Department of Environmental Conservation

Division of Hazardous Waste Remediation

Record of Decision

Becker Electronics Manufacturing
Town of East Durham, Greene County
Site Number 420007

March 1996

Funded Under the
1986 Environmental Quality Bond Act

New York State Department of Environmental Conservation
GEORGE E. PATAKI, *Governor* MICHAEL D. ZAGATA, *Commissioner*

DECLARATION STATEMENT - RECORD OF DECISION

Becker Electronics Manufacturing
Inactive Hazardous Waste Site
East Durham, Greene County, New York
Site No. 42007

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedial action for the Becker Electronics Manufacturing inactive hazardous waste disposal site which was chosen in accordance with the New York State Environmental Conservation Law (ECL). The remedial program selected is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300).

This decision is based upon the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for the Becker Electronics Manufacturing Inactive Hazardous Waste Site and upon public input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A bibliography of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Assessment of the Site

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

Description of Selected Remedy

Based upon the results of the Remedial Investigation/Feasibility Study (RI/FS) for the Becker Electronics Manufacturing and the criteria identified for evaluation of alternatives the NYSDEC has selected ex-situ heat enhanced soil treatment of grossly contaminated soils on site, plume control by extracting and treating the most heavily contaminated groundwater and continued operation and maintenance of individual potable water supply wellhead treatment systems. The components of the remedy are as follows:

1. A remedial design program to verify the components of the conceptual design and provide the details necessary for the construction, operation and maintenance, and monitoring of the remedial program.

2. Treatment of the most heavily contaminated groundwater will be implemented based on design studies to determine the effectiveness and cost.

3. Excavation and treatment per State criteria of contaminated soils in the area of the chemical storage building and other areas of the site that may be discovered during design and construction field activities.

4. Continued provision of a potable water supply for the impacted area.

5. Institutional controls of fencing and warning signs, environmental monitoring to determine the effectiveness of the remedy, and deed restrictions or notifications to exclude the use of the property for residential purposes.

New York State Department of Health Acceptance

The New York State Department of Health concurs with the remedy selected for this site as being protective of human health.

Declaration

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

3/28/96
Date

Michael J. O'Toole, Jr., Director
Division of Hazardous Waste Remediation

RECORD OF DECISION
BECKER ELECTRONICS MANUFACTURING
INACTIVE HAZARDOUS WASTE SITE
TOWN OF EAST DURHAM, GREENE COUNTY
SITE NUMBER 420007

PREPARED BY

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF HAZARDOUS WASTE REMEDIATION

MARCH 1996

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Becker Electronics Manufacturing Corporation Site
East Durham, Greene County, New York
Site No. 4-20-007
March 1996

1: SITE LOCATION AND DESCRIPTION

1.1: Site Location

The Becker Electronics site is located in a rural, residential area in the hamlet of East Durham, within the Town of Durham, Greene County, New York. East Durham is located approximately 40 miles southwest of Albany, and 12 miles west of Catskill, New York (see Figure 1). The site is situated on the west side of New York State Route 145. The property is presently owned by Becker Electronics Manufacturing, Inc. Access to the site is via Route 145. Several access roads and/or vehicle trails are located within the site boundaries.

East Durham is a rural vacation community. The 1990 census found 57 people living in the area. Private residences and small business establishments are located north and east of the site. A resort, which is currently inactive, lies adjacent to the site on the south. Immediately north of the site, on the Irish Culture and Sports Center land, exists athletic fields used for recreational purposes. West of the site is undeveloped land consisting of grass fields and wooded areas.

There are no community public water supply systems in the vicinity of the Becker Electronics site. Several residences, vacation resorts and other businesses in the vicinity of the site obtain their water from individually owned private water supply wells.

The Becker Electronics site is located in a transition zone between two geologic provinces of the Appalachian Basin. The Hudson Valley section of the "Valley and Ridge" province and the Catskill section of the "Appalachian Plateau" province. The site is located on the northeastern slope of the foothills of the Catskill Mountains.

Two surface water bodies Thorp and Catskill Creek are located downhill of the site. Thorp Creek, a tributary of Catskill Creek, is classified by the NYSDEC Division of Fish and Wildlife as a C(TS)-C class trout stream. Groundwater that is contaminated by the site discharges into the streams in the area of their confluence which is located approximately 800 feet northeast of the site.

A wetland designated as F-3 is the closest regulated NYSDEC wetland down gradient with respect to surface drainage from the site and is located approximately one mile southeast of the site adjacent to Catskill Creek. This wetland is identified as Class II. NYSDEC classifies wetlands according to a value system, whereby Class I wetlands are the most valuable and Class IV wetlands are of least value.

1.2: Site Description

The Becker Electronics site is approximately 13 acres in size, and is comprised of several buildings which were once used for the manufacturing of high fidelity speakers and components. Manufacturing operations ceased in 1988 and the facilities are currently inactive.

Figure 2 presents a detailed site plan showing existing buildings, other site features and areas of the site that were investigated. The existing facilities are comprised of approximately 96,000 square feet (sq. ft.) of manufacturing/office space with 13,850 sq. ft. of associated garage area, a 4,700 sq. ft. sawdust storage building and a small pump house. Other than the existing buildings/structures and several paved and gravel parking areas, the site is grass-covered and contains a few small wooded areas, several large piles of debris, a fire pond and drainage swales/ditches. The fire pond is located along the western border of the site. Scrap metal has been disposed both adjacent to and within the debris piles. Small wetland areas exist on site close to the mouth of the fire pond and surrounding portions of the drainage ditches.

SECTION 2: SITE HISTORY

2.1: Operational/Disposal History

The Becker Electronics facility from approximately 1976 to 1988 was used to manufacture high fidelity speakers and speaker components. As part of the plant operations, 1,1,1-trichloroethane (1,1,1-TCA) and other solvents were used to remove oils from speaker magnet plates and other metal parts, and to degrease mechanical machinery.

Discharges of solvent-contaminated wastewater and potential on-site disposal through accidental spills or poor waste management led to the contamination of soil and groundwater.

2.2: Remedial History

In March of 1981, NYSDOH sampled a number of wells and surface water bodies at the Becker facility. The fire pond, drainage ditches, leach fields, and water supply wells located on site all showed the presence of 1,1,1-TCA, and other solvents. These solvents were also found in nearby private water supply wells. Becker Electronics retained consulting firms to review its manufacturing process, perform environmental sampling and recommend a treatment process for the removal of 1,1,1-trichloroethane.

In January of 1983, an Interim Hydrogeologic Investigation Report was prepared on behalf of Becker Electronics, which detailed potential locations of 1,1,1-TCA releases and environmental monitoring results.

Becker Electronics, Inc. entered into an agreement with NYSDEC in June of 1986 to monitor private wells affected by the contamination associated with the site, and to install and maintain carbon filtration treatment systems on those private wells which had unacceptable drinking water quality. In 1988, Becker Electronics closed the facility and declared bankruptcy.

In 1996 an RI/FS was completed by NYSDEC for the site per a 1992 Consent Decree ordered by the United States Northern District Court of New York giving the State access to the site to carry out remedial activities.

SECTION 3: CURRENT STATUS

In 1983 the NYSDEC determined that the Becker Electronics site posed a significant threat to human health and the environment. The site was accordingly listed as a Class 2 inactive hazardous waste site and after bankruptcy was declared, the NYSDEC initiated a Remedial Investigation/Feasibility Study (RI/FS).

3.1: Summary of the Remedial Investigation

The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The RI/FS, completed this year, was conducted in two phases. A report entitled "Becker Electronics Manufacturing Site East Durham, New York Remedial Investigation/Feasibility Study Report" has been prepared describing the field activities and findings of the RI in detail.

