991 to 1993, part of the facility was also leased by Royal Equipment, Inc. (separate business entity from APPI), a company that remanufactures heavy equipment: haul trucks, shovels, and loaders. This company also supplies new and used mining parts.

■ Operated by Impact Sports Equipment, Inc. (separate business entity from APPI), from about 1996-2001 who rented from APPI. Impact Sports Equipment, Inc. manufactures plastic sporting equipment used in baseball, hockey, volleyball, and other sports.

In 2001, the property was purchased by 631 Field Street, LP. SamScreen, Inc., which manufactured wire screening for use in mining and aggregate industry, operated on this site from 2001 to 2005.

Since the beginning of 2006, the site has been vacant. Currently ownership is listed as the limited partnership know as 631 Field Street, LP.

3.2: Remedial History

In August 2002, the Department listed the site as a Class 2 site in the Registry of Inactive Hazardous Waste Disposal Sites in New York. A Class 2 site is a site where hazardous waste presents a significant threat to the public health or the environment and action is required.

Beginning in 1991, VOC contamination was first detected in Johnson City's municipal well field at Camden Street Well Field (Figure 5). The Johnson City Water Department operates up to five municipal supply wells that provide approximately 2.5 million gallons per day of water to users within the Village. The contamination of this municipal well field prompted a series of investigations that eventually lead to the listing of the Former Bright Outdoors site.

According to a Contaminant Source Investigation Report, TCA contamination was first detected above SCGs in a sample collected from the Johnson City Water Department well number 3 in June 1991 at 9 parts per billion (ppb). A sampling event in July 1991 again detected TCA in well number 3 at 8 and 12 ppb. Prior to 1991, TCA had been detected sporadically in various Johnson City Water Department wells at concentrations below the SCG of 5 ppb.

In 1991 a hydrogeologic assessment of the area surrounding the Camden Street Well Field, north to Main Street was performed in order to identify the source of the contamination and collect data required for an emergency remedial action that concluded in the construction of the VOC removal system known as an air stripper. The Contaminant Source Investigation identified TCA in several monitoring wells at concentrations similar to those detected in the municipal wells, and concluded that the source area appeared to lie to the north.

A subsequent report in 1992 for the Village of Johnson City included field analysis of water table samples collected using direct-push technology, installation and sampling of four additional monitoring wells, and re-sampling of the 10 original wells. A total of 58 groundwater samples from eight areas were collected from near the mouth of Little Choconut Creek northward to Azon Road. As a result of the investigation, two additional areas of significant TCA contamination were identified: along Main Street at the corner of Oakdale Road and around the north and south sides of the building at this location. At the Main Street location, 11 samples were collected with TCA present in seven samples ranging in concentrations of 1.6 to 5.1 ppb. Along Oakdale Road, 25 locations were sampled with TCA present in all samples at concentrations ranging from less than 0.5 to 68 ppb.

The Air Force Plant 59, located approximately 1,000 feet northeast of the well field (Figure 5), has also been identified as a source of TCA and other contaminants. Operations at the facility have generated a variety of wastes including cutting oils, lubricants, refrigerating fluids, degreasing agents, plating acids, caustics, chromium and cyanide solutions, and paint residues. Air Force Plant 59 was first investigated in 1984 as part of the Air Force Installation Restoration Program. Various metals and VOCs were detected in contravention of SCGs, including TCA and TCE at concentrations up to 9 and 11 ppb, respectively. In addition, cooling water discharged from site operations to Little Choconut Creek revealed methylene chloride, TCE, and TCA contamination up to 105, 120, and 2 ppb, respectively, when sampled in 1982 through 1984.

From 1991 to 1993, a supplemental site investigation was conducted at Air Force Plant 59. During this investigation seven deep and six shallow monitoring wells were installed. TCA was detected in most groundwater samples with a maximum concentration of 15 ppb. Additionally, 1,1-dichloroethane (DCA) and TCE were found above the SCGs.

In 1994, a remedial investigation was conducted at Air Force Plant 59 that verified the presence of VOCs in the groundwater beneath Air Force Plant 59 with maximum TCA and TCE concentrations of 20 and 370 ppb, respectively. In addition, the groundwater flow direction was shown to be directly toward the Camden Street Well Field in both shallow and deep wells.

In 1994 and 1995, the United States Geological Survey (USGS) conducted hydrogeologic studies to collect water level and water quality data in order to delineate areas that contribute groundwater to the Camden Street Well Field and to establish the areal extent of VOC contamination in the aquifer. The USGS installed additional wells and sampled numerous existing wells throughout the area. The USGS sampled along Field Street and of the 18 points sampled, TCA was detected in 13 points at concentrations ranging from 2 to 445 ppb. TCA concentrations above 100 ppb were detected along a line from Marie Street eastward to the area between the Former Bright Outdoors and Innovation Associates buildings (Figure 6). The USGS study concluded that the area contributing groundwater to the Camden Street Well Field is approximately 1.5 square miles and includes the area of the Former Bright Outdoors site and that the primary source area of TCA contamination in the Camden Street Well Field was an unknown location north of Field Street. Air Force Plant 59 was identified as a secondary contributor.

In 1995, the Department and the NYSDOH began to investigate the two adjacent companies located along Field Street: Bright Outdoors (631 Field Street) and Innovation Associates (627 Field Street). Groundwater samples were collected along the northern boundary of both properties and one location near the east side of the Innovation Associates property (Figure 6). Groundwater samples collected from along the northern boundary ranged from non-detect to 52 ppb for TCA, with the highest concentration detected near the loading dock of Innovation Associates. On the east side of Innovation Associates, TCA was detected from non-detectable to 270 ppb. TCE along the east side Innovation Associates was detected from non-detectable to 170 ppb. It is noted that during a subsequent investigation in 1996, the levels of TCA and TCE along the eastern border had dropped significantly to 12 ppb and 10 ppb, respectively.

In 1997, an Immediate Investigation Work Assignment was conducted by the Department as an attempted to identify other potential sources of groundwater contamination. Sampling was conducted at 23 locations along the south side of Field Street, north of Bright Outdoors, east of Innovation Associates, north and east of the Storage Mall, and on the property now occupied by the Hampton Inn (Figure 6). Sixteen soil samples were collected, but VOCs were not detected. Groundwater samples were collected at depths of 12 to 25 feet below ground surface (BGS), and chlorinated VOCs were detected at several locations with a maximum concentration of 260 ppb of TCA. The highest concentrations of TCA and TCE were present on the south side of Field Street, southwest of Bright Outdoors. However, low levels of both compounds were also detected south and east of Innovation Associates.

In 2000, a Phase 1 Environmental Site Assessment (ESA) was conducted at the subject property. The report concluded that “There were no readily apparent indications of environmental liabilities such as release of petroleum and/or hazardous substances,” with the exception of a previously closed petroleum spill. The spill involved gasoline and was initially reported in August 1994 when a 4,000-gallon underground storage tank located between the current storage area and loading dock was removed. (The spill was closed by the Department on October 31, 1994 (Spill Number 9407388.))

In 2001 and 2002, a Preliminary Site Assessment (PSA) was conducted on behalf of the Department in order to determine if a site should be listed in the Field Street area. Vertical profile soil borings were drilled and groundwater samples were collected at various depths both upgradient and downgradient of both the Bright Outdoors and Innovation Associates buildings. Field screening for total volatile organic halides was conducted and results ranged from non-detect to 187 ppb (Figure 6). Laboratory analysis confirmed these results and identified a maximum TCA concentration of 160 ppb between the two buildings and a maximum TCE concentration of 91 ppb on the west side of the former Bright Outdoors building.

The PSA report concludes that a source area on the Former Bright Outdoors site, although not clearly identified, could be inferred to be somewhere within the footprint of the building. The PSA also points out that Innovation Associates may have been a source of contamination at one time. However, the presence of the highest concentrations of TCA and TCE in the soil boreholes immediately downgradient of the Former Bright Outdoors property suggested that this property was a likely source area. The PSA report also states that due to the relatively low levels of TCA and TCE detected at Field Street, as well as elsewhere throughout this aquifer, several other sources may have contributed or are contributing to contamination of this aquifer.

The information collected lead to the listing of the Former Bright Outdoors Site on the Registry of Inactive Hazardous Waste Disposal Sites as Class 2 in August 2002. A Class 2 site is where the disposal of a consequential quantity of hazardous waste has been confirmed and the presence of such hazardous waste or its components or breakdown products represent a significant threat to the environment or to human health.

In 2004 and 2005, a Remedial Investigation was conducted on behalf of the Department on the Former Bright Outdoors property. The details of this investigation are listed in Section 5. The Feasibility Study for the Former Bright Outdoors was completed in July 2006.

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 PRPs for the site, documented to date, include:

- 1) Royal Crown Bottling/7-Up Bottling Co./Hanyak Liquidating Corp;
- 2) American Pipe & Plastics, Inc.;

3) Bright Outdoors; and

4) 631 Field Street, LP

The PRPs who were contacted by the Department declined to implement the RI/FS at the site when requested by the Department. After the remedy is selected, the PRPs will again be contacted to assume responsibility for the remedial program. If an agreement cannot be reached with the PRPs, the Department will evaluate the site for further action under the State Superfund. The PRPs are subject to legal actions by the state for recovery of all response costs the state has incurred.

SECTION 5: SITE CONTAMINATION

A remedial investigation/feasibility study (RI/FS) has been conducted 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 RI was to define the nature and extent of any contamination resulting from previous activities at the site. The RI was conducted between June 2004 and March 2005. The field activities and findings of the investigation are described in the RI report.

