

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

314059

ADDITIONS/CHANGES TO REGISTRY: SUMMARY OF APPROVALS

SITE NAME: HAVILAND COMPLEX & HAVILAND ROAD DEC I.D. NUMBER 314059

Current Classification CL 2 Volunteer Yes No
 Sign (7) below

Activity: Add as Class Reclassify to 4 Delist Category Modify

Approvals:

- | | | | | | | |
|----------------------------------------------------------|-----|-------------------------------------|---------------|----|--------------------------|---------------------|
| 1. Regional Hazardous Waste Engineer | Yes | <input type="checkbox"/> | K-ROD RECLASS | No | <input type="checkbox"/> | _____ |
| 2. BEEI of NYSDOH | Yes | <input type="checkbox"/> | | No | <input type="checkbox"/> | _____ |
| 3. DEE | Yes | <input type="checkbox"/> | | No | <input type="checkbox"/> | _____ |
| 4. _____ Remediation Action
Bureau Director [Class 2] | Yes | <input type="checkbox"/> | | No | <input type="checkbox"/> | _____ |
| 5. BHSC - Investigation Section | Yes | <input type="checkbox"/> | | No | <input type="checkbox"/> | _____ |
| 6. BHSC - O&M Section [Class 4] | Yes | <input checked="" type="checkbox"/> | | No | <input type="checkbox"/> | _____ |
| 7. BPM - Brownfield & Voluntary Cleanup Section | | | | | <u>n/a</u> | Date _____ |
| 8. Site Control Section | | | | | <u>Reid / Marino</u> | Date <u>5/7/98</u> |
| 9. Director | | | | | <u>John St. Amant</u> | Date <u>5/11/98</u> |

Completion Checklist for Registry Sites

Completed By:

- | | | Initials | Date |
|----------------------------------------------------------|-------------------------------------|----------|----------------|
| OWNER NOTIFICATION LETTER? | <input checked="" type="checkbox"/> | _____ | <u>6/1/98</u> |
| ADJACENT PROPERTY OWNER NOTIFICATION LETTER? | <input checked="" type="checkbox"/> | _____ | <u>6/16/98</u> |
| ENB/LEGAL NOTICE SENT?
(For Deletion Only) | <input type="checkbox"/> | _____ | _____ |
| COMMENTS SUMMARIZED/PLACE IN REPOSITORY | <input type="checkbox"/> | _____ | _____ |
| FINAL NOTIFICATION SENT TO OWNER?
(For Deletion Only) | <input type="checkbox"/> | _____ | _____ |



SITE INVESTIGATION INFORMATION

1. SITE NAME Haviland Complex and Haviland Rd.		2. SITE NUMBER 3-14-059	3. TOWN/CITY/VILLAGE Hyde Park	4. COUNTY Dutchess
5. REGION 3	6. CLASSIFICATION CURRENT 2 PROPOSED 4 MODIFY X			
7. LOCATION OF SITE (Attach U.S.G.S. Topographic Map showing site location) a. Quadrangle Hyde Park b. Site Latitude <u>41° 46' 24"</u> Site Longitude <u>73° 54' 25"</u> c. Tax Map Numbers Town of Hyde Park, Section 6164, Lot 2, Block 56, 57 & 61 d. Site Street Address Rt. 9-G & Haviland Rd.				
B. BRIEFLY DESCRIBE THE SITE (Attach site plan showing disposal/sampling locations) Haviland is a rural area in Central Hyde Park. The Dutchess County Department of Health conducted a survey of homeowner wells after a local complaint. Later sampling indicated volatile organic contamination of Haviland complex wells and seven homeowners wells. a. Area <u>7</u> acres b. EPA ID Number <u>NYD980785661</u> c. Completed ()Phase I ()Phase II ()PSA (X)RI/FS ()PA/SI (X)Other RD/RA				
9. Hazardous Waste Disposed (Include EPA Hazardous Waste Numbers) Tetrachloroethylene (F001, F002) cis & trans - 1,2-dichloroethene (F001) Chlorobenzene (F002)				
10. ANALYTICAL DATA AVAILABLE a. ()Air (X)Groundwater (X)Surface Water (X)Sediment (X)Soil ()Waste ()Leachate ()EPTox ()TCLP b. Contravention of Standards or Guidance Values Groundwater Standards for chlorobenzene, tetrachloroethylene and dichloroethene (5ppb) are being violated.				
11. CONCLUSION The groundwater contamination source removal (pumping out four contaminated septic tanks and one leach field) has been completed. Contaminant levels slightly above groundwater standards but are significantly lower levels than the RI data. Therefore, the significant threat has been diminished and a groundwater treatment system is no longer necessary. Individual carbon filters are installed on seven (7) homeowners wells. Water samples are analyzed quarterly to monitor the groundwater well contamination.				
12. SITE IMPACT DATA				
a. Nearest Surface Water: Distance <u>200ft.</u>		Direction <u>South</u>	Classification <u>Class C - Fall Kill</u>	
b. Nearest Groundwater: Depth <u>15ft.</u>		Flow Direction <u>SE</u>	()Sole Source ()Primary (X)Principal	
c. Nearest Water Supply: Distance <u>0ft.</u>		Direction <u>N/A</u>	Active (X)Yes ()No on carbon filters	
d. Nearest Building: Distance <u>250ft.</u>		Direction <u>North</u>	Use <u>School</u>	
e. In State Economic Development Zone?		()Y (X)N	i. Controlled Site Access? ()Y (X)N	
f. Crops or livestock on site?		()Y (X)N	j. Exposed hazardous waste? ()Y (X)N	
g. Documented fish or wildlife mortality?		()Y (X)N	k. HRS Score N/A	
h. Impact on special status fish or wildlife resource?		()Y (X)N	l. For Class 2: Priority Category <u>II</u>	
13. SITE OWNER'S NAME Steven Roberts		14. ADDRESS 32 Altman Lane, Katonah, NY 10536		15. TELEPHONE NUMBER (914) 232-0854 & (914) 232-4564
16. PREPARER <i>John Grathwol</i> Signature Date <u>3/25/97</u> John Grathwol, Environmental Engineer 1, NYSDEC Name, Title, Organization		17. APPROVED <i>Earl H. Barcomb</i> ^{for} <i>R/M</i> Signature Date Earl H. Barcomb, Director, BHSC, DER Name, Title, Organization		

ANALYTICAL DATA AVAILABLE:

Air- Surface Water-X Groundwater-X Soil-X Sediment-X

CONTRAVENTION OF STANDARDS:

Groundwater-X Drinking Water-X Surface Water- Air-

LEGAL ACTION:

TYPE.: State- Federal-
STATUS: Negotiation in Progress- Order Signed-

REMEDIAL ACTION:

Proposed- Under design- In Progress- Completed-X
NATURE OF ACTION: Source removal, IRM

GEOTECHNICAL INFORMATION:

SOIL TYPE: Top soil & gravel to rock at varying depths
GROUNDWATER DEPTH: Approximately 15 feet

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

Groundwater contaminent levels are only slightly above groundwater standards. All private drinking water wells impacted are being filtered.

ASSESSMENT OF HEALTH PROBLEMS:

Health concerns at this site are due primarily to residential use of contaminated groundwater which resulted in ingestion, dermal contact and inhalation of contaminants through use of household water supplies. Activated carbon treatment units were installed on each private well by New York State as an interim measure. The feasibility study recommends the installation of public water to the impacted area. No contaminants have been found in surface water near the site, nor in air or surface soil at the site.



Superfund Record of Decision:

Haviland Complex, NY

DECLARATION FOR THE RECORD OF DECISION

SITE NAME-AND LOCATION

Haviland Complex, Town of Hyde Park, Dutchess County, New York

STATEMENT OF PURPOSE

This decision document represents the selected remedial action for the Haviland site, developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, and to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR Part 300, November 20, 1985.

STATEMENT OF BASIS

This decision is based upon the administrative record for the Haviland Complex site. A copy of the record is available for review at the information repository for the site and at the regional office. The following documents, which are part of the administrative record, were primarily relied upon in making this decision:

- Remedial Investigation Report, Haviland Complex Site, prepared by Holzmacher, McLendon and Murrell, P.C. June 1987
- Feasibility Study Report, Haviland Complex Site, prepared by Holzmacher, McLendon and Murrell, P.C. July 1987
- The attached Summary of Remedial Alternative Selection for the Haviland Complex Site
- The attached Responsiveness Summary for the site, which incorporates public comments received
- Staff summaries and recommendations

DESCRIPTION OF SELECTED REMEDY

- o Connect affected and potentially affected residents using ground water within the Haviland study area to the Harbour Hills water distribution system. Implementation of this alternative requires a financial commitment on behalf of the Town of Hyde Park to upgrade the Harbour Hills system to a level in compliance with New York State drinking water standards. The Town's contribution will be approximately 60%, depending upon final design details.
- o Restore the aquifer to drinking water quality by extracting and treating contaminated ground water and discharging the effluent to surface water. Four strategically located extraction wells within the area of the contaminant plume will be required to offset the effects of ground-water mounding caused by the cessation of commercial/residential pumping and the addition of a public water supply. Local ground-water restoration will be provided by the use of a

packed tower air stripper for volatile organics removal and a precipitation system for metals removal, if deemed necessary. Treated water will be discharged to the Fall Kill. It is expected that this treatment system will restore the aquifer to drinking water quality within a period of 5-10 years.

- Implement source control measures consisting of pumping and cleaning out contaminated sediments from local septic disposal systems in order to minimize the potential of additional releases.
- Implement a monitoring program to ensure the effectiveness of the extraction/treatment alternative and the protection of public health and the environment.

These methods were determined to provide the highest degree of protection to public health and the environment from contaminated ground water.

