

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Hazardous Site Control

360005

ADDITIONS/CHANGES TO REGISTRY: SUMMARY OF APPROVALS

SITE NAME: ARMONK VILLAGE WELLS

DEC I.D. NUMBER 360005

Current Classification 2

Volunteer Yes No X
Sign (7) below

Activity: ☐ Add as Class ☒ Reclassify to 4 ☐ Delist Category ☐ Modify

Approvals:

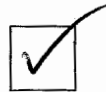
1. Regional Hazardous Waste Engineer	Yes	☒	No	☐	<u>5/5/01</u>
2. BEEI of NYSDOH	Yes	☒	No	☐	<u>6/13/01</u>
3. DEE	Yes	☒	No	☐	<u>4/27/01</u>
4. <u> </u> Remediation Action Bureau Director [Class 2]	Yes	☐	No	☐	<u>2/1A</u>
5. BHSC - Investigation Section	Yes	☒	No	☐	<u>5/4/01</u>
6. BHSC - O&M Section [Class 4]	Yes	☒	No	☐	<u>4/13/01</u>
7. BPM - Brownfield & Voluntary Cleanup Section					<u>C. G. Lopez</u> Date <u>7/25/01</u>
8. Site Control Section					<u>D. J. Z</u> Date <u>7/25/01</u>
9. Director					<u>R. DeLuca / M. J. J.</u> Date <u>7/25/01</u>

Completion Checklist for Registry Sites

Completed By:
Initials

Date

OWNER NOTIFICATION LETTER?



7-30-01

ADJACENT PROPERTY OWNER NOTIFICATION LETTER?



8-15-01

ENB/LEGAL NOTICE SENT?
(For Deletion Only)



COMMENTS SUMMARIZED/PLACE IN REPOSITORY



FINAL NOTIFICATION SENT TO OWNER?
(For Deletion Only)



SITE INVESTIGATION INFORMATION

1. SITE NAME Armonk Village Wells Armonk Village Wells		2. SITE NUMBER 3-60-005	3. TOWN/CITY/VILLAGE North Castle (T)	4. COUNTY Westchester
5. REGION 3	6. CLASSIFICATION CURRENT [2] PROPOSED [4] MODIFICATION Site boundaries to be redrawn			
7. LOCATION OF SITE (Attach U.S.G.S. Topographic Map showing site location)				
a. Quadrangle: Mt Kisco, Glenville		b. Site Latitude: 41° 07' 34" Site Longitude: 73° 42' 46"		
c. Tax Map Number(s): 2/14/9		d. Site Street Address: Bedford Road, Armonk		
8. BRIEFLY DESCRIBE THE SITE (Attach site map showing disposal/sampling locations)				
Property is located in the village of Armonk, Town of New Castle, Westchester County and consists of two blocks. The property is bordered on the south by Bedford Street, on the west by Main street (Rt. 128), on the north by the shopping center property northern boundary, and on the east by the Wampus River. Maple Avenue bisects the site into a northern and southern section. An active P&T system has been installed in the center of the southern section of the site.				
a. Area <u>10</u> acres b. Completed: () Env. Property Assessment () PSA () SI () ESI (X) IRM () RIFS (X) Construction () O&M () Other _____				
9. HAZARDOUS WASTE DISPOSED (Include EPA Hazardous Waste Numbers)				
Dry cleaning solvents, primarily tetrachloroethylene (Perc or PCE). (F002) - Quantity unknown.				
10. ANALYTICAL DATA AVAILABLE				
a. () Air (X) Groundwater () Surface Water () Sediment () Soil () Waste () Leachate () EPTox () TCLP				
b. Contravention of Standards or Guidance Values: Part 703 GA standard for tetrachloroethylene of 5 ppb (as POC) has been/remains exceeded.				
Ground water and soil.				
11. CONCLUSION				
An IRM was conducted at the three source areas to remove septic systems and associated contaminated soils. Following the IRM environmental sampling indicated that no further action was required in the parcel to the north of Maple Avenue. A soil vapor extraction (SVE) system and a Pump and Treat (P&T) system were installed during 1998 in the southern parcel to remediate contamination remaining in the surficial soils and ground water. These systems were brought online in April of 1998. The SVE was operated for six months and then decommissioned upon achievement of surficial soil remediation goals. Ground water contamination continues to be treated by P&T. The remediation has been/is being conducted in conformance with the ROD and the significant threat posed by disposal of dry cleaning solvents has been removed/controlled.				
The site boundaries shall be redrawn to include only specific parcels within the southern block of the present site. The hazardous waste site will consist of parcels denoted on the official tax map for the Town of North Castle as Section 2, Block 14, Lots 3, 6, 8, 9A and 9. This southern portion of the site will be reclassified from a 2 to a 4. The northern parcel of the site, bordered on the south by Maple Avenue, on the west by Main street (Rt. 128), on the north by the shopping center property boundary, and on the east by the Wampus River should be removed from the site.				
a. Institutional Controls (IC) Required? (X) Y () N b. If yes, identify: deed restrictions c. Are these ICs in place and verified? (X) Y () N				
12. SITE IMPACT DATA				
a. Nearest Surface Water: Distance <u>~100</u> ft		Direction: <u>East</u> Class <u>B</u> Wampus River		
b. Groundwater: Depth <u>15</u> ft.		Flow Direction <u>south-east</u> () Sole Source () Primary () Other High-Yield Aquifer		
c. Water Supply: Distance <u>onsite</u>		Direction _____ Active () Yes (X) No		
d. Nearest Building: Distance <u>on site</u> .		Use: <u>Commercial</u>		
e. Documented fish or wildlife mortality?		() Y (X) N	h. Exposed hazardous waste? () Y (N) N	
f. Impact on special status fish or wildlife resource?		() Y (X) N	i. If proposed Classification is 2, Priority? () 1 () 2 () 3	
g. Controlled Site Access?		() Y (X) N	j. EPA ID# <u>NYD980780696</u> HRS Score _____	
13. SITE OWNER'S NAME William B. Holmes		14. ADDRESS 101 King Street Chappaqua, NY 10514		15. TELEPHONE NUMBER (914) 946-6868
16. PREPARED BY <u>George F. Momberger</u> Env. Eng. DER Signature Date <u>4/2/01</u> Name, Title, Organization		17. APPROVED <u>Robert J. Marand</u> 7/25/01 Signature Date <u>Director BUSE</u> Name, Title, Organization		



STATE OF NEW YORK DEPARTMENT OF HEALTH

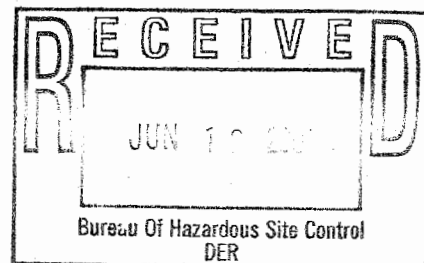
Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

