

UPDATED PUBLIC INVOLVEMENT PLAN

Former Varian Facility Site 150 Sohier Road Beverly, Massachusetts 01915

MassDEP Site # 3-0485

Submitted by:

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List of Acronyms and Abbreviations

APTIM	Aptim Environmental LLC
AUL	Activity and Use Limitation
CHES	Clean Harbor Environmental Services, Inc.
COC	chemicals of concern
CPI	Communications & Power Industries, Inc.
CSA	Comprehensive Site Assessment
DNAPL	Dense non-aqueous phase liquid
FRRP	Final Remedial Response Plan
IRA	Immediate Response Action
IT	IT Corporation
LSP	Licensed Site Professional
MCP	Massachusetts Contingency Plan
MassDEP	Massachusetts Department of Environmental Protection
O&M	operation and maintenance
PCE	tetrachloroethene
Phase IV RIP	Phase IV Remedy Implementation Plan
PIP	Public Involvement Plan
PSL	potential source locations
RAM	Release Abatement Measure
RAP	Phase III Remedial Action Plan
RCRA	Resource Conservation and Recovery Act
ROS	Remedy Operation Status
RRIP	Remedial Response Implementation Plan
RTN	release tracking number
Shaw	Shaw Environmental and Infrastructure
SOW	Scope of Work
SVE	Soil vapor extraction
TCA	1,1,1-trichloroethane
TCE	trichloroethene
Varian	Varian Medical Systems, Inc.
VOC	volatile organic compounds

1.0 INTRODUCTION

This Public Involvement Plan (PIP) was originally prepared in 1993 for Varian Medical Systems, Inc. (Varian) and revised in 1996 in accordance with the requirements of Massachusetts Department of Environmental Protection's (MassDEP) Massachusetts Contingency Plan (MCP), 310 CMR 40.0000. This 2022 update has been prepared to model the PIP to conform with the most recent version of the MCP and to update the PIP with the current site conditions and status. The 2022 version of the PIP will undergo a 14-day public comment period and will be revised, if appropriate, based on comments submitted.

Per the MCP, the Licensed Site Professional (LSP) for the site is responsible for overseeing response actions under the MCP, including the public involvement provisions of the regulations. The LSP for this site is Brian J. Cote (brian.cote@aptim.com). Remedial response actions include determining the nature, source, and extent of the contamination, risk posed by the site, whether cleanup actions are necessary and, if necessary, determining and implementing the most appropriate measures. In addition, the remedial response action process provides opportunities for public involvement throughout the process. The remedial response action process is established by the MCP.

Public involvement during the remedial response action process is undertaken to ensure that the public is both informed of and involved in planning for remedial response actions. For sites at which the public indicates interest in becoming involved in this process, the MassDEP designates the site as a PIP site and requires the preparation of a plan that identifies specific activities that will be undertaken to address public concerns to the extent possible.

On February 14, 1992, the MassDEP received a petition from residents of the City of Beverly requesting that the Varian facility located at 150 Sohier Road (site) be designated as a PIP site under Section 14(b) of M.G.L. c. 21E, the Commonwealth's "Superfund" statute. On March 2, 1992, the MassDEP officially designated the site as a PIP site, requiring the preparation and implementation of a PIP. On February 22, 1993, the MassDEP assigned Varian the responsibility of completing the Plan. Varian contracted Clean Harbor Environmental Services, Inc. (CHES) to draft the PIP and schedule a public review meeting for April 15, 1993 (see Section 2.3).

The 1993 PIP was revised in 1996 in accordance with the requirements of the MCP, 310 CMR 40.0000. Under the regulations in effect at that time, the site was designated a waiver site (i.e., the MassDEP did not oversee assessment and remedial work). As a result, MassDEP assigned responsibility for conducting both technical and public involvement activities at the site to Varian. Sites which subject to waivers remained responsible for complying with all of the applicable provisions of M.G.L. c. 21E and the MCP, including public involvement. The MassDEP retains the authority to ensure that public involvement activities are conducted in accordance with state law and regulations.

The January 5, 1996, draft revised PIP was revised to respond to public comment. Varian issued the final PIP on February 15, 1996. Although Varian no longer owns the property or operates the facility, Varian continues to implement public involvement activities in conjunction with the development and implementation of remedial response actions at the site.

The Plan is for the site located at 150 Sohier Road, Beverly (the "Site"), and any surrounding property where contamination from the Site has come to be located. Environmental investigations and remedial measures conducted to date have centered around the property at 150 Sohier Road. However, the Phase II - Comprehensive Site Assessment further defined where contamination from the Site has come to be located, thus redefining the Site boundary. Section 2 contains background information on the Site, including facility, environmental assessment activities, and public involvement histories. Section 3 explains how the remedial response action process addresses community concerns raised during the development of the plan. Section 4 explains the proposed public involvement activities. Section 5 contains a schedule for public involvement activities. Section 6 describes how the Plan will be revised in the future, if necessary.

This Updated Public Involvement Plan has been prepared by Aptim Environmental, LLC (APTIM), on behalf of Varian, and will undergo a public comment period. Comments on the 2022 Updated Plan are encouraged and may be submitted by writing to or calling Mr. Raymond Cadorette, whose address, email address, and telephone number appear on the title page of this Updated Plan. For comments to be considered in the development of the final Updated Plan, they should be submitted by close of business on November 23, 2022.

2.0 SITE BACKGROUND

This section retains area information presented in the 1996 Plan but has been updated where necessary with current Site information gathered during investigation activities conducted between 1996 and 2022.

2.1 Site Description and History

As previously mentioned, the Site has been referred to and listed by the MassDEP as the property located at 150 Sohier Road. The facility is currently owned and operated by Communications & Power Industries, Inc. (CPI). The property was originally developed by Bomac Laboratories, Inc. in the 1950s. Varian purchased the property in 1959 and continued to develop the property with expansions of buildings. Operations at the facility have always been related to manufacturing electronic equipment, such as diodes, receiver protectors, and magnetron tubes, and conducting research related to that manufacturing. Processes at the facility have included electroplating, acid and alkali cleaning, painting, etching, and equipment maintenance. The property was transferred to CPI in 1995; however, Varian remains responsible for releases that occurred prior to 1995. A more detailed Site history and chronology of property uses is provided in a letter dated November 25, 1992, to the MassDEP from CHES.

Pursuant to M.G.L.c.21E and the MCP, the disposal "Site" is defined as the area where oil or hazardous materials from the former Varian property have come to be located. The Phase II assessment and subsequent assessment activities have further defined the Site's boundaries.

Comprised of approximately 24 acres of land, the property contains four large complexes of buildings covering approximately 250,000 square feet. Sohier Road and undeveloped land abut the property to the northeast. Across Sohier Road to the southeast is an apartment complex (Northridge Homes), and south

of the property is Life Storage (Roller Palace in 1996). Southwest of the property is a medical office building and Hopeful Journeys Education Center (New England Biolabs and Appleseed's office space, respectively, in 1996). Tozer Road is located west of the property. Across Tozer Road to the southwest is Danvers Packing (Appleseed's distribution center in 1996) and Tobin & Sons Moving and Storage (the Pooler residence in 1996), and west of Tozer Road are the businesses Bass River Tennis Club and Mach-1 Systems (Arro Engineering Corporation in 1996). The west-northwest portion of the property abuts Tozer Road, and Route 128 traverses the northwest-north property line. Northwest of the property and across Route 128 is the United States Postal Service facility located on Tozer Road. North of the property, also across Route 128, is the residential street Mark Road. The southern portion of the property contains a playing field and a paved parking area. The central portion of the property includes a building complex (Buildings 5, 5A, and 8). North of this building network is a flat, paved parking area and to the northwest is another building complex (Buildings 1, 2, 3, 4 and 6). Northeast of Buildings 1, 2, 3, 4, and 6 are a wastewater treatment plant and groundwater recovery and treatment system. West of Buildings 1, 2, 3, 4 and 6 is former Building 7, which is now operated as Kelly Classics and Restoration. Bomac Road (Salem Water Works Road in 1996) traverses the property from the southeast to the northwest between Building 7 and the building complexes located in the central and northeast portions of the property. Attached **Figures 1 and 2** depicts the property and surrounding area.

The topography of the facility slopes slightly downward from the south to north. At the southwest property line, an embankment slopes downward into the abutting properties. In the northwest portion of the property, the topography slopes downward to Tozer Road. The majority of the property is covered with buildings and paved parking areas, although grass and landscaped areas surround some portions of the buildings. Small trees and shrubbery are located along the property line abutting Sohier Road and the embankment at the southwest and west property line.

A stream with seasonal flow enters the property in the northeast portion of the property through a pipe under Route 128. Near the area where the stream enters the property, storm drains enter the stream. These drains carry stormwater runoff from the abutting roads and an area across Sohier Road, which is a former municipal landfill. The drainage from across Sohier Road is the predominant flow during the summer months when there is little or no flow in the stream entering the property from north of Route 128. The stream crosses the facility in an underground culvert from the east to the west and collects surface water drainage. Near the western property line the stream leaves the culvert, becomes a surface stream, and flows in a southwesterly direction. This stream is referred to herein and in reports on the Site as the "stream" or the "unnamed stream."