DECLARATIONS

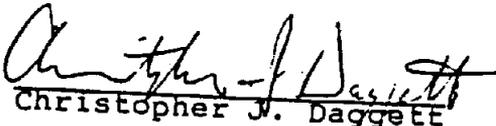
The selected remedy is protective of human health and the environment, attains Federal and State requirements that are applicable or relevant and appropriate, and is cost-effective. This remedy satisfies the preference for treatment that reduces the toxicity, mobility or volume of hazardous substances, pollutants or contaminants as a principal element. Finally, it is determined that this remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable.

The State of New York has been consulted and agrees with the approved remedy (see attached letter).

The action will require future operation and maintenance activities to ensure the continued effectiveness of the remedy. The start-up activities, which will ensure the operational effectiveness of the design, will be considered part of the approved remedial action and eligible for Superfund monies for a period of up to one year. Additionally, up to ten years of aquifer remediation will also be considered remedial action which is eligible for Superfund monies. The remainder of the activities are considered operation and maintenance and are therefore the responsibility of New York State.

I have also determined that the action being taken will be appropriate when balanced against the future availability of Trust Fund monies for use at other sites.

SEPTEMBER 30, 1987
Date

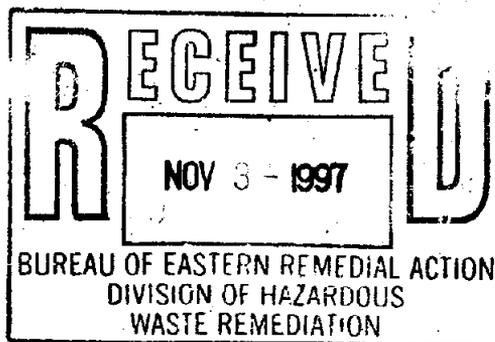

Christopher J. Daggett

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RECORD OF DECISION AMENDMENT

Haviland Complex

Hyde Park, NEW YORK



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II

NEW YORK, NEW YORK

**DECLARATION STATEMENT
RECORD OF DECISION AMENDMENT**

SITE NAME AND LOCATION

Haviland Complex
Hyde Park, New York

STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected modification to the original remedial action for the Haviland Complex site (the Site), located in Hyde Park, New York. The original remedial action was selected in the Record of Decision (ROD) issued by the United States Environmental Protection Agency (EPA) on September 28, 1987.

The modification to the original remedy was chosen in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision document explains the fundamental changes to the remedy previously selected for the Site.

The New York State Department of Environmental Conservation (NYSDEC) concurs with the modification to the selected remedy. A letter of concurrence from the NYSDEC is attached to this document (Appendix 1).

The information supporting this remedial action decision is contained in the administrative record for the Site. The index for the administrative record is attached to this document (Appendix 2).

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from the Site, if not addressed by implementing the response actions selected in the September 28, 1987 ROD, as revised by this Record

of Decision Amendment, may present an imminent and substantial threat to the public health, welfare, or the environment.

DESCRIPTION OF MODIFICATION TO THE SELECTED REMEDY

The modification to the selected remedy addresses the provision of a public water supply to site residents and the extraction and treatment of contaminated groundwater within the study area.

The major components of the modification to the selected remedy include:

- . Continued use of existing whole-house groundwater treatment systems on affected residences to prevent exposure to low level groundwater contamination.
- . Maintenance of filters and semi-annual monitoring of homes affected by low level contamination present in the aquifer until three consecutive years of sampling indicate that the well water meets Federal and State drinking water standards.
- . Elimination of the public water supply system portion of the 1987 selected remedy.
- . Natural attenuation of contaminants in the aquifer to below Federal and State drinking water standards.
- . Elimination of the groundwater extraction and treatment system portion of the 1987 selected remedy.
- . Implementation of a groundwater monitoring program.

The remaining component of the original remedy as selected in the September 1987 ROD is not affected by this modification. This component is:

- . Removal and disposal of the contents of four septic tanks in the study area which represent the source control portion of the remedy. This action was completed in 1990.

EXPLANATION OF FUNDAMENTAL CHANGE

This ROD Amendment describes the fundamental changes to the September 1987 ROD issued by EPA for the Haviland Complex Superfund Site and concurred on by NYSDEC.

The remedy specified in the 1987 ROD included: the removal of the source of contamination, i.e., contaminated septic systems (completed in 1990), the remediation of the aquifer through extraction and treatment of contaminated groundwater and discharge to surface water, and the provision of public water to the study area. The aquifer was to be remediated to Federal and State drinking water standards.

The levels of contamination observed in the aquifer in 1987 have now diminished to levels near or below Federal and State drinking water standards in both monitoring wells and affected residential wells. As a result, the extraction and treatment of groundwater and the provision of a public water supply system, do not need to be implemented to ensure the protection of human health and the environment.

The modified remedy will rely on natural attenuation to reduce contaminant levels in the groundwater to Federal and State drinking water standards; modeling indicates these standards will be achieved in one to six years. The presently installed whole-house potable water filtration systems will be maintained until three consecutive years of semi-annual sampling demonstrates that the influent (untreated) water is below drinking water standards. The aquifer will also be monitored to ensure that no other homes become impacted by site-related contamination.

DECLARATION STATEMENT

This modification to the selected remedy is protective of human health and the environment, complies with Federal and State requirements that are legally applicable, or relevant and appropriate to the remedial action, and is cost-effective. This

water standards in both monitoring wells and affected residential wells. As a result, the extraction and treatment of groundwater and the provision of a public water supply system, do not need to be implemented to ensure the protection of human health and the environment.

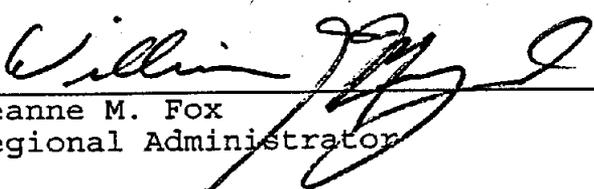
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DECLARATION STATEMENT

This modification to the selected remedy is protective of human health and the environment, complies with Federal and State requirements that are legally applicable, or relevant and appropriate to the remedial action, and is cost-effective. This modified remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable for the Site.

Because the selected remedy will result in hazardous substances remaining on the Site above health-based levels, a review will be conducted within five years after commencement of the remedial action to ensure that the selected remedy continues to provide adequate protection of human health and the environment.

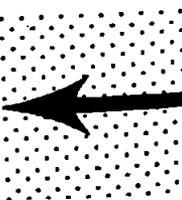
EPA has determined that its future response at this Site does not require additional physical construction. Therefore, the site now qualifies for inclusion on the Construction Completion List.



Jeanne M. Fox
Regional Administrator

8/1/97

Date



FEB 14 1997

Honorable Alfonse M. D'Amato
United States Senate
Washington, D.C. 20510-3202

Dear Senator D'Amato:

This is in response to your letter of January 30, 1997, written on behalf of the Town of Hyde Park and your constituent, P.N. Prentice, Secretary to the Harbour Hills Water Advisory Committee, regarding the U.S. Environmental Protection Agency's (EPA's) proposal to amend the Record of Decision (ROD) for the Haviland Complex Superfund site.

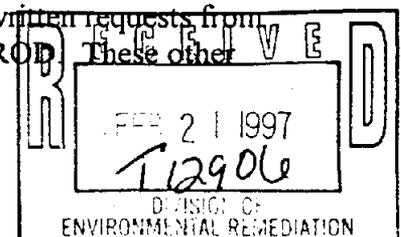
The Haviland Complex site consists of the Haviland Complex Apartments, the Hyde Park Junior High School, the Smith School, the Haviland Shopping Center, and approximately 35 residences and small businesses located east of Route 9G in Hyde Park, New York. During the past 15 years, volatile organic compounds have contaminated the groundwater underlying the site. On September 30, 1987, EPA issued the ROD for the site which specified three remedial actions. The first action, which was conducted in 1990, was the cleaning out of several contaminated septic tanks believed to be the source of contamination of several residential wells in the vicinity of the site. The second action called for the extraction, treatment and reinjection of contaminated groundwater. The third action required the provision of a permanent water supply to users of the aquifer impacted by the site and identified the Harbour Hills Water District (HHWD) as the source of that water.

Since the ROD was issued, continued monitoring of the groundwater at the site has indicated that the levels of contamination have been decreasing significantly, and at a much faster rate than originally anticipated. Consequently, EPA decided to reevaluate whether it is necessary to implement the remaining remedial actions in order to protect human health and the environment.

Approximately 35 residences in the vicinity of the site have private wells. Historical sampling indicated that the water in all but seven of these wells has been safe for consumption. In 1989, the New York State Department of Environmental Conservation (NYSDEC) installed activated carbon filters in these seven homes to remove contaminants and provide safe drinking water.

Since the ROD was issued, efforts to implement the design of the alternate water supply have been interrupted or delayed for a number of reasons, including some internal EPA contractual issues. A significant source of delay has been that the Town position with regard to using HHWD or other sources has also changed. EPA has received eight written requests from the Town to change the source of water since the preparation of the 1987 ROD. These other

1) ~~MA-1006~~
2) ~~Sal 91's~~
~~Ward~~
LAM
File
Haviland Complex
314059



sources included the Hyde Park Fire and Water District and the City of Poughkeepsie.

EPA acknowledges that HHWD has expended \$29,000 during the last few years of this project. Because of the difficulty in selecting the water source, EPA has also utilized considerable resources in an attempt to implement the public water supply portion of the ROD. As discussed below, however, we believe that significant additional funds will not be required to ensure that the residents have a potable supply of water.

Since the issuance of the ROD, EPA has conducted several widespread groundwater investigations of the study area to reestablish a baseline of groundwater quality data. Monitoring data showed that the levels of contamination in the aquifer have exhibited a dramatic decrease to the present levels near or below State and Federal drinking water standards. In addition to groundwater monitoring, three successive groundwater computer modeling efforts have been conducted to predict the future concentrations of contaminants in the aquifer. The groundwater monitoring data have confirmed the computer modeling predictions which estimate that the contamination in the aquifer will decrease to levels below standards in 1 to 6 years.