June 13, 2001

Mr. Robert Marino
Bureau of Hazardous Site Control
Division of Environmental Remediation
NYS Department of Environmental Conservation
50 Wolf Rd., Room 218
Albany, NY 12233



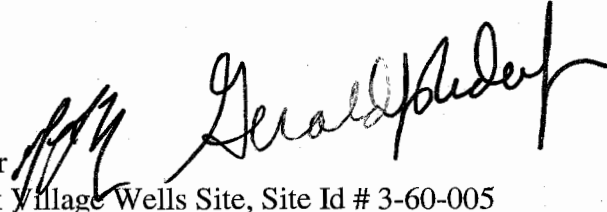
Re: **Classification Package**
Armonk Village Wells
Site ID #360005
North Castle / Westchester County

Dear Mr. Marino:

My staff have reviewed the attached Registry Site Classification Decision form for the above referenced site. From that review, I understand that reclassification of the site from a class 2 to a class 4 is proposed. This action is based on the fact that the significant threat posed by the disposal of hazardous waste has been eliminated by (1) the removal of contaminated septic systems and associated soils, (2) the continued operation of a pump and treat (P&T) system to remediate contaminated ground water, and (3) the installation of a municipal water system providing potable water to all effected residents. The groundwater P&T system installed on the southern parcel will continue to operate and the NYSDEC will continue to monitor the effectiveness of the P&T remediation to assure that the contamination remaining in the groundwater does not migrate into surrounding surface waters or basements. I also understand that the NYSDEC is requesting that the site boundaries be redrawn eliminating the portion of the site to the north of Maple Avenue in its entirety and include only those lots in the southern block where disposal occurred.

The proposed changes will not alter the effectiveness of the ongoing remedy and will continue to be protective of public health. Therefore, based on the available information, I concur with the proposed new boundaries and reclassification. I have indicated my approval on the enclosed Site Investigation Information form.

MEMORANDUM

TO: Jerry Rider
FROM: George Momberger 
SUBJECT: Reclass of Armonk Village Wells Site, Site Id # 3-60-005

DATE: April 16, 2000

Attached you will find the updated reclassification package for the Armonk Village Wells Site, Site Id 3-60-005. I have included the old reclassification package in its entirety and have added the following to complete the reclassification package.

- 1) An up-dated Site Investigation Information Form.
- 2) A map of the site, taken from the ROD, showing with the old site boundaries outlined in green, and the parcels with deed restrictions outlined in red.
- 3) A copy of the tax map, Section 2 - Block 14, from the Town of New Castle showing the lots that will comprise the redefined hazardous waste site. These lots identified as Lot #'s 3, 8, 9, 9A, and 6.
- 4) A copy of the certified Declaration of Covenant and Restrictions provided by the owners of the portion of the site containing the P&T system.

The current owners, Main Street Squares and/or Heritage Squares, of that portion of the Armonk inactive hazardous waste site where the pump and treat system is located have provided a certified copy of the deed restrictions placed on their properties. These properties are noted as lots 3, 8, and 9 of block 14, section 2 of the Town of New Castle Tax maps. I have reviewed the tax maps and lots 3, 8, and 9 are the only properties owned by Main Street Squares and/or Heritage Squares within the Armonk hazardous waste site boundaries.

The actions requested in this reclass are twofold. First, we are proposing to reclassify the site from a Class 2 to a Class 4. This action is based on the fact that the significant threat posed by the disposal of hazardous waste has been eliminated by (1) the removal of contaminated septic systems and associated soils (2) the continued operation of the P&T system to remediate contaminated ground water, and (3) the installation, by EPA, of a municipal water system providing potable water to all effected residents.. Second, we are requesting that the site boundaries will be redrawn to (1) eliminate the portion of the site to the north of Maple Avenue in its entirety, and (2) include only those lots in the southern block where disposal occurred.

These actions are justified by the construction reports documenting that all remedial goals, with the exception of the present P&T operation, have been achieved. The P&T system, including all recovery wells and associated influent and effluent piping is located on the parcels to remain within the hazardous waste site boundaries. The department will continue to monitor the effectiveness of

the P&T remediation to assure that the contamination remaining in the ground water does not migrate into surrounding surface waters or basements. Therefore, the significant threat posed by disposal in this portion of the Armonk Village wells site has been eliminated and the changes proposed will not alter the effectiveness of the ongoing remedy.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation

Inactive Hazardous Waste Disposal Report

Site Name: Armonk Private Wells		Site Code: 360005	
Class Code: 4	Region: 3	County: Westchester	EPA Id: NYD980780696
Address: Vicinity of Maple Ave. Main St. & Bedford		City: North Castle	Zip:
Latitude: 41 7' 34"	Longitude: 73 42' 46"		
Site Type: Dump		Estimated Size: 10	Acres

Site Owner / Operator Information:	
Current Owner(s) Name:	*** Multiple Site Owners ***
Current Owner(s) Address:	
Owner(s) during disposal:	*** Multiple Site Owners ***
Operator(s) during disposal:	
Stated Operator(s) Address:	
Hazardous Waste Disposal Period:	From pre 1979 To unknown

Site Description:

The Armonk Private Wells site consists of private or non-community water supply wells which were contaminated by volatile organic chemicals, particularly tetrachloroethene (PCE). Approximately 17 wells were affected. Several distinct sources of contamination were identified. These were dry-cleaning establishments in the village with septic systems. The March 1990 Record of Decision (ROD) called for (1) Removal and off site treatment of liquid wastes and sludges from septic tank(s) and removal and off-site disposal of septic tank materials; (2) Soil/gas collection by vacuum extraction with on-site treatment of extracted gases using carbon absorption; (3) Municipal water supply (completed by USEPA); (4) Groundwater restoration by pumping and on-site treatment using carbon absorption; (5) Monitoring of soil gas, groundwater and Wampus River pending completion of the remedial objectives. The final phase of the remedial work was the groundwater pump and treat system which became operational in 1998 and continues to function today. This system will continue to operate until groundwater standards are attained or until the system is unable to make any improvement in water quality. The remediation has been conducted in conformance with the ROD and the significant threat posed by the disposal of dry cleaning solvents has been either removed or controlled. The hazardous waste site will consist of parcels denoted on the official tax map for the Town of North Castle as, Section 2, Block 14, Lots 3, 6, 8, 9A and 9. This, the southern portion of the site will be reclassified to Class 4. The northern portion of the site, bordered on the south by Maple Avenue, on the west by Main Street (Rt. 128), on the north by the shopping center property boundary, and on the east by the Wampus River has been removed from the site.