The RI tasks performed were done to supplement the data from previous investigations. The conclusion from the previous studies conducted for and around the Former Bright Outdoors site suggests that the site is a source of contamination. The focus of the RI conducted from June 2004 to March 2005 was undertaken to determine the nature and extent of TCA and TCE contamination at the Former Bright Outdoors site and determine the impact of contamination migration.

The tasks performed during the investigation included: conducting an initial site reconnaissance; conducting a records search; performing off-site subslab air sampling, targeted facility sampling (subslab vapor, subsurface soil, and drainline soil); performing monitoring well and borehole drilling, subsurface soil and groundwater sampling; and a site survey. Figures 2, 3 and 4 illustrate the extent of sampling performed during this RI.

The 2005 Remedial Investigation identified areas of contamination on the Former Bright Outdoors property. The detection of TCA in multiple media beneath the floor of the Welding (Plate) room and the presence of TCE in vadose-zone soil beneath the Storage Area indicates that these were areas where release of contaminants had occurred (Figures 2 and 3). It is noted that there was detection of TCA in the groundwater along the eastern fence line of the Former Bright Outdoors site, which may be emanating from beneath the Former Bright Outdoors building or an additional upgradient, off-site source.

5.1.1: Standards, Criteria, and Guidance (SCGs)

To determine whether the soil, groundwater, and soil vapor contain contamination at levels of concern, data from the investigation were compared to the following SCGs:

- Groundwater, drinking water, and surface water SCGs are based on the Department's "Ambient Water Quality Standards and Guidance Values" and Part 5 of the New York State Sanitary Code.
- Soil SCGs are based on the Department's Cleanup Objectives ("Technical and Administrative Guidance Memorandum [TAGM] 4046; Determination of Soil Cleanup Objectives and Cleanup Levels" and 6 NYCRR Subpart 375-6 - Remedial Program Soil Cleanup Objectives).
- Concentrations of VOCs in air were evaluated using the air guidelines provided in the NYSDOH guidance document titled "Guidance for Evaluating Soil Vapor Intrusion in the State of New York," dated February 2005.

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 investigation for all environmental media that were investigated.

As described in the RI report, many soil, groundwater, and soil vapor samples were collected to characterize the nature and extent of contamination. As seen in Figures 2, 3, and 4 summarized in Table 1, the main categories of contaminants that exceed their SCGs are volatile organic compounds (VOCs). 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 ($\mu\text{g}/\text{m}^3$).

Figure 2, 3, and 4 and Table 1 summarize the degree of contamination for the contaminants of concern in drainline wastes, subslab soils, subsurface soil, groundwater, and soil vapor (on-site and off-site) and compares the data with the SCGs for the site. The following are the media which were investigated and a summary of the findings of the investigation. For each of the sections listed below, the media investigated through the RI/FS will be addressed in the remedy selection process.

Drainline Soil

Drainline soil samples were collected from six locations inside and outside the former Bright Outdoors building (Figure 3). The following summarizes the results:

- Sample SD05, collected from the loading dock central drain, did not contain any VOCs; the remaining five samples contained at least one VOC.

TCA was detected in sample SD02 in the north end of the welding (plate) room floor drain, at a concentration of 0.038 ppm which was below the SCG. The subslab soil and vapor samples from the area of the same drain also contained TCA.

- Benzene, toluene, ethylbenzene, and/or xylenes (BTEX), which are petroleum-related products, were detected in four drainline soil samples (two outdoor drywells, floor drain in the production [wire] room, and floor drain in the main assembly area), with the highest total BTEX concentration of approximately 2.00 ppm (1.90 ppm of toluene) detected in an outdoor drywell (sample location SD01). Toluene exceeded its SCG value of 1.5 ppm.

Subslab Soil

Thirteen soil samples were collected from beneath the concrete slab within the former Bright Outdoors building to identify potential source areas (Figure 3). The following summarizes the results:

- All but one of the samples contained at least one VOC including TCA, TCE, 1,1-dichloroethane (DCA), xylenes, 2-butanone, acetone, and eight tentatively identified aromatic hydrocarbons. None of the detected concentrations exceeded SCGs with the exception of acetone at one location.

Acetone was detected at nine locations with a maximum concentration of 0.38 ppm near the north (drain) end of the trench floor drain in the welding room. Acetone, a common laboratory contaminant, was not detected in laboratory method or preparation blanks; therefore, it can be assumed that acetone is site related.

- TCA was detected at two locations below the drainline in the welding room where it was detected at a maximum concentration of 0.10 ppm.

TCE was detected in two locations, one in the Wire Room and the other in the open storage area with a maximum concentration of 0.44 ppm.

Subsurface Soil

A total of 26 subsurface soil samples were collected from soil borings installed around the perimeter of the property, including vadose-zone samples from just above the water table and saturated-zone samples (Figure 3). The following summarizes the analytical results:

- Twelve of the 14 vadose-zone subsurface soil samples were free of VOC contamination. The only VOC detected in vadose-zone samples was acetone at a maximum concentration of 0.22 ppm.

While none of the saturated zone samples evidenced contamination above soil SCGs, the data showed a higher relative level of TCE contamination on the east (downgradient) side of the property. This correlates with groundwater data which indicates a source of dissolved phase TCE contamination on the Former Bright Outdoors property.

Groundwater

Seven grab samples of groundwater from just below the water table were collected during borehole drilling (Figure 4). Groundwater samples were also collected from the six new monitoring wells and five existing off-site wells. Recent and historical groundwater analytical data for the Johnson City municipal supply wells were also acquired. The following summarizes the analytical results:

Water-table samples from six of the seven boreholes contained at least two VOCs, including TCA and TCE. Contaminants detected at concentrations exceeding the SCGs were:

- TCA at BH09 (18 ppb) and BH12 (6 ppb); and
- TCE at BH08 (260 ppb) and BH09 (6 ppb).

The only sample that did not contain VOCs was collected from boring BH07 at the northwest corner of the building.

The samples BH08, and BH09 are located downgradient of the site, BH12 is upgradient of the site, and BH07 is sidegradient to the site.

Groundwater samples collected from approximately 30 to 50 feet BGS from the newly installed monitoring wells at the site each contained one or more of the following VOCs: TCA, TCE, 1,1-DCE, chlorobenzene, and 1,2-dichlorobenzene. Contaminants detected at concentrations exceeding the Department's Class GA groundwater standards were:

- TCA in four wells (MW01, MW02, MW05, and MW06) at a maximum concentration of 270 ppb (MW05);
- TCE in the same four wells at a maximum concentration of 28 ppb (MW05); and
- 1,1-DCE in two samples (MW05, MW06) at a maximum concentration of 43 ppb (MW05).

It is noted that the highest concentrations of groundwater contamination in the newly installed wells were located in MW05, which is on the upgradient edge of the Former Bright Outdoors property. Groundwater contamination in this well and along the eastern (upgradient) property line of the site may be the result of an upgradient source, as discussed in Section 3 of this document.

- Only two of the off-site wells sampled contained VOCs. MW-3D and MW-10S both contained TCE at concentrations below the Department's groundwater standard. Both of these wells are located downgradient of the site (Figure 5).
- TCA and TCE continue to be sporadically detected in Johnson City municipal supply wells 2 and 3. However, TCA concentrations have historically not exceeded MCLs except in June through September 1991 and once in August 1994 (data for 1996 to 2000 were not acquired; however, communication with the Johnson City Water Department Assistant Superintendent indicated that no other MCL exceedances have occurred).

Soil Vapor/Subslab Vapor/Air

On-site Subslab Soil Vapor

Soil vapor samples were collected beneath the ground floor concrete slab at 11 locations within the Former Bright Outdoors building and at four locations surrounding a portion of the building to identify potential source areas (Figure 2). The following summarizes the results:

Nine VOCs were detected at one location (SA01) beneath a floor trench drain near the northeast corner of the building (welding room). Of these, the detected concentrations of TCA, DCA, 1,1-DCE, PCE, methylene chloride, and vinyl chloride were significantly above typical background concentrations. TCA was detected at the highest concentration beneath the welding room ($115,000 \mu\text{g}/\text{m}^3$), but was present in subslab vapor samples throughout the facility. This level alone warrants mitigative measures.

TCE was detected at a level that warrants mitigative measures at one location beneath the floor drain in the welding room. The highest concentration of TCE detected was $810 \mu\text{g}/\text{m}^3$. At another location, TCE was detected in a deep soil vapor sample at $190 \mu\text{g}/\text{m}^3$.

It is noteworthy that the levels of these VOCs, detected in both soil samples and subslab vapor samples, were present in the vapor phase at levels significantly higher than what would be expected based upon the levels detected in soil samples. The elevated soil vapor contamination indicates the presence of contamination in site soil at higher levels than what was discovered during the soil sampling program.

Section 8 of the RI report summarizes the potential source areas (drain line soils and subsurface soils) and the relationship to the detection of VOCs in the soil vapor and the probable impact to groundwater. The distribution of VOCs detected in the drainline soils, sub slab vapor, and low levels in subslab soil samples suggests that the floor trench drains are a source of contamination to the groundwater. The discharge of VOCs into the drains was the likely point of entry into the subsurface as indicated by the high VOC levels detected in soil vapors in these locations. At sample location SA01 (sample taken under the slab) and at a deeper depth at the same location SA01D, the VOC levels were much greater near the surface indicating that the release occurred at just below the slab in this drainline. The presence of TCA in groundwater along the western and southern boundaries of the site suggest that TCA migrated downward from the drain and into the groundwater.