Given the fact that the existing activated carbon filters reliably protect the residents from the site contamination, and the fact that modeling predicts that contaminant levels will reach drinking water standards within a few years, EPA and New York State believe that the levels of contamination observed in the aquifer no longer warrant the implementation of the public water supply and groundwater extraction portions of the 1987 ROD. Therefore, EPA has proposed to amend the ROD and rely on the activated carbon filters, until it is confirmed that the levels of contaminants in the groundwater have declined to levels below drinking water standards. This approach will provide an equivalent level of protection to the residents at far less cost than the remedy specified in the ROD.

To inform the public of EPA's proposed modification to the ROD, the agency prepared and issued a Post-Decision Proposed Plan (PDPP) (copy enclosed) and established a public comment period to afford the local residents, Town officials and other interested parties an opportunity to comment on EPA's proposal. During the comment period EPA held a public meeting on September 4, 1996, and presented the findings of our ongoing evaluation of site conditions and the proposed changes to the 1987 ROD. It was apparent at the public meeting that there is a difference of opinion among the local residents in their desire to have a public water system. The attachment to your letter indicates your constituent's desire for the public water system. However, EPA only received two letters, both form letters, from residents which indicated a preference for public water. I would like to note that some residents at the meeting indicated that they were not in favor of the public water, citing increased costs and possible elevation of the water table which could impact their residences. EPA's own door-to-door survey of those residents supplied with carbon filters also indicated that they were split on the need for an alternate water supply.

The remainder of this letter addresses the specific comments outlined in bullet fashion in Mr. Prentice's letter. I would also like to note that EPA will provide a written detailed response to all public concerns raised at the public meeting and in writing during the public comment period. This information will be included in a Responsiveness Summary which will be an appendix to the ROD amendment.

Regarding Mr. Prentice's statement that the PDPP was not available until two days after the public comment period started, EPA had expected to have the document available to the public on August 24. During the public meeting, EPA acknowledged that the PDPP was not available in the Town Hall until Monday, August 26. EPA considered this in the Agency's decision to extend the public comment period an additional 30 days.

Mr. Prentice stated that the information presented at the public meeting was six months more recent than the similar information presented in the PDPP. It is true that EPA did make some new information available the night of the public meeting. As noted above, New York State monitors the affected residential wells on a biannual basis, typically every January and July. The week before the September 1996 public meeting, EPA received data from the July 1996 sampling of the residential wells. In order to make the latest information available to the public, EPA incorporated these data into its presentation that evening. These latest data represent a small addition to the previously existing data compiled from twelve rounds of sampling over six years, and are important in that they confirm the continuing decline of volatile organic contaminants in the groundwater underlying the site.

Mr. Prentice stated his concern that the Public Notice of the public comment period and the public meeting was published in the sports section of the Poughkeepsie Journal and that he had requested that it be published again in the front section of that newspaper. EPA cannot always control the location of its newspaper notices. EPA had, in fact, requested that the Public Notice be put in the front section of the newspaper. Unfortunately, the notice did not appear in EPA's preferred location, and there was insufficient time to meet the newspaper's deadline for republication prior to the public meeting. It should be noted that EPA used other mechanisms to make the community aware of the comment period and meeting date including a press release, and mailing notices to each addressee on EPA's extensive mailing list for the site.

Mr. Prentice stated that no written information was available to the residents regarding measured elevated levels of heavy metals at the site. In an effort to reestablish a baseline of groundwater quality data at the site, EPA sampled existing monitoring wells in June 1992 and observed elevated levels of inorganic constituents in the aquifer. EPA had requested that the New York State Department of Health (NYSDOH) sample local residential wells to assure that there was no human exposure to these metals. NYSDOH sampling showed that there were no site-related elevated levels of inorganic contamination in these residential wells. EPA resampled the monitoring wells in November 1992 and the results indicated that the inorganic contamination was a natural artifact of the aquifer itself. In June 1994, a comprehensive sampling of monitoring wells was conducted by EPA's contractor Ebasco Inc. The results from this investigation were

documented in the September 1994 Summary Report of Groundwater Investigations, and indicated that the levels of all inorganic compounds dissolved in the groundwater were either not detectable or were below safe drinking water levels. This study again determined that the metals present were related to naturally occurring substances. This report is available in the site repository established at the local library.

Mr. Prentice stated that certain information was not available in the repository established at the library. Following the public meeting, EPA contacted the library and was informed that most of the information was in the repository with the exception of a few documents; EPA forwarded the additional documents and confirmed that they were received by September 20, 1996. This was also considered by EPA in its decision to extend the public comment period an additional 30 days to October 23, 1996.

Mr. Prentice stated that EPA falsely reported that the Town had passed a resolution that HHWD not be upgraded. EPA did note in its PDPP that

...because of residents' concerns about incurring costs associated with upgrading the Harbour Hills Water District (HHWD) treatment facilities, the Town recently passed a resolution stating that the HHWD facilities not be upgraded. Furthermore, the Town of Hyde Park has requested that the Hyde Park Fire and Water district (HPFW) be utilized as the water source.

In fact, Mr. Prentice is correct in that the October 13, 1995 Town Resolution (10:13-1) did not specifically state that HHWD facilities should not be upgraded, but this is certainly implied as the following excerpt from the resolution indicates

...Whereas, the upgrade to the Harbour Hills Water District needed to supply potable water to the Haviland Complex will result in an undue financial burden on the residents of the Harbour Hills Water District and, Therefore, be it resolved, that this Board urgently requests that the United States Environmental Protection Agency immediately proceed with the design and construction of the water mains and appurtenances needed to provide a reliable, potable water supply to the Haviland Complex a connection to the Hyde Park Fire and Water District.

Mr. Prentice stated that "there was no documented evidence that NYSDEC and NYSDOH supported the EPA position to withdraw" the public water system. NYSDEC and NYSDOH had reviewed and concurred with the PDPP prior to its release to the public. The first paragraph of the PDPP indicates that NYSDEC concurred on the PDPP; the last page of the PDPP indicates that the State of New York concurs on the proposed modified remedy. During the public meeting Geoff Lacetti, a representative from NYSDOH, reiterated NYSDOH's concurrence with the PDPP. I have also attached a recent letter from Dr. Carlson to

Mr. Prentice, in which Dr. Carlson elaborates on NYSDOH's concurrence with the proposed ROD amendment.

Lastly, Mr. Prentice expressed a concern that although EPA has shown that the plume of contamination is migrating to other parts of the area, there are no written plans to address this issue. As noted above, EPA has observed that the levels of contamination in the plume have naturally attenuated to the present levels which are near or below drinking water standards. Observation of the plume for the past 10 years has shown little deviation from the originally determined pathway. It should be noted that any further migration of the plume would result in further dilution of the contaminant levels in the plume. Furthermore, the PDPP does indicate that future monitoring of the plume would be conducted, if the ROD is amended. We expect that this plan will be designed soon after the ROD Amendment is finalized.

I trust that the above information is responsive to the concerns of your constituent. If you have any further questions or need additional information, please let me know or have your staff contact Berry Shore, Acting Chief, Intergovernmental Affairs Branch at (212) 637-3657.

Sincerely,

/s/ William J. Muszynski 

Jeanne M. Fox
Regional Administrator

Enclosures (2)

cc: John P. Cahill, Acting Commissioner
New York State Department of Environmental
Conservation



STATE OF NEW YORK
DEPARTMENT OF HEALTH

Office of Public Health

11 University Place

Albany, New York 12203-3399

Barbara A. DeBuono, M.D., M.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

January 7, 1997

Mr. P. N. Prentice
Secretary
Harbour Hills Advisory Committee
Hyde Park Town Hall
Hyde Park, NY 12538-2429

Dear Mr. Prentice:

Thank you for your letter regarding the Haviland Complex site. Dr. DeBuono has asked me to respond to your concern regarding this site.

The Department of Health has been involved in the investigation of the site since contamination was found in private wells in 1983. The primary health concern associated with the site, ingestion of contaminated drinking water, was addressed by the installation of carbon filters on the contaminated wells. This Department does not generally consider the installation of carbon filters to be a permanent solution to problems of this type because long term monitoring and maintenance are required. For this reason, the Department concurred with the United States Environmental Protection Agency's (USEPA) original record of decision which called for the installation of a public water supply to the affected residences and commercial establishments.

The Department participated in the planning and negotiations regarding the installation of the public water supply lines. These negotiations occurred over a period of many years with several different Town of Hyde Park administrations. Agreements were reached between the government agencies and Hyde Park town officials which were subsequently negated by newly elected administrations.

During this lengthy negotiation process, levels of contaminants in groundwater and in the untreated water of the homeowner wells with carbon filters continued to decline, especially after source removal occurred in 1991. It is because of this continued decline in contamination levels that the USEPA decided to amend its ROD to discontinue the planning for the installation of public water supply lines. We concurred with this decision because the contaminant levels in the private wells do not greatly

Mr. P. N. Prentice
Page 2
January 7, 1997

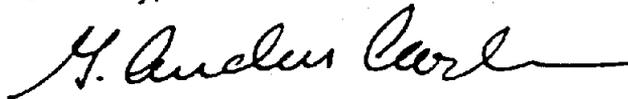
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exceed drinking water standards, and levels are expected to be below detectable limits within five to seven years. In the interim, the private wells will continue to be treated with carbon filters.

The Department will continue to periodically monitor other private wells that are not treated with carbon filters. Staff from this department collected samples from six wells for this purpose on October 10, 1996. Results indicate one well contained one site related contaminant at one-fifth of the drinking water standard. Another sampling trip is planned for early next year to resample these wells and any others that have the potential to become contaminated.

If you have any further questions regarding this matter, please call Mr. Steven Bates, of my staff, at 1-800-458-1158 and ask for extension 305.