Areas and media of potential concern that were investigated are shown on Figure 2. Investigations in Areas 1, 2, and 3 primarily focused on the septic tanks and associated leach fields in those areas. In addition, soil samples were taken near the northwestern face of the manufacturing building in Area 3, through the loading dock slabs in Area 2 and behind the building in Area 2. Investigation in Area 4 included the area around the chemical storage and maintenance buildings. Investigations were also conducted both in the debris piles above grade in Area 5 and below grade in Area 6. The soil/ sediment (7) ditch water (8) and pond water (9) associated with site drainage ditches and fire pond were also sampled and otherwise investigated. Both the surface water and seeps in the rock face of Thorp and Catskill Creeks (10) were investigated. Both shallow/ overburden (11), and bedrock (12) groundwater associated with the site were also sampled.

Field activities consisted of the following:

- Baseline Air Monitoring
- Surface Geophysical Surveys
- Fracture Trace Analysis
- Surface Water and Sediment Sampling
- Water Table and Bedrock Monitoring Well/Piezometer Installation and Groundwater Sampling
- Subsurface Soil Sampling
- Debris Sampling
- Bedrock Borings and Borehole Geophysical Testing

- Hydrogeologic Testing
- Septic System Sampling
- Ecological and Health Risk Characterization

To determine which media (soil, groundwater, etc.) contain contamination at levels of concern, the analytical data obtained from the RI was compared to environmental Standards, Criteria, and Guidance (SCGs). Groundwater, drinking water and surface water SCGs identified for the Becker Electronics site were based on NYSDEC Ambient Water Quality Standards and Guidance Values and Part V of NYS Sanitary Code. For the evaluation and interpretation of soil and sediment analytical results, NYSDEC soil cleanup guidelines for the protection of groundwater, background conditions, and risk-based remediation criteria were used to develop remediation goals for soil. For the evaluation and interpretation of air sampling results, NYSDEC Air Guide #1 was used.

Based upon the results of the RI in comparison to the SCGs and potential public health and environmental exposure routes, certain areas and media of the site require remediation. These are summarized below. Chemical concentrations are reported in parts per billion (ppb) and parts per million (ppm) for soil sediment and water samples and parts per billion by volume (ppbv) for air samples. For comparison purposes, SCGs are given for each medium. More complete information can be found in the RI Report.

The presence of contaminants and their significance to human health and the environment are discussed in Section 4.3. Contaminants of concern are listed in Table 1.

3.1.1 Soils and Sediment

Based on the interpreted distribution of total volatile organic chemical (VOC) concentrations found in soils the highest levels of total VOCs in soil are at the chemical storage building. 1,1,1-Trichloroethane (TCA) was found in many of the test pits in the chemical storage building area with a maximum estimated concentration of 64 ppm found directly in front of the building. Other contaminants in this area include Toluene in estimated concentrations to 2,000 ppm, Total Xylene to 3,400 ppm and 2-Butanone to 51 ppm. These and other contaminants of concern discovered in the Chemical Storage Area (Area #4) are presented in Table #1. Other lesser VOC concentrations were detected at the septic system no. 2 leach field, sporadically in drainage ditches, the loading dock area near the former septic system no. 2 tank location, in surface soil west of septic system no. 3 and in some debris pile samples.

Based on the interpreted distribution of selected semi-volatile organic compounds (SVOCs) in soil and sediment (primarily phthalates) the most extensive area of phthalate contamination found, including the highest concentrations of phthalates (primarily BEHP), is the surface debris piles in the southeast corner of the site. BEHP contamination within the debris pile is believed related to use and disposal of epoxy-saturated wood products such as chip and particle board. Other areas of lesser phthalate contamination are the septic system no. 2 leach field, septic system no. 3 soil, the chemical storage building area soil, and site drainages. The source of the phthalate contamination is believed to be both particle board debris and wastewater from the Becker manufacturing building as evidenced by phthalates in residual wastewater from piping. Additional SVOC contamination also present at the site includes Polynuclear Aromatic Hydrocarbons (PAHs) and phenols, with the highest concentrations associated with the septic system no. 2 leach field.

Inorganic data from site soils and sediment show levels of inorganic concentrations exceeding background in some locations. However, the average inorganic concentration for the entire site, and on-site drainage ditches ,in general, is near or below background.

3.1.2 Groundwater

It is believed that shallow groundwater contamination drains downward into bedrock. Overall, the greatest shallow groundwater contamination is observed at the chemical storage building correlating with the finding of high levels of soil contamination in that area. Groundwater monitoring well 106S located directly in back of the chemical storage building was found to have a TCA concentration of 2600 ppb with a total VOC concentration of 3462 ppb. Lesser VOC contamination in the general vicinity of the debris pile area and septic system no. 2 was also found.

Well 106D which monitors bedrock contamination and is located next to well 106S was found to have high concentrations of TCA, 20,000 ppb, and a total VOC concentration of 33,419 ppb. Other contaminants of concern in both shallow and bedrock groundwater include, 1,1-Dichloroethane (DCA) with concentrations to 7,100 ppb, 1,1-Dichloroethene (DCE) to 2200 ppb, 2 Butanone to 900 ppb (estimated) and total Xylene in the shallow groundwater with a concentration of 30 ppb. These and other contaminants of concern discovered in the shallow and bedrock groundwater are presented in Table #1. Since contamination will follow fractures and cracks in bedrock and these patterns are unevenly distributed in the bedrock, the contamination at a specific location may vary significantly from that indicated in Figure 3. The figure shows that bedrock groundwater contamination is migrating from the site toward Thorp and Catskill Creek. It is believed that, based on groundwater flow directions, the core of the plume extends from the chemical storage building to Catskill Creek south of MW-112. Discharge of bedrock groundwater contamination to Catskill Creek has been observed at seeps along the exposed bedrock face.

3.1.3 Surface Water

Seep results from the rock face of Thorp Creek and Catskill Creek confirm that groundwater VOC contamination discharges to the vicinity of the creeks. The Department conducted sampling of the seeps in September 1995 and found concentrations of 380 ppb of TCA, 35 ppb of DCE, 50 ppb of DCA, 8 ppb of PCA and other contaminants. However, sampling of the creeks at that time confirmed the results of prior sampling events showing that contaminated groundwater entering the creeks was quickly diluted to non-detectable levels. Samples taken from on-site drainage ditches revealed low levels of VOC contamination (up to 12 ppb of Trichloroethene). In general, on-site drainage ditch VOC concentrations appear to have decreased with time.

3.1.4 Potable Water Wells

At this time the Department maintains wellhead treatment systems on 8 homes and businesses that use groundwater impacted by the site. Historically TCA, its breakdown products, and other chemicals have been detected in privately owned water well samples taken prior to receiving treatment from the Department maintained well head treatment systems. A 1981 sample from a privately owned well detected a maximum concentration of TCA of 5,500 ppb. Privately owned well water samples through 1989 found maximum yearly concentrations of TCA to vary between 100 ppb to 310 ppb prior to treatment. All individual water treatment systems are regularly sampled after treatment to insure that the systems are functioning properly. Though several monitoring well groundwater samples exceeded NYS Class GA criteria for some inorganics, no exceedences for inorganics of concern were found in recent Department of Health samples taken from impacted private water wells.

3.2 Interim Remedial Measures:

Interim Remedial Measures are conducted at sites when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/FS.

DEC-DHWR and DEC-Spills Management conducted a joint IRM from July through November 1992 during which the following work was performed:

1. Septic tanks were pumped out and steam cleaned. Septic Tanks were removed or demolished and some visibly contaminated soil was excavated.