Confirmed Hazardous Waste Disposal:

Tetrachloroethene (PCE) (F002)

Quantity:

unknown

Analytical Data Available for:	Groundwater	Soil	
Applicable Standards Exceeded in:	Groundwater	Drinking Water	Surface Water
Geotechnical Information:	Depth to		
Soil/Rock Type: Silt, sand, gravel and clay.	Groundwater: Range: 10 to 15 feet.		

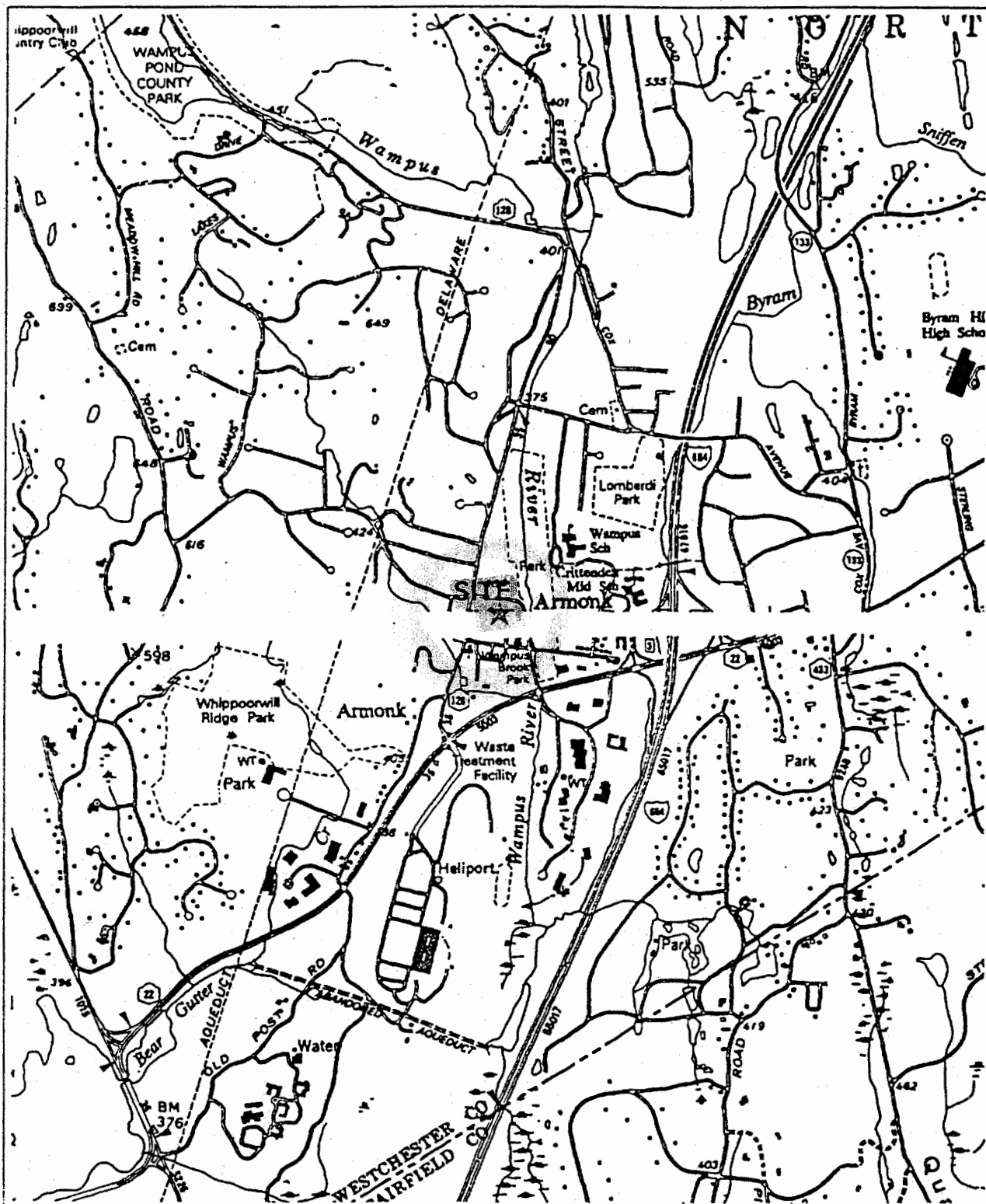
Legal Action: Type:	Status:
Remedial Action: Complete	Nature of action: Groundwater pump & treat system.

Assessment of Environmental Problems:

The remediation has been conducted in conformance with the ROD, and the significant threat posed by the disposal of dry cleaning solvents has been removed or controlled.

Assessment of Health Problems:

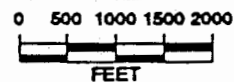
The primary route of exposure at the site was the use of contaminated groundwater for both commercial and residential water supplies. Drinking water at sixty-eight homes was sampled between 1979 and 1987. Eight affected residences were originally supplied with bottled water or granular activated carbon filter units to remove the volatile organic compound contamination. A community drinking water supply system was installed to provide water to the affected homes. Volatile contaminants were detected at high levels in soil gas around several buildings. However, in 1989, indoor air was sampled in basements and no volatile organic compounds were detected. Contaminated groundwater has apparently reached the nearby Wampus River. The low levels of contaminants in the stream dissipate very quickly and are not expected to create adverse impacts. A groundwater pump and treat system installed in 1998 is reducing the level of contaminants in the groundwater.