The stream flows from the property in a southwesterly direction beneath an abutting office building located on Tozer Road. From this point it flows along Tozer Road in a channel with overgrown vegetation along its banks. The stream passes through a culvert below Tozer Road and past a small wetland area. At this point it joins with another stream flowing in from the northwest. The stream then flows along the back property lines of residential homes located on Tudor Road and Jordan Street and next to the Beverly High School athletic fields (approximately 2,000 feet or 600 meters from the facility). There is a small fence between the high school's stream and athletic fields. After flowing past the high school, the stream flows in drainage pipes under a park and industrial facility before emerging somewhere between Shoe Pond and the Bass River (more than a mile from the property). The quality of the stream on and near the site is discussed below.

As summarized in a letter to the MassDEP from CHES (dated November 25, 1992), during the time Varian operated the facility, wastes at the facility were stored in accordance with the federal Resource Conservation and Recovery Act (RCRA), and state requirements, as they became applicable; waste handling and management practices were outlined in the facility Hazardous Waste Management Plan. Prior to 1991, solvents were stored adjacent to Building 9. This solvent storage area was transferred to a location on the east side of Building 1 identified in the 1992 figure "Chemical Stores, Generation and Collection Areas" (attached to November 25, 1992, letter report). A copy of this figure is provided as **Figure 3**. Except for the addition of spent oil storage areas, the chemical storage areas during the final years of Varian's operation of the facility are shown in **Figure 3**. Since the sale of the 150 Sohier Road Facility in 1995, chemical and waste storage at the facility have been managed by CPI.

2.2 Environmental Assessment History

This section of the 1996 PIP has been revised and updated to include and briefly describe what has happened at the Site including historic activities presented in the 1996 PIP as well as those conducted from 1996 through 2022. Additional details of the pre-1996 activities and a discussion of Site geology are presented in the 1996 PIP that is available in the Site data repository. Due to the number of years of environmental work and the volume of activities conducted at the Site, the historical chronology presented below focuses on the dates and timing of major milestones and actions completed following the initial discovery in 1985.

Below is a summary of the MCP process and the major milestones

Generalized Massachusetts Contingency Plan (MCP) Process

MCP Phase	Purpose
Phase I	<ul style="list-style-type: none"> Initial investigations Implement preliminary response actions where needed
Phase II	<ul style="list-style-type: none"> Determine nature and extent of contamination Evaluate potential risk to determine if cleanup plan is needed
Phase III	<ul style="list-style-type: none"> Evaluate cleanup options based on defined criteria (e.g., effectiveness, feasibility, comparative benefits, etc.)
Phase IV	<ul style="list-style-type: none"> Complete cleanup design and plans Begin treatment
Phase V	<ul style="list-style-type: none"> Complete cleanup design and plans Begin treatment
Permanent or Temporary Solution	<ul style="list-style-type: none"> Determination that a site has been cleaned up to background levels, if feasible, or, if not, to levels of no significant risk

The following subsections describe the history of the environmental investigations and remedial measures completed at the Site. Refer to section 2.3 for a summary of the public involvement history for the Site.

Initial Release Notification

The Site assessment/remedial history began with the removal of a 3,000-gallon underground tank used to store waste acetone. This tank was located at the southwest corner of Building 1 and was used from 1976 to 1985 for the storage of a waste acetone-water mixture generated by the rinsing of metal parts. The tank was removed on May 20, 1985. During removal, there was no visual evidence of leakage; however, traces of acetone were found in soil around the tank. As a result of the apparent release, MassDEP notified Varian in a letter dated December 3, 1985, that Varian was responsible for investigating and assessing the source and extent of chemicals at the Site. Groundwater monitoring wells were installed in subsequent assessments and were sampled for three years (August 1986 through April 1989). The MassDEP agreed that the tank removal was complete after monitoring showed acetone levels had reached acceptable levels (MassDEP letter dated December 31, 1990, to Varian from Edward H. MacDonald).

Activities 1985- 2022

- In May 1986, Varian installed four groundwater monitoring wells to evaluate the integrity of the fuel oil tanks at the facility. Sampling and analyses of groundwater samples from these wells indicated the presence of volatile organic compounds (VOCs), which was reported to the MassDEP by Varian in a letter dated October 3, 1986. The Site was placed on the state list on January 15, 1987, identifying it as a Location To Be Investigated.
- In August 1987, a Preliminary Environmental Site Evaluation (CHES, 1987) was completed revealing the presence in soil and groundwater of primarily chlorinated solvents such as 1,1,1-trichloroethane (TCA), trichloroethene (TCE), and tetrachloroethene (PCE).
- In May 1988, a Final Environmental Site Evaluation & Proposed Remedial Study (CHES, 1988) was completed. This document summarized assessment activities from May 1986 through March 1988, including the installation and testing of multiple monitoring wells. Results of a pump test conducted at existing groundwater recovery wells were also discussed. The document proposed the installation of additional groundwater recovery wells, a pumping system to provide containment, and a system to treat recovered groundwater.
- In July 1989, an MCP Phase III – Development of Remedial Response Alternatives (CHES, 1989) was issued. This document summarized the installation of additional recovery wells, groundwater sample results, and an aquifer pump test. A treatability study was conducted. The report estimated the expected flow rate from pumping at the six recovery wells and presented a design for the treatment of recovered groundwater.
- In March 1992, the Site was designated a PIP site. MassDEP initially managed the PIP. In February 1993, MassDEP assigned completion of the PIP to Varian.
- In June 1992, the proposed groundwater recovery system was installed at the Site and began operation under an Interim Measure approved by MassDEP in May 1991 (MassDEP, 1991). The groundwater treatment system operated until May 2002. During that time, the treatment system recovered and treated over 11 million gallons of groundwater. As part of groundwater treatment, approximately 400 gallons of solvent were recovered and shipped off-site for disposal at an approved licensed facility.
- From 1993 to 2001, quarterly groundwater sampling was completed at the Site, and reports were submitted to MassDEP.

- In February 1993, the Site received a waiver of approvals from MassDEP, which allowed Varian to proceed with remedial response actions without further MassDEP approvals of work going forward. .
- In March 1993, the Site was classified as a non-priority disposal site by MassDEP.
- In December 1993, a Phase IIA Comprehensive Site Assessment (CSA) Scope of Work (SOW) outlining activities to develop a conceptual hydrological model for the Site was submitted to MassDEP.
- In November 1994, the Phase IIA CSA was submitted (IT, 1994). The document identified 13 potential source locations, presented bedrock evaluation (mapping, fractures, and groundwater flow), and the results of additional assessment started in June 1994. The document included a Phase IIB CSA SOW.
- From 1995 until 1999, the Phase IIB CSA site investigations were conducted and included the following:
 - evaluation of facility floor drains and utility trenches
 - multiple soil vapor surveys
 - multiple rounds of soil boring installation and soil sampling
 - multiple rounds of shallow overburden, deep overburden, and bedrock monitoring wells installation
 - surface water and stream sediment sampling
 - survey, inspection, and monitoring of basement sumps at multiple residents
 - slug and pump tests to assess aquifer characteristics
 - testing of dense non-aqueous phase liquid
 - installation of multiple cone penetrometer test points
 - video and caliper testing in bedrock wells
 - sampling of private irrigation wells
- On March 11, 1998, a Tier 1 B permit was granted for the Site. This Permit converted the groundwater recovery system Interim Measure to a Release Abatement Measure (RAM).
- From 1998 to 2002, Varian issued semi-annual RAM status reports for operation and maintenance (O&M) of the groundwater pump and treatment system and sampling of Site groundwater.
- From 1998 through the present, semi-annual groundwater sampling has been conducted at the Site and sampling reports have been submitted to MassDEP. This sampling included yearly sampling in the spring (at approximately 110 locations) and a less extensive sampling (at approximately 50 locations) in the fall each year.
- In December 1999, Varian issued a RAM Plan (IT, 1999) that outlined conducting permanganate groundwater treatment pilot tests in preparation for the selection of the comprehensive remedial measure.
- In June 2000, a Public Comment draft of the Phase II CSA was submitted (IT, 2000). This report documented the methods and results of the Phase II assessment activities. The report concluded:

- Assessment of the 19 potential source locations (PSLs) identified indicated that chemicals of concern (COCs) included PCE, TCE, and TCA and their breakdown products.
 - The Site was characterized by the presence of both an overburden and bedrock aquifer. Groundwater flow direction is similar in both aquifers, with flow through bedrock primarily in interconnected fractures and faults.
 - Soil impacted by VOCs was located predominately at the 150 Sohier Road facility, with VOCs present in groundwater, soil gas, and surface water in samples beyond the facility property.
 - Dense non-aqueous phase liquid (DNAPL), as defined by the MCP at that time, was not present at the Site.
 - The areal extent of dissolved VOCs in groundwater generally increases with depth.
 - A Human Health and Environmental Risk Assessment concluded a Condition of No Environmental Risk and No Current Significant Human Health Risk, as defined by MassDEP regulations at that time.
-
- Beginning in June 2000, a 50-day public comment period was held for the Phase II CSA.
 - On August 30, 2000, a meeting was held with City officials to discuss City comments on the draft Phase II CSA report. At this meeting, City officials requested an additional assessment to address their concerns.
 - In September 2000, the Phase II CSA was issued final (IT, 2000).
 - A September 21, 2000, letter from Varian was presented to the Beverly Conservation Commission that proposed supplemental field activities to address the City's concerns with the Phase II assessment.
 - Between November 2000 and February 2001, activities outlined in the supplemental assessment were conducted. These activities included additional soil vapor sampling in the residential areas to the west and north of the facility to assess potential impacts on indoor air, river sediment sampling, monitoring well installation, and groundwater sampling.
 - On March 29, 2001, a report was issued summarizing the results of the additional assessment activities conducted at the request of the City (IT, 2001a). The additional assessment included well installation and sampling, additional soil vapor sampling in the residential areas to the west and north of the facility to assess potential indoor air exposure, and sediment sampling. The report included an update of the Phase II Risk Assessment, which confirmed the conclusion that impacts from the Site do not pose a Significant Risk to Human Health and the Environment, as defined by the MassDEP regulations at that time.
 - On April 12, 2001, a meeting was held at the Beverly Mayor's office with residents to discuss the Phase II assessment, results of the additional assessment completed to address the City's concerns, and potential indoor air exposure to residents.
 - In June and July 2001, indoor air samples were collected at 36 homes in the residential area.
 - On June 1, 2001, the 60-day public comment period began for the Draft Phase III Remedial Action Plan (RAP). The Phase III RAP outlined the selection of the Comprehensive Response Action (cleanup plan). Chemical oxidation of VOCs using sodium permanganate was the selected remedial alternative.
 - On August 29, 2001, the Final Phase III RAP was issued (IT, 2001b).