2. Fuel oil tanks were pumped out removed or backfilled with concrete. Contaminated soil was excavated and disposed.

3. Drums of abandoned chemicals, including flammable corrosive waste, were removed for disposal.

4. A chain link fence was erected.

3.3 Summary of Human Exposure Pathways:

This section describes the completed and potential human exposure pathways to site contaminants associated with present and future use of the site. At the Becker site, the primary contaminants of concern are volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs). A list of chemicals of concern associated with the site is presented in Table 1. A detailed discussion of the health risks can be found in Section 7 of the RI Report.

An exposure pathway is the process by which an individual comes into contact with a contaminant. The five elements of an exposure pathway are 1) the source of contamination; 2) the environmental media and transport mechanisms; 3) the point of exposure; 4) the route of exposure; and 5) the receptor population. These elements of an exposure pathway may be based on past, present, or future events. The following exposure pathways were identified:

Groundwater: VOCs have been detected in potable water wells exceeding drinking water standards. Filter systems have been installed at locations with wells containing VOCs that exceed New York State Sanitary Code Subpart 5-1 maximum contaminant levels. These filter systems are maintained and monitored by NYSDEC (see Figure 3). Homes adjacent to the impacted homes will be monitored to verify that contaminants have not migrated further.

Surface soils: Persons working at the site or occupying the site for other uses, could be exposed to site contaminants in surface soils through direct (dermal) contact as well as inhalation and incidence of ingestion of contaminated soils that may have been carried by the wind. On-site air monitoring will be conducted during remedial activities to evaluate site conditions and to minimize worker exposure. A fence surrounds the site to prevent access to the site by trespassers. Therefore surface soil exposure on site by the public, except for trespassers, is not a completed pathway.

Surface water: Persons working at the site could be exposed to surface water at the site (i.e. the drainage ditch and fire pond). However, this exposure scenario is unlikely and therefore the potential for exposure is considered minimal. A fence surrounds the site to prevent access to the site by trespassers, therefore on-site surface water exposure by the public is not a probable exposure pathway. Off-site surface water does not currently present a significant exposure pathway, and remediation activities should mitigate any potential future exposure.

Sediment: There is a minimal potential for human exposure to site contaminants in seeps near Thorp Creek via direct contact. The contaminant levels in these areas are relatively low. If human exposure occurs at all, it is likely to be infrequent and for short periods of time. These exposures are not likely to result in any health effects.

Subsurface soils: The potential exists for direct contact, inhalation of VOCs and incidental ingestion of soil particulate during excavation activities associated with remediation of the site. A site remediation health and safety plan will address these potential pathways.

3.4 Summary of Environmental Exposure Pathways:

This section summarizes the types of environmental exposures which may be presented by the site. The Habitat Based Assessment included in the RI presents a more detailed discussion of the potential impacts from the site to fish and wildlife resources. The following pathways for environmental exposure have been identified:

Groundwater concentrations of several contaminants, notably chlorinated solvents, exceed criteria concentrations as described in Section 3.1.2. These results in the groundwater indicate that contaminants associated with the site could pose risks to ecological receptors. However, because of the lack of exposure to groundwater, the potential risks to ecological receptors are expected to be minimal. Receptors may also be exposed to contamination in sediments, surface water, and surface soils that exceeds criteria as described in Sections 3.1.1 and 3.1.3 and that may cause toxic effects.

SECTION 4: ENFORCEMENT STATUS

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

Becker Electronics is the only Potential Responsible Party (PRP) for the site documented to date.

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

The following is the chronological enforcement history of this site.

1. The State brought suit against Becker Electronics Manufacturing Company and its president in August 1985.

2. The defendants entered into a Stipulation with the State in June 1986 to monitor drinking water supplies of neighboring land owners and to install and maintain filter systems on wells affected by contaminants released from the site.

3. A July 1990 summary judgement found Becker Electronic Manufacturing Company liable for the site response costs.

4. An August 1992 consent order binding on the State, Becker Electronic Manufacturing Company and the Estate of Fred Becker, Jr. gave the State access to the site to carry out remedial activities and made provision for cost recovery.

Date	Index No.	Subject of Order
8/24/92	85-CV-1308	Becker Electronics Manufacturing Corp. and Fred Becker, Jr.

SECTION 5: SUMMARY OF THE REMEDIATION GOALS

Goals for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375-1.10. These site goals are established under the overall goal of meeting all standards, criteria, and guidance (SCGs) and protecting human health and the environment.

At a minimum, the remedy selected should eliminate or mitigate all significant threats to the public health and to the environment presented by the hazardous waste disposed at the site through the proper application of scientific and engineering principles.

The goals selected for this site are:

- Protection of human health and the environment by reducing the contaminant mass in the aquifer being used as drinking water source and prior to its entry into Thorp Creek and Catskill Creek as feasible.

- Reduce the migration of contaminants from unsaturated soils on site into the groundwater.

- Provision of potable water to users of groundwater contaminated with chemicals of concern originating from the site.

Also, if feasible, the secondary goal for groundwater remediation is to restore the aquifer to comply with State standards and guidelines for groundwater for unrestricted use.

SECTION 6: SUMMARY OF THE EVALUATION OF ALTERNATIVES

Potential remedial alternatives for the Becker Electronics site were identified, screened and evaluated in a Feasibility Study. This evaluation is presented in the report entitled "Becker Electronics Manufacturing Site Remedial Investigation/Feasibility Study". A summary of the detailed analysis follows.

6.1: Description of Alternatives

The potential remedies are intended to address the contaminated groundwater, soils and sediments at the site. The no further action alternatives are evaluated as a procedural requirement and as a basis for comparison. These alternatives recognize remediation of the site completed under previous IRMs. They require continued monitoring only, to evaluate the effectiveness of the remediation completed under the IRMs.

Under these alternatives the site would remain in its present condition, and human health and the environment would not be provided any additional protection.

6.1.1 Alternatives considered for the remediation of on-site soils and sediments:

The analysis assumes that 2500 cubic yards of contaminated soil will require treatment. Actual quantities will be determined during design and construction and may vary from this initial estimate.

Alternative S-1: Contaminated Soil - No Further Action

No actions would be taken to reduce risks associated with source soil.

Site access would be restricted by an existing chain link fence. Warning signs would be posted.

Zoning or land-use restrictions would be implemented to limit future use or development of the site.

Periodic sampling and analysis of contaminated soil, surface water, and groundwater would provide data to assess migration and degradation of site contaminants.

Alternative S-2: Ex-Situ Source Soil Treatment on Site

Under this alternative activities include:

- Design including additional field investigation
- Site preparation/mobilization
- Source soil excavation with possible building removal
- Ex-situ soil venting
- Off-gas treatment
- Backfill of treated soil

Alternative S-2a: Ex-situ Soil Venting System
Contaminated soil would be excavated and placed into an engineered soil pile. Air would be mechanically drawn through the pile using a system of perforated pipes. Contaminated soil would be remediated as VOCs volatilize and are drawn off by means of a blower.

Present Worth:	$431,000
Capital Cost:	$431,000
Annual O&M:	N/A
Time to Implement:	12 months

Alternative S-2b: Ex-situ Heat Enhanced Soil Treatment System

Under this alternative a vendor would be procured to operate an ex-situ heat enhanced soil treatment system.

Present Worth:	$583,000-$718,000
Capital Cost:	$583,000-$718,000
Annual O&M:	N/A
Time to Implement:	6 months

Alternative S-3: Off-Site Source Soil Treatment and Disposal

Contaminated materials would be excavated and treated off site using high temperature oxidation under controlled conditions. Organic compounds would be destroyed in the combustion process.