Off-site Subslab Soil Vapor

Vapor samples were collected beneath the ground floor or basement concrete slabs of four houses and one commercial property adjacent to the site during the Remedial Investigation. Follow-up sampling was conducted during the heating season at the four residential locations along with indoor air quality sampling during this sampling event from these same locations. The following summarizes the results:

TCA was detected at four locations in subslab soil vapor with a maximum concentration of 22.6 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). However, it was only detected in one basement air sample ($2.1 \mu\text{g}/\text{m}^3$) and in one first-floor air samples. TCA is a primary contaminant of concern detected in other environmental media at the site.

- 1,1-DCE was initially present at two locations in subslab soil vapor (both below $6 \mu\text{g}/\text{m}^3$); however, it was not detected during the supplemental investigation. 1,1-DCE appears to be site related because it was detected in both soil and soil vapor samples collected at the site.
- Chloromethane was detected at one location at a low concentration ($1.36 \mu\text{g}/\text{m}^3$). Chloromethane does not appear to be site-related because it was not detected in other media at the site except for two subslab vapor samples beneath the building at similarly low concentrations.

Tetrachloroethylene (PCE) was detected only during the supplemental investigation in one subslab vapor sample ($1.2 \mu\text{g}/\text{m}^3$). It was not detected in indoor air samples.

TCE was detected only during the supplemental investigation in one subslab vapor sample ($150 \mu\text{g}/\text{m}^3$). It was also present, but at much lower concentrations in the associated basement and first-floor indoor air samples at the same location (both less than $2 \mu\text{g}/\text{m}^3$). TCE is considered to be site-related due to its presence in several other environmental media at the site; however, the distribution of data also suggests that alternative off-site sources of TCE may be present.

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 completion of the RI/FS. There were no IRMs performed at this site during the RI/FS.

5.3: Summary of Human Exposure Pathways:

This section describes the types of human exposures that may present added health risks to persons at or around the site. A more detailed discussion of the human exposure pathways can be found in Section 7 of the RI report. An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site. An exposure pathway has

five elements: [1] a contaminant source, [2] contaminant release and transport mechanisms, [3] a point of exposure, [4] a route of exposure, and [5] a receptor population.

The source of contamination is the location where contaminants were released to the environment (any waste disposal area or point of discharge). Contaminant release and transport mechanisms carry contaminants from the source to a point where people may be exposed. The exposure point is a location where actual or potential human contact with a contaminated medium may occur. The route of exposure is the manner in which a contaminant actually enters or contacts the body (e.g., ingestion, inhalation, or direct contact). The receptor population is the people who are, or may be, exposed to contaminants at a point of exposure.

An exposure pathway is complete when all five elements of an exposure pathway exist. An exposure pathway is considered a potential pathway when one or more of the elements currently does not exist, but could in the future.

There are potential exposure pathways associated with contaminated soil vapor and groundwater from this site.

The area is served by a public water supply which is frequently tested to ensure that the water distributed to consumers complies with drinking water standards. No private supply wells have been identified in the vicinity of the site; therefore, exposure to contaminated groundwater is not expected. Exposures could potentially occur if someone were to install a private supply well; however, a permit would be required from the Village of Johnson City.

Soil vapor is contaminated with volatile organic compounds under the Former Bright Outdoors building. 1,1,1-TCA was detected in the sub-slab soil vapors under the building. No detectable levels of any contaminant were found in the indoor air of this building, but a completed exposure pathway through the inhalation of contaminated indoor air from the sub-slab air may exist on-site in the future should this vacant building be re-occupied.

Should the building be re-occupied, the potential for vapor intrusion will need to be re-evaluated prior to building occupancy. The potential for soil vapor intrusion off-site in the surrounding neighborhood has also been evaluated and determined to be low. Exposure to contaminated soil is unlikely since most contaminant levels in soils were found to be below applicable SCGs and the floor of the building is covered with 12 inches or more of concrete.

5.4: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts include existing and potential future exposure pathways to fish and wildlife receptors, as well as damage to natural resources such as aquifers and wetlands.

Site contamination has impacted the groundwater resource in the overburden aquifer. Since this area is part of a Sole Source Aquifer, the Clinton Street-Ballpark Aquifer, and has also been

identified as a Primary Water Supply Aquifer by NYSDOH and the Department, the resource is considered a highly protected resource for water supply.

SECTION 6: SUMMARY OF THE REMEDIATION GOALS

Goals for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. At a minimum, the remedy selected must eliminate or mitigate all significant threats to public health and/or the environment presented by the hazardous waste disposed at the site through the proper application of scientific and engineering principles.

The remediation goals for this site are to eliminate or reduce to the extent practicable:

- exposures of persons at or around the site to contaminated subsurface soils or contaminated soil vapors that may be released if excavation or other construction is undertaken below the building;
- the release of contaminants from soil into groundwater that may create exceedances of groundwater quality standards; and
- the release of contaminants from beneath the building into indoor air through a process called soil vapor intrusion.

Further, the remediation goals for the site include attaining to the extent practicable:

- ambient groundwater quality standards; and
- a minimization of the potential for soil vapor intrusion to occur.

SECTION 7: SUMMARY OF THE EVALUATION OF ALTERNATIVES

The selected 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 Former Bright Outdoors site were identified, screened and evaluated in the FS 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 discussed below. The present worth represents the amount of money invested in the current year that will 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 15 years is used to evaluate present worth costs for alternatives with an indefinite duration. This does not imply that operation, maintenance, or monitoring will cease after 15 years if remediation goals are not achieved.

7.1: Description of Remedial Alternatives

The following potential remedies were considered to address the contaminated soils, soil vapor and groundwater at the site.

- Alternative 1: No action;
- Alternative 2: Groundwater Monitoring with Institutional Controls;
- Alternative 3: Soil Vapor Extraction and Groundwater Monitoring with Institutional Controls;

Alternative 4: Soil Vapor Extraction and Groundwater Collection and Monitoring with Institutional Controls; and

Alternative 5: Soil Vapor Extraction and In-situ Treatment of Groundwater and Monitoring with Institutional Controls.

Alternative 1: No Action

The No Action Alternative is evaluated as a procedural requirement and as a basis for comparison. It requires continued monitoring only, allowing the site to remain in an unremediated state. This alternative would leave the site in its present condition and would not provide any additional protection to human health or the environment.

Alternative 2: Groundwater Monitoring with Institutional Controls

<i>Present Worth:</i>	<i>\$248,000</i>
<i>Capital Cost:</i>	<i>\$30,000</i>
<i>Annual Costs:</i>	
<i>(Years 0-15):</i>	<i>\$18,000</i>

Long-term monitoring of the groundwater would demonstrate whether the levels of contamination continue to exceed SCGs. Groundwater wells would be monitored for two purposes: 1) to monitor the migration of contamination from the site toward potential receptors and 2) to determine if the concentration trends continue to diminish.

There are no known users of groundwater in the immediate vicinity of the site with the exception of the Village of Johnson City municipal supply wells. This remedy would be a benefit to the Village of Johnson City by providing them with groundwater quality data upgradient of the intake wells of the community's water supply.

By monitoring the groundwater contaminant concentration trends over time, decisions could be made regarding the need for additional action. If trends continue to decline, then this may indicate that the plume is diminishing and could eventually be within SCGs. If trends in

concentrations are steady or increasing, then the need for additional investigations may be warranted.

Efforts will be made to monitor an off-site residence for potential soil vapor intrusion. As explained in section 5.1.2, one of the off-site residences sampled had a detection of TCE in the subslab soil vapor of 150 µg/m³. Since this level warrants monitoring, soil vapor and indoor air sampling would be performed at this house as part of this proposal. In accordance with the State's guidance for evaluating soil vapor intrusion, future sampling would determine whether mitigation measures would be ultimately necessary, whether the monitoring program should continue or be expanded, or whether monitoring is no longer necessary.

A site management plan would need to be developed that details the groundwater monitoring program, including sampling techniques, required sampling frequency, reporting requirements, and other site activities.

Imposition of an institutional control in the form of an environmental easement that would require (a) compliance with the approved site management plan; (b) restricting the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by NYSDOH; and (c) the property owner to complete and submit to the Department a periodic certification of institutional controls;

For cost analysis it is assumed that implementation of the remedy, including environmental monitoring, would continue for 15 years. However, the actual duration of remedy implementation would depend on data gathered through the post-ROD monitoring program.

**Alternative 3: Soil Vapor Extraction and Groundwater Monitoring
with Institutional Controls**

<i>Present Worth:</i>	\$389,000
<i>Capital Cost:</i>	\$127,000
<i>Annual Costs:</i>	
<i>(Years 0-1):</i>	\$64,000
<i>(Years 1-15):</i>	\$18,000

Under Alternative 3, the remedy would include institutional controls and groundwater monitoring as detailed in Alternative 2.

In addition, a soil vapor extraction (SVE) system would be installed in the Plate (Welding) Room with a radius of influence of approximately 80 feet. This radius of influence will capture all the areas of VOCs in soil vapor that were found to be above SCGs. With the SVE system, VOCs would be removed with the use of a vacuum at the extraction well(s). This allows volatile contaminants to evaporate, while drawing soil vapors to the extraction wells, where they can be properly treated, if necessary. The SVE system would be expected to run for approximately one year until no further contamination is being withdrawn from the site indicating SCGs have been met.

During the construction of the SVE system, if soils below floor drains of the building are found to be contaminated, then they would be removed and properly disposed of off-site. For estimating purposes, approximately 112 cubic yards of soil removal is assumed.

Design and construction of the SVE system would take approximately six months, depending on the complexity of the system, and it is estimated to operate for a 1-year period. As in Alternative 2, for cost analysis it is assumed that implementation of the remedy, including environmental monitoring, would continue for 15 years. However, the actual duration of remedy implementation, including system operation and monitoring, would depend on data gathered through the post-ROD monitoring program.