- On October 5, 2001, Varian issued a report summarizing the results from summer 2001 sampling of indoor air at residents. Three of the 36 homes sampled showed results above MassDEP background levels. Those three homes were not located in an area with shallow groundwater impact attributed to the former Varian Site. Household products that contained target VOCs were identified in each of the three homes and represented the likely source of the detected VOCs. Data presented in the report confirmed the conclusion that impacts from the Site posed No Significant Risk to Human Health.
- On September 5, 2001, the 45-day public comment period began for the Draft Phase IV Remedy Implementation Plan (Phase IV RIP).
- In December 2001, the final MCP Phase IV RIP was issued (IT, 2001c).
- In January and February 2002, indoor air samples were collected at 29 residences.
- On March 13, 2002, a meeting was held at Beverly's Mayor's office to discuss the Site and the results of residential indoor air sampling.
- On May 3, 2002, Varian issued a report summarizing the results from winter 2002 sampling of indoor air at residences. Only one of the 29 homes sampled showed results above MassDEP background levels. That home was not located in an area with shallow groundwater impact attributed to the former Varian Site. A household product that contained target VOCs was identified in the home and represented the likely source of the detected VOCs. Data presented in the report provided further confirmation that the Site posed No Significant Risk to Human Health.
- In July 2002, comprehensive response actions were initiated at the Site, including the installation of additional monitoring wells, the installation of injection wells, and the start of permanganate injections to treat Site groundwater.
- In August 2002, a RAM Completion Report (Shaw, 2002a) was issued that documented the closure of the O&M of the groundwater pump and treat system and stated that future activities at the Site would be documented in semi-annual status reports under Phase V.
- In October 2002, the Phase IV As-Built & Final Inspection Report was issued (Shaw, 2002b). The report documented the construction and testing, and any significant modifications to the design or implementation, of the selected remedial actions, and provided as-built drawings. This report also documented the final inspection of the remedial actions by the LSP-of-Record and included a Phase IV Completion Statement.
- In December 2002, a Remedy Operation Status (ROS) Opinion was issued, which stated that the performance standards for ROS had been achieved and would be maintained at the Site (Shaw, 2002). Furthermore, the operation and maintenance of the Comprehensive remedial actions would proceed under ROS.
- From 2003 through 2022, Varian issued 6-month ROS Status Reports, summarizing ongoing remedial actions including permanganate injections, implementation of bioremediation to address select VOC impacted areas, additional well drilling to support remedial activities, indoor air sampling at the facility and nearby residences to support indoor air risk evaluations and confirmation of a Condition of No Significant Risk, and continued site monitoring activities.
- In October 2006, the ROS status report proposed bioremediation as a supplemental remedial approach to provide further treatment of VOCs in groundwater at the Site.
- In December 2012, a modification of the Phase III Remedial Action Plan (RAP) and Phase IV Plan for release tracking number (RTN) 3-0485 was submitted (Shaw, 2012c). This modification addressed the Building 5 remedial area located in the central portion of the former Varian facility.

The Building 5 treatment area was not previously included in the original Phase III RAP, and Phase IV Plan submitted to MassDEP in 2001. The Phase III RAP was modified to identify, evaluate, and select remedial action alternatives to reduce the potential risk associated with indoor air exposure in the Building 5 area. Soil vapor extraction (SVE) was selected as the preferred remedial alternative. The goal of the selected remedial action alternative in the Modified Phase III RAP was to control exposures and reduce VOC concentrations remaining in shallow soil that have the potential to migrate into the indoor air of Building 5. The Modified Phase IV Plan provided detailed engineering designs, waste management plans, and initial O&M activities for the selected SVE remedial alternative. Details regarding the Building 5 SVE installation, including a Final LSP Inspection and Phase IV Completion Statement, were included in the October 2013 ROS Report.

- From 2009 through 2013, remediation in the Building 3 area, located in the northeast corner of the former Varian facility, was also conducted under an Immediate Response Action (IRA) for RTN 3-28531 (to address potential vapor intrusion) (Shaw, 2009). IRA activities included the installation of an SVE system in December 2009. Phase II CSA and Phase III RAP Reports were submitted for RTN 3-28531 in May 2012 (Shaw, 2012c & 2012d). The Phase II and Method 3 Risk Assessment concluded that a Condition of No Significant Risk had been achieved with the operation of the existing Building 3 SVE system, which effectively reduced VOC levels in indoor air in the Building 3 area. An IRA Completion Report was submitted for RTN 3-28531 in February 2013 (Shaw, 2013). The IRA Completion Report concluded that the primary objective of the IRA (to assess and mitigate the potential impacts on indoor air in the Building 3 area and thereby eliminate the potential for an Imminent Hazard) had been met by conducting IRA activities. Response actions for RTN 3-28531 had been effective in decreasing indoor air concentrations to below levels that would constitute an Imminent Hazard. However, continued operation of the SVE system was determined to be necessary to maintain a level of No Significant Risk in the Building 3 area. The IRA Completion Report linked RTN 3 28531 to RTN 3-0485 and included a Phase IV Remedy Implementation Plan, Phase IV Completion Report, and Phase V ROS Opinion. The combined report for RTN 3 28531 closed this RTN and concluded that continued response actions (including the operation of the Building 3 SVE system) would be conducted in conjunction with Comprehensive Response Actions under Phase V ROS for RTN 3-0485. Since that time, Building 3 remedial activities were included in ROS Status reports.

2.3 Public Involvement History

On February 14, 1992, the MassDEP received a petition from Beverly residents requesting that the Site be designated a PIP site, in accordance with M.G.L. c. 21E. On March 2, 1992, the MassDEP formally responded to the petition, designating the Site as a Plan site. Upon approval of the waiver application, the MassDEP authorized Varian to develop a draft PIP and conduct public involvement activities at the Site in a letter dated February 26, 1993.

In developing the proposed Plan, CHES conducted interviews in March 1993 with key officials and individuals interested in the Site. Issues raised in the interviews are presented in **Exhibit I**. Following the submittal of the draft PIP on April 1, 1993, a 23-day public comment period was held for the community to review the document. On April 15, 1993, Varian and CHES presented the draft PIP at a public meeting in Beverly. The original PIP was finalized on May 18, 1993, and is available in the public repository.

In 1996, the Plan was updated and submitted for public comment on January 5, 1996. Following the public comment period, the Plan was finalized on February 15, 1996, and is available in the public repository.

The following PIP activities have been conducted since 1996.

- Varian has prepared and provided periodic Environmental Updates to the PIP list plus a blanket mailing to additional members of the community potentially affected by the Site. The blanket mailing included over 200 addresses in the area of the Site. Twenty-nine (29) Environmental Updates have been provided to the public as of 2021.
- Varian conducted a 50-day public comment period for Phase II CSA. A public meeting was held on June 15, 2000, to present the results and findings of the Phase II CSA. The Phase II CSA was finalized in September 2000.
- On April 18, 2001, a public meeting was held to present the results of additional site investigation work performed at the request of the City of Beverly, discuss the results of the risk evaluation based upon existing and new data, and review the conclusions of the permanganate oxidation pilot tests. At this meeting residents were able to sign up for indoor air sampling at their homes.
- On June 1, 2001, the 60-day public comment period began for the Draft Phase III Remedial Action Plan (RAP). The Phase III RAP outlined the selection of the Comprehensive Response Action (cleanup plan). Chemical oxidation of VOCs using sodium permanganate was the selected remedial alternative at that time. On June 13, 2001, a public meeting was held to present the Phase III RAP and discuss the assessment of indoor air in the residential area. The Phase III RAP was finalized on August 29, 2001.
- On September 5, 2001, the 45-day public comment period began for the Draft Phase IV RAP. On October 11, 2001, a public meeting was held to discuss the draft Phase IV Plan and review the indoor air sampling results. The Phase IV PIP was finalized in December 2001.
- On June 9, 2022, a public meeting was held to provide information about the current disposal site conditions and to present the results of recent assessment work. The meeting was also held to solicit input from the public in response to recent newspaper articles regarding the Site's cleanup status.

Meeting minutes and summaries of comments received during the comment periods are on file at the information repositories.