Under this alternative activities include:

- Site preparation/mobilization
- Source soil excavation with possible building removal
- Backfill of clean soil

- Off-site incineration and disposal

Present Worth:	$ 8,329,000
Capital Cost:	$8,329,000
Annual O&M:	N/A
Time to Implement:	2 months

6.1.2 Alternatives considered for remediation of groundwater:

Alternative GW-1: Contaminated Groundwater - No Further Action

Periodic sampling and analysis of groundwater, and groundwater seeps would provide data to assess migration and attenuation of site-related contaminants.

Under this alternative activities would include:

- Environmental monitoring

Present Worth:	$ 396,000
Capital Cost:	$12,000
Annual O&M:	$ 18,600
Time to Operate	30 years

Alternative GW-2: Plume Source Control by extracting and treating contaminated groundwater

One or more extraction wells would be installed to pump contaminated water from under the chemical storage building to the surface for treatment. Groundwater seeps that feed the on- site drainage swales would also be collected. This strategy would decrease the amount of time groundwater beyond the capture zone of the extraction system will take to return to within State criteria.

Contaminated water would be treated then discharged to surface water or recharged to groundwater. During design the fractured bedrock beneath the site would be evaluated to determine well location(s), water quality and pumping volumes to be used for design.

To accomplish treatment, various oxidation and air stripping processes would be assessed to determine if they can cost effectively treat the contaminated water. Based on treatability studies of the water quality at the selected well location(s), processes such as metals pretreatment, may be added to enhance contaminant removal. Contaminants would be air stripped or oxidized after pretreatment. Activated carbon or ultraviolet oxidation may be added as post treatment to enhance contaminant removal.

Under this alternative activities include:

- Predesign activities including aquifer pump testing and treatability study
- Site preparation/mobilization

- Groundwater extraction
- Up-gradient groundwater seep recovery
- Groundwater treatment
- Discharge of treated water
- Environmental monitoring to determine effectiveness

Present Worth:	$ 2,053,000-$3,967,000
Capital Cost:	$ 821,000-$1,223,000
Annual O&M:	$ 108,000-$ 253,000
Time to Operate:	10 years

6.1.3 Alternatives considered for provision of a Potable Water Supply:

Alternative WS-1: Potable Water Supply No Action

No action would be taken to supply potable water to residential users. Existing wellhead treatment equipment would be disconnected and, therefore, there would be no operation and maintenance.

Estimated Cost:	$ 5,000
Time to Operate:	n/a

Alternative WS-2: Potable Water Supply Wellhead Treatment

Treatment units that remove contaminants from well water have been placed in residences and businesses with wells contaminated by site-related contamination above acceptable standards. Routine operation and maintenance of the equipment would be required. Evaluation of the cost and effectiveness of the existing wellhead treatment systems and potential modification of the systems during implementation would be a part of this technology if selected.

Under this alternative activities include:

- Evaluate the existing wellhead treatment systems
- Operate and maintain wellhead treatment systems
- Sampling of private wells adjacent to homes with impacted wells.

Present Worth:	$ 794,500
Capital Cost:	$ 1,500
Annual O&M:	$ 43,000
Time to Operate:	30 years

Alternative WS-3: Alternate Water Supply

Either public water supply lines would be extended to the residential community down gradient of the Becker Electronics Site at an estimated present worth cost of $2,200,000 or a new water supply well up gradient of the site, storage, treatment and distribution system would be constructed at an estimated present worth cost of $1,432,000. Those residences that currently have a wellhead treatment system would be connected to the new water supply.

Under this alternative activities include:

- Installation of a new community water distribution system
- Connection of impacted residences to the new distribution systems
- Extension of the distribution system to an existing or new water supply

Present Worth:	$ 1,433,000-$2,200,000
Capital Cost:	$ 779,000-$1,602,000
Annual O&M:	$ 27,000-$15,000
Time to Operate:	30 years or longer

6.2 Evaluation of Remedial Alternatives

The criteria used to compare the potential remedial alternatives are defined in the regulation that directs the remediation of inactive hazardous waste sites in New York State (6NYCRR Part 375). The criteria are described below. Following that, a summary comparative evaluation of the alternatives against the criteria is provided. A detailed discussion of the evaluation criteria and comparative analysis is contained in the Feasibility Study.

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

1. **Compliance with New York State Standards, Criteria, and Guidance (SCGs).** Compliance with SCGs addresses whether or not a remedy will meet applicable environmental laws, regulations, standards, and guidance.

2. **Protection of Human Health and the Environment.** This criterion is an overall evaluation of the health and environmental impacts to assess whether each alternative is protective.

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

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

4. **Long-term Effectiveness and Permanence.** This criterion evaluates the long-term effectiveness of alternatives after implementation of the response actions. If wastes or treated residuals remain on site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the

remaining risks, 2) the adequacy of the controls intended to limit the risk, and 3) the reliability of these controls.

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

6. **Implementability.** The technical and administrative feasibility of implementing each alternative is evaluated. Technically, this includes the difficulties associated with the construction, the reliability of the technology, and the ability to monitor the effectiveness of the remedy. Administratively, the availability of the necessary personal and material is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, etc..

7. **Cost.** Capital and operation and maintenance costs are estimated for each alternative and compared on a present worth basis. Although cost is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the remaining criteria, cost effectiveness can be used as the basis for the final decision. The costs for each alternative are presented in Section 6.1 of this report.

This final criterion is considered a modifying criterion and is taken into account after evaluating those above. It is focused upon after public comments on the Proposed Remedial Action Plan have been received.

8. **Community Acceptance.** Concerns of the community regarding the RI/FS reports and the Proposed Remedial Action Plan have been evaluated. The "Responsiveness Summary" included as Appendix A presents the public comments received and the Department's response to the concerns raised. No public comments were received that would warrant revision of the selected remedy.

6.2.1 Evaluation of Alternatives for Remediation of On-Site Soils

Alternative S-1, no action, did not meet the threshold criteria and was not considered further. Both Alternatives S-2 (contaminated soils treatment on site) and S-3 (treatment and disposal of contaminated soils off site) would be protective of human health and the environment and in compliance with NYS state guidance and criteria (SCGs).

The short-term effectiveness and impacts of Alternatives S-2 and S-3 would involve excavation activities which may generate VOC emissions. Construction accidents associated with the excavation and use of heavy equipment are possible. Vapors from the ex-situ soil venting system (Alternative S-2) would be collected and treated; the effects on the community would be minimal. As part of Alternative S-2, the excavations may remain open for approximately one year, potentially posing a safety concern. Alternative S-3 would increase local truck traffic and noise during off-site transportation. Health and safety measures would be required for workers involved in either Alternative S-2 or S-3.

Regarding long-term effectiveness and permanence, Alternative S-2, on-site treatment of contaminants from soils with removal of the contaminants before discharge to the air, would effectively and permanently remove contaminants from soil. However, it may be difficult to achieve all remedial goals with soil venting.

There is little doubt, however, that a significant portion of the contamination would be removed. Alternative S-3 includes off-site incineration which would effectively destroy soil contaminants.

Both Alternatives S-2 and S-3, on and off-site treatment of contaminated soils, involve treatments that would reduce the toxicity, mobility, and volume of contaminants in soil. It is estimated that if remedial goals are achieved, ex-situ soil venting would remove the bulk of contaminants. Incineration of the soil (2500 cubic yards, estimated) taken off the site would remove a minimum of 99.99% of organic chemical contaminants in it.