**Alternative 4: Soil Vapor Extraction and Groundwater Collection and Monitoring
with Institutional Controls**

<i>Present Worth:</i>	\$683,000
<i>Capital Cost:</i>	\$205,000
<i>Annual Costs:</i>	
<i>(Years 0-1):</i>	\$111,000
<i>(Years 1-5):</i>	\$47,000
<i>(Years 5-15):</i>	\$18,000

This alternative would include the same remedial approach and actions detailed in Alternative 3. In addition, groundwater treatment would be included in this alternative. A groundwater collection trench (about 3-feet wide by 250-feet long) would be excavated downgradient of the building to a depth of approximately 20 feet using conventional excavation equipment (Figure 7.) Perforated pipe would be placed within the trench to collect the groundwater. Backfilling of the trench would consist of compacted, open graded clean stone.

The collection trench would be operated for long-term groundwater control by extracting the groundwater and pumping from the collection trench to an above ground treatment system consisting of air strippers and granulated activated carbon. The clean water would be reinjected into the ground down-gradient of the collection trench. Groundwater would also be monitored to determine the effect of this remedy on the contamination levels.

Design and construction of the SVE system would take approximately six months depending on the complexity of the system and it is estimated to operate for a 1-year period. The design and construction of the groundwater collection system would also be approximately 6 months and the operation would be for a 5-year period. As discussed above, the remedial cost analysis assumes a 15-year monitoring period, but actual duration of remedy implementation would depend on data gathered through the post-ROD monitoring program..

**Alternative 5: Soil Vapor Extraction with In-situ Treatment of Groundwater and
Monitoring with Institutional Controls**

<i>Present Worth:</i>	\$498,000
<i>Capital Cost:</i>	\$236,000
<i>Annual Costs:</i>	

(Years 0-1):	\$64,000
(Years 1-15):	\$18,000

This alternative would again include the SVE system as well as institutional controls and groundwater monitoring. Similar to Alternative 4, active groundwater treatment would also be performed. Under this alternative, treatment would be in-situ using chemical oxidant injection

Chemical oxidant injection is a process that requires the injection of an oxidant, typically ozone, hydrogen peroxide, hypochlorites, chlorine, chlorine dioxide, potassium permanganate or Fenton’s reagent (hydrogen peroxide and iron). Through oxidation, these oxidants have been found to cause the rapid and complete chemical destruction of the types of COCs found at the site.

The capital cost for this alternative would include all the costs for the monitoring well installations for both the long-term monitoring well and the chemical oxidant injection wells in addition to the SVE system installation. It would also include the cost for the injection of the chemical oxidant.

Design and construction of the SVE system would take approximately six months depending on the complexity of the system and it is estimated to operate for a 1-year period. The time to plan and inject the chemical oxidant would be approximately 3 months. As in the other alternatives, the remedial cost analysis assumes a 15-year monitoring period, but actual duration of remedy implementation would depend on data gathered through the post-ROD monitoring program.

7.2 Evaluation of Remedial Alternatives

The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375, which governs 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 FS 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 five “primary balancing criteria” are used to compare the positive and negative aspects of each of the remedial strategies.

3. Short-term 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.

4. 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.

5. 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.

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. The costs for each alternative are presented in Table 2.

This final criterion 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.

8. Community Acceptance - Concerns of the community regarding the RI/FS reports and the PRAP have been evaluated. The responsiveness summary (Appendix A) presents the public comments received and the manner in which the Department addressed the concerns raised. No significant public comments were received. Several comments were received; however, pertaining to vapor intrusion issues off-site and groundwater concerns. The selected remedy includes provisions to expand the soil vapor monitoring program, if necessary, based upon the future sampling results from the one off-site home. The groundwater comments have to do with issues regarding the possibility of another source area of contamination and possible impacts to the community water supply wells. The remedy also includes a provision to require additional investigations for another source area of contamination if warranted based on the groundwater monitoring results of this remedy. Also, the community water supply is treated and frequently sampled.

SECTION 8: SUMMARY OF THE SELECTED REMEDY

Based on the Administrative Record (Appendix B) and the discussion presented below, the Department has selected Alternative 3, Soil Vapor Extraction and Groundwater Monitoring with Institutional Controls as the remedy for this site. The elements of this remedy are described at the end of this section.

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

Alternative 3 will be protective of human health by preventing exposure to contamination in the groundwater and vapor phase contamination within the facility through the installation and operation of a soil vapor extraction system. This SVE system will remove contamination from beneath the building. By remediating this source area, the groundwater quality will improve.

This alternative, as with each alternative, will require evaluation of the groundwater to determine the trends in groundwater concentrations to examine the possibility of an off-site source being present, as discussed in Section 3 and Section 5. If the groundwater trends decrease, then source removal through SVE and natural attenuation will appear to be effective in reaching the SCGs. If the groundwater levels do not decrease, then an upgradient source may exist, and additional investigation may be necessary.

Alternatives 4 and 5 may remediate site groundwater more quickly than Alternative 3; however, both would include active groundwater treatment remedies that include an additional cost. Also, the possible presence of an upgradient source of groundwater contamination reduces our confidence that Alternative 4 or Alternative 5 would obtain more rapid achievement of groundwater standards.

Alternative 3 is being selected because, as described below, it satisfies the threshold criteria and provides the best balance of the primary balancing criteria described in Section 7.2. It will achieve the remediation goals for the site by removing the contaminated soil vapor and areas of contaminated soils that creates the most significant threat to public health from the site; it will eliminate or reduce the source of contamination to groundwater; and it will create the conditions needed to restore groundwater quality to the extent practicable. Alternatives 4 and 5 would also comply with the threshold selection criteria. Alternative 2 would not remove the contaminated soil vapors, offers no protection from the potential for vapor intrusion, and no protection to the groundwater so it does not meet the threshold criteria.

Because Alternatives 3, 4, and 5 satisfy the threshold criteria, the five balancing criteria are particularly important in selecting a final remedy for the site.

Alternative 3 (Soil Vapor Extraction and Groundwater Monitoring with Institutional Controls), Alternative 4 (Soil Vapor Extraction and Groundwater Collection and Monitoring with Institutional Controls), and Alternative 5 (Soil Vapor Extraction and In-situ Treatment of Groundwater and Monitoring with Institutional Controls) all would have short-term impacts which can easily be controlled. Alternative 4 would have the most impact on an active business at this location since it will require digging up the parking lot to install the trench. The time needed to achieve the remediation goals would be similar for Alternatives 4, and 5, although Alternative 3 may take somewhat longer. Alternative 3 will have the least disruption to the on-site business after the SVE system is constructed.

Achieving long-term effectiveness would be accomplished equally by Alternatives 3, 4 and 5 since each of these alternatives capture the source areas of contamination under the building with the SVE system. Alternative 4 and 5 might achieve groundwater SCGs somewhat more quickly; however, Alternative 3 will be equally effective in the long term as natural attenuation occurs.

Alternatives 3, 4, and 5 would be equally effective in reducing the volume of wastes present beneath the building since they all include the construction of the SVE system. Alternatives 4 and 5 offer some additional benefit in reducing contaminant volume since they also attempt to actively treat groundwater.

Alternative 3 is favorable in that it would be readily implementable. Alternatives 4 and 5 are also implementable; however, they will take longer to implement since these alternatives include an additional construction element. Alternatives 3, 4, and 5 would have the same design and implementation considerations for the SVE system construction.

The cost of the alternatives varies somewhat. Alternative 3, 4, and 5 would each include a cost for the SVE construction and operation. Alternatives 4 and 5 would also include an expense to treat contaminated groundwater that is not included in Alternative 3, with Alternative 4 being the most expensive of all the alternatives due to significantly higher operation and maintenance costs.

The estimated present worth cost to implement the remedy is \$ 389,000. The cost to construct the remedy is estimated to be \$ 127,000 and the estimated average annual costs are: \$ 64,000 for the first year and \$18,000 per year from year 1 through 15. The first year operation costs includes running the SVE system and monitoring groundwater whereas subsequent years costs include only groundwater sampling.

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.
2. Implementation of a groundwater monitoring program to determine trends in groundwater quality and observe the expected attenuation of residual groundwater contamination. This program will allow the effectiveness of the remedy to be monitored and confirm or refute the existence of an upgradient source of groundwater contamination, which may require additional investigation or remediation.
3. Construction of a soil vapor extraction (SVE) treatment system in the area under the building where the highest concentration of VOCs were found (Figure 7).
4. Removal and off-site disposal of contaminated soils from below the floor drains of the building if they are found to be contaminated during installation of the SVE system.
5. Development of a site management plan which will include the following institutional and engineering controls: (a) continued evaluation of the potential for vapor intrusion in the remainder of the Bright Outdoors building should it be re-occupied and for any buildings developed on the site, including provision for mitigation of any impacts identified; (b) monitoring of groundwater; (c) sample one off-site home for potential soil vapor intrusion once per heating season and provide a mitigation system, if necessary. This monitoring program may be terminated or expanded to other structures based upon future sampling results; and (d) provisions for the continued proper operation and maintenance of the components of the remedy until the remedial objectives have been achieved,

or until the Department determines that continued operation is technically impracticable or not feasible.

6. Imposition of an institutional control in the form of an environmental easement that will require (a) compliance with the approved site management plan; (b) restricting the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by NYSDOH; (c) the property owner to complete and submit to the Department a periodic certification of institutional and engineering controls; and (d) limit the use of the property to “restricted-residential use” as defined by 6NYCRR Part 375. The property may also be used for commercial or industrial uses if approved by local zoning.