Beginning in January 2021, Varian has had regular communications with a local community group (VOC North Beverly), City of Beverly officials, and/or state legislators. This communication led to the formation of a Technical Advisory Group at the request of the community. Based on these discussions, the following is a general summary of current community concerns expressed by the public and city/state officials:

- Perceived lack of trust in the Varian team
- Need for more consistent public communications
- Concern about potential exposure and health risks, especially offsite
- Concern about remediation and its effectiveness and the amount of time it is taking to treat the contamination

Currently, the Technical Advisory Group meets monthly. That schedule may be adjusted based on topics and the level of activity at the Site. Varian will continue to meet with the Technical Advisory Group as long as requested by the community.

3.0 ADDRESSING PUBLIC CONCERNS

The process for assessing and cleaning up sites, as outlined in the MCP, is designed to address the effects of the site on health, safety, public welfare, and the environment. Once a release of oil or hazardous materials has been confirmed at a disposal site, it is reported to the MassDEP, who assigns an RTN. The site then proceeds under the MCP process overseen by the LSP-of-record, including the initial Phase I and Tier Classification submittals. The remedial response action processes may include the following:

- Release Abatement Measures (RAMs) and Immediate Response Actions (IRAs)
- Comprehensive field investigation of the nature and extent of the contamination and an evaluation of any risks posed to the public and the environment from the site (Phase II)
- Identification and evaluation of remedial response action alternatives and selection of feasible measures that will achieve a permanent cleanup at the site (Phase III)
- Implementation of the selected remedial response actions (Phase IV)
- Operation and Maintenance and/or Monitoring (Phase V – ROS)
- Permanent and/or Temporary Solutions

Physical work at a site includes sampling and other environmental field testing and the implementation of the selected response actions. It may also include the implementation of measures designed to stabilize conditions at the site to prevent the continued migration of contaminants or eliminate an imminent threat to public health, safety, welfare, or the environment until planning for remedial response is underway (i.e., RAMs and IRAs).

At each step of the remedial response action process, work plans are developed, the work is conducted, and reports describing results and recommendations for the next step are prepared. The documents that describe each of these steps are the cornerstone of the remedial response action planning process, since they provide the information necessary to make decisions about how a site should be cleaned up.

The remedial response action planning and public involvement processes are designed to address the concerns about the nature and extent of contamination; risks posed by the site to health, safety, public

welfare, and the environment; and the adequacy of proposed cleanup measures. These concerns are primarily addressed in Phases II and III of this process. For example, the assessment of off-site conditions is considered in Phase II, as is the impact of the site on public health and the environment. Phase III addresses the adequacy of proposed or existing remedial response actions to provide permanent solutions for the problems at this site.

4.0 PUBLIC INVOLVEMENT ACTIVITIES

In accordance with the MCP, activities undertaken to involve the public in response actions serve two purposes:

- to inform the public about the risks posed by the site, the status of response actions, the availability of Technical Assistance Grants, and the opportunities for public involvement; and
- to solicit the concerns of the public about the site and response actions so that, to the extent possible, these concerns can be addressed and incorporated in planning response actions.

To meet each of these objectives, Varian proposes to undertake specific activities during the remedial response process at the Site. These activities are described below.

4.1 Informing the Public

Varian will provide site-specific information to the public by establishing information repositories; developing and maintaining a site mailing list to distribute information about the Site; providing advance notification to local officials about Site activities; and other public involvement activities to provide information to the public as described below.

4.1.1 Information Repositories

Publicly Available Site File. A file on the Site is maintained at the Northeast Regional MassDEP Office. The file will contain all documents pertaining to the Site with the exception of any enforcement-sensitive material. Appointments to view the Site files can be made by contacting MassDEP, Northeast Regional Office, 205B Lowell Street, Wilmington, MA 01887, 978-694-3320 or online at <https://www.mass.gov/forms/massdep-northeast-region-file-review-public-records-request-form> or via email at nero.service@state.ma.us. Appointments are available on Tuesday and Thursday from 9:00 a.m. to 12:00 p.m.

Alternatively, information and e-copies of files for this Site are also available online by clicking on supporting documents at the following MassDEP web page.

<https://eeaaonline.eea.state.ma.us/portal#!/wastesite/3-0000485>

Local Information Repository. Varian has also established and maintained a local information repository to provide Beverly residents with easy access to information about the site cleanup process and results of

site investigations. The local information repository contains a complete copy of the MassDEP site file including the following: the waiver application, the letter from the MassDEP granting waiver approval and conditions, the Public Involvement Plan Interim Guidance for Waiver Sites, work plans, sampling and field testing plans, technical reports, and documents summarizing results and recommendations, MCP Phase reports, relevant correspondence, press releases, public information materials, the Public Involvement Plan, public meeting summaries, summaries of responses to comments received, and copies of public notices about the Site. Information will continue to be sent to the repository by Varian as it is developed.

The local information repository is located at:

Reference Desk
Beverly Public Library
32 Essex Street, Beverly, MA 01915
Contact: Lisa Ryan
(978) 921-6062 ext. 2120
ryan@noblenet.org
Main Library Hours
Monday through Thursday: 9 AM-9 PM
Friday & Saturday : 9 AM-5 PM
Sunday: 1-5 PM (closed Memorial Day to October; plus holiday closings)

4.1.2 Site Mailing List

Varian has established and will maintain an updated mailing list for the Site (**Exhibit II**). The Site mailing list includes the following: petitioners, interested residents, property abutters, local news media, municipal officials (specifically the Chief Municipal Officer and the Chairperson of the Board of Health), state legislators, MassDEP site file, and anyone else indicating an interest in receiving information about the Site. The mailing list will be used to announce upcoming public meetings, distribute fact sheets, notices of public comment periods, the availability of documents in the information repositories, the completion of each phase of the remediation process, and any other material information about the Site. Varian will provide the MassDEP with a copy of the site mailing list.

Anyone wishing to be added to the mailing list can call or write to:

Mr. Raymond Cadorette, PMP
APTIM
150 Royall Street
Canton, MA 02021
617-589-6102
raymond.cadorette@aptim.com

4.1.3 Notification of Field Work

In accordance with the MCP, 310 CMR 40.1403(3), notification of major milestones and certain events will be provided to the following list of people, at least three days before the start of field work.

Notification List

Joan B. Lovely
Massachusetts Senate
State House, Rm 413A
Boston, MA 02133
Joan.Lovely@masenate.gov
617-722-1410

Kellee Boudreault (Key Petitioner)
5 Medford Street
Beverly, MA 01915
kelleeboudreault@gmail.com
978-590-7689

Jerald A. Parisella
Massachusetts House of Representatives
State House, Room 174
Boston, MA 02133
Jerald.Parisella@mahouse.gov
617-722-2240

William Burk
Director of Board of Health
Beverly Senior Center
90 Colon St.
Beverly, MA 01915
bburke@beverlyma.gov
978-921-8591

Kathleen Feldman
Ward Five City Councilor
27 Berrywood Lane
Beverly, MA 01915
kfeldman@beverlyma.gov
716-510-6351

Steve Crowley
Ward 3 Councilor
532 Cabot St.
Beverly, MA 01915
scrowley@beverlyma.gov
978-578-0889

Mayor Michael P. Cahill
Beverly City Hall
191 Cabot Street
Beverly, MA 01915
mayorcahill@beverlyma.gov
978-921-6000

Notifications are triggered for field work involving the following:

- The implementation of any Immediate Response Actions for imminent hazards
- The implementation of any Release Abatement Measures
- The use of respirators or level A, B, or C protective clothing
- Residential sampling
- Phase IV remedial actions
- The completion of each phase of the remediation process, including:
 - IRA Completion Statements for imminent hazards
 - Each Phase
 - Permanent or Temporary Solution Statements
 - Activity and Use Limitation (AUL) (deed restriction)
 - Downgradient Property Status Submittal

Notification of field work will include information on the type of work, its purpose, and its approximate duration. Notification at the end of each remedial phase, as listed above, will include a summary of the submittal and information on where it can be reviewed.

The Beverly Fire and Police Departments will also be notified in situations where public safety is a concern.

4.1.4 Environmental Updates

Varian has produced Environmental Updates approximately annually since the 1990s. These updates provide the community a summary of the testing and cleanup activities at the Site. At least annually, Varian will continue to prepare and provide Environmental Updates to the Public Involvement Plan mailing list.

4.1.5 Technical Advisory Group

Beginning in January 2021, a Technical Advisory Group was established at the request of the community, to provide a regular discussion of technical information about the Site with the community. Varian will continue to participate in the Technical Advisory Group at the request of the community. Currently the Technical Advisory Group meets monthly. That schedule will continue but may be adjusted based on topics and the level of activity at the Site. For further information about the TAG, people should contact Matthew Gillis of Varian at 410-459-1710 or matthew.gillis@varian.com.

4.1.6 Site Web Page

Varian has established a web page to provide information about the environmental investigation and cleanup of the Site. The web site contains environmental history, current status, next steps, notices about public involvement opportunities, links to presentations and posters, and links to MassDEP and EPA websites and fact sheets. Varian will maintain and post Site related information on the web page as it is developed until the Site reaches a Permanent Solution. The web site can be reached at the following link:

<https://beverlysitecleanup.com/>

4.2 Soliciting Public Input

Varian will provide opportunities for public input regarding site cleanup decisions by holding public meetings and subsequent comment periods to provide additional opportunities for oral and written input and preparing summaries of and responses to all comments received during the public comment periods.

4.2.1 Public Meetings

Varian will brief the public about the Site's status during the remedial action process. Meetings will be held at the following major milestones, as appropriate (see **Exhibit III**).