Site Location Map

360005 Armonk Private Wells

NYSDOT Planimetric Quadrangle(s):
MOUNT KISCO, GLENVILLE



Scale 1:24,000

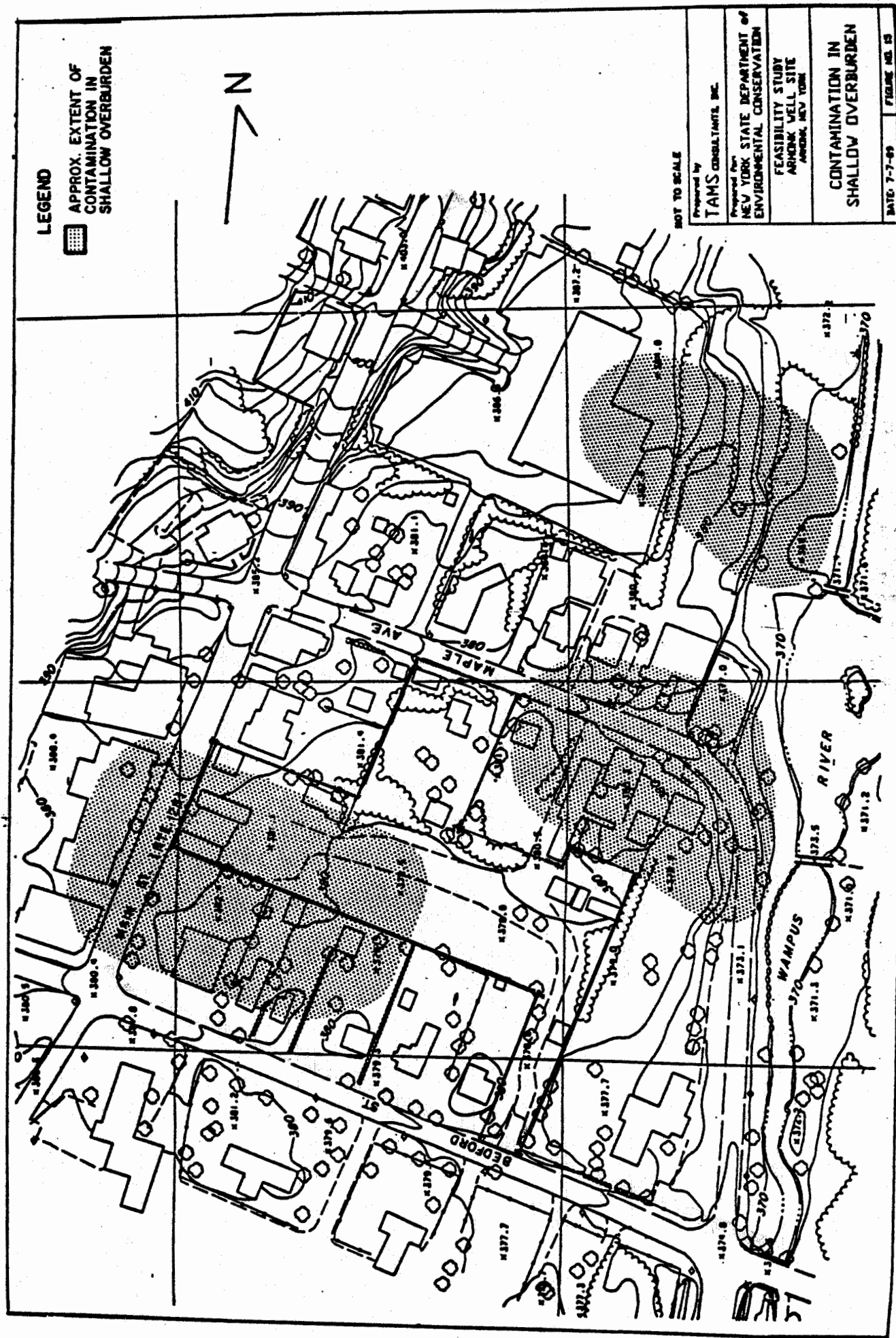
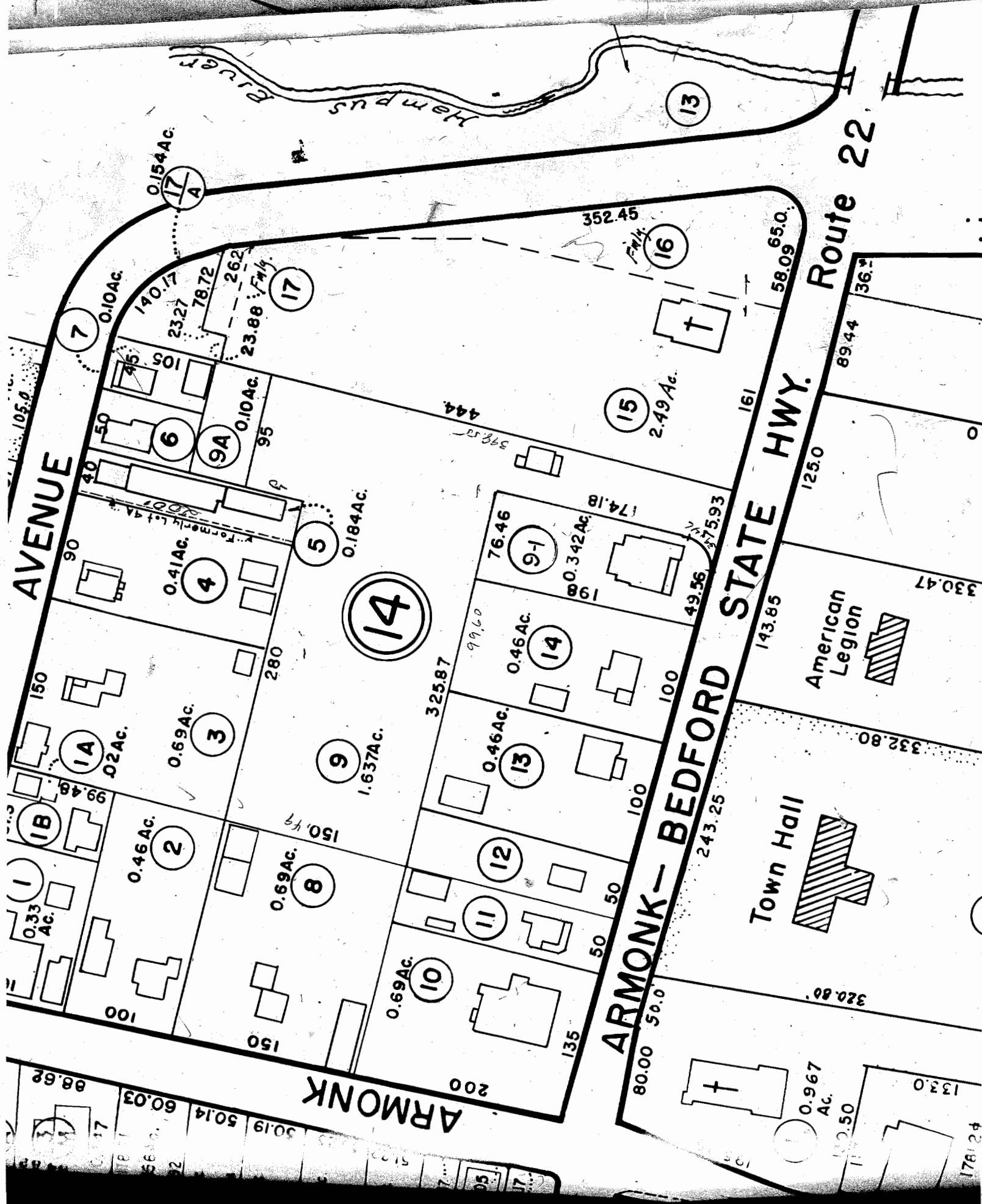