Sincerely,



G. Anders Carlson, Ph.D.
Director
Bureau of Environmental Exposure
Investigation

Mr. P. N. Prentice

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January 9, 1997

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bcc: Mr. R. Tramontano

Dr. Kim

Mr. Bates

Mr. Laccetti

Mr. D. Ruff - DCHD

Mr. M. Chen - DEC

Mr. J. Lapalgila - USEPA

Mr. D. Gabarini - USEPA

Mr. K. Willis - USEPA

PAG # 3853

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Superfund Post-Decision Proposed Plan

Haviland Complex



Hyde Park
Dutchess County, New York

EPA
Region 2

August 1996

PURPOSE OF POST-DECISION PROPOSED PLAN

This Post-Decision Proposed Plan describes proposed fundamental changes to the September 1987 Record of Decision (ROD) issued by the United States Environmental Protection Agency (EPA) with respect to the Haviland Complex Superfund Site and concurred on by the New York State Department of Environmental Conservation (NYSDEC).

The remedy specified in the 1987 ROD included the removal of the source of contamination, i.e., contaminated septic systems, extraction and treatment of contaminated groundwater and the provision of public water to the study area. The source control portion of the remedy was completed in 1990.

As described in this Post-Decision Proposed Plan, EPA is proposing that the extraction and treatment of groundwater, and the provision of a public water system do not need to be implemented to ensure the protection of human health and the environment.

COMMUNITY ROLE IN SELECTION PROCESS

EPA and NYSDEC rely on public input to ensure that the concerns of the community are considered in selecting an effective remedy for each Superfund site. Similarly, EPA and NYSDEC also rely on public input when proposing fundamental changes to a remedy previously selected. To this end, this Post-Decision Proposed Plan, the EPA Groundwater Modeling Report for the Haviland Complex Superfund Site, and the May 1995 Summary of Groundwater Investigations Report have been made available to the public for a public comment period which begins on August 16, 1996 and concludes on September 16, 1996.

A public meeting will be held during the public comment period at the Haviland Middle School on August 28, 1996 at 7:00 PM to present the basis for the proposed amendment to the ROD and to receive public comments.

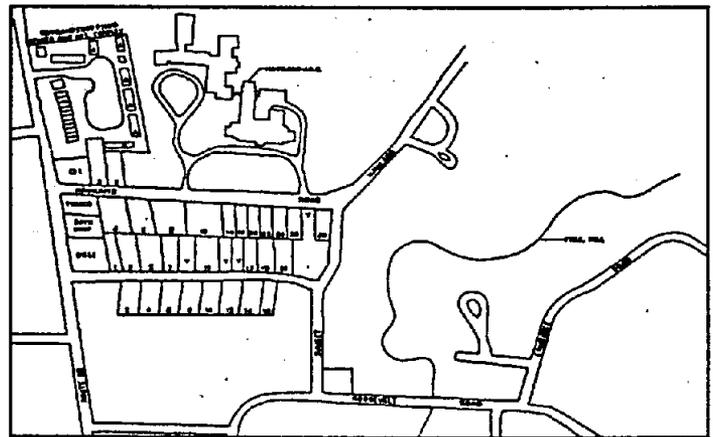


Figure 1 - Haviland Site Map

Comments received at the public meeting, as well as written comments, will be documented and addressed in the Responsiveness Summary Section of the ROD amendment

All written comments should be addressed to:

Kevin Willis
U.S. Environmental Protection Agency
290 Broadway 20th Floor
New York, NY 10007-1866

Dates to remember:
MARK YOUR CALENDAR

August 24, 1996 - September 23, 1996
Public comment period on this Post-Decision Proposed Plan, and remedies considered

September 4, 1996
Public meeting at the Haviland Middle School at 7:00 PM

SITE BACKGROUND

The 275-acre Haviland Complex site (see Figure 1) consists of the Haviland Complex Apartments, the Hyde Park Junior High School, the Smith School, the Haviland Shopping Center, and approximately 35 residences and small businesses located east of Route 9G in Hyde Park, New York. Hyde Park has an estimated population of 21,000 people. Approximately 20% of the population are connected to a public sewer system, and over 50% are served by a public or private water supply system. The remaining population, including the 35 residences and small businesses previously mentioned, obtain water from residential wells. Groundwater in the study area flows southeasterly and discharges into Fall Kill Creek.

The Dutchess County Health Department (DCHD) began to receive complaints concerning the groundwater quality in the site area in October 1981. A sampling program and septic system survey of the Haviland Complex area was initiated by DCHD in December 1981, which indicated that the Haviland Laundromat and Dry Cleaner and the Haviland Car Wash septic systems were failing. Subsequently, the car wash installed a new septic tank and the laundromat installed a pre-treatment system and a new tile field to handle its wastewater.

In December 1982, New York State Department of Health (NYSDOH) began sampling the Haviland area groundwater. The sampling data indicated that levels of tetrachloroethylene (PCE) and dichloroethene (DCE) in the septic discharge from the laundromat exceeded NYSDEC discharge standards. As a result, in 1983, the laundromat was ordered to disconnect the dry cleaning operation from the septic system and to dispose of all spent dry cleaning fluids at a permitted disposal facility. All residents in the area were advised to use bottled water. Water treatment units were installed on the wells servicing the Haviland Apartments and the laundromat in 1984 and 1985, respectively, to remove organic contaminants. In February 1989, NYSDEC installed water treatment systems on homes with well water which exceeded State or Federal Maximum Contaminant Levels (MCLs), i.e., safe drinking water standards.

The site was proposed for inclusion on the National Priorities List (NPL) in October 1984, and placed on the NPL in June 1986. NYSDEC was designated as the lead agency for the Remedial Investigation and Feasibility Study (RI/FS).

Based on the results of the RI/FS, a ROD was signed on September 30, 1987, identifying the following: 1) clean the contaminated septic systems identified as the source of contamination 2) extend public water from the nearby Harbour Hills Water District (HHWD) to ensure a potable supply of water to the residents on private wells (EPA would enter into an agreement with the Town of Hyde Park to upgrade this system to meet New York State drinking water standards) and 3) extract and treat contaminated groundwater.

The septic systems' cleaning, which represented the source control portion of the selected remedy, was completed by EPA on November 4, 1990. A sampling survey of the septic systems in the study area had identified six septic tanks at

the Haviland Complex and the Hyde Park Junior High School which were contaminated. These tanks were cleaned out and the sludges were sent off-site for treatment and disposal.

Since the signing of the ROD, there has been difficulty in agreeing on the source of the alternate water supply. On numerous occasions, Town of Hyde Park officials have requested that EPA evaluate sources of water other than the HHWD. Most recently, the Town requested that water from the Hyde Park Fire and Water district (HPFW) be utilized. It is also noted that since the signing of the ROD, the levels of groundwater contamination as measured in the monitoring wells have decreased significantly. Residential well sampling data also indicates that levels of contaminants entering impacted residential wells are decreasing. It was determined that additional sampling and modeling of the groundwater regime was warranted. Consequently, EPA and NYSDEC decided to reevaluate the need for an alternate supply of public water in the site study area and the need for an active groundwater extraction and treatment system.

SUMMARY OF SITE INVESTIGATIONS

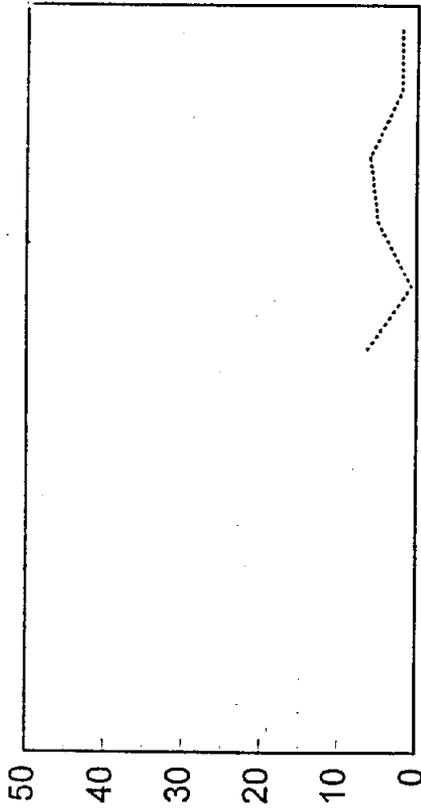
Based on sampling data obtained from 18 monitoring wells, the RI report documented the presence of a low-level groundwater contamination plume, consisting of numerous volatile organic compounds (VOCs) (e.g., PCE concentrations ranging from 2.0 to 42.0 parts per billion (ppb)) and metals (e.g., at concentrations above drinking water standards). The contaminants were believed to be emanating from septic systems connected to the Haviland Shopping Center (Laundromat), Haviland Complex Apartments, and Haviland Junior High School. It was determined that the plume generally migrated from the sources in a south-southeasterly direction and discharged into Fall Kill Creek. The RI also documented that several residential wells in this area were contaminated with VOCs.

Since the RI report was issued, residential and monitoring wells in the study area have been sampled on numerous occasions, and computer modeling of the groundwater regime has also been conducted. These efforts were conducted to better define the nature and extent of groundwater contamination, and to quantify the benefits the groundwater treatment system would provide that would not be realized, if this portion of the remedy were not implemented.

Additional sampling of the RI monitoring wells was conducted by EPA's contractor, Ebasco Services, in October 1988 and July 1990. These sampling results were summarized in a March 1991 report entitled the "Summary of Groundwater Investigations." The report documented the presence of a low-level volatile plume underlying the site, flowing toward the Fall Kill Creek to the southeast. Localized PCE, PCE-breakdown products, and chlorobenzene plumes were documented in the southeastern portion of the main plume.