- Draft Public Involvement Plans
- Immediate Response Action Plans
- Release Abatement Measure Plans
- Phase II Comprehensive Site Assessment Scopes of Work
- Phase II Comprehensive Site Assessment Reports
- Phase III Identification, Evaluation and Selection of Remedy Action Alternatives reports
- Phase IV Remedy Implementation Plan Reports
- Permanent or Temporary Solution Statements, including any Activity and Use Limitations

Meetings will serve two purposes: 1) to provide community officials and the general public with a progress report regarding remedial response actions at the Site and 2) to provide an opportunity for the public to question and comment on remedial action plans for the Site.

Varian will mail written notices announcing public meetings to individuals on the site mailing list at least 14 days in advance of the meeting. Varian will prepare summaries of comments received at the meetings, submit the summaries to the MassDEP, and place a copy of the summaries in the local information repository.

4.2.2 Public Comment Periods

Varian has and will continue to provide specific opportunities for the public to submit comments about documents concerning the Site. When key documents are available in draft form, they will be provided to the information repositories, and a notice of their availability will be sent to the site mailing list. The notice will include the title of the document, where it is available for review, information about how to submit comments to Varian, and the length of the public comment period. Varian will determine the length of the comment period, which will typically be 20 calendar days but may be longer if warranted by the complexity of a particular document or if requested by the public. Comment periods for certain activities may be reduced or eliminated (with the MassDEP's review and concurrence) in emergency situations.

Documents that have been or will be available for public comment include the following:

- Draft Public Involvement Plans
- Immediate Response Action Plans and Completion Statements
- Release Abatement Measure Plans and Completion Statements

- Phase II Comprehensive Site Assessment Reports
- Phase III Identification, Evaluation and Selection of Remedy Action Alternatives reports
- Phase IV Remedy Implementation Plan Reports
- Phase V Plans concerning the operation and maintenance of response actions
- Permanent or Temporary Solution Statements, including any Activity and Use Limitations

4.2.3 Response to Comments

Varian will prepare a summary of all comments received on each document available for public comment and Varian's responses to these comments. A copy of this response summary will be sent to all those who submitted comments and will be placed in the information repositories. Varian will also send a notice of availability of the response summary to the mailing list. The summary will be made available prior to Varian taking the remedial response action submitted for comment, or moving to the next MCP phase.

5.0 SCHEDULE FOR PUBLIC INVOLVEMENT ACTIVITIES

Exhibit III provides a schedule of public involvement activities listed in Section 4.0. The schedule specifies the milestones during the remedial response action when public involvement activities will be conducted.

6.0 REVISIONS TO PUBLIC INVOLVEMENT PLAN

This Plan may be updated and/or revised as necessary during the remedial response action process. If revisions are proposed, Varian will place copies of any proposed changes in the information repositories and will send a notice of the availability of recommended changes to the mailing list. Varian will hold a twenty-day public comment period (see Section 4.2.2 above) on the proposed revised Plan. Varian will review any comments received and revise the Plan as appropriate. The final revised Plan will be placed in the information repositories.

7.0 REFERENCES

The following is a list of previously submitted documented that are referenced in the prior sections of this Public Involvement Plan.

- Aptim, 2018. Phase V Remedy Operation Status Inspection and Monitoring Report, Former Varian Facility Site, 150 Sohier Road, Beverly, Massachusetts, RTN 3-0485. October 24, 2018.
- Aptim, 2019. Phase V Remedy Operation Status Inspection and Monitoring Report, Former Varian Facility Site, 150 Sohier Road, Beverly, Massachusetts, RTN 3-0485. July 31, 2019.
- Aptim, 2020. Phase V Remedy Operation Status Inspection and Monitoring Report, Former Varian Facility Site, 150 Sohier Road, Beverly, Massachusetts, RTN 3-0485. January 31, 2020.
- Aptim, 2021. Phase V Remedy Operation Status Inspection and Monitoring Report, Former Varian Facility Site, 150 Sohier Road, Beverly, Massachusetts, RTN 3-0485. February 24, 2021.
- Clean Harbors, 1987. Preliminary Environmental Site Evaluation Report, Varian Associates, Inc., Beverly Microwave Division, Beverly, Massachusetts. August 1988.
- Clean Harbors, 1988. Final Environmental Site Evaluations & Proposed Remedial Study, Varian Associates, Inc., Beverly Microwave Division, Beverly, Massachusetts. May 1988.
- Clean Harbors, 1989. Phase III – Development of Remedial Response Alternatives, Varian Associates, Inc. Facility, Beverly Microwave Division, Beverly, Massachusetts. July 1989.
- CBI, 2013. Phase V Remedy Operation Status Inspection and Monitoring Report, Former Varian Facility Site, 150 Sohier Road, Beverly, Massachusetts, RTN 3-0485. October 31, 2013.
- CBI, 2014a. Phase V Remedy Operation Status Inspection and Monitoring Report, Former Varian Facility Site, 150 Sohier Road, Beverly, Massachusetts, RTN 3-0485. April 30, 2014.
- CBI, 2014b. Phase V Remedy Operation Status Inspection and Monitoring Report, Former Varian Facility Site, 150 Sohier Road, Beverly, Massachusetts, RTN 3-0485. October 31, 2014.
- IT Corporation (IT), 1994. Phase IIA and Phase IIB Report, Former Varian Facility Site, 150 Sohier Road, Beverly, Massachusetts, RTN 3-0485. November 1994.
- IT, 1999. Release Abatement Measure Plan, Former Varian Facility Site, 150 Sohier Road, Beverly, Massachusetts, RTN 3-0485. December 1999.
- IT, 2000. Phase II Comprehensive Site Assessment, Former Varian Facility Site, 150 Sohier Road, Beverly, Massachusetts, RTN 3-0485. June 2000.
- IT 2001X. Amended Phase III – Identification, Evaluation and Selection of Remedial Action Alternatives, Former Varian Facility Site, 150 Sohier Road, Beverly, MA, May 31, 2001.
- IT 2001a. Report on Supplemental Field Activities, Former Varian Facility Site, 150 Sohier Road, Beverly, Massachusetts, RTN 3-0485. March 29, 2001.
- IT 2001b. Amended Phase III – Identification, Evaluation and Selection of Remedial Action Alternatives, Former Varian Facility Site, 150 Sohier Road, Beverly, MA, May 31, 2001.
- IT, 2001c. Phase IV Remedy Implementation Plan, Former Varian Facility Site, 150 Sohier Road, Beverly, Massachusetts, RTN 3-0485. December 2001.

- Mackay et al, 1993. Mackay, D., Shiu, W.Y. and Ma, K.C. Illustrated handbook of physical-chemical properties and environmental fate for organic chemicals. Vol. 3 Volatile organic chemicals. 1993.
- Massachusetts Department of Environmental Protection, 1991. Letter Approval of Interim Measure, Varian Associates, Inc., Beverly Microwave Division, Beverly, Massachusetts. June 26, 1991.
- Shaw, 2002a. Release Abatement Measure Completion Report, Former Varian Facility Site, Beverly, Massachusetts, RTN 3-0485. August 29, 2002.
- Shaw, 2002b. Phase IV As-Built Constructions and Final inspections Report, Former Varian Facility Site, Beverly, Massachusetts, RTN 3-0485. October 2002.
- Shaw, 2002c. Remedy Operation Status Opinion, Former Varian Facility Site, Beverly, Massachusetts, RTN 3-0485. December 16, 2002.
- Shaw, 2003. Phase V Remedy Operation Status Inspection and Monitoring Report, Former Varian Facility Site, 150 Sohier Road, Beverly, Massachusetts, RTN 3-0485. October 30, 2003.
- Shaw, 2004a. Post-Audit Completion Statement, Former Varian Facility Site, Beverly, Massachusetts, RTN 3-0485. April 14, 2004.
- Shaw, 2004b. Phase V Remedy Operation Status Inspection and Monitoring Report, Former Varian Facility Site, 150 Sohier Road, Beverly, Massachusetts, RTN 3-0485. October 28, 2004.
- Shaw, 2006. Phase V Remedy Operation Status Inspection and Monitoring Report, Former Varian Facility Site, 150 Sohier Road, Beverly, Massachusetts, RTN 3-0485. October 4, 2006.
- Shaw 2009. 120-Day Immediate Response Action Status Report. Building 3, Former Varian Facility Site, 150 Sohier Road, Beverly, MA, RTN 3-28531. September 30, 2009.
- Shaw, 2010. Phase V Remedy Operation Status Inspection and Monitoring Report, Former Varian Facility Site, 150 Sohier Road, Beverly, Massachusetts, RTN 3-0485. April 29, 2010.
- Shaw, 2011. Phase V Remedy Operation Status Inspection and Monitoring Report, Former Varian Facility Site, 150 Sohier Road, Beverly, Massachusetts, RTN 3-0485. May4, 2011.
- Shaw, 2012a. Massachusetts Contingency Plan, Phase II Comprehensive Site Assessment, Building 3 Area, A Portion of the Former Varian Facility Site, 150 Sohier Road, Beverly, MA, RTN 3-28531. May 28, 2012.
- Shaw, 2012b. Massachusetts Contingency Plan, Phase III – Remedial Action Plan, Building 3 Site, a Portion of the Former Varian Facility Site, 150 Sohier Road, Beverly, MA, RTN 3-28531. May 31, 2012.
- Shaw, 2012c. Massachusetts Contingency Plan, Phase II – CSA, Building 3 Site, a Portion of the Former Varian Facility Site, 150 Sohier Road, Beverly, MA, RTN 3-28531. May 29, 2012.
- Shaw, 2012d. Modification of the Phase III Remedial Action Plan (RAP) and Phase IV Remedy Implementation Plan (Phase IV Plan) to address the Building 5 Area, Former Varian Facility Site, 150 Sohier Road, Beverly, Massachusetts, RTN 3-0485. December 17, 2012.
- Shaw, 2013. Immediate Response Action Completion Report, Phase IV Remedy Implementation Plan, Phase IV Completion Statement, and Phase V Remedy Operation Status Opinion, Building 3, Former Varian Facility Site, 150 Sohier Road, Beverly, Massachusetts, RTN 3-28531. February 28, 2013.