FIGURE 2 - APPROXIMATE EXTENT OF SHALLOW OVERBURDEN CONTAMINATION

— deed restriction

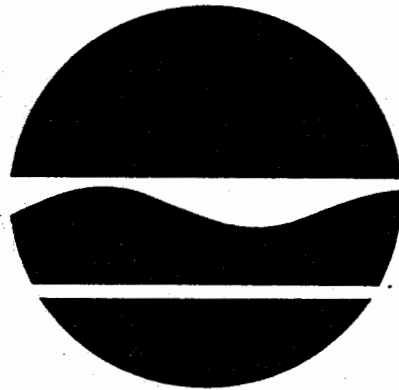


Armonk Private Wells Site

Westchester County, New York

Site Number 3-60-005

New York State Superfund Record of Decision



March 1990

PREPARED BY:

NEW YORK STATE

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

50 Wolf Road, Albany, New York 12233

THOMAS C. JORLING, *Commissioner*

DECLARATION FOR THE RECORD OF DECISION

SITE NAME AND LOCATION

Armonk Private Well Site, Hamlet of Armonk, Town of North Castle, New York.

STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedial action for the Armonk Private Well Site, developed in accordance with the New York State Environmental Conservation Law (ECL), and is consistent with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 USC Section 9601, et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA).

Appendix A of this record lists the documents that comprise the Administrative Record for the Armonk Site. The documents in the Administrative Record are the basis for the selected remedial action.

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this Record of Decision, present a current or potential threat to public health, welfare, or the environment.

DESCRIPTION OF THE SELECTED REMEDY

The major components of the selected remedy can be summarized as follows:

- Removal and off-site treatment of liquid wastes and sludges from septic tank(s) and removal and off-site disposal of septic tank materials.
- Soil/gas collection by vacuum extraction with on-site treatment of extracted gases using carbon adsorption.
- Provision for a municipal water supply. This remedial response is already in progress by USEPA.
- Groundwater restoration by pumping and on-site treatment using carbon adsorption.
- Monitoring of soil/gas, groundwater and the Wampus River pending completion of the remedial objectives.

DECLARATION

The selected remedy is designed to be protective of human health and the environment, is designed to comply with applicable State environmental quality standards and is cost effective. This remedy satisfies the Department's preference for treatment that reduces the toxicity, mobility or volume of hazardous substances, pollutants or contaminants as the principal goal.

3/26/90
Date



Edward O. Sullivan
Deputy Commissioner
Office of Environmental Remediation

CONSTRUCTION CERTIFICATION REPORT

**ARMONK PRIVATE WELLS SITE
SITE 3-60-005**

WORK ASSIGNMENT No. D003060-15

Prepared for:



New York State Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233-7010

Prepared by:

TAMS Consultants, Inc.
The TAMS Building
655 Third Avenue
New York, NY 10017

January 25, 1999

EXECUTIVE SUMMARY

The objective of this construction certification report is to document the work activities pertaining to the remediation of the Armonk Private Wells Site, in Armonk, New York. The New York State Department of Environmental Protection (NYSDEC) contracted TAMS Consultants, Inc. (TAMS) to provide engineering and construction management services during remediation.

In 1979, the Westchester County Health Department discovered solvents in the Armonk groundwater near dry cleaning establishments. Various agencies conducted soil and groundwater testing on-site to define the nature and extent of contamination. A record of decision (ROD) was signed in 1990 to address the contamination on-site. The major components of the selected remedy were as follows: removal of the septic tanks; provision for a municipal water supply; groundwater restoration by pumping and on-site treatment using carbon adsorption; and continued monitoring. The septic tank contents were removed in 1991 and the municipal water supply was completed in 1992. Additional investigations were performed on-site to better characterize the aquifer. In 1995 a conceptual design was prepared by TAMS that consisted of a pump and treat system with three groundwater extraction wells, a carbon adsorption treatment unit, and discharge of treated water to the Wampus River. This conceptual design was approved by NYSDCE. Based on this conceptual design, TAMS subsequently performed the remedial design to address the groundwater contamination at this site.

TAMS prepared the contract documents for NYSDCE. Subsequently, NYSDCE publicly bid the contract and awarded the remediation contract to the low bidder, EnviroTrac, Ltd. (ET), Deer Park, New York. The Notice to Proceed was issued by NYSDCE on September 8, 1997.

Work completed by EnviroTrac included:

- Clearing and grubbing the site;
- Installation of two extraction wells and modification of a third extraction well;
- Construction of a water treatment building;
- Installation of extraction well pumps, sensors and controls;
- Water treatment system construction;
- Verification sampling and analysis;
- Modification of two existing monitoring wells and abandonment of six others;
- Site restoration; and
- Six months of operation and maintenance.

ET began work on-site on September 19, 1997 and was substantially complete by April 8, 1998. The six-month operation and maintenance period was from April 9, 1998 to October 9, 1998. A final inspection was conducted on October 15, 1998 and a punchlist of remaining work items was generated, which ET completed. In general, the work performed by the contractor was in conformance with the contract documents issued by NYSDCE.

1.0 INTRODUCTION

1.1 Scope of Report

The objective of this construction certification report is to document the work activities pertaining to the construction of an on-site groundwater recovery and treatment system at the Armonk Private Wells Site (Site No. 3-60-005) in conformance with the New York State Department of Environmental Conservation (NYSDEC) contract documents, dated December 1996. The NYSDEC contracted TAMS Consultants, Inc. (TAMS) to provide engineering and construction management services during construction. EnviroTrac, Inc. (ET) was contracted by NYSDEC to construct the various components of the remedial treatment system.

1.2 Background Information

The Armonk Private Wells Site (AWS) is approximately 34 acres in size and is located in the central business district of the Hamlet of Armonk, Town of North Castle, Westchester County, New York. The site is bounded by the Wampus River to the east, Bedford Road to the south, Route 128 (Main Street) to the west, and the northern end of the A&P Shopping Center to the north. The site is comprised of approximately 55 private homes and 13 small businesses. Refer to Figures 1 and 2 for the Site Location Map and the Site Map, respectively.

The geology at the site generally consists of a gneissic bedrock overlain by glacial sands. The bedrock surface, encountered at depths from approximately 10 feet to greater than 125 feet, slopes from the north-northwest to the south-southeast. The overburden soils generally consist of sand with varying amounts of silts and gravels.