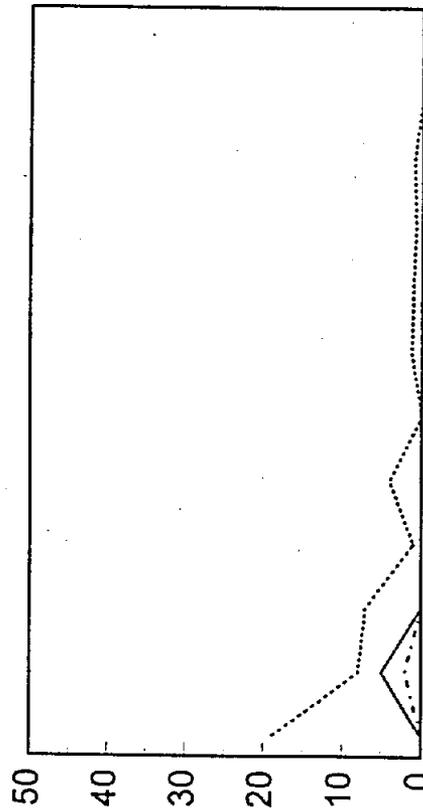
In 1992, EPA's Environmental Response Team sampled the study area monitoring wells on two additional occasions to provide a baseline of the levels of contamination in the aquifer at that time. Low-level VOCs above MCLs were only observed in MW-24 (8.1 ppb PCE, 6.8 ppb dichloroethene (DCE)) and MW-27B (7.8 ppb DCE). The drinking water

8 Haviland Road



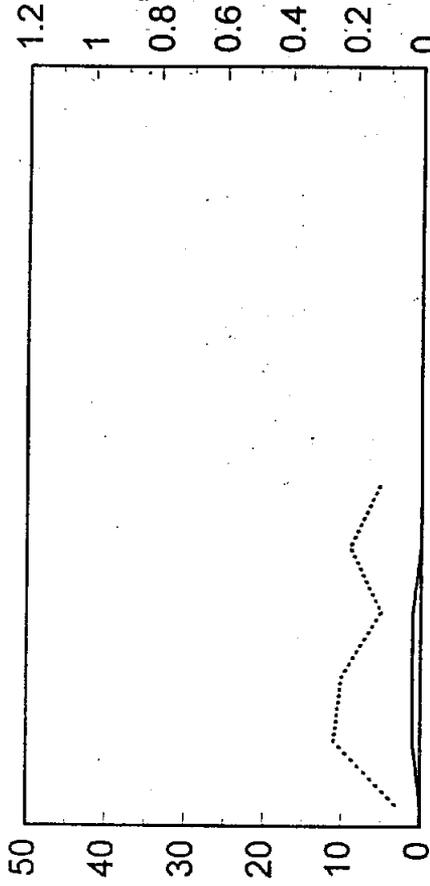
	1/90	5/90	9/90	1/91	10/91	1/92	7/93	1/94	7/94	1/95	7/95	1/96
DCE	—						0.0	0.0	0.0	0.0	0.0	0.0
PCE	—						6.4	0.7	5.0	6.0	2.0	2.0
CBZene	—						0.0	0.0	0.0	0.0	0.0	0.0

12 Haviland Road



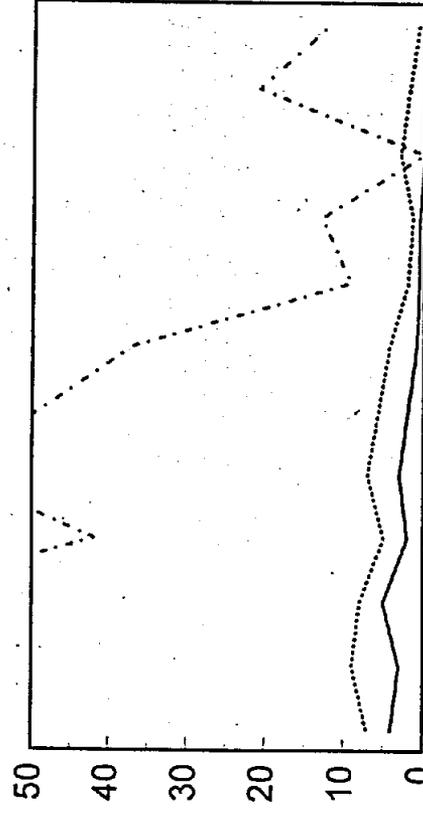
	1/90	5/90	9/90	1/91	10/91	1/92	7/93	1/94	7/94	1/95	7/95	1/96
DCE	—	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PCE	—	19.0	8.0	7.0	1.0	4.0	0.0	1.3	0.8	1.0	0.0	0.0
CBZene	—	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

10 Haviland Road



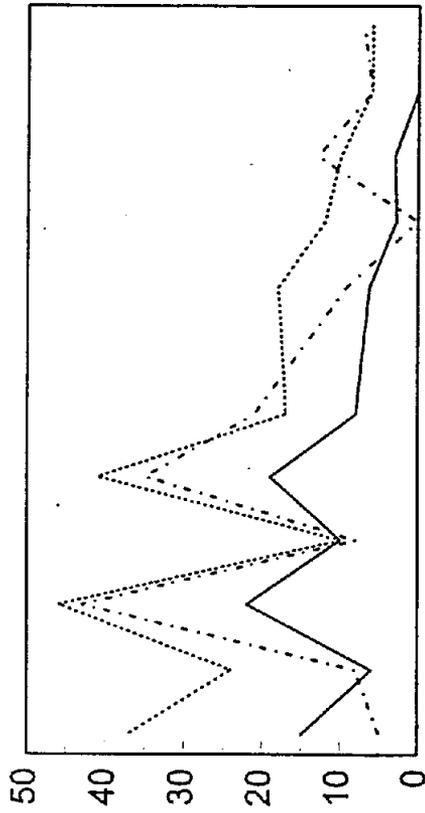
	1/90	5/90	9/90	1/91	10/91	1/92	7/93	1/94	7/94	1/95	7/95	1/96
DCE	—	0.0	1.0	1.0	0.0	0.0						
PCE	—	3.0	11.0	10.0	5.0	9.0	5.0					
CBZene	—	0.0	0.0	0.0	0.0	0.0	0.0					

14 Haviland Road



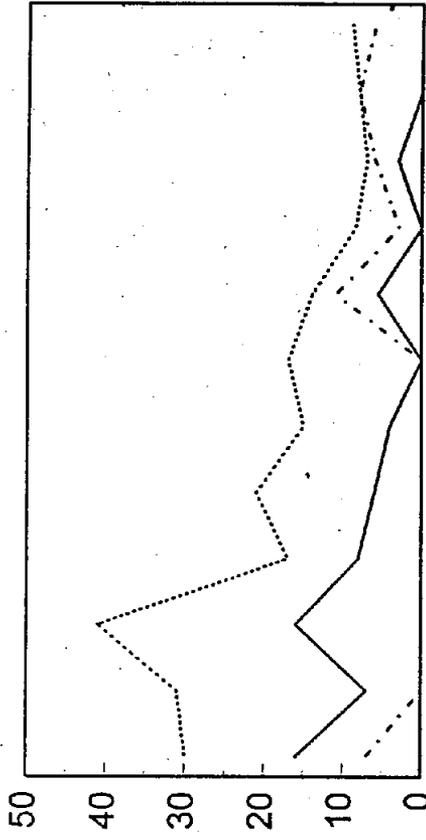
	1/90	5/90	9/90	1/91	10/91	1/92	7/93	1/94	7/94	1/95	7/95	1/96
DCE	—	4.0	3.0	5.0	2.0	3.0	0.9	0.6	0.6	0.0	0.0	0.0
PCE	—	7.0	9.0	8.0	5.0	7.0	4.3	2.0	1.5	3.0	2.0	0.8
ChBzene	—	89.0	87.0	70.0	42.0	61.0	37.0	9.3	13.0	0.0	21.0	12.0

20 Haviland Road



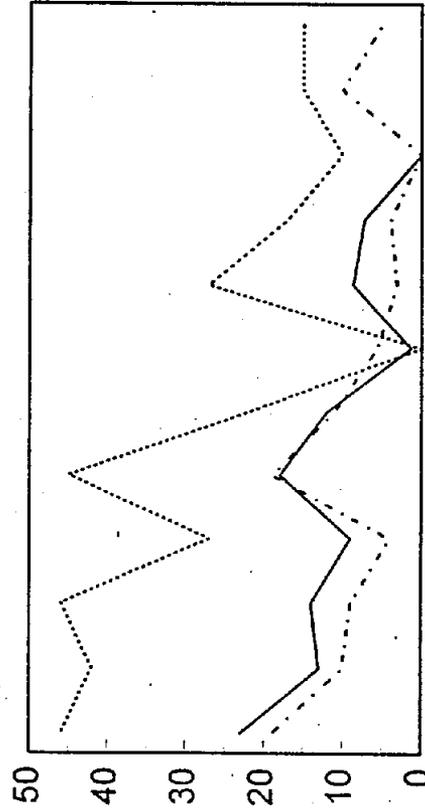
	1/90	5/90	9/90	1/91	10/91	1/92	7/93	1/94	7/94	1/95	7/95	1/96
DCE —	15.0	6.0	22.0	10.0	19.0	8.0		6.3	2.8	3.0	0.0	0.0
PCE	37.0	24.0	46.0	10.0	41.0	17.0		18.0	12.0	10.0	6.0	6.0
CBZene ..	5.0	8.0	43.0	8.0	35.0	21.0		9.3	0.0	13.0	6.0	7.0