FIGURES

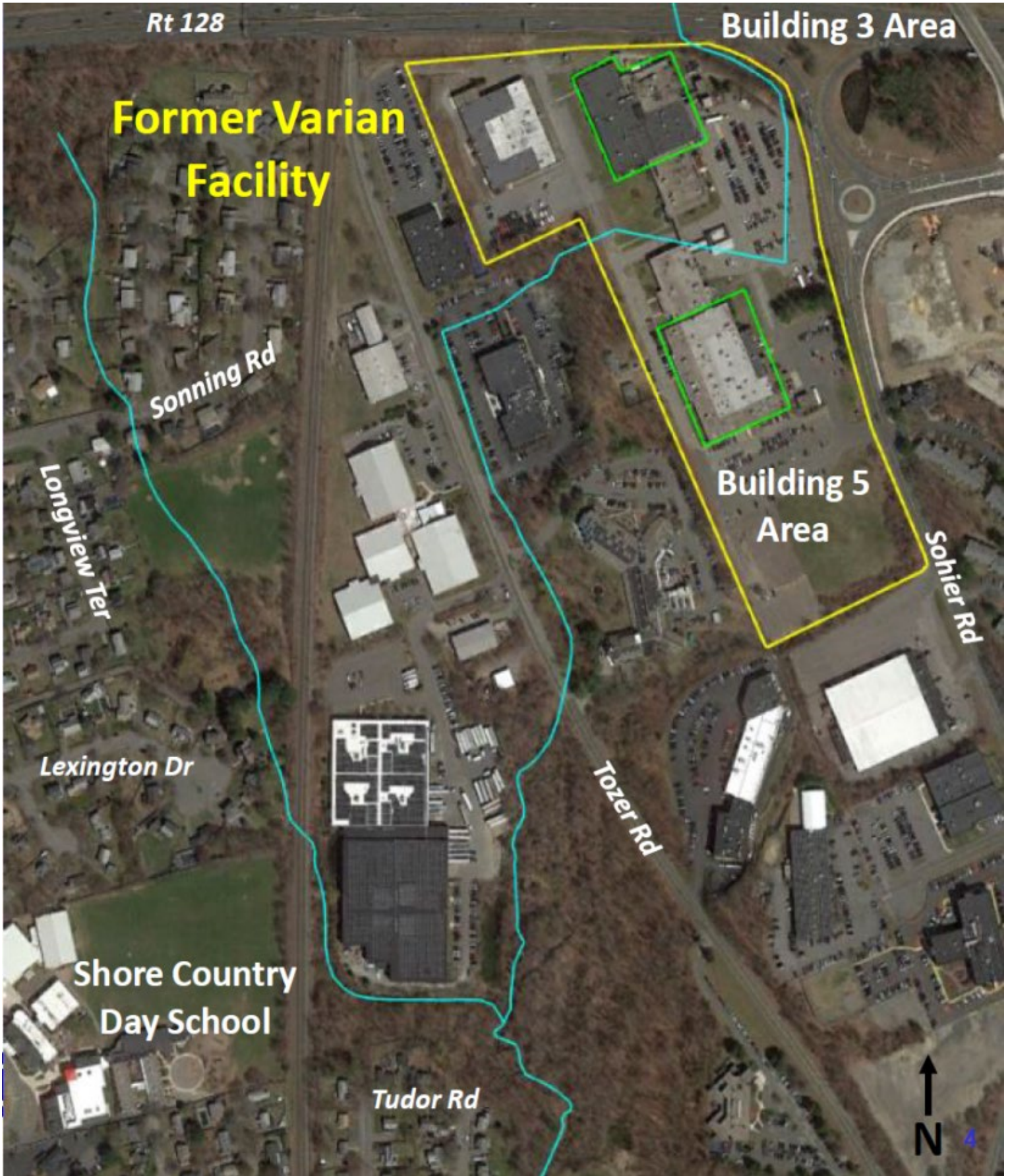
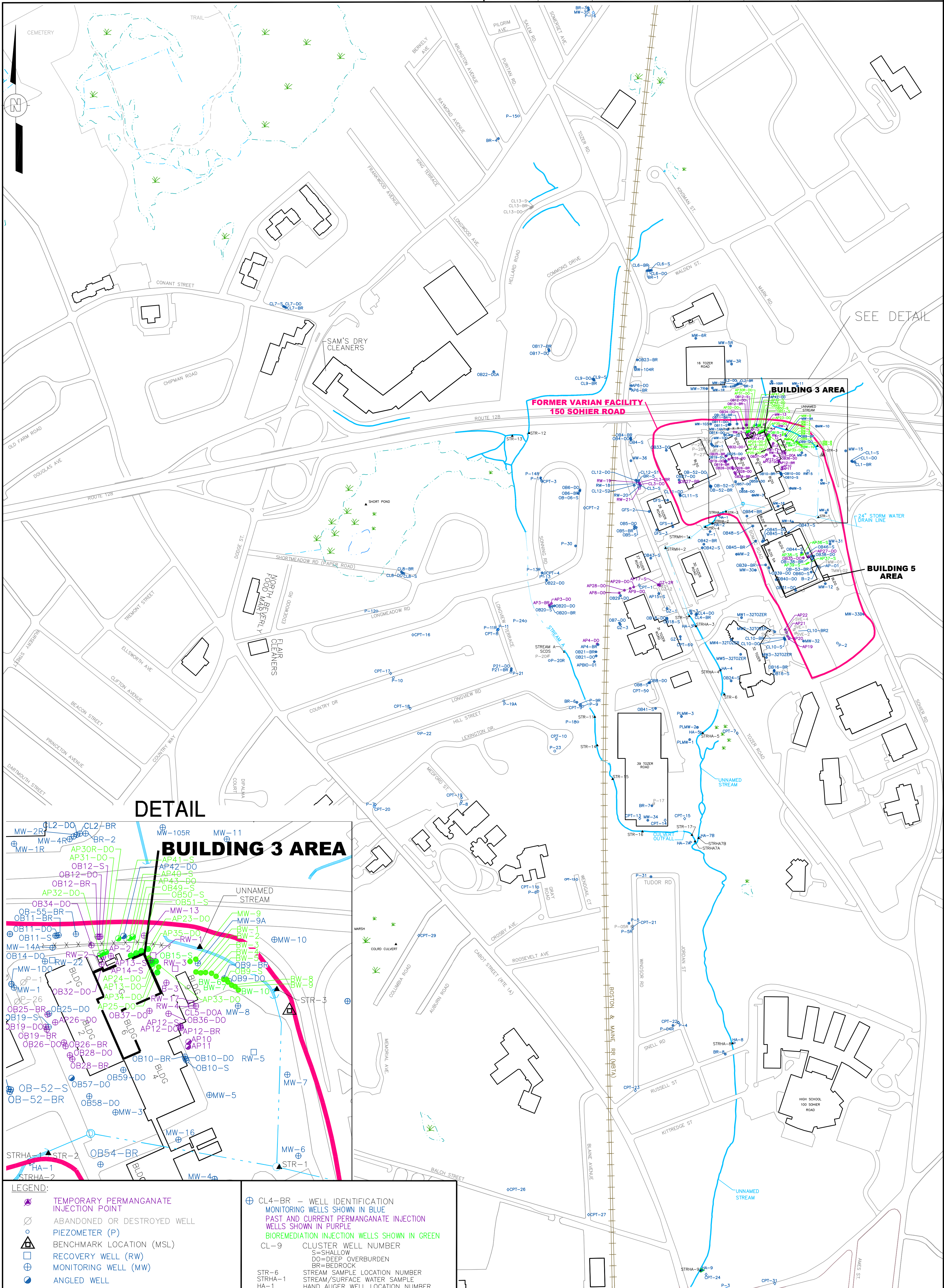
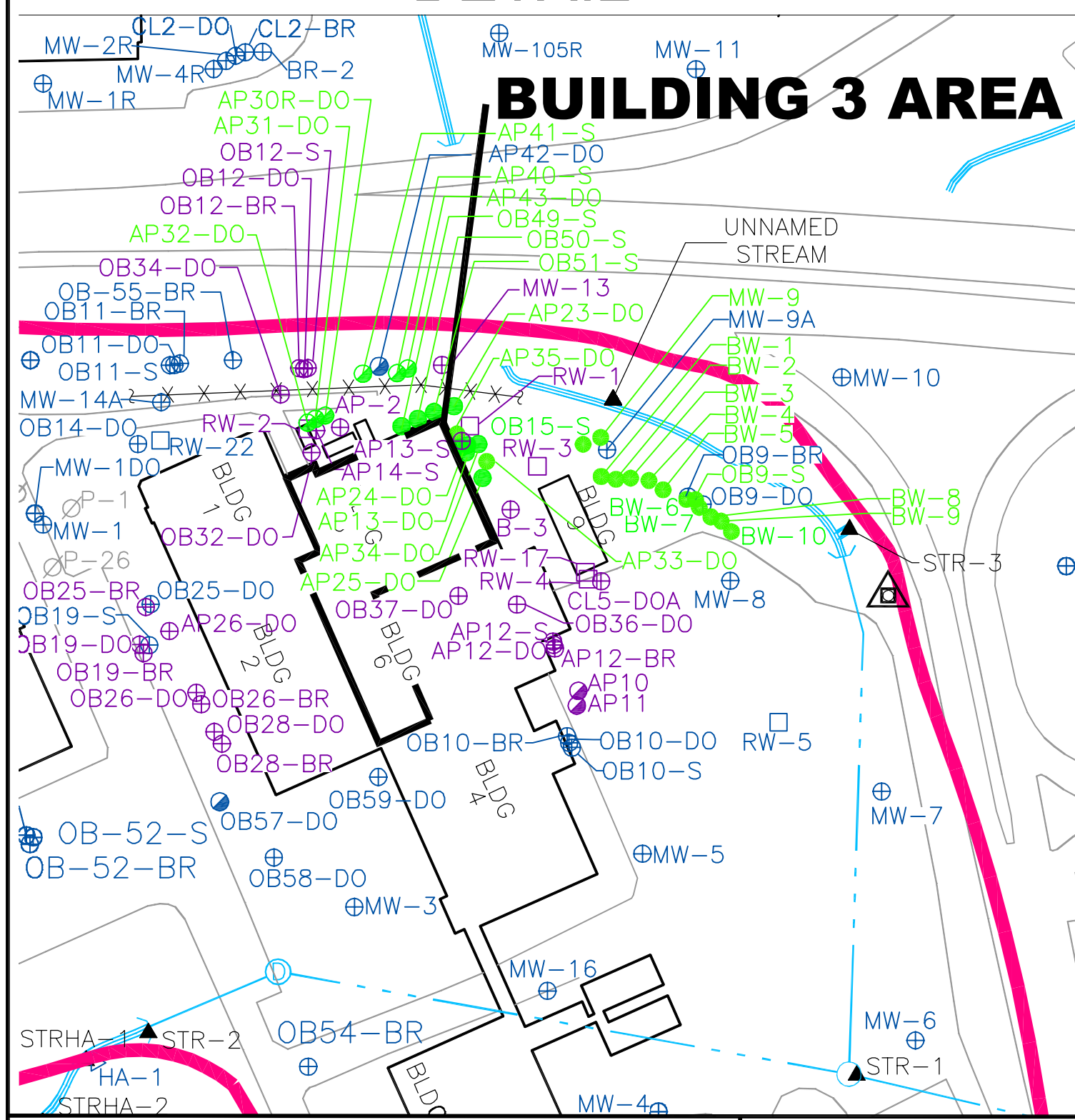