Based on water table contours developed from water level measurements taken during the RI, the groundwater flow at the AWS is approximately from northwest to southeast in the shallow overburden for most areas of the site. However, in the bedrock/deep overburden in the middle of the site, the groundwater flow appears to be from west to east. It appears that there is a layer of clayey silt and a layer of sand and silt overlying the bedrock to the south-southeast of the site. Also, there is a layer of silt overlying the bedrock to the north of the site. Laterally between the above-mentioned units, the bedrock is overlain by a layer of sand and gravel from west to east. It appears from the contaminant migration pattern observed from the supply well data collected during the RI that the groundwater flow in the bedrock/deep overburden is predominantly through the sand and gravel formation, from west to east.

In 1978, the Westchester County Health Department (WCHD) initiated a study in Westchester County to evaluate groundwater quality in the vicinity of historic and current dry cleaning establishments. As part of this study, the WCHD sampled and analyzed 36 water supply wells at the

AWS in March 1979. Samples from nine of these wells contained halogenated alkene solvents at concentrations in excess of the New York State Department of Health (NYSDOH) standards. The primary contaminants detected in these wells were tetrachloroethene (perchloroethene, (PCE)), trichloroethene (TCE), and cis-1,2-dichloroethene (DCE).

Since the initial WCHD sampling event in March 1979, approximately 68 separate private and commercial water supply wells in the Armonk area have been sampled and tested by the WCHD and the United States Environmental Protection Agency, Region II Technical Assistance Team (USEPA-TAT). From March 1979 through April 1987, more than 350 samples were collected and analyzed. In samples from 50 of the 68 water supply wells sampled, TCE and PCE were detected at concentrations exceeding the NYSDOH standards. Contaminants were not detected in samples collected from the remaining 18 wells sampled.

Wehran Engineering, P.C. (Wehran) completed a NYSDEC Phase I Investigation of the AWS in June 1983 and a NYSDEC Phase II Investigation of the site in June 1985. The Phase I study identified several supply wells as being contaminated with halogenated compounds and concluded that the site posed a potential health threat to the surrounding population. The Phase II study developed a hazard ranking system score (HRS) for the AWS; the migration score (Sm) was determined to be 37.9, reflecting the potential for harm to humans and the environment due to migration of groundwater and surface water.

In 1987, the NYSDEC retained TAMS Consultants, Inc. (TAMS) and its subconsultant, Goldberg-Zoino Associates of New York, P.C. (GZA) to conduct a Remedial Investigation/Feasibility Study (RI/FS) of the AWS. The RI identified three sources of contamination. Source No. 1 is a former dry cleaning establishment (396 Limited) located at 400 Main Street. This facility was in operation from 1974 through 1979. Based upon conversations with the Armonk Building Inspector, the former septic tank and leach field for this facility discharged at a location approximately 10 to 30 feet southeast of the building. Conversations with Armonk residents revealed that the former operator of the dry cleaning shop temporarily stored the spent solvent in a tank and may have discarded the contents of the tank behind the building.

Source No. 2 is a former dry cleaning establishment (Country Cleaners) located on Maple Avenue. Prior to 1984, this facility discharged wastes through a private septic system which included several leach lines inside the fenced area behind the building. In 1984, the facility was connected to the town sanitary sewer system. The former septic system was sampled during the RI and high levels of PCE, TCE, and DCE were detected. While the owner purchased the building in 1956, the date of commencement of the dry cleaning business is not known. The building is currently occupied by a curio shop.

Source No. 3 is a dry cleaning establishment (Cleaning by Frederick's) located at the A&P Shopping Center which was built in 1967. Prior to connection to the town sanitary sewer system in 1984,

wastes were discharged into a leach field behind the facility.

Data obtained during the previous investigations and the RI indicated that there is contamination in the vadose zone; and saturated overburden and bedrock aquifers.

In March 1990, the NYSDEC issued a Record of Decision (ROD) for the AWS. The ROD presented the remedial actions selected by the NYSDEC as being the most appropriate for the site based on findings of the RI/FS. The major components of the selected remedy are as follows:

- Removal and off-site treatment of liquid wastes and sludges from septic tank(s) and removal and off-site disposal of septic tank materials;
- Soil gas collection by vacuum extraction with on-site treatment of extracted gases using carbon adsorption;
- Provision for a municipal water supply;
- Groundwater restoration by pumping and on-site treatment using carbon adsorption; and
- Monitoring of soil gas, groundwater, and the Wampus River pending completion of the remedial objectives.

Since the signing of the ROD, a number of response actions and investigations have been performed at the site. In 1990, the NYSDEC tasked Dunn Geoscience Corporation and TAMS, as its subcontractor, to address the septic tank behind the former Country Cleaners facility (Source No. 2). In March 1991, the contents of the tank were removed and drummed and the tank was cleaned, broken up, and left in place. In 1992, the USEPA completed a municipal water supply system as a remedial response for the site. All residences and businesses were connected to the system. The USEPA has also conducted additional soil gas and groundwater monitoring since 1992.

In 1995, TAMS completed Design Support Testing to fill gaps in the data necessary for the remedial design. Activities performed during that program included a source investigation, well installation, groundwater sampling, and a 48-hour pumping test. Subsequently, TAMS performed a conceptual design for groundwater remediation at this site. The conceptual design consisted of a pump and treat system with three groundwater extraction wells, a carbon adsorption treatment unit, and discharge of treated water to the Wampus River.

1.3 Remedial Design and Contractor Procurement

The NYSDEC contracted TAMS to provide engineering and construction management services during implementation of the remedial action for this site. These services were provided under the State Superfund Standby Program Work Assignment Nos. D003060-1 and D003060-15. TAMS designed the groundwater remediation system and prepared design drawings, technical specifications and a design report for the Armonk Wells Site. NYSDEC issued the contract documents for groundwater remediation during January 1998. The bid opening was held on January 21, 1997. A summary of the bids that were received and the engineer's estimate is presented in Table 1 - Bid Tabulation Sheet. On January 27, 1997, NYSDEC informed ET that they were the apparent low bidder.

1.4 Construction

A Notice to Proceed was issued to ET on September 8, 1997 to begin work on-site. The project team consisted of the NYSDEC, who acted as the owner of the project site during construction, TAMS, who provided engineering and construction management services and ET who served as the construction contractor who performed the work on-site. The staffing and responsibilities of each party are presented in the following paragraphs.

1.4.1 NYSDEC Staff

The construction work activities at the AWS were under the New York State Standby Superfund Contract, which is managed by the NYSDEC. Mr. Robert Knizek, PE was the NYSDEC authorized representative to execute the contract.