Excavation may be difficult to implement as part of Alternatives S-2 and S-3, on-site and off-site treatment of soils respectively, due to the close proximity of buildings. The treatability of the type of soil encountered, minor equipment problems and other operational problems also affect implementation. Availability of off-site incinerators may impede the implementation of Alternative S-3. Excavation equipment, and materials and supplies for ex-situ soil treatment should be readily available.

Alternative S-3, off-site treatment and disposal costs substantially more than other soil alternatives being considered.

Areas of grossly contaminated soils on site would continue to leach contaminants unless these source areas are addressed. To lessen the time required for groundwater to return to State-defined quality and to lessen the health threat posed by on site exposure to these soils, it is proposed that Alternative S-2, (excavation, on -site treatment and replacement of soils grossly contaminated with volatile organic compounds (VOCs)) be adopted. During pre-design or remedial excavation, pockets of soils may be found to contain contaminants, primarily SVOCs, that exceed State criteria. In such cases, either the soils will remain on site if located more than a foot below the surface or covered with one foot of clean soil. While soil pile venting is less costly, contaminants, such as 2-butanone which is found in groundwater and may be present in site soils above treatment criteria, would not effectively be treated. A heat enhanced soil treatment system would, in addition to removing 2-Butanone, be effective in removing the SVOCs that may be co-located with VOCs.

6.2.2 Evaluation of Remedial Alternatives for Groundwater

Alternative GW-1, no action, would not meet the threshold criteria and was not considered further.

Alternative GW-2 would provide protection to human health and the environment through treatment of the most highly contaminated groundwater and maintaining institutional controls on new water supply wells. However, contaminated groundwater would remain until natural attenuation occurred because this alternative would not address the entire plume. Over time it is believed the part of the plume that was left untreated would eventually return to groundwater standards.

If it can be effectively implemented, GW-2 would provide long-term and permanent remediation of groundwater for the most contaminated portion of the site. However, the contaminated site soils which are the source of groundwater contamination must be addressed for the groundwater remediation to be permanent.

GW-2, includes a complex extraction and treatment system that would require coordination to implement and would cause short term construction impacts. All equipment and construction services are readily available, however, implementation may be significantly hampered if effective locations of extraction wells can not be developed.

6.2.3 Evaluation of Remedial Alternative for the Provision of Potable Water

Alternative WS-1, no action, would not meet the threshold criteria and was not considered further. Alternatives WS-2 (treatment at individual wellheads) and WS-3 (provision of an alternative water supply) both protect human health by preventing exposure of groundwater users to contaminants in groundwater.

Alternative WS-2 would have no short-term impacts due to construction because the wellhead treatment units are already in operation. Alternative WS-2 would require periodic entry into residences for routine operation and maintenance. Alternative W-3 would have minimal impacts associated with construction of water lines in the community.

Alternative WS-2, treatment at individual well heads, would provide a solution that is effective given that regular filter changes are made to maintain effectiveness. Alternative WS-3 would provide a long-term and permanent potable water supply.

However, only Alternative WS-2, individual wellhead treatment, would provide for reduction of toxicity, mobility, and volume of contamination, when granulated activated carbon filters are regenerated to destroy organics adsorbed to the carbon. The quantity of contaminants that may be destroyed by this process would be only a small fraction of the overall mass of contamination present at the site.

WS-2 would require no significant measures to implement. Arrangements with individual well owners would be made to service the individual systems. The implentability of WS-3 is not straight forward. Coordination of residents to form a water district to arrange for operation and for the collection and distribution system may be administratively infeasible given the small community population.

Alternative WS-1, no action, is estimated to cost $5,000 to implement. Alternative WS-2, potable water supply treatment at individual wellheads, is estimated to cost $793,000 to implement and pay for routine operation and maintenance. Alternative WS-3, the construction and operation of a new potable water supply and distribution system, would require an estimated $2,200,000 to extend a water main from an existing public water supply or an estimated $1,433,000 to provide a new community water supply system.

Until groundwater beyond the site returns to acceptable quality, potable water must be provided to impacted users. The water quality of both impacted wells and wells adjacent to those that are impacted must be monitored. While Alternative WS-3, construction of an alternative water supply is desirable, it may not be implementable given the small population available to support a water district for operation and maintenance of the system. It may also prove difficult to locate and develop a water source capable of sustaining the needs of the community. For this reason it is proposed that WS-2, provision of individual well head treatment of groundwater by the NYSDEC, be continued .

SECTION 7: SUMMARY OF THE SELECTED REMEDY

Based upon the results of the RIFS and the evaluation presented in Section 6, the NYSDEC is selecting the following remedy:

Alternative S-2b	Ex-situ Heat Enhanced Soil Venting
Alternative GW-2	Plume control by extracting and treating the most heavily contaminated groundwater (providing extraction is shown feasible during design)
Alternative WS-2	Potable Water Supply Wellhead Treatment

Assuming an average cost for the selected alternatives and an estimated cost of $72,000 for grading the debris pile and associated drainage ways and covering the pile with vegetated soil, the estimated present worth cost to implement the remedy is $ 4,527,000. The cost to construct the remedy is estimated to be $1,746,000 and the estimated average annual operation and maintenance cost for the first 10 years is $223,000.

The elements of the selected remedy are as follows:

1. A remedial design program to verify the components of the conceptual design and provide the details necessary for the construction, operation and maintenance, and monitoring of the remedial program. Uncertainties identified during the RI/FS will be resolved.

2. Treatment of the most heavily contaminated groundwater will be implemented based on design studies of the effectiveness and cost of:

    - Groundwater extraction
    - Upgradient groundwater seep recovery
    - Groundwater treatment
    - Discharge of treated groundwater
    - 5-year review for remedial efficiency and cost-effectiveness

3. Excavation and treatment per State criteria of contaminated soils in the area of the chemical storage building and other areas of the site that may be discovered during design and construction field activities by:

   - Source soil excavation
   - Construction and operation of an appropriate treatment scheme on site (heat enhanced ex-situ soil treatment)
   - Placement of treated soil on site

4. Continued provision of a potable water supply for impacted area by:

   - Evaluation and possible modification of existing wellhead treatment systems
   - Operation and maintenance of wellhead treatment systems
   - Monitoring of wells adjacent to impacted wells with well head treatment added if future impact is found

5. In addition to site preparation and mobilization for the above elements the remedial program also includes:

   - Institutional controls of fencing and signs as appropriate
   - Environmental monitoring to determine the effectiveness of the remedy
   - The site owner will be asked to impose deed restrictions to exclude the use of the property for residential purposes. Failing this a deed notification will be filed with the Greene County Clerk.
   - Site grading
   - Measures to mitigate minor releases of contaminants from the solid waste debris pile

SECTION 8: HIGHLIGHTS OF COMMUNITY PARTICIPATION

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

1. Repositories for documents pertaining to the site were established. Document repositories were established at the Town of East Durham Clerk's Office and the NYSDEC Region 4 Headquarters in Schenectady, N.Y. Pertinent reports and documents related to the RIFS were placed there during the project.

2. A site mailing list was established which included nearby property owners, local political officials local media and other interested parties.