FIGURE 1
Former Varian Facility Site



DETAIL

BUILDING 3 AREA



LEGEND:

- TEMPORARY PERMANGANATE INJECTION POINT
- ABANDONED OR DESTROYED WELL
- PIEZOMETER (P)
- BENCHMARK LOCATION (MSL)
- RECOVERY WELL (RW)
- MONITORING WELL (MW)
- ANGLED WELL
- BIOREMEDIATION INJECTION WELL
- SURFACE WATER STREAM (STR) SAMPLE LOCATION
- CONE PENETROMETER TESTPOINT (CPT)
- HAND AUGER SAMPLE LOCATION (HA) ADJACENT TO A STREAM (STRHA)
- MANHOLE ACCESS TO THE STREAM LOCATED WITHIN A CULVERT
- APPROXIMATE BUILDING LOCATION
- APPROXIMATE DRAIN MANHOLE LOCATION
- APPROXIMATE LOCATION OF STREAM IN CULVERT
- APPROXIMATE STREAM LOCATION
- WATER AND MARSH AREA
- CL4-BR - WELL IDENTIFICATION MONITORING WELLS SHOWN IN BLUE
- PAST AND CURRENT PERMANGANATE INJECTION WELLS SHOWN IN PURPLE
- BIOREMEDIATION INJECTION WELLS SHOWN IN GREEN
- CL-9 CLUSTER WELL NUMBER S=SHALLOW DO=DEEP OVERBURDEN BR=BEDROCK
- STR-6 STREAM SAMPLE LOCATION NUMBER
- STRHA-1 STREAM/SURFACE WATER SAMPLE HAND AUGER WELL LOCATION NUMBER
- STRMH-1 STREAM/MANHOLE LOCATION NUMBER
- MW-5 MONITORING WELL NUMBER
- GZ-1 MONITORING WELL NUMBER
- PLMW-1 MONITORING WELL NUMBER
- BR-1 BEDROCK WELL NUMBER
- BEDROCK WELLS BR-1 THROUGH BR-8 AND CL9-BR HAVE MULTILEVEL GROUNDWATER MONITORING SYSTEMS PRESENT WITHIN THE BEDROCK. ZONE 1 REFERS TO THE DEEPEST SAMPLING ZONE, ZONE 2 REFERS TO THE MIDDLE SAMPLING INTERVAL, AND ZONE 3 CLOSEST TO THE GROUND SURFACE.
- THIS MAP HAS BEEN COMPILED FROM SURVEY DATA COLLECTED IN JULY 1994, MARCH 1995, OCTOBER 1995, SEPTEMBER 1996, MARCH 1997, DECEMBER 1997, SEPTEMBER 1998, JANUARY 2000, FEBRUARY 2001, JUNE 2002, SEPTEMBER 2002, JULY 2003, FEBRUARY 2004, OCTOBER 2004, 2005, JULY 2012, MAY 2014, AUGUST 2018 FROM VARIOUS EXISTING PLANS, AND OBSERVATIONS MADE IN THE FIELD BY CB&I ENVIRONMENTAL & INFRASTRUCTURE, INC., AND APTIM ENVIRONMENTAL & INFRASTRUCTURE, INC.

SCALE
0 250 500 750 FEET

**FIGURE 2
EXPANDED SITE PLAN
FORMER VARIAN FACILITY SITE - BEVERLY, MA.**

PREPARED FOR: VARIAN MEDICAL SYSTEMS, INC.
PALO ALTO, CALIFORNIA

SCALE: 1" = 250'

DATE: 9-13-2022

PREPARED BY:

DRAFTED BY: ELS

PROJECT NO.: 631010764

APTIM
APTIM ENVIRONMENTAL & INFRASTRUCTURE, INC.

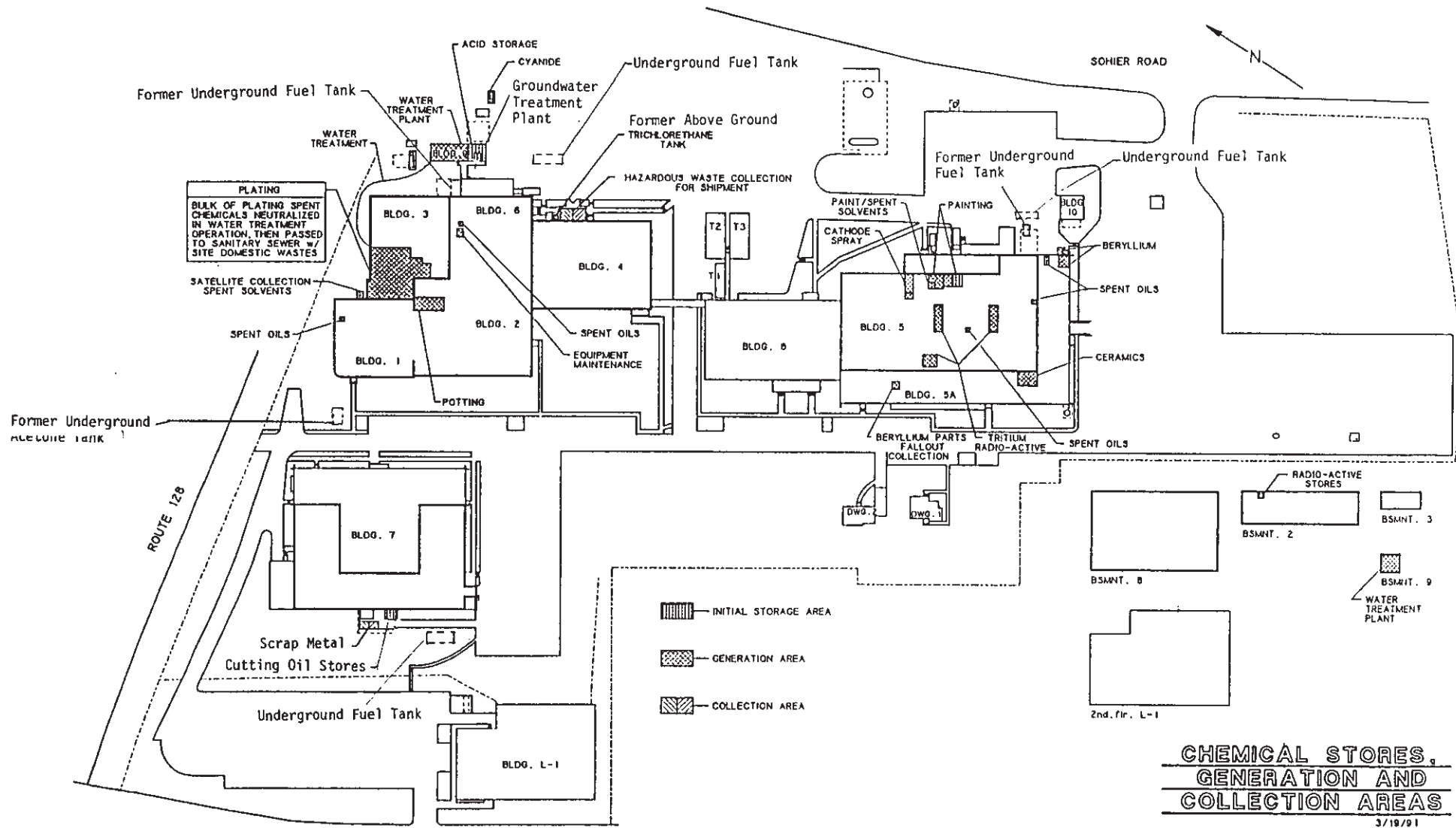


Figure 3

**CHEMICAL STORES,
 GENERATION AND
 COLLECTION AREAS**
 3/18/91
VARIAN, BEVERLY
 Scale: 1" = 60'
 2/7/91
 Modified November 1992