Mr. Dan Evans served as the NYSDEC project manager from the commencement of the project until February 3, 1998 and Mr. Joseph Yavonditte, PE served as the NYSDEC project manager from February 3, 1998 until the completion of the project. As the project manager, both made final decisions on acceptability of the work based on information and recommendations provided by TAMS. The project managers' responsibilities included seeing that the project proceeded satisfactorily according to the NYSDEC interests and keeping key personnel informed of work progress. Both also interacted with TAMS throughout the duration of the project, inspected the project site on a bimonthly basis, and attended progress meetings.

1.4.2 TAMS Staff

TAMS provided engineering and construction management services throughout the duration of the project. Mr. Mike Thiagaram, PE served as the TAMS' project manager and as a liaison between the NYSDEC and the General Contractor. He was responsible for maintaining the work schedule

and providing guidance to the TAMS resident inspectors.

Mr. John Egan, Mr. Muhammad Akbar, Ms. Pamela Pierce and Mr. Richard B. Reiss were the TAMS resident inspectors throughout the duration of the project. The resident inspector was responsible for providing full time inspection of construction activities at the project site and verifying construction procedures were performed in accordance with the approved contract documents. Other duties of the TAMS resident inspector included completion of daily field reports, change order tracking while maintaining written and photographic records (Appendix A) of work completed during construction.

1.4.3 EnviroTrac Staff

ET was the general contractor throughout the duration of the project. Mr. Ted Masters served as ET's project manager throughout the duration of the project. Mr. Masters was responsible for coordinating work activities with subcontractors and TAMS. Both Mr. Ted Masters and Mr. Dale Konas served as the on-site superintendent during the project period. ET established temporary services and facilities; ordered supplies and equipment; provided health and safety monitoring; constructed the treatment building and installed the carbon treatment system. Several other aspects of the contract were subcontracted to other firms. Table 2 presents a list of subcontractors hired by ET during the construction, along with their major responsibilities.

3.0 CONSTRUCTION CERTIFICATE**CONTAMINATED GROUNDWATER REMEDIATION AT
ARMONK PRIVATE WELLS SITE, SITE NO. 3-60-005, ARMONK, NEW YORK**

Remedial construction was completed in accordance with the Contract Documents, prepared by TAMS Consultants, Inc., entitled "Groundwater Remediation, Final Technical Specifications, Armonk Private Wells Site, Site No. 3-60-005, December 10, 1996" (TAMS/NYSDEC Superfund Standby Contract Work Assignment No. D003060-1) and as outlined in this Construction Certification Report.

PE STAMP

Signature: _____
TAMS Consultants, Inc.

Date: _____

DECLARATION of COVENANTS and RESTRICTIONS15P
NOC.

THIS COVENANT, made the 12 day of February 2001, by Main Street Squares, Heritage Squares and Maple Avenue Squares ("Owners"), partnerships organized and existing under the laws of the State of New York and having an office for the transaction of business at 101 King Street, Chappaqua, New York:

WHEREAS, Main Street Squares, Heritage Squares and Maple Avenue Squares are the owners ("Owners") in fee simple of real property located in the interior block formed by Main Street, Bedford Road and Maple Avenue in the Hamlet of Armonk, Town of North Castle, County of Westchester, State of New York, denoted on the Tax Map of the Town of North Castle as Section 2, Block 14, Lots 3, 8 and 9 (the "Property") and as described in the deeds attached hereto as Exhibit "A" and made a part hereof; and

WHEREAS, the Armonk Private Wells Site ("Site"), Site Number 3-60-005, located in the central business district of the Hamlet of Armonk, Town of North Castle, County of Westchester, State of New York, bounded by the Wampus River to the east, Bedford Road to the south, Route 128 (Main Street) to the west and the northern end of the A&P Shopping Center to the north, is an inactive hazardous waste disposal site subject to a remedial program pursuant to the Environmental Conservation Law ("ECL") Article 27 and New York State Superfund Record of Decision ("ROD") dated March, 1990; and

WHEREAS, the Department set forth a remedy to eliminate or mitigate all significant threats to the environment presented by hazardous waste disposed at the Site in the ROD and the remedy has been implemented with the exception of operation, maintenance and monitoring of the remedial program ("OM&M") consisting of a pump and treat groundwater remediation system which requires access by the Department.

NOW, THEREFORE, the Owners, for themselves and their successors and/or assigns, covenant that:

First, the Site shown on the map attached to this declaration as Exhibit "B" and made a part hereof, consisting of the area located in the central business district of the Hamlet of Armonk, Town of North Castle, County of Westchester, State of New York, bounded by the Wampus River to the east, Bedford Road to the south, Route 128 (Main Street) to the west and the northern end of the A&P Shopping Center to the north, is an inactive hazardous waste disposal site subject to a remedial program pursuant to the Environmental Conservation Law ("ECL") Article 27 and New York State Superfund Record of Decision dated March, 1990.

Second, unless prior written approval by the New York State Department of Environmental Conservation and the New York State Department of Health, or any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, all hereinafter referred to as "the Relevant Agencies", is first obtained, there shall be no

installation of wells on the Site and/or use of the groundwater on or from the Site.

Third, that the Owners of the Site and their successors in interest are bound by law to permit the State access to the Site to implement the ROD providing for a pump and treat groundwater remediation system on the Site and for such inspections, monitoring and maintenance as may be required relative to the implementation of the ROD.

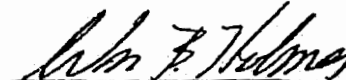
Fourth, this Declaration of Covenants and Restrictions is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Site.

Fifth, any deed of conveyance of the Site or any portion thereof shall recite that the said conveyance is subject to this Declaration of Covenants and Restrictions.

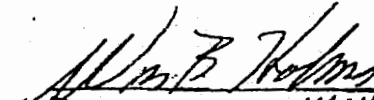
Sixth, that this Declaration of Covenants and Restrictions shall inure to the benefit of the People of the State of New York and shall be enforceable by the Commissioner of the Department of Environmental Conservation or by a successor officer on their behalf.

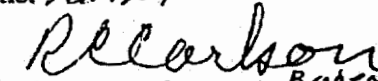
IN WITNESS WHEREOF, the undersigned has executed this instrument the day written below.