3. Four public meetings were held at the Durham Town Building, East Durham, N.Y. The first meeting on June 13, 1990 was an initial information session to discuss site history and

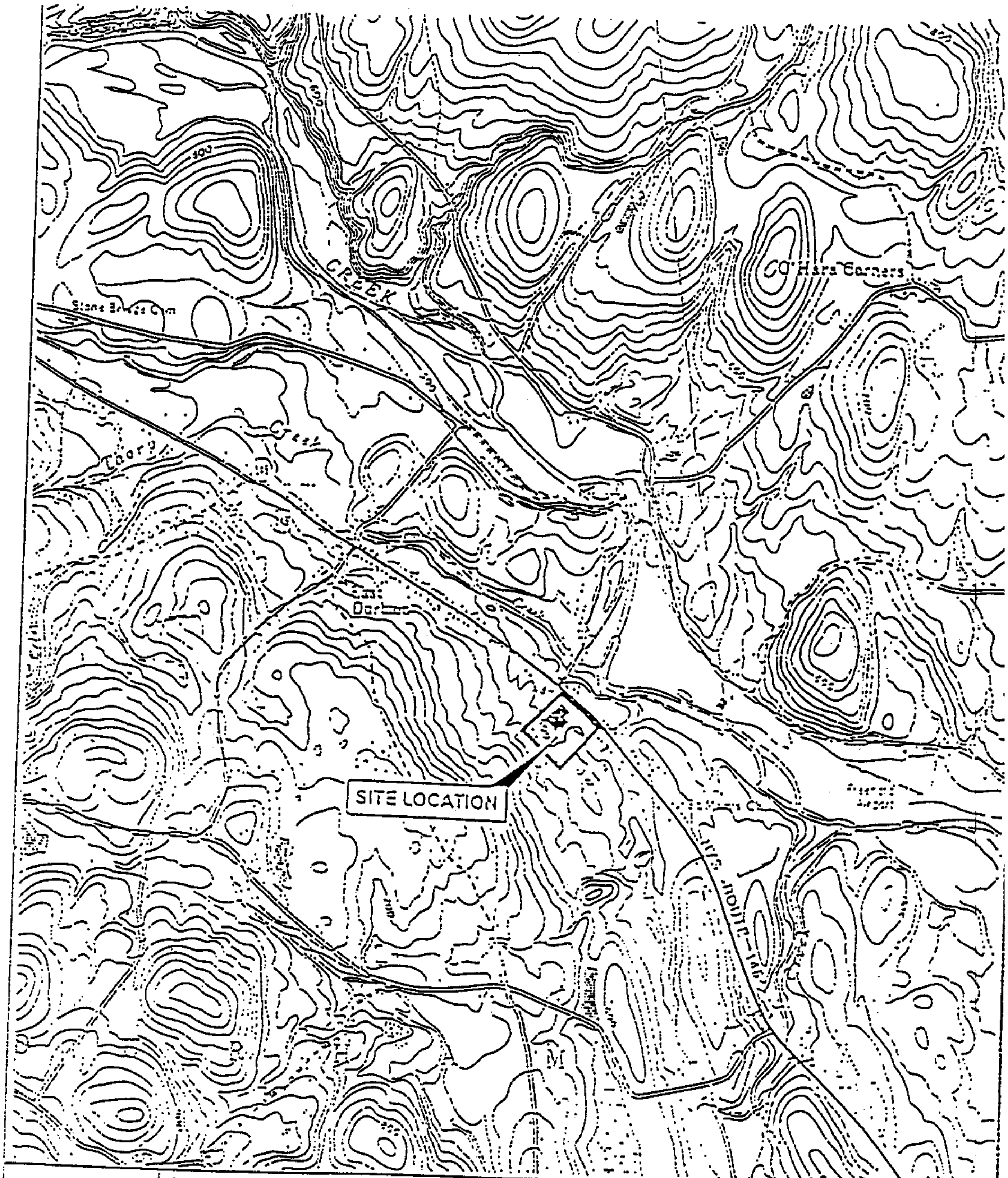
background and proposed RIFS activities. A project update secession was held on August 19, 1992. The third public meeting was held on July 7, 1994. Its purpose was to present proposed activities for the final phases of the RIFS. A detailed set of fact sheets was distributed to the public in conjunction with the fourth public meeting. The forth public meeting was held on February 22, 1996. Its purpose was to present the findings of the RIFS and to solicit public review and comment on NYSDEC's proposed remedial alternative.

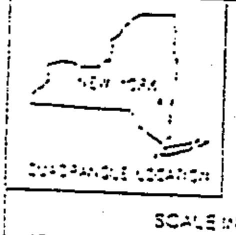
3. A Proposed Remedial Action Plan (PRAP) was issued on February 9, 1996. A 30 day public comment period was provided.

4. Questions and answers recorded during the February 22, 1996 public meeting and during the 30 day public comment period (February 9, 1996 to March 9, 1996) were used to develop the Responsiveness Summary presented in Appendix B of this document.

The Department did not receive any information during the public comment period, including the public meeting, that caused it to change the project from that presented in the Proposed Remedial Action Plan.

FIGURES





SOURCE: USGS 7.5-MINUTE SERIES TOPOGRAPHIC MAP FREEHOLD (1943) AND GREENVILLE (1945), NEW YORK. QUADRANGLES PHOTOREVISED 1980.