7. The responsible party or property owner will provide a periodic certification of institutional and engineering controls, 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.

8. 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.

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 February 28, 2007 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.

TABLE 1
Nature and Extent of Contamination
 June 2004 - March 2005

DRAINLINE SOILS	Contaminants of Concern	Concentration Range Detected (ppm)^a	SCG^b (ppm)^a	Frequency of Exceeding SCG
Volatile Organic Compounds (VOCs)	TCA	ND - 0.04	0.8	0 of 6
	toluene	ND - 1.90	1.5	1 of 6

Subslab SOILS	Contaminants of Concern	Concentration Range Detected (ppm)^a	SCG^b (ppm)^a	Frequency of Exceeding SCG
Volatile Organic Compounds (VOCs)	TCA	ND - 0.11	0.8	0 of 13
	acetone	ND - 0.38	0.2	1 of 13

SUBSURFACE SOILS	Contaminants of Concern	Concentration Range Detected (ppm)^a	SCG^b (ppm)^a	Frequency of Exceeding SCG
Volatile Organic	TCA	ND - 0.03	0.8	0 of 26

GROUNDWATER	Contaminants of Concern	Concentration Range Detected (ppb)^a	SCG^b (ppb)^a	Frequency of Exceeding SCG
Volatile Organic Compounds (VOCs)	TCA	ND - 270	5	6 of 18
	TCE	ND - 260	5	6 of 18
	DCE	ND - 43	5	2 of 18
	MTBE	ND - 14	10	1 of 18

SOIL VAPOR / Subslab VAPOR	Contaminants of Concern	Concentration Range Detected (µg/m³)^a	SCG^b (µg/m³)^a	Frequency of Exceeding SCG
Volatile Organic Compounds (VOCs)	TCA	ND - 115,000	n/a	7 of 15
	DCA	ND - 4,700	n/a	1 of 15

SOIL VAPOR / Subslab VAPOR	Contaminants of Concern	Concentration Range Detected ($\mu\text{g}/\text{m}^3$) ^a	SCG ^b ($\mu\text{g}/\text{m}^3$) ^a	Frequency of Exceeding SCG
	TCE	ND - 810	n/a	1 of 15
	DCE	ND - 13,000	n/a	1 of 15

^a ppb = parts per billion, which is equivalent to micrograms per liter, $\mu\text{g}/\text{L}$, in water;
ppm = parts per million, which is equivalent to milligrams per kilogram, mg/kg , in soil;
 $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter
ND = not detected

^bSCG = standards, criteria, and guidance values;

Contaminant Identification:

TCA - 1,1,1-Trichloroethane

DCA - 1,1-Dichloroethane

TCE - Trichloroethene

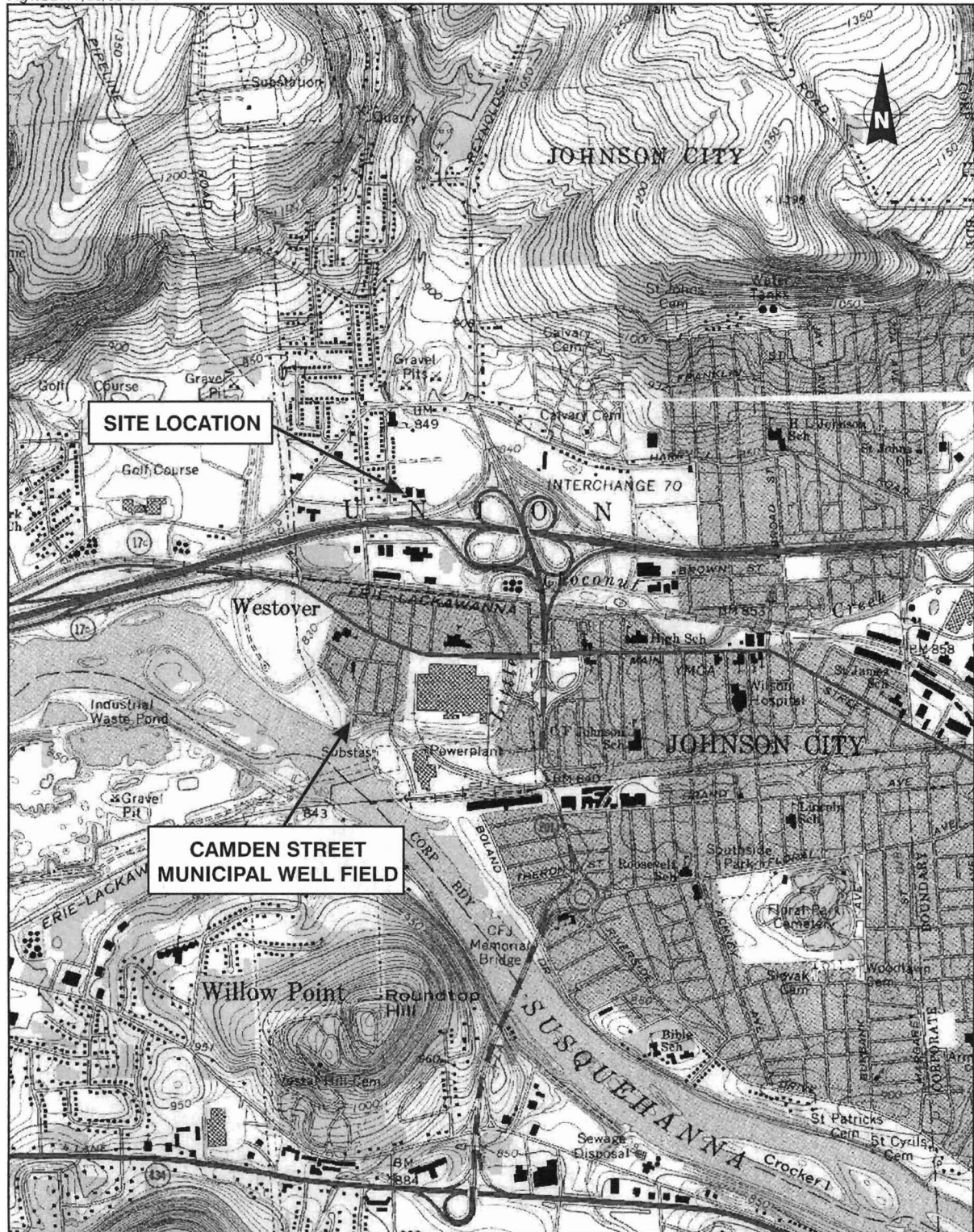
DCE - 1,1-Dichloroethene

**Table 2
Remedial Alternative Costs**

Remedial Alternative	Capital Cost (\$)	Annual Costs (\$)	Total Present Worth (\$)
No Action			
2) Groundwater Monitoring with Institutional Controls	\$30,000	\$18,000 (yr. 0-15)	\$248,000
3) Soil Vapor Extraction and Groundwater Monitoring with Institutional Controls	\$127,000	\$64,000 (yr. 0-1) \$18,000 (yr. 1-15)	\$389,000
4) Soil Vapor Extraction and Groundwater Collection and Monitoring with Institutional Controls	\$205,000	\$111,000 (yr. 0-1) \$47,000 (yr. 1-5) \$18,000 (yr. 5-15)	\$683,000
5) Soil Vapor Extraction and In-situ Treatment of Groundwater and Monitoring with Institutional Controls	\$236,000	\$64,000 (yr. 0-1) \$18,000 (yr. 1-15)	\$498,000

Notes:

1. For alternatives 2, 3, 4, and 5, part of the Capital Cost includes \$16,500 for groundwater monitoring well installation along the western side of the site as part of the monitoring program.
2. For alternatives 3, 4, and 5, part of the Capital Cost includes \$18,000 for potentially contaminated soil removal. This cost will not be necessary if these soils are found to be not contaminated after screening.



SOURCE: USGS 7.5 Minute Series (Topo) Quadrangle: Binghamton West, NY 1976; USGS 7.5 Minute Series (Topo) Quadrangle: Castle Creek, NY 1976. © 2004 Ecology and Environment Engineering, P.C.