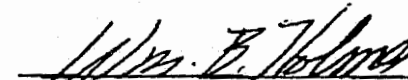
Main Street Squares

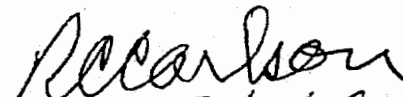

By: William B. Holmes
Title: Partner


Heritage Squares Robert Carlson


By: William B. Holmes
Title: Partner


Maple Avenue Squares Robert Carlson


By: William B. Holmes
Title: Partner


Robert Carlson

State of New York)

) ss.:

County of)

On the 6th day of February in the year 2001, before me, the undersigned, personally appeared William B. Holmes personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

URSULA DIRESTA
NOTARY PUBLIC STATE OF NEW YORK
NO. 01DI8034143
QUALIFIED IN WESTCHESTER COUNTY
COMMISSION EXPIRES 12-6-01

Ursula DiResta
Signature and Office of Individual
Taking Acknowledgement

R2R

Wm B. Holmes
101 King St.
Chappaque
N.Y 10514

A. Sylvester

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Hazardous Site Control, 11th Floor
625 Broadway, Albany, New York 12233-7014
Phone: (518) 402-9553 • FAX: (518) 402-9577
Website: www.dec.state.ny.us



AUG 15 2001

This letter was sent to the people on the attached list.

Dear :

The Department of Environmental Conservation (DEC) maintains a Registry of sites where hazardous waste disposal has occurred. Property located at the vicinity of Maple Avenue, Main Street and Bedford Road in the Town of North Castle and County of Westchester and designated as Tax Map Numbers 2-14-3, 2-14-6, 2-14-8, 2-14-9 and 2-14-9A was recently reclassified as a Class 4 in the Registry. The name and site I.D. number of this property as listed in the Registry is Armonk Private Wells, Site #360005.

The Classification Code 4 indicates that the site is properly closed -- requires continued management.

We are sending this letter to you and others who own property near the site listed above, as well as the county and town clerks. We are notifying you about these activities at this site because we believe it is important to keep you informed.

If you currently are renting or leasing your property to someone else, please share this information with them. If you no longer own the property to which this letter was sent, please provide this information to the new owner and provide this office with the name and address of the new owner so that we can correct our records.

The reason for this recent classification decision is as follows:

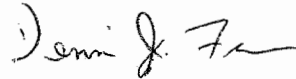
- An Interim Remedial Measure (IRM) was conducted at the three source areas to remove septic systems and associated contaminated soils. Following the IRM, environmental sampling indicated that no further action was required in the parcel to the north of Maple Avenue. A soil vapor extraction (SVE) system and a Pump and Treat (P&T) system were installed during 1998 in the southern parcel in order to remediate contamination remaining in the surficial soils and groundwater. These systems were brought online in April of 1998. The SVE was operated for six months and then decommissioned upon

achievement of surficial soil remediation goals. Groundwater contamination continues to be treated by P&T. The remediation has been and is being conducted in conformance with the Record of Decision (ROD) and the significant threat posed by disposal of dry cleaning solvents has been removed/controlled.

The site boundaries shall be redrawn to include only specific parcels within the southern block of the present site. The hazardous waste site will consist of parcels denoted on the official tax map for the Town of North Castle as Section 2, Block 14, Lots 3, 6, 8, 9A and 9. This southern portion of the site will be reclassified from a 2 to a 4. The northern parcel of the site, bordered on the south by Maple Avenue, on the west by Main Street (Rt. 128), on the north by the shopping center property boundary, and on the east by the Wampus River should be removed from the site.

If you have questions, need additional information, or have information which you believe would be useful to us, please call the Department of Environmental Conservation's toll-free number: **1(800)342-9296**. The Department of Health maintains a Health Liaison Program (HeLP) toll-free number: **1(800)458-1158 Ext. 2-7530**.

Sincerely,



Dennis J. Farrar
Chief
Site Control Section

bcc: D. Farrar
J. Swartwout
R. Pergadia, R/3
M. Duke, R/3
M. Knipfing, R/3
A. Sylvester
G. Litwin
L. Ennist

AS/srh

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Hazardous Site Control, 11th Floor
625 Broadway, Albany, New York 12233-7014
Phone: (518) 402-9553 • FAX: (518) 402-9577
Website: www.dec.state.ny.us



JUL 30 2001

This letter was sent to the people on the attached list.

Dear:

As mandated by Section 27-1305 of the Environmental Conservation Law (ECL), the New York State Department of Environmental Conservation (NYSDEC) must maintain a Registry of all inactive disposal sites suspected or known to contain hazardous waste. The ECL also mandates that this Department notify the owner of all or any part of each site or area included in the Registry of Inactive Hazardous Waste Disposal Sites as to changes in site classification.

Our records indicate that you are the owner or part owner of the site listed below. Therefore, this letter constitutes notification of change in the classification of such site in the Registry of Inactive Hazardous Waste Disposal Sites in New York State.

DEC Site No.: 360005

Site Name: Armonk Private Wells

Site Address: Vicinity of Maple Avenue, Main Street and Bedford Road, North Castle, NY 10504

Classification change from 2 to 4

The reason for the change is as follows:

- An Interim Remedial Measure (IRM) was conducted at the three source areas to remove septic systems and associated contaminated soils. Following the IRM, environmental sampling indicated that no further action was required in the parcel to the north of Maple Avenue. A soil vapor extraction (SVE) system and a Pump and Treat (P&T) system were installed during 1998 in the southern parcel in order to remediate contamination remaining in the surficial soils and groundwater. These systems were brought online in April of 1998. The SVE was operated for six months and then decommissioned upon achievement of surficial soil remediation goals. Groundwater contamination continues to be treated by P&T. The remediation has been and is being conducted in conformance with the Record of Decision (ROD) and the significant threat posed by disposal of dry cleaning solvents has been removed/controlled.

The site boundaries shall be redrawn to include only specific parcels within the southern block of the present site. The hazardous waste site will consist of parcels denoted on the official tax map for the Town of North Castle as Section 2, Block 14, Lots 3, 6, 8, 9A and 9. This southern portion of the site will be reclassified from a 2 to a 4. The northern parcel of the site, bordered on the south by Maple Avenue, on the west by Main Street (Rt. 128), on the north by the shopping center property boundary, and on the east by the Wampus River should be removed from the site.

Enclosed is a copy of the New York State Department of Environmental Conservation, Division of Environmental Remediation, Inactive Hazardous Waste Disposal Site Report form as it appears in the Registry and Annual Report, and an explanation of the site classifications. The Law allows the owner and/or operator of a site listed in the Registry to petition the Commissioner of the New York State Department of Environmental Conservation for deletion of such site, modification of site classification, or modification of any information regarding such site, by submitting a written statement setting forth the grounds of the petition. Such petition may be addressed to:

Erin M. Crotty
Commissioner
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-1010

For additional information, please contact me at (518) 402-9553.

Sincerely,



Dennis J. Farrar
Chief
Site Control Section

Enclosures

bcc: R. Marino
D. Farrar
J. Swartwout
~~A. Sylvester~~

w/Enc. (Copy of Site Report form only)

A. Grant
G. Litwin, DOH
S. Ervolina
J. Kennedy, R/3
M. Duke, R/3
R. Pergadia, R/3