N

SCALE IN FEET

0 2000 4000

FIGURE 1
SITE LOCATION MAP
BECKER ELECTRONICS
DURHAM, NEW YORK

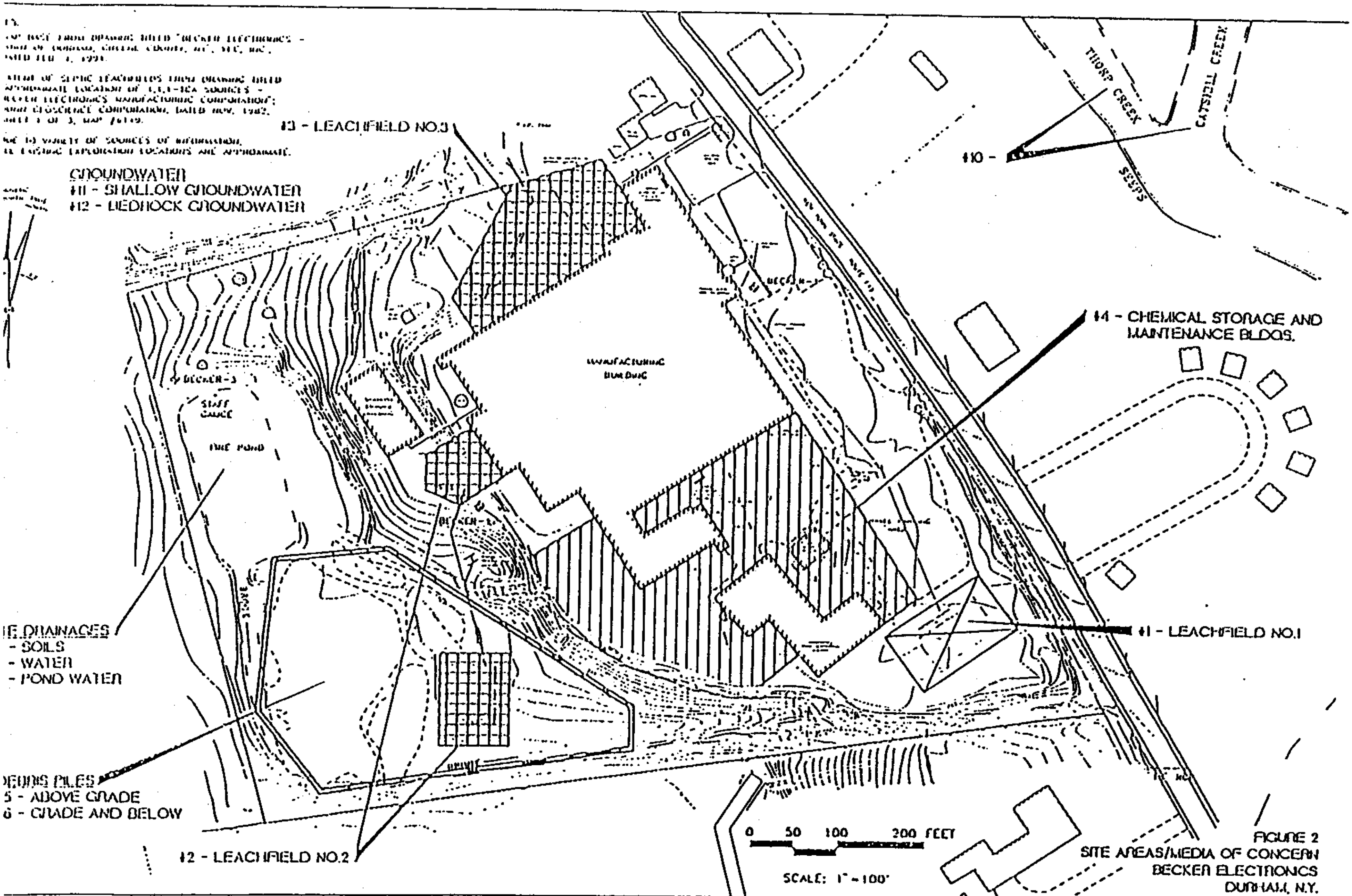


FIGURE 2
SITE AREAS/MEDIA OF CONCERN
BECKER ELECTRONICS
DURHAM, N.Y.
ABB Environmental Services

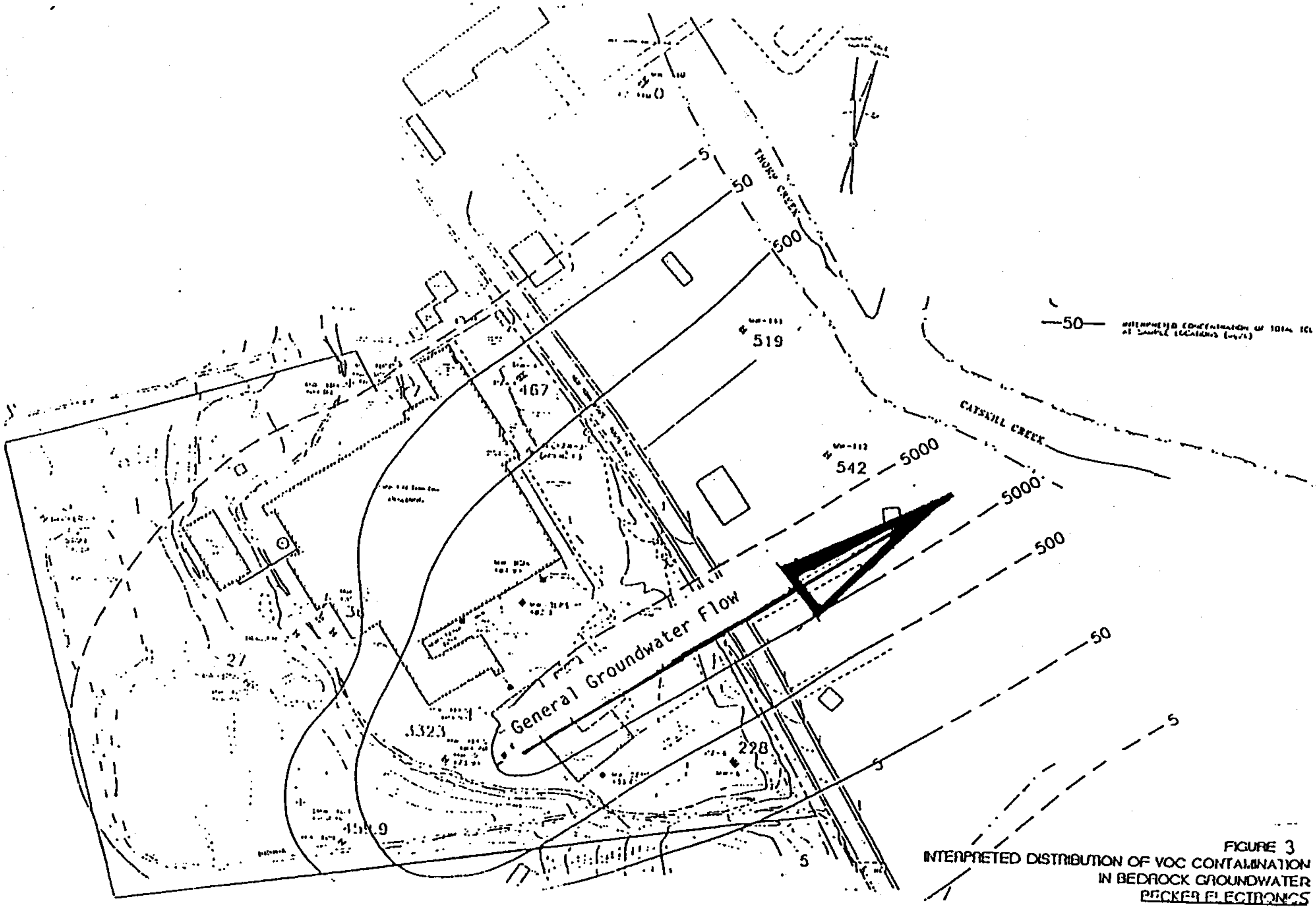


FIGURE 3
INTERPRETED DISTRIBUTION OF VOC CONTAMINATION
IN BEDROCK GROUNDWATER
PECKER ELECTRONICS

TABLE

TABLE #1 CONTAMINANTS OF CONCERN

PARAMETER	MINIMUM DETECT	MAXIMUM DETECT	CRITERIA	NO. EXCEEDS	NO. SAMPLED
Area #2 Soils ug/kg					
2,4-Dimethylphenol	*	2800 J	N/A	N/A	18
2-Methylphenol	*	3400 J	330	1	18
4-Methylphenol	340 J	25000 J	540	1	18
Benzo(a)Anthracene	30 J	1200 J	330	1	16
Benzo(a)Pyrene	23 J	940 J	330	1	16
Benzo(b)Fluoranthene	*	1000 J	660	1	16
Benzo(k)Fluoranthene	*	790 J	660	1	16
Carbazole	87 J	1400 J	N/A	N/A	8
Chrysene	31 J	630 J	330	1	16
Naphthalene	71 J	11000 J	7800	1	16
Phenol	*	13000 J	330	1	16
Area # 3 Soils ug/kg					
Benzo(a)Anthracene	190 J	420 J	330	1	6
Benzo(a)Pyrene	230 J	440 J	330	1	6
Benzo(b)Fluoranthene	420	830	660	1	6
Chrysene	240 J	490	330	1	6
Area #4 Soils ug/kg					
4-Methylphenol	*	1300 J	540	1	14
Benzoic Acid	130 J	15000 J	1890	1	9
N-Nitrosodiphenylamine	*	110	N/A	N/A	5
bis(2-Ethylhexyl)phthalate	910	56000	50000	1	12
1.1.1-Trichloroethane	2.0 J	64000 J	560	3	15
1.1-Dichloroethane	*	200 J	140	1	15
1.1-Dichloroethene	1100	3500 J	280	2	15
2-Butanone	230 J	51000 J	210	3	15
2-Hexanone	*	540 J	N/A	N/A	17
Ethylbenzene	130 J	600000 J	3850	1	17
Toluene	15 J	20000000 J	1050	3	15
Total Xylenes	29	3400000 J	840	2	15
Trichloroethene	6.0 J	4800 J	500	1	15