SCALE 1:24,000

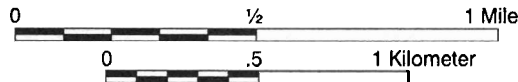


Figure 1 Site Location Map
Former Bright Outdoors Site
Johnson City, New York

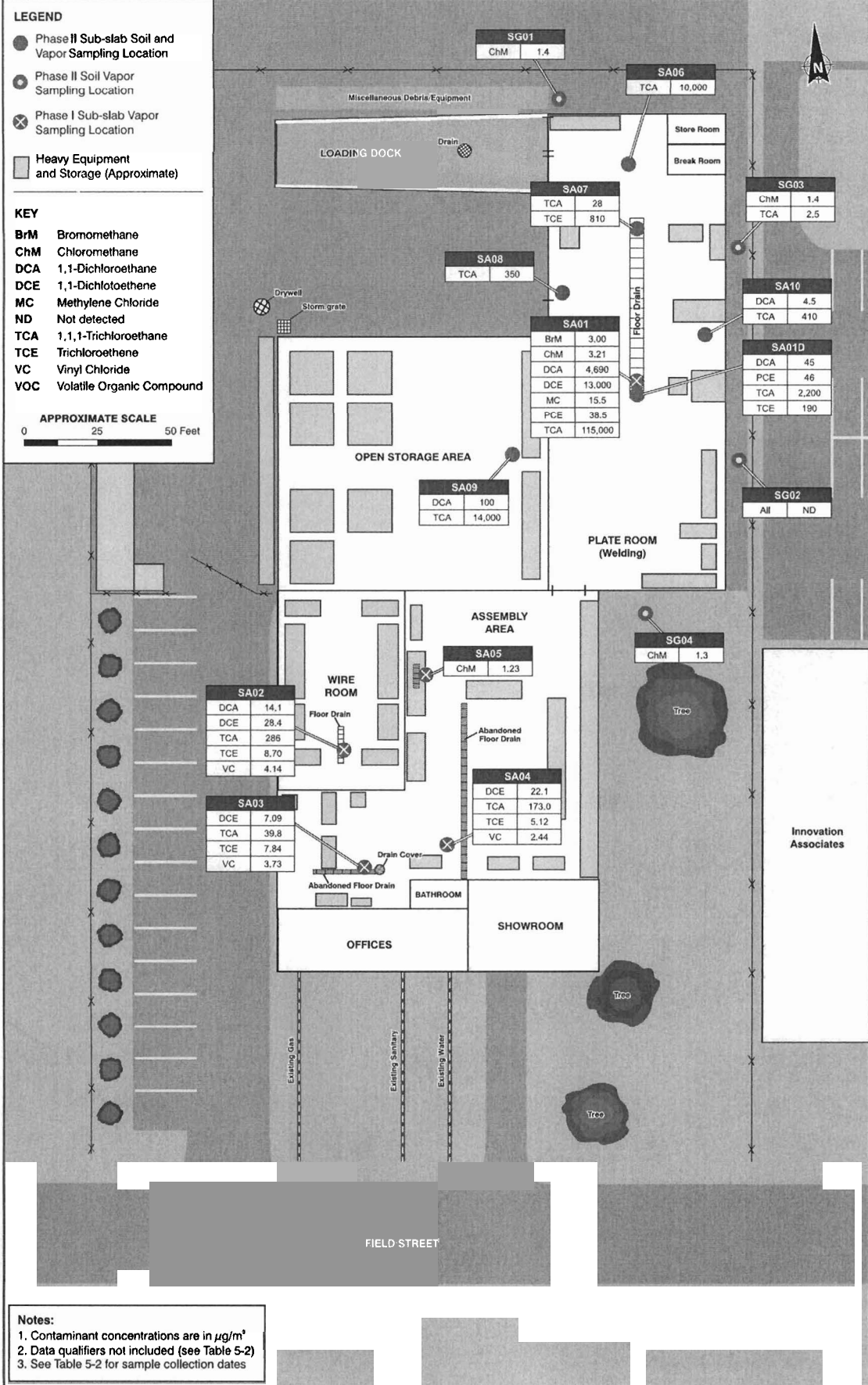


Figure 2 Positive Analytical Results for Sub-slab Vapor and Soil Vapor Samples Former Bright Outdoors Site, Johnson City, New York

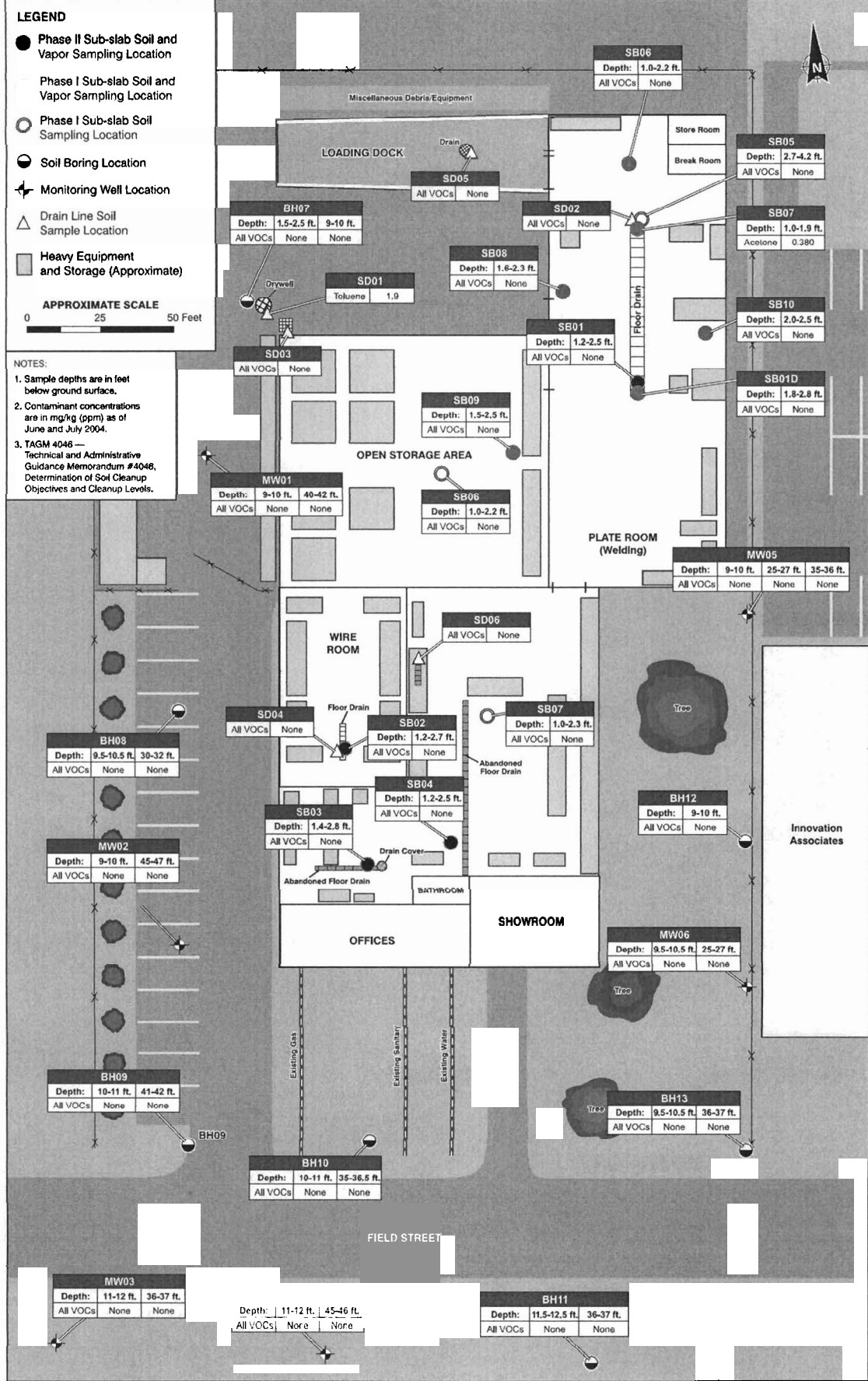
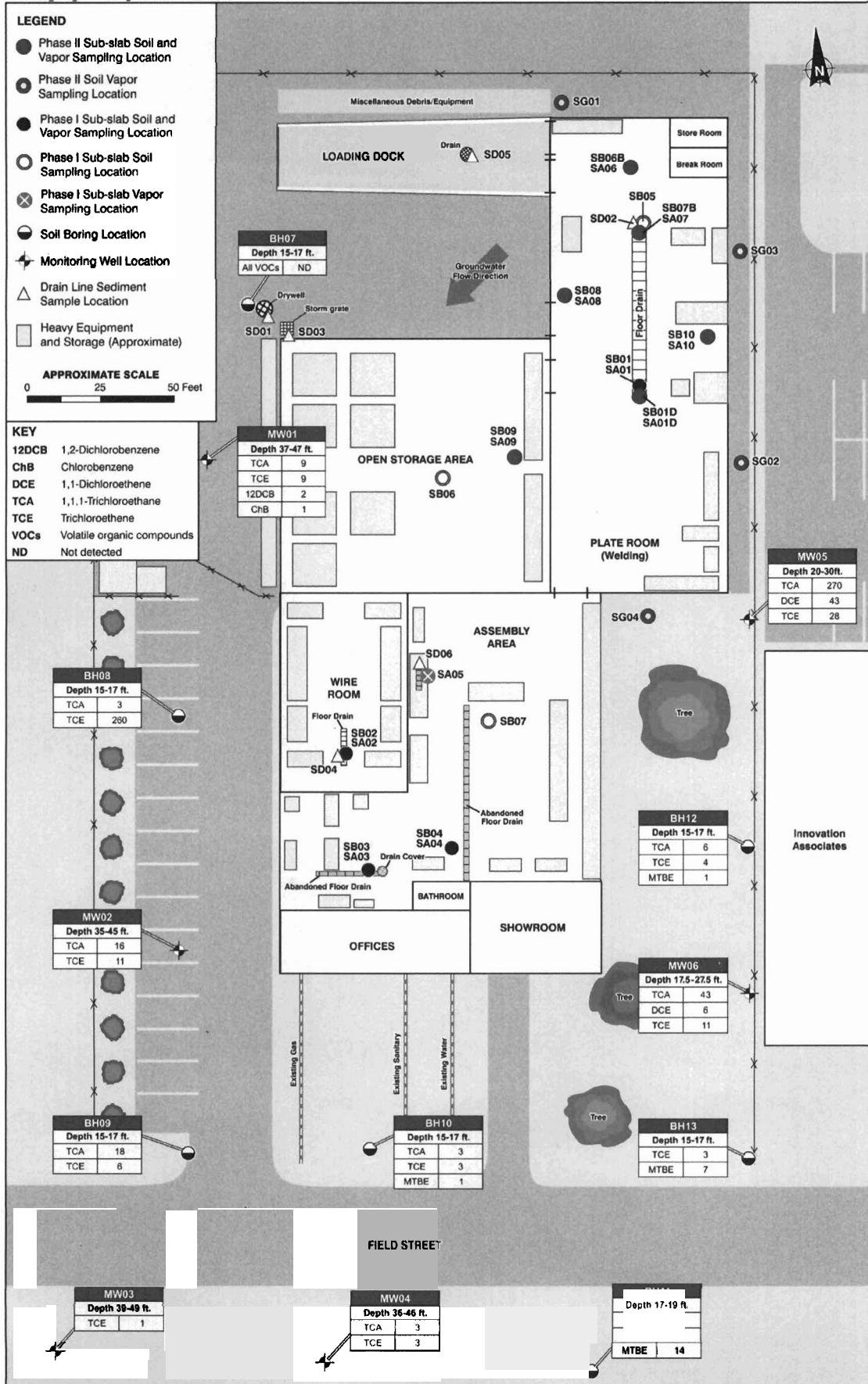