22 Haviland Road



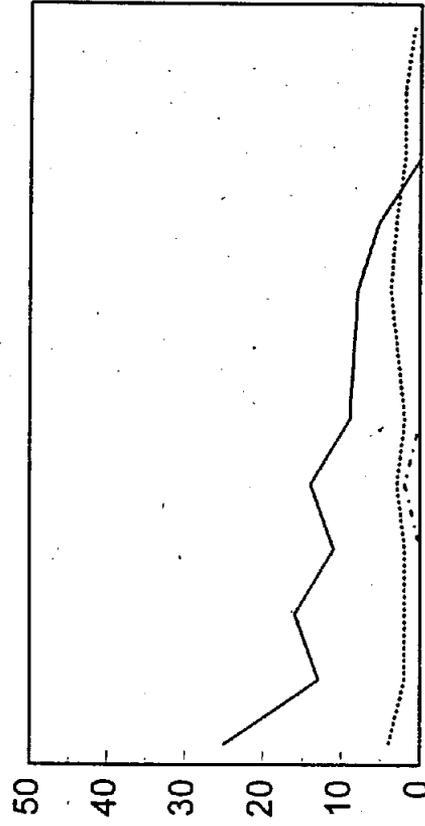
	1/90	5/90	9/90	1/91	10/91	1/92	7/93	1/94	7/94	1/95	7/95	1/96
DCE —	16.0	7.0	16.0	8.0	6.0	4.0	0.0	5.6	0.0	3.0	0.0	0.0
PCE	30.0	31.0	41.0	17.0	21.0	15.0	17.0	14.0	8.5	7.0	8.0	9.0
CBZene ..	7.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	2.9	6.0	8.0	6.0

24 Haviland Road



	1/90	5/90	9/90	1/91	10/91	1/92	7/93	1/94	7/94	1/95	7/95	1/96
DCE —	23.0	13.0	14.0	9.0	18.0	12.0	1.3	8.6	7.2	0.0	0.0	0.0
PCE	46.0	42.0	46.0	27.0	45.0	22.0	0.0	27.0	17.0	10.0	15.0	15.0
CBZene ..	19.0	10.0	9.0	4.0	19.0	11.0	5.6	3.1	3.9	0.0	10.0	5.0

26 Haviland Road



	1/90	5/90	9/90	1/91	10/91	1/92	7/93	1/94	7/94	1/95	7/95	1/96
DCE —	25.0	13.0	16.0	11.0	14.0	9.0		7.9	5.3	0.0	0.0	0.0
PCE	4.0	2.0	2.0	2.0	3.0	2.0		3.7	3.1	2.0	2.0	0.8
CBZene ..	0.0	0.0	0.0	0.0	2.0	0.0		0.0	0.0	0.0	0.0	0.0

standard for each of these contaminants is 5.0 ppb.

Also, in June 1994, a confirmatory round of groundwater sampling data was collected by Ebasco which confirmed the continued presence of very low-level VOC concentrations in the shallow aquifer underlying the site. All volatile concentrations were close to or below the New York State MCLs of 5 ppb for PCE, DCE, and chlorobenzene. These data indicated that the VOCs were still present but occurred at lower concentrations than what were observed previously. The occurrence of the spreading of the plume described in the RI/FS and ROD had not occurred and the plume appears to be naturally attenuating. This information was documented by Ebasco in its September 1994 report entitled "Summary of Groundwater Investigations."

On three successive occasions, computer modeling was used to better understand the transport and fate of the groundwater contamination in the study area. The first effort, conducted as part of the RI, concluded that groundwater flowed from the identified sources through the area of contaminated residential wells to the Fall Kill. The second modeling event, which was conducted by Ebasco in 1989 to determine the optimum groundwater extraction rate for implementation of the remedy, identified declining levels of contamination in the aquifer.

The third modeling event was performed by EPA's Robert S. Kerr Environmental Research Laboratory in 1992. This effort, which focused on determining the fate and transport of the aquifer contamination, was documented in a report entitled "Groundwater Modeling Report for the Haviland Complex Superfund Site." Using 1987 and 1990 data, the report concluded that site contamination would be below MCLs within 5 to 10 years without pumping and treating the contaminated groundwater. The modeling also predicted, however, that, if implemented, extraction and treatment of the groundwater would result in the contamination declining to concentrations below State and Federal drinking water standards within the same time frame of about 5 to 10 years. Since the modeling was done in 1992, the expected range of aquifer cleanup would be within about 2 to 7 years from today.

In order to monitor and maintain the effectiveness of the individual home water treatment units, NYSDEC has contracted the sampling of the private potable wells for organic contaminants semiannually since 1989. NYSDOH reviews and tabulates the data, and then sends the results to the residents. Analyses of the well samples have demonstrated the trend of diminishing organic contamination in the aquifer. While maximum concentrations of 79 ppb of PCE, 190 ppb of chlorobenzene, and 27 ppb of DCE, were measured in some residential wells in 1985, 1983, and 1988, respectively, the contaminant concentrations observed in all of the private wells have diminished to levels near or below MCLs. The residential well data from 1990 to the present are summarized in Figure 2. Maximum concentrations from the January 1996 sampling event were 15 ppb of PCE and 12 ppb of chlorobenzene with no detectable concentrations of DCE. In addition, site-related metals contamination has not been observed in any of the potable wells in the study area.

SUMMARY OF SITE RISK

During the conduct of the RI/FS, a baseline risk assessment was conducted to estimate the risks associated with current and future site conditions. The baseline risk assessment, which was based on data obtained during the RI, estimated the human health risk which could result from the contamination at the site if no remedial action were taken. A summary of the baseline risk assessment and a recalculation of the risk using current data is presented below.

Human Health Risk Assessment

The baseline risk assessment evaluated the health effects which could result from exposure to contamination as a result of ingestion. An apartment complex, a junior high school, a shopping center, and approximately 35 private homes are contained within the site boundaries. All are occupied and use private wells for provision of potable water.

EPA's acceptable cancer risk range is 10^{-4} to 10^{-6} , which can be interpreted to mean that an individual may have one in ten thousand to one in a million increased chance of developing cancer as result of site-related exposure to a carcinogen over a 70-year lifetime under the specific exposure conditions at the site.

The results of the baseline risk assessment conducted as part of the 1987 RI/FS indicated that, if used as a supply of household water, the groundwater at the site posed unacceptable risks to human health and the environment. The risk assessment was indicative of a worst case total lifetime exposure to maximum organic concentrations at an assumed constant rate (drinking 2 liters of water daily for 30 years in an adult living to the age of 70 years). It was determined that the total cancer risk exceeded 1×10^{-3} , or 1 case in 1000. Most of this risk was due to the presence of vinyl chloride which has not been detected since 1987. Eliminating vinyl chloride from the risk assessment results in a calculated carcinogenic risk that is within EPA's acceptable risk range. Using current data, and applying these data to present standards (which are more stringent than those of 1987), the carcinogenic risk is calculated to be 1.1×10^{-5} , which is within EPA's acceptable range.

To assess the overall potential for noncarcinogenic effects posed by more than one contaminant, EPA has developed a hazard index (HI). This index measures the assumed exposures to several chemicals simultaneously at low concentrations which could result in an adverse health effect. When the HI exceeds one, there may be concern for potential noncarcinogenic effects.

All noncarcinogenic contaminants were within acceptable intake levels in 1987, based on their respective subchronic and chronic intakes. Using current data, and applying these data to present standards (which are more stringent than those of 1987), results in a noncarcinogenic risk Hazard Index of 1.

It is noted that the only exposure routes to humans at the site are through ingestion and inhalation of VOCs via the contaminated groundwater. However, those residences which did exceed MCLs have been supplied with whole-house water treatment units. Furthermore, the levels of contamination observed in 1987 have now diminished to levels near or below MCLs in both monitoring wells and residential wells.

REMEDIAL ACTION OBJECTIVES

Remedial action objectives are specific goals to protect human health and the environment. These objectives are based on available information and standards such as applicable or relevant and appropriate requirements (ARARs) and risk-based levels established in the risk assessment.

The objective of the feasibility study was to identify and evaluate a cost-effective remedial action alternative which would minimize the risk to public health and the environment resulting from groundwater contamination at the site. The FS report had evaluated in detail 5 remedial alternatives for addressing the contamination associated with the site. The remedy which EPA selected included contaminant source control, provision of public water to the site area, and extraction and treatment of contaminated groundwater. As noted above, the source control portion of the remedy was completed in January 1990.

Given the decrease in site-related groundwater contaminant levels, EPA has decided to reevaluate components of the remedy specified in the 1987 ROD. This Post-Decision Proposed Plan addresses the groundwater extraction and treatment and the provision of an alternate water supply portions of the remedy. The remedial action objectives for the groundwater remedy are to (1) protect human health by ensuring residents are not exposed to contaminated groundwater, and (2) reduce groundwater contamination levels to drinking water standards. The remedial action objective for the alternate water provision portion of the remedy is to protect human health by ensuring residents are not exposed to contaminated residential well water.

SUMMARY OF REMEDIAL ALTERNATIVES

CERCLA requires that each selected site remedy be protective of human health and the environment, be cost-effective, comply with other statutory laws, and utilize permanent solutions and alternative treatment technologies and resource recovery alternatives to the maximum extent practicable. In addition, the statute includes a preference for the use of treatment as a principal element for the reduction of toxicity, mobility, or volume of the hazardous substances.

The alternatives for addressing groundwater contamination are provided below and are identified as GW-1 and GW-2. These alternatives are followed by the alternate water supply alternatives which are identified as AW-1 and AW-2. Consistent with ROD amendment guidance, the components of the original remedy proposed for amendment (alternatives

GW-2 and AW-2) have been updated and are being compared to new preferred alternatives (alternatives GW-1 and AW-1) which were developed based upon existing site circumstances, including the groundwater monitoring and modeling data presented above. It should be noted that the time to implement reflects only the time required to construct, or implement the remedy and does not include the time required to design the remedy, negotiate with the responsible parties, or procure contracts for design and construction.

The alternatives developed for the site groundwater (GW) are:

Alternative GW-1 - No further action/natural attenuation

Capital Cost: \$0
O & M Cost: \$5000/year (for 7 years)
Present Worth Cost: \$24,873
Time to Implement: immediate

This alternative does not include active treatment of the aquifer; it relies upon natural attenuation to reduce the contamination below State and Federal drinking water standards. Based on groundwater modeling it is estimated that natural attenuation processes would reduce levels of contamination in the aquifer to State and Federal drinking water standards within 2 to 7 years.