Parameter	**Minimum Detect	**Maximum Detect	Criteria	No. Exceeds	No. Sampled
Area #7 On Site Drainage Ditch and Fire Pond Sediment ug/kg					
bis(2-Ethylhexyl)phthalate	57 J	65000	50000	2	15
Area #8 On Site Drainage Ditch Surface Water Results ug/kg					
Trichloroethene	3.0 J	12	11	1	16
Area 10 Off Site Surface Water ug/l					
Tetrachloroethene	*	3.0 J	1.0	1	11
Trichloroethene	2.0 J	23 J	11	2	11
Area 11 Overburden/Shallow Groundwater Results ug/l					
1,1,1-Trichloroethane	7.0 J	2600	5.0	9	13
1,1-Dichloroethane	1.0 J	420	5.0	9	13
1,1-Dichloroethene	2.0 J	400	5.0	4	13
1,2-Dichloroethene (total)	3.0 J	12 J	5.0	2	13
Trichloroethene	2 J	18	5.0	2	13
1,2-Dichloroethane		10.0 J	5.0	1	13
Chloroethane	1.0 J	5.0 J	5.0	1	13
Total Xylenes	*	130	5.0	1	13
Area 12 Bedrock Groundwater Results ug/l					
1,1,1-Trichloroethane	15	20000	5.0	8	13
1,1-Dichloroethane	8.0 J	7100	5.0	8	13
1,1-Dichloroethene	4.0 J	2200	5.0	7	13
1,2-Dichloroethene (total)	4.0 J	2000	5.0	4	13
2-Butanone	13 J	900 J	50	1	13
Acetone	*	68	N/A	N/A	13
Tetrachloroethene	*	24 J	5.0	1	13
Chloroethane	3.0 J	310 J	5	2	13
Trichloroethene	3.0 J	1800	5.0	6	13
Vinyl Chloride	2.0 J	15	2.0	2	13

Chemical was detected in only one sample.

** For many of the samples the chemicals listed below were not detected. Of those samples where a chemical was detected the range of values (min/max) is given.

J Estimated value

APPENDICES

Appendix A

Public Responsiveness Summary
Becker Electronics Manufacturing Site
Site No.: 420007
Town of East Durham
Greene County, New York

1. Question: When were the individual wellhead treatment systems installed and are they or the monitoring wells showing that the groundwater impacted by the site is cleaning up?

1. Answer: Individual treatment systems in the immediate vicinity of the site were installed in the early eighties. Since then the number maintained by the Department has fluctuated. At present the Department maintains wellhead treatment systems on eight homes and businesses that use groundwater impacted by the site.

The concentration of site related contaminants appears to have decreased in private water supply wells prior to treatment from the historic high concentrations found when the first individual treatment systems were installed.
However, unlike the monitoring wells, the individual wells in general draw water from a number of rock fractures down the length of the hole in which they were installed. Some of the fractures contain contaminated water, while other fractures they encounter may not. This is in part why the level of contaminants is lower in the individual wells when compared to the monitoring wells. The monitoring wells installed during the study were constructed to draw water from discrete fractures believed to be contaminated by the site. As shown on Figure 3 in the ROD samples taken from the monitoring wells indicate that significant contamination , in excess of 5000 ppb of total votatile organic chemicals, still exists.

Since the contaminated fractures are being continually fed by water percolating through contaminated soil on site, it is unlikely that the concentrations in those fractures will significantly change until the soil is removed and treated as described in the Remedy.

2. Question: When will the property become viable for use by a business, 30 years? Is there legislation being considered that would absolve any future owner or operator that is not a responsible party from liability as a result of the damage caused by hazardous waste? Have many sites been returned to productive use around the state under the Brownfield program?

2. Answer: Portions of the site that are not involved in the clean up may be utilized during the remediation provided the business and remedial activities could be conducted together in a safe manner.

Though 30 years was used in the alternatives analysis, it is likely that the initial removal and treatment of contaminated soils and treatment of the most contaminated groundwater will have a significant effect much sooner.

The purpose of the Brownfields Initiative is to encourage the development of properties contaminated from business activities , "brownfields" , as opposed to uncontaminated land, "greenfields". As part of the larger Brownfields Initiative New York is proceeding with a Voluntary Cleanup Program which is not necessarily linked with any development initiative. The Voluntary Cleanup Program deals head-on with developer concern over potential unlimited liability. The program provides a definite end point to the developer's remedial commitment by establishing predetermined cleanup levels. Once the cleanup is successfully complete, the Department provides a qualified release from liability for past contamination. Though the release given to volunteers is provided only by DEC, the Department hopes to reach an arrangement with EPA Region 2 so that volunteers will receive a release from liability under Federal law as well. Interested parties can contact the Project Manager ,John Stawski, for additional information. At this time, 17 Voluntary Cleanup agreements have been executed with the Department.

3. Question: What is the total cost of the proposed remedy?

3. Answer: The cost to construct the remedy is estimated to be $1,746,000. If operation and maintenance were required for the full thirty year period the estimated present worth cost is $4,527,000.

4. Question: What would be the risk to workers health? Are there statistics on the health of workers previously employed at the facility? What is the toxicity of 1,1,1-Trichloroethane ?

4. Answer: Provided that deed restriction limitations are imposed and both the site and the remediation are in compliance with OSHA and other health and safety laws for workers doing remediation, there will be no exposure to site contamination and therefore there will be no exposure to remedial plant workers. There are no statistics on workers previously employed at the facility.

1,1,1-Trichloroethane (also called methyl chloroform) is a colorless man-made liquid which is used primarily as a solvent for removing grease from metal. It has a variety of other solvent uses and is also used as a chemical intermediate (building block) in the production of other chemicals. 1,1,1-Trichloroethane generally gets into drinking water from improper waste disposal.

Industrial workers exposed to large amounts of 1,1,1-trichloroethane could have nervous system, liver and cardiovascular system damage. Exposure to high concentrations of this chemical causes nervous system, liver and cardiovascular system damage in laboratory animals. Chemicals which cause adverse health effects in exposed industrial workers and laboratory animals may also pose a risk of adverse health effects in humans who are exposed at lower levels over long periods of time.

5. Question: Will other sites where Becker has dumped be tested (i.e. the Durham Greenville Landfill)?

5. Answer: Sites such as the Durham Greenville County Landfill that are on the NYS List of Inactive Hazardous Waste sites are investigated under a preliminary site assessment program by the Department. Testing done at the Durham Greenville County Landfill found that the site does not present a significant threat to human health or the environment and therefore it has been reclassified to a listed class 3 site.

6. Question: Shouldn't there be a sign if its a hazardous waste site?

6. Answer: Signs have been posted at the site however, they have been vandalized at times. The Department will continue to replace them.

7. Question: Can the fire company use the water in the pond for fire fighting purposes.

7. Answer: The Department does not own the site but rather occupies it for the purpose of cleaning up hazardous waste. Access to the site for use of the pond water can only be granted by the site owners. The Fire District should first contact the present owners if it is interested in using the pond. The Department of Health would not object to emergency use of the pond water for this purpose provided that it could be accessed in a safe manner during the on going remediation..

Appendix B

Administrative Record Index
Becker Electronics Manufacturing Site
Site No.: 420007
Town of East Durham
Greene County, New York

The following documents are included in the Administrative Record:

1. The State of New York vs Becker Electronics Manufacturing Corporation and Fred Becker Jr. Consent Decree index # 85-CV-1308; dated 8/24/92

2. "Remedial Investigation/Feasibility Study Detailed Work Plan"; by ABB Environmental Services; dated June 1994.
   Also includes:

   A. Quality Assurance Project Plan (QAPP)

   B. Health and Safety Plan (HASP)

   C. Field Sampling Plan (FSP).

   D. Citizen Participation Plan (CPP).

3. Final Remediation Investigation and Feasibility Study Report ; by ABB Environmental Services; dated February 1996. Previous work by Medcalf and Eddy has been incorporated into this document.