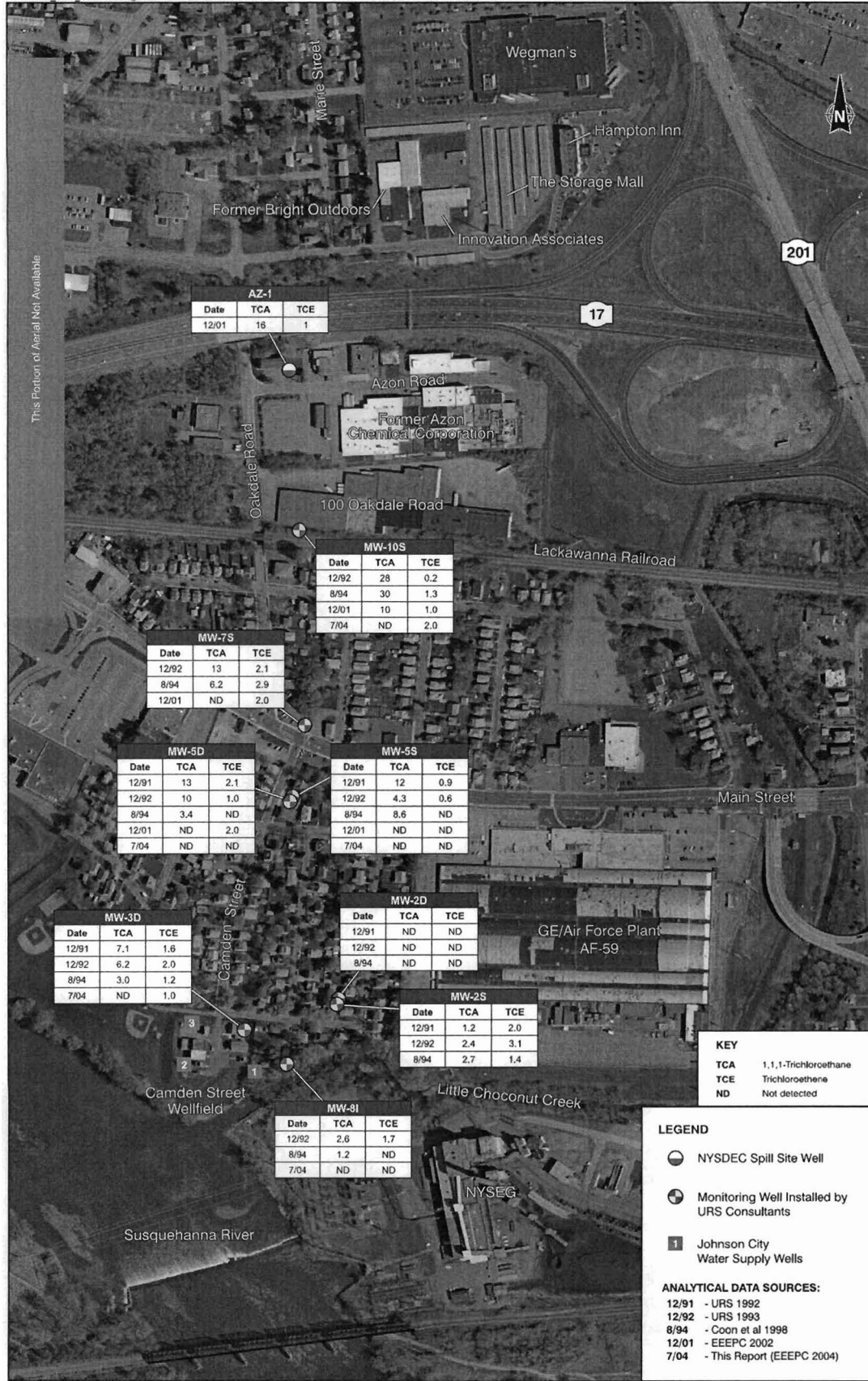
Figure 3 Analytical Results for Drainline Soils, Sub-slab Surface Soils, and Subsurface Soil Samples Exceeding TAGM 4046 Levels, Former Bright Outdoors Site, Johnson City, New York



NOTES: 1. Sample depths are in feet below ground surface.
2. Contaminant concentrations are in µg/L as of June and July 2004.
3. Concentration qualifiers not included (see Table 5-6).

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Figure 4 Positive Analytical Results for On-site Groundwater Samples Former Bright Outdoors Site, Johnson City, New York



SOURCE: Aerial Images: New York State GIS Clearinghouse 2002

NOTES: Only TCA and TCE results presented. Contaminant concentrations are in µg/L

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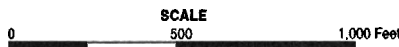


Figure 5 Historic and Current Off-site Monitoring Well Results Former Bright Outdoors Site, Johnson City, New York



NOTES: 1. Contaminant concentrations are in µg/L
 2. During the 2001/2002 PSA, several depth intervals were sampled at each location. The results shown are from lab analysis of the depth interval with the highest field screening results

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Figure 6 Historic Groundwater Analytical Results Former Bright Outdoors Site Johnson City, New York

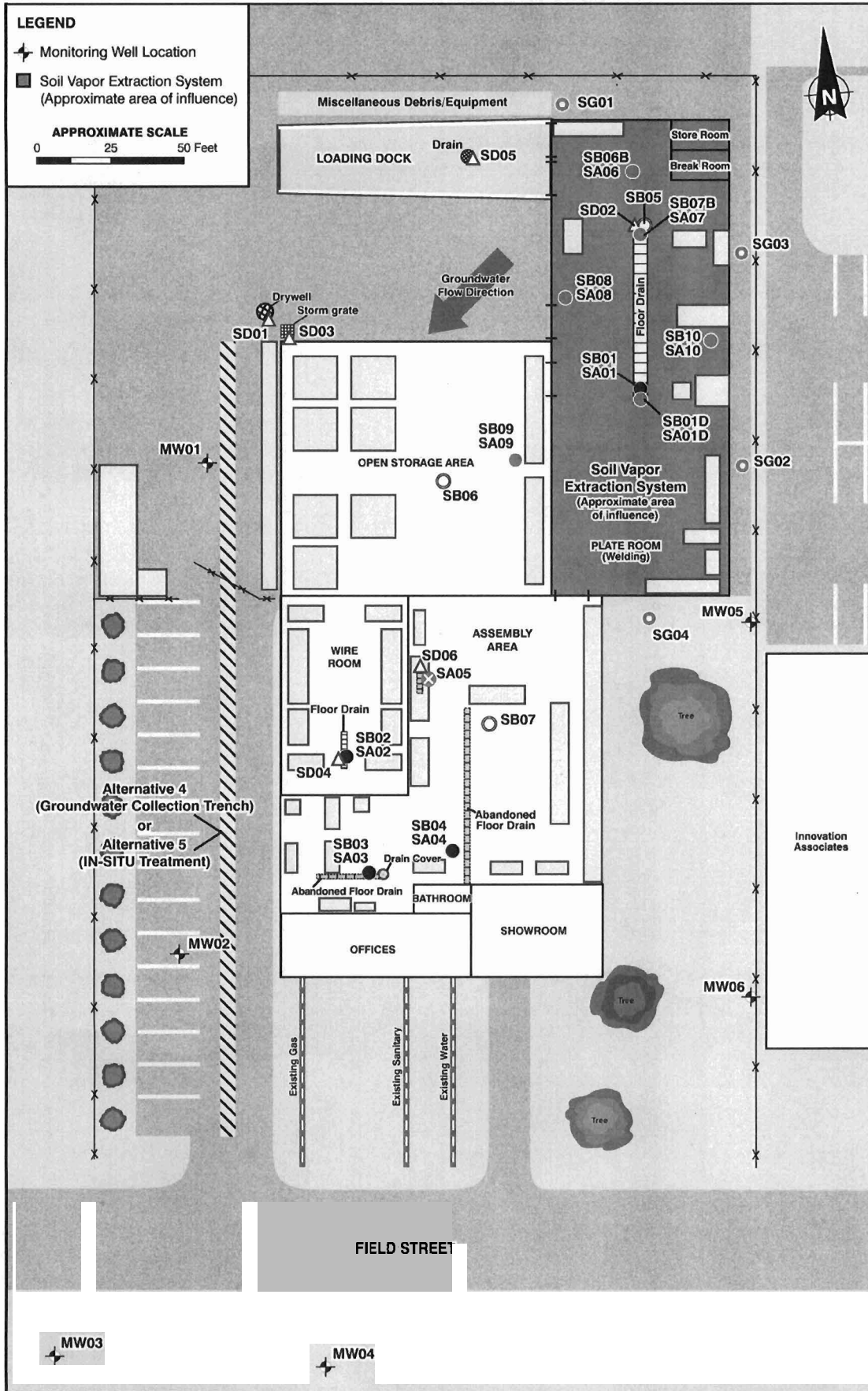


Figure 7 Identification of Alternatives 3 through 5 Former Bright Outdoors Site, Johnson City, New York

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

**Former Bright Outdoors
Village of Johnson City, Broome County, New York
Site No. 7-04-023**

The Proposed Remedial Action Plan (PRAP) for the Former Bright Outdoors 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 14, 2007. The PRAP outlined the remedial measure proposed for the contaminated soil, soil vapor, groundwater at the Former Bright Outdoors 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 February 28, 2007, which included a presentation of the Remedial Investigation (RI) and the Feasibility Study (FS) 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 15, 2007.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received at the February 28th public meeting, with the Department's responses:

COMMENT 1: It was mentioned that the Former Bright Outdoors site is a class "2" inactive hazardous waste disposal site. What other classifications of inactive hazardous waste sites are there?