This alternative would include an annual groundwater monitoring program. Five monitoring wells located in the area would be utilized to monitor the aquifer upgradient and downgradient of the affected homes. Analytical data obtained from these wells would serve to demonstrate the progress of the aquifer remediation. Groundwater samples would be analyzed for inorganic and volatile organic parameters.

Alternative GW- 2 - Groundwater extraction, treatment, and discharge to surface waters

Capital Cost: \$626,500
O & M Cost: \$116,375/year (for 7 years)
Present Worth Cost: \$1,205,439
Time to Implement: One year

This alternative includes aquifer restoration through containment and interception of the identified contaminant plume. Interception of contaminated groundwater would be accomplished using four stainless steel extraction wells, screened in the surficial aquifer, each pumping continuously at 20 gpm. Proper sizing and location of these wells would result in containment of the plume through modification of the groundwater gradient caused by the cones of depression around each well. Small areas of the plume which are already near the Fall Kill would continue to migrate until they enter the creek.

This alternative assumes that the extracted groundwater would require some treatment prior to discharge. Treatment technology for metals removal would consist of pH adjustment and precipitation. After metals treatment, the groundwater would be treated through an air stripper and then

would be discharged to the Fall Kill. Worst-case emissions from the stripper were calculated to be insignificant in comparison to New York State standards. The design of the groundwater treatment system would be based on SPDES requirements which would be the more stringent of the effluent limitation for a class C water body or the water quality limitation for the Fall Kill.

Groundwater extraction and treatment offers long-range public health protection against consumption of contaminated groundwater. Based on site hydrogeologic conditions, the time required to rehabilitate the aquifer to acceptable State and Federal drinking water standards is estimated to be within 2 to 7 years.

Aquifer rehabilitation would be accompanied by an annual groundwater monitoring program. The sampling and analysis would utilize selected monitoring wells located in the study area. Analytical data obtained from these wells would serve to demonstrate the progress of the aquifer remediation. Groundwater samples would be analyzed for inorganic and volatile organic parameters.

The alternatives developed for an alternative water supply (AW) are:

Alternative AW-1 - No Further Action/Continue to Maintain Whole-House Water Treatment Units

Capital Cost: \$0
O & M Cost: \$27,053/year (for 10 years)
Present Worth Cost: \$166,082
Time to Implement: immediate

This alternative would continue to address the low level contamination present in the seven affected homes by maintaining the existing whole-house filters presently installed in these homes. The units consist of a sediment filter, an ultra-violet treatment unit and twin activated-carbon filtration cylinders. These homes have been sampled semi-annually by the NYSDEC; the sampling results indicate that the units are working quite effectively and have provided a safe reliable source of water for residential use. These units have operated effectively while requiring minimal maintenance.

Water in these seven homes would continue to be monitored on a semi-annual basis. The units would be maintained by NYSDEC until three years of consecutive semi-annual rounds of sampling demonstrate that the well water meets Federal and State drinking water standards indicating that treatment will no longer be necessary.

Alternative AW-2 - Provision of Public Water to Study Area

Capital Cost: \$3,147,969
O & M Cost: \$0
Present Worth Cost: \$3,147,969
Time to Implement: 18 months

This alternative provides for the extension of a local public water system into the study area. The ROD originally envisioned that EPA would enter into an agreement with the Town of Hyde Park (THP) to share in the costs to upgrade the Harbour Hills Water District Well water treatment system to meet NYSDOH standards. It is noted, however, because of residents' concerns about incurring costs associated with upgrading the Harbour Hills Water District (HHWD) treatment facilities, the Town recently passed a resolution stating that the HHWD facilities not be upgraded. Furthermore, the Town of Hyde Park has requested that the Hyde Park Fire and Water district (HPFW) be utilized as the water source. The water distribution network would be the same as that described in the ROD. The distribution system would be installed along the Haviland Road and Wright Avenue, and connections would be made by EPA from this distribution system to residences in the study area. This network would be connected to HPFW at a point approximately one-half mile away.

EVALUATION OF ALTERNATIVES

During the detailed evaluation of remedial alternatives, each alternative is assessed against nine evaluation criteria, namely, overall protection of human health and the environment, compliance with applicable or relevant and appropriate requirements, long-term effectiveness and permanence, reduction of toxicity, mobility, or volume, short-term effectiveness, implementability, cost, and state and community acceptance.

The evaluation criteria are described below.

- o Overall protection of human health and the environment addresses whether or not a remedy provides adequate protection and describes how risks posed through each pathway are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.
- o Compliance with applicable or relevant and appropriate requirements (ARARs) addresses whether or not a remedy will meet all of the applicable or relevant and appropriate requirements of other federal and state environmental statutes and requirements or provide grounds for invoking a waiver.
- o Long-term effectiveness and permanence refers to the ability of a remedy to maintain reliable protection of human health and the environment over time, once cleanup goals have been met.
- o Reduction of toxicity, mobility, or volume through treatment is the anticipated performance of the treatment technologies a remedy may employ.
- o Short-term effectiveness addresses the period of time needed to achieve protection and any adverse impacts on human health and the environment that may be posed during the construction and implementation period until cleanup goals are achieved.

- o Implementability is the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement a particular option.
- o Cost includes estimated capital and operation and maintenance costs, and net present worth costs.
- o State acceptance indicates whether, based on its review of the RI/FS reports and Post-Decision Proposed Plan, the state concurs, opposes, or has no comment on the preferred alternative at the present time.
- o Community acceptance will be assessed in the Record of Decision (ROD) following a review of the public comments received on the RI/FS reports and the Post-Decision Proposed Plan.

A comparative analysis of these alternatives based upon the evaluation criteria noted above follows.

Groundwater

- o Overall Protection of Human Health and the Environment

Both Alternatives GW-1 and GW-2 would provide full protection to human health and the environment. Modeling predicts that the active extraction and treatment of the site groundwater would result in contaminant levels being reduced to State and Federal groundwater and drinking water in 2 to 7 years. Modeling of the natural attenuation alternative also predicts that the ARARs would be achieved in 2 to 7 years. Nonetheless, the extraction and treatment of the groundwater under Alternative GW-2 may provide a slightly more rapid removal of contamination from the aquifer than the natural attenuation process of Alternative GW-1. The exposure route to the people at the site is through ingestion of groundwater or the inhalation of volatile contaminants from the groundwater. Private wells which contain levels of contaminants above drinking water standards have been fitted with individual water-treatment units, thereby ensuring a safe supply of potable water. The levels of contaminants entering these wells has been decreasing, and sampling of the water prior to and after treatment from these units indicates that the units are working effectively.

- o Compliance with ARARs

Both alternatives would comply with ARARs in approximately the same time frame. Modeling predicts that the no further action/natural attenuation Alternative GW-1 and the active groundwater extraction and treatment Alternative GW-2 would result in contaminant levels being reduced to State and Federal groundwater and drinking water standards in 2 to 7 years.

- o Long-Term Effectiveness and Permanence

Alternatives GW-1 and GW-2 would be equal in providing long-term effectiveness and permanence in that the

groundwater contamination would be reduced below State and Federal drinking water standards within 2 to 7 years.

Alternative GW-2 would potentially result in greater long-term exposure to contaminants by workers who could come into direct contact with the concentrated sludges from the treatment system. However, proper health and safety precautions would be implemented to minimize exposure to the sludges.

- o Reduction in Toxicity, Mobility, or Volume

Under both alternatives, the volume and toxicity of the groundwater contaminants above ARARs would be reduced at approximately the same rate and would ultimately be eliminated in approximately the same time frame.

The mobility of the contamination plume would be reduced by actively extracting the groundwater under alternative GW-2. It is assumed that even with the active groundwater extraction, some contamination would migrate into the Fall Kill, but a lesser amount than under the natural flushing conditions of Alternative GW-1. It is noted that sampling of the Fall Kill indicates that levels of the contaminants reaching the creek do not pose a threat to human health and the environment.

- o Short-Term Effectiveness

There would be virtually no short-term impacts on human health and the environment by continuing to maintain the residential water treatment units under Alternative GW-1. Also, because the residential water treatment units are already installed, no time would be required to implement this alternative. However, construction activities associated with Alternative GW-2 (e.g., installation of extraction wells and underground piping, and construction of the treatment unit) would have potentially negative impacts on residents in the study area. While efforts would be made to minimize these impacts, some disturbances to residents would result from disruption of traffic, excavation activities on public and private land, noise, and fugitive dust emissions. It is estimated that the construction activities for Alternative GW-2 would take approximately one year to complete.

- o Implementability

The technologies proposed for extracting and treating contaminated groundwater in Alternative GW-2 are proven and reliable in achieving the specified cleanup goals, however, Alternative GW-2 would be much more complex than Alternative GW-1 to implement. The design and construction of the groundwater extraction system would take approximately 2 years to complete. Alternative GW-2 would require that property be acquired/leased for the treatment unit and that access/easements be obtained from private and public property owners for the installation of piping and extraction wells. The operation and maintenance of the system would include the monitoring of the aquifer for system effectiveness, monitoring of the system emissions to determine compliance with permit equivalencies, and the handling and disposal of the concentrated contaminated treatment residuals.

Alternative GW-1 would be more easily implemented, as it would only require the sampling of selected monitoring wells once a year.

- o Cost

Alternative GW-1 has no direct costs associated with its implementation. The present worth of this alternative of \$24,873 is for implementation of an annual groundwater monitoring program. The capital and present worth costs of Alternative GW-2 are estimated to be approximately \$625,500 and \$1,205,439 respectively.

Both alternatives would provide a similar level of protection in a similar time frame, however, Alternative GW-1 would do so at a much lower cost.

- o State Acceptance

The State of New York concurs on the proposed modified remedy.

- o Community Acceptance

Community acceptance of the preferred alternative will be assessed in the ROD amendment following review of the public comments received on this Post-Decision Proposed Plan.