LIST OF ATTACHMENTS

EXHIBIT I

Community Concerns Raised in Interviews Conducted in March 1993

EXHIBIT I

Community Concerns Raised in Interviews Conducted in March 1993 about the Varian Site

- A. Concerns about the nature and extent of contamination:**
- Has the on-site contamination migrated off-site in the groundwater, and if so, how far and at what amounts?
 - Groundwater flow directions and rates should be evaluated on-site and off-site.
 - Will Varian only investigate on-site contamination and not possible off-site contamination?
 - Where did the contamination come from?
 - What is the quality of the stream and sediments near the site and downstream from the site?
 - It should be determined if conditions at the site impact the wetlands southwest of Tozer Road.
 - Is any contamination affecting residents, workers and children near the site?
- B. Concerns about routes of exposure and neighborhood health issues:**
- Does the on-site contamination and possible off-site contamination cause any health problems in the surrounding community?
 - Any danger to people from possible vapors migrating from the contaminated groundwater should be communicated.
 - Information about exposure to contamination in the stream to children potentially playing in it should be obtained and made available to the public.
- C. Concerns about the site remediation process:**
- All contaminated groundwater should be cleaned up.
 - Varian should actively continue assessment and remediation to reduce the time frame for completion of cleanup.
 - Proper safety measures to protect the abutting community should be followed when completing assessment and cleanup tasks at the site.
 - The current or any additional groundwater recovery and treatment system should be adequate in drawing back or cleaning up potentially dirty areas outside the contaminated area on-site.

D. Concerns about opportunities for public involvement during the remedial response action process:

- Public communication should be maintained by Varian.
- As much information as possible should be available to the public.
- All reports should be available for review by the public.
- Information presented or reported to the public concerning the assessment and remediation of the site should be as detailed as possible. Also, there should be abstracts or summaries with descriptions of the findings in layperson terminology.
- How do people check on Varian to ensure that they are in compliance with all environmental regulations in relation to site activities?

E. Other Concerns:

- How do site conditions and activities affect the value of nearby properties, refinancing and sales?
- Will building expansions at nearby properties be affected by conditions at Varian and possible off-site contamination?
- Will the chemicals impact drinking water supplies?
- Beverly Board of Health should be aware of assessment and cleanup process, and any potential dangers to the community.
- What does Varian currently do at the site?

EXHIBIT II
SITE MAILING LIST

Former Varian Facility Site PIP Mailing List (updated October 10, 2022)

1943 LLC
C/O John Drislane
5 Beaver Pond Road
Beverly, MA 01915

Sharyn Anderson
63 Sonning Road
Beverly, MA 01915

Daniel Bailey, Esq.
Pierce Atwood LLP
100 Summer Street
Boston, MA 02110

Jordan Baker
16 Scenna Road
Beverly, MA 01915

Manuel Barros
31 Tozer Road LLC
35 Algerine St.
Berkley, MA 02779

Dean Berg
45 Neptune Street
Beverly, MA 01915

Christine Bertoni
Conservation Commission
Beverly Town Hall
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Beverly, MA 01915

Merek Bigelow
4 Westwind Road
Danvers, MA 01923

Carol Bihl
61 Sonning Road
Beverly, MA 01915

Cynthia Boccia
47 Sonning Road
Beverly, MA 01915

Marc Boisvert
Arro Engineering Corporation
27 Tozer Road
Beverly, MA 01915

Daniel M. Boisvert
28 Ocean Avenue
Rowley, MA 01969

Arthur Booras
9 Walden Street
Beverly, MA 01915

Kellee Boudreault
Key Petitioner
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Beverly, MA 01915

Hannah Bowen
14 Thorndike Street, #4
Beverly, MA 01915

Stacy Bunk
28 Thorndike Street
Beverly, MA 01915

William Burke
Director Of Board Of Health
Beverly Senior Center
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Beverly City Hall
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Bob Davenport
Communications & Power
Industries, Inc.
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District Four Environmental Engineer
Massachusetts Highway Dept.
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Arlington, MA 02476

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Beverly, MA 01915

Laura Dow
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Beverly, MA 01915

Dale Earl
6 Quincy Park
Beverly, MA 01915

Ed & Nichole Evans
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Beverly, MA 01915

Sarah and Bill Fishbane
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Beverly, MA 01915

Ann Marie Flynn, Director Of
Finance & Operations
Shore County Day School
545 Cabot Street
Beverly, MA 01915

Mr. Steve Frederickson, PE
Director Municipal Inspections
Beverly City Hall
191 Cabot Street
Beverly, MA 01915

Julie Flowers
President at Large
191 Cabot Street
Beverly, MA 01915

George Hailer
Arro Engineering Corporation
27 Tozer Road
Beverly, MA 01915

Former Varian Facility Site PIP Mailing List (updated October 10, 2022)

Cynthia M. Hayes 33 Sonning Road Beverly, MA01915	Keith Linares 121 Northridge Road Beverly, MA 01915	Ms. Joan Murphy 36 Longmeadow Road Beverly, MA 01915
Richard High Corcoran Management Company 100 Grandview Road, Suite 205 Braintree, MA 02184	The Lourencos 40 Lexington Drive Beverly, MA 01915	Peter Muto Cell Signaling Technology 3 Trask Lane Danvers, MA 01923
Andy Irwin Irwin Engineers, Inc. 33 West Central Street Natick, MA 01760	Joan Lovely, Senator State House 24 Beacon Street Room 413a Boston, MA 02133	Donald Nicklas 47 Cabot Road Danvers, MA 01923-2334
Seth Jaffee, Esquire Foley Hoag LLP Seaport World Trade Center West 155 Seaport Boulevard Boston, MA 02210-2600	Dan Marchand 4 Dearbon Avenue Beverly, MA 01915	Daniel J. Ossoff, Esquire Rackemann, Sawyer & Brewster 160 Federal Street Boston, MA 02110-1700
Mr. Jesse Jenson 280 Dodge Street Beverly, MA 01915	Donald Martin Ward Five City Councilor 27 Berrywood Lane Beverly, MA 01915	Mrs. Marie O'Leary 33 Lexington Drive Beverly, MA 01915
Ron Johnsen 172 Brimbal Ave. Beverly, MA 01915	Jean A. Martin 40 Lexington Drive Beverly, MA 01915	Jerald A. Parisella Massachusetts House Of Representatives State House, Room 174 Boston, MA 02133
John Johnson 24 Windsor Road Beverly, MA 01915	Suzanne Martin Safety Officer/Laboratory Manager Cell Signaling Technology, Inc. 3 Trask Lane Danvers, MA 01923	Piraino Family 25 Country Drive Beverly, MA 01915
Brian Kelly 4 Bomac Realty, LLC 155 Andover Street Danvers, MA 01923	Mark Mckenna Pediatric Associates Of Greater Salem Inc. 30 Tozer Road Beverly, MA 01915	Charlotte Parrish USPS NJ NDC 80 County Rd, 3rd floor Jersey City, NJ 07097-9800
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Former Varian Facility Site PIP Mailing List (updated October 10, 2022)

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EXHIBIT III

SCHEDULE FOR PUBLIC INVOLVEMENT ACTIVITIES

EXHIBIT III
SCHEDULE FOR PUBLIC INVOLVEMENT ACTIVITIES

Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts
Release Tracking Number #3-0485

Potential Response Actions	Public Involvement Activities					
	Submittal to Information Repositories	Notice to Mailing List	Notice of Field Work	Conduct Public Meetings	Complete Public Comment Periods	Issue Response Summaries
Updated PIP	X	X		X	X	X
IRA or RAM Plans	X	X	X	X	X	X
IRA or RAM Completion Statements	X	X			X	X
Revised Phase II CSA	X	X		X	X	X
Revised III RAP	X	X		X	X	X
Revised IV RRIP	X	X	X	X	X	X
Major Operation and Maintenance Plans for response actions-Phase V	X	X	X	X	X	X
Status Reports	X	X				
Permanent or Temporary Solution	X	X		X	X	X

Notes:

1. PIP = Public Involvement Plan
2. IRA = Immediate Response Action
3. RAM = Release Abatement Measure
4. CSA = Comprehensive Site Assessment
5. RAP = Remedial Action Plan
6. RRIP = Remedial Response Implementation Plan
7. Status reports include IRA, RAM, Phase IV, and Temporary Solution
7. X = Activity required