RESPONSE 1: The Department has five classifications for inactive hazardous waste disposal sites as follows:

Class 1 Site: Causing, or presenting an imminent danger of causing, irreversible or irreparable damage to the public health or the environment - immediate action is required.

Class 2 Site: Significant threat to the public health or environment - action required.

Class 3 Site: Does not present a significant threat to the environment or public health - action may be deferred.

Class 4 Site: Site properly closed - requires continued management.

Class 5 Site: Site properly closed - does not require continued management.

The Former Bright Outdoors site was listed as a class "2" site in 2002.

COMMENT 2: While the Department is waiting to start the remedy, will there be contaminated soil vapor migration from the Former Bright Outdoors property that might enter beneath and into my home?

RESPONSE 2: Four homes were tested in close proximity to the Former Bright Outdoors property and only one of these properties had a subslab soil vapor level that warranted monitoring. Although disposal of contaminants at the Former Bright Outdoors facility has terminated and we do not expect the levels of soil vapors off-site to increase, a soil vapor intrusion monitoring program is

currently in place and will be continued during the implementation of the site management plan for this site.

COMMENT 3: Is the flow of groundwater northeast to southwest?

RESPONSE 3: Yes.

COMMENT 4: Is there a catch basin or storm drainage along the southern end of the building that would cause the non-detectable levels of contaminants indicated on Figure 6 along Field Street?

RESPONSE 4: The catch basin or storm drainage have no impact on the levels of contaminants indicated. The contaminants found along Field Street on Figure 6 were found in groundwater. These samples were taken from groundwater approximately ten feet below the ground surface. The catch basins and storm drainage systems are generally 3 to 5 feet below the ground surface and are designed to collect storm water runoff and channel it to a discharge point somewhere else. So the catch basins and storm drainage systems have no influence on the groundwater in this area.

COMMENT 5: Has dichloroethene (DCE) been tested for?

RESPONSE 5: Yes, DCE was included in the sample analysis. DCE is a breakdown product of trichloroethene (TCE).

COMMENT 6: Is there a responsible party for this project who has stepped forward?

RESPONSE 6: No, a responsible party has not stepped forward to do the remedial investigation or other work at this site. The Department did a search for a viable responsible party prior to referring the site for the remedial investigation using State Superfund money. A similar process will take place after the ROD is issued, and if no viable responsible party or parties are secured after that effort, then the project will again be referred for the design and construction phase using the State Superfund. After the remediation is complete, the Department will seek cost recovery, if possible, for costs incurred by the State. If litigation to recover State costs is necessary, the Department will seek cost recovery.

COMMENT 7: Why was a million dollar air stripper put on the community water supply well? Is there a problem with the well. Cancer rate is high in my neighborhood.

RESPONSE 7: The community was very prompt in responding to the initial detection of VOCs in the community water supply wells in 1991 with the installation of a temporary water treatment system. The system was later upgraded with a permanent treatment system in 1999. Since 1991 and to present, the water has been routinely tested and determined to be suitable for drinking.

Cancer is a very common disease and there are many different types of cancer. For more information on cancer, the NYSDOH through the Cancer Surveillance Improvement Initiative has developed tables that illustrate the rate of certain types of cancer at the zip code level. The tables show the comparison of the actual incidence for individual zip codes with the expected incidence of this type of cancer for the zip code. There are also maps of cancer incidence by county. The tables and maps are available on the

NYSDOH website at <http://www.health.state.ny.us/nysdoh/cancer/csii/nyscsii.htm>. By law, New York State must keep information about individuals with cancer confidential. To protect their privacy, specific blocks where each person with cancer lives is not public information.

COMMENT 8: How many homes were sampled in the area for soil vapor?

RESPONSE 8: The soil vapor sampling took place at four residences and one business off-site. Indoor air and slab air were sampled at these locations.

COMMENT 9: Does flooding change the amount of TCE in the groundwater? There has been lots of flooding in the Johnson City area. Will the flooding wash the TCE out of the groundwater?

RESPONSE 9: The flooding that has occurred in this area does not appear to have an impact on the TCE in the groundwater; however, flooding may have a small impact on the fluctuations in groundwater elevation. Flooding impacts surface water in a very dramatic manner at times, but the water table elevation in the groundwater will change little during a flooding event. During the flooding of 2006, extra testing was done at the community water supply well due to concerns from possible surface water contaminants entering into the water supply rather than possible site related contaminants from the groundwater entering into the water supply. It was found that the Susquehanna River does not have an impact on the community water supply wells since they draw the water from deep in the underlying aquifer.

Flooding does not appear to wash TCE out of the groundwater since flooding events and seasonal fluctuation in groundwater elevation have occurred and TCE is still present in the groundwater.

COMMENT 10: Has there been testing of the groundwater at the neighboring property located at 627 Field Street? It appears that a source of contamination may be coming onto the Former Bright Outdoors property (631 Field Street) from an upgradient source.

RESPONSE 10: It is important to appreciate that the purpose of this investigation was to address conditions related to possible releases from 631 Field Street, the Former Bright Outdoors site. Some testing was done on 627 Field Street during the Preliminary Site Assessment of 2002 (Figure 6). In addition, other sampling was performed around 627 Field Street during previous investigations. During one of these previous investigations, TCA was detected in the groundwater upgradient of the Former Bright Outdoors site. The Department has included a provision in this remedy to monitor the groundwater near the upgradient property line of 631 Field Street. The Department will conduct additional investigations to find other sources if sampling results indicate such investigations are warranted.

Robert C. Murphy of the Law Office of Robert C. Murphy submitted a letter (dated March 15, 2007) which included the following comments:

COMMENT 11: No logical basis exists to exclude 627 Field Street as a primary source of TCA/TCE contamination.

RESPONSE 11: This comment is addressed in response 10.

COMMENT 12: RI/FS and PRAP do not accurately outline sources and the plume.

RESPONSE 12: The investigation of the Former Bright Outdoors site included reasonable efforts to determine the nature and extent of contamination resulting from practices at 631 Field Street while considering other areas where a source of contamination may have been released. The information gathered during the RI is presented accurately in the PRAP.

COMMENT 13: RI/FS fails to track ages of the various contamination which hinders identifying sources of contamination.

RESPONSE 13: This type of analysis, “age of contamination analysis” was not attempted at this site. This analysis is sometimes used in the case where multiple groundwater contamination plumes intermix and one is attempting to determine the age of contamination from respective plumes to locate the source or origin of contamination. Such an analysis was not considered appropriate for this investigation.

COMMENT 14: Innovation Associates (627 Field Street) or its predecessor should be listed as a PRP.

RESPONSE 14: See response 6.

COMMENT 15: Samscreen, Inc. should not be identified as a PRP.

RESPONSE 15: Samscreen, Inc. is not included in Section 4 of the ROD.

COMMENT 16: 631 Field Street should not be identified as a PRP.

RESPONSE 16: 631 Field Street, LP is the current owner of record of this property and has been listed as a PRP in section 4 of the ROD. According to applicable statutes and regulations, the current owner is a PRP.

Administrative Record

Former Bright Outdoors

Site No. 7-04-023

1. Proposed Remedial Action Plan for the Former Bright Outdoors site, dated February 2007, prepared by the Department.
2. "Contaminant Source Investigation Johnson City Wellfield"; Final Report, May 22, 1992, prepared by URS Consultants, Inc.
3. "Contaminant Source Investigation Addendum No. 1 Johnson City Wellfield "; June 2003, prepared by URS Consultants, Inc.
4. "Hydrogeology and Water Quality of the Clinton Street-Ballpark Aquifer near Johnson City, New York", 1997, prepared by the U.S. Geological Survey in cooperation with the U.S. Air Force.
5. "New York State Superfund Contract Immediate Investigation Work Assignment Data Report Johnson City Wellfield", March 1997, prepared by Lawler, Matusky, & Skelly Engineers, LLP.
6. Work Plan for Preliminary Site Assessment Johnson City Wellfield Site, Johnson City, New York", August 2001, prepared by Ecology and Environment Engineering, P.C.
7. "Report for the Preliminary Site Assessment at the Johnson City Well Field Site, Johnson City, New York", March 2002, prepared by Ecology and Environment Engineering, P.C.
8. Work Plan for Remedial Investigation and Feasibility Study at the Former Bright Outdoors Site, Site No. 7-04-023, Johnson City, New York", May 2004, prepared by Ecology and Environment Engineering, P.C.
9. Remedial Investigation Report for the Former Bright Outdoors Site, Johnson City, New York, Site No. 7-04-023", June 2005, prepared by Ecology and Environment Engineering, P.C.
10. Feasibility Study for the Former Bright Outdoors Site, Johnson City, New York", September 2006, prepared by Ecology and Environment Engineering, P.C.
11. Referral Memorandum dated May 7, 2003 for the performance of the Remedial Investigation/Feasibility Study and Interim Remedial Measures.
12. "Fact Sheet - Remedy Proposed for the Former Bright Outdoor Site", February 9, 2007, prepared by the Department.