Alternate Water Supply

- o Overall Protection of Human Health and the Environment

Both Alternatives AW-1 and AW-2 would provide full protection of human health. Both alternatives would prevent the potential exposure of residents at the site through ingestion or inhalation of contaminants present in selected residential wells. Data from the sampling of the impacted residential wells has shown that the whole-house treatment units installed at these residences are fully effective and provide sustained protection with minimal maintenance.

The provision of public water to the site area described in Alternative AW-2 would not be more protective to the residents than what presently exists, but would preclude the need for future sampling and maintenance of the impacted wells.

- o Compliance with ARARs

Alternatives AW-1 and AW-2 would both comply with ARARs, the primary ARARs of concern being State and Federal drinking water standards. Neither Alternative AW-1 nor AW-2 would provide a significant advantage over the other with respect to ARARs.

Compliance with ARARs under Alternative AW-1 would be demonstrated via the home sampling and filter maintenance program. Compliance with ARARs under Alternative AW-2 would be demonstrated by the water supplier via regular

sampling of the water distribution system as required by the State of New York.

- o Long-Term Effectiveness and Permanence

Because groundwater contamination is estimated to be completely attenuated within 2 to 7 years, site-related contaminants would not be expected to impact the residential wells over the long term. Therefore, both alternatives would provide long-term protectiveness and permanence.

- o Reduction in Toxicity, Mobility, or Volume

A comparison of the two alternatives' abilities to satisfy this criterion is not necessarily applicable since the goal of the alternate water supply is to provide a potable supply of water and does not require that the toxicity, mobility or volume of contaminants be reduced to do so. Nonetheless, Alternative AW-1 would reduce the toxicity, mobility and volume of contaminants in the residential well water, and to a limited extent the aquifer. Alternative AW-2 would not provide any reduction of contaminants.

- o Short-Term Effectiveness

There would be virtually no short-term impacts to human health and the environment by continuing to maintain the residential water treatment units under Alternative AW-1. Also, because the residential water treatment units are already installed, no time would be required to implement this alternative. However, construction activities associated with Alternative AW-2 (e.g., installation of underground piping) would have potentially negative impacts on residents in the study area. While efforts would be made to minimize these impacts, some disturbances to residents would result from disruption of traffic, excavation activities on public and private land, noise, and fugitive dust emissions. It is estimated that the construction activities for Alternative AW-2 would take approximately one year to complete.

- o Implementability

Alternative AW-2 would require the design and construction of a public potable water distribution system and its connection to HPFW. The system would take approximately 18 months to construct. The technologies necessary for implementing this alternative are proven and reliable.

The implementation of Alternative AW-1 would require the continued monitoring and maintenance of the home filtration units.

- o Cost

Alternative AW-1 provides a similar level of protection as Alternative AW-2 but at a much lower cost. AW-1 has no direct capital costs associated with its implementation. The present worth cost of AW-1 is \$166,082 is based on annual costs of \$27,053 per year for the semi-annual sampling and maintenance of the whole-house treatment systems.

The total cost of Alternative AW-2 is estimated to be approximately \$3,147,969. The capital cost is based on the

cost of connecting to HPFW which is estimated to be \$848,969 and construction of the distribution system is estimated to be \$2,299,000. While EPA and the NYSDEC would not incur any operating or maintenance expenditures under Alternative AW-2, residents connected to the system would have to pay for the water received, which is estimated to be approximately \$200 to \$400 per year.

- o State Acceptance

The State of New York concurs on the proposed modified remedy.

- o Community Acceptance

Community acceptance of the preferred alternative will be assessed in the ROD amendment following review of the public comments received on this Post-Decision Proposed Plan.

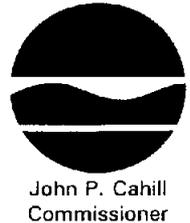
PREFERRED ALTERNATIVE

Based upon an evaluation of the various alternatives, EPA and NYSDEC recommend Alternative GW-1, No Further Action/Natural Attenuation, and AW-1, No-Further Action/Continue to Maintain Whole-House Filter Systems.

The Post-Decision preferred alternative provides the best balance of trade-offs among alternatives with respect to the evaluating criteria. EPA and the NYSDEC believe that the preferred alternative will be protective of human health and the environment, will comply with ARARs, will be cost-effective, and will utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable.

A. Sylvester

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Hazardous Site Control, Room 252
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-8807 FAX: (518) 457-8989



JUN 16 1993

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 Route 9-G and Haviland Road in the Town of Hyde Park and County of Dutchess and designated as Tax Map Number Section 6164, Lot 2, Blocks 56, 57 and 61 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 Haviland Complex and Haviland Road, Site #314059.

The Classification Code 4 means that the site has been 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:

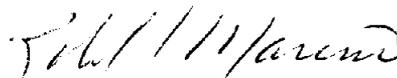
- The groundwater contamination source removal (pumping out four contaminated septic tanks and one leach field) has been completed. Contaminant levels slightly above groundwater standards but are significantly lower levels than the Remedial Investigation (RI) data. Therefore, the significant threat has been diminished and a groundwater treatment system is no longer necessary. Individual carbon filters are installed on seven (7) homeowners wells.

Water samples are analyzed quarterly to monitor the groundwater well contamination.

If you would like additional information about this site or the inactive hazardous waste site remedial program, call:

DEC's Inactive Hazardous Waste Site Toll-Free Information Number 1-800-342-9296 or
New York State Health Department's Health Liaison Program (HeLP) 1-800-458-1158,
ext. 6402.

Sincerely,



Robert L. Marino
Chief
Site Control Section
Bureau of Hazardous Site Control
Division of Environmental

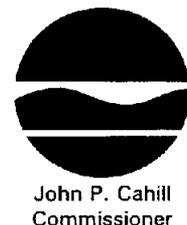
Remediation

bcc: R. Marino
J. Swartwout
R. Pergadia, R/3
D. Goetke, R/3
A. Sylvester
A. Carlson
L. Ennist

AS/srh

A. Sylvester

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Hazardous Site Control, Room 252
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-8807 FAX: (518) 457-8989



JUN - 1 1998

Steven Roberts
32 Altman Lane
Katonah, NY 10536

Dear Mr. Roberts:

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.: 314059
Site Name: Haviland Complex and Haviland Road
Site Address: Route 9-G and Haviland Road, Hyde Park, NY 12538

Classification change from 2 to 4

The reason for the change is as follows:

- The groundwater contamination source removal (pumping out four contaminated septic tanks and one leach field) has been completed. Contaminant levels slightly above groundwater standards but are significantly lower levels than the Remedial Investigation (RI) data. Therefore, the significant threat has been diminished and a groundwater treatment system is no longer necessary. Individual carbon filters are installed on seven (7) homeowners wells.

Water samples are analyzed quarterly to monitor the groundwater well contamination.

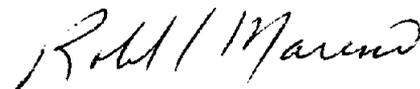
Enclosed is a copy of the New York State Department of Environmental Conservation, Division of Environmental Remediation, Inactive Hazardous Waste Disposal Site Report form as it appears in the Registry and Annual Report, and an explanation of the site classifications. The Law

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:

John P. Cahill
Commissioner
New York State Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233-0001

For additional information, please contact me at (518) 457-0747.

Sincerely,



Robert L. Marino
Chief
Site Control Section
Bureau of Hazardous Site Control
Division of Environmental Remediation

Enclosures

bcc: E. Barcomb
R. Marino
J. Swartwout
A. Sylvester

w/Enc. (Copy of Site Report form only)
A. Grant
A. Carlson, DOH
J. Sama
S. Ervolina
J. Ferry, R/3
R. Pergadia, R/3
E. Belmore

AS/srh

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION

WHOLE-HOUSE WATER TREATMENT SYSTEMS
HAVILAND ROAD AREA
TOWN OF HYDE PARK, DUTCHESS COUNTY, NEW YORK

SPECIAL CONDITIONS

- A. The Whole-House Water Treatment Systems are to be installed and maintained at the following households:

	<u>OWNER</u>	<u>TEST RESULTS ON RAW WATER</u> <u>OCTOBER, 1988</u>
✓ 1.	<i>Boryk Residence</i> Mr. Robert Close 8 Haviland Road Poughkeepsie, NY 12601 (914) 229-8657	7 ug/L tetrachloroethene
✓ 2.	<i>Swab Residence</i> Mr. & Mrs. William Pederson 14 Haviland Road Poughkeepsie, NY 12601 (914) 229-6158 (unlisted)	160 ug/L chlorobenzene 10 ug/L tetrachloroethene
<i>Giancarlo 3.</i>	<i>Giancarlo Residence</i> Mr. & Mrs. William Drier 20 Haviland Road Poughkeepsie, NY 12601 (914) 229-2688	41 ug/L chlorobenzene 35 ug/L tetrachloroethene
✓ 4.	Mr. & Mrs. Richard Macleary 22 Haviland Road Poughkeepsie, NY 12601 (914) 229-7376	22 ug/L tetrachloroethene 12 ug/L CIS -1, 2- dichloroethene
✓ 5.	Mrs. D. Dewitt 24 Haviland Road Poughkeepsie, NY 12601 (914) 229-8533	33 ug/L tetrachloroethene 27 ug/L CIS -1, 2- dichloroethene
✓ 6.	Mr. & Mrs. Paul Thompson 26 Haviland Road Poughkeepsie, NY 12601 (914) 229-0805	24 ug/L CIS -1, 2- dichloroethene
✓ 7.	<i>Baker Residence</i> Current Resident <i>Ruby</i> 12 Haviland Road Poughkeepsie, NY 12601 <i>Ruby</i> (914) 229-0130	

FAX MEMO
FROM: J. D. 3/13/91 FAX 518-458-6134
TO: BILL LOWDEN
FROM: TOM VICKERSON
CC: PFC
318-458-7140 518-957-7743