

Raytheon Company

Public Involvement Plan

Raytheon Company

430 Boston Post Road,

Wayland, Massachusetts

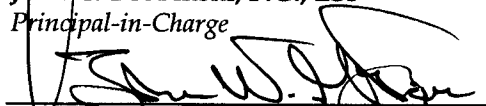
RTNs: 3-13574, 3-14042, 3-13302, 3-19482

9 November 2000

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John C. Drobinski, P.G., LSP
Principal-in-Charge

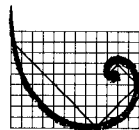


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INTRODUCTION

On 24 June 2000, the Massachusetts Department of Environmental Protection (DEP) and Raytheon Company (Raytheon) received a notice from residents of the Town of Wayland, Massachusetts to petition the former Raytheon facility located at 430 Boston Post Road (the "Site") as a Public Involvement Plan (PIP) site, under Section 14 (b) of Massachusetts General Laws chapter 21E (M.G.L. c. 21E). In response, Raytheon officially designated the Site as a PIP site on 24 June 2000, requiring the preparation and implementation of this PIP.

This PIP has been prepared by Environmental Resources Management (ERM) on behalf of Raytheon in accordance with the requirements of the Massachusetts Contingency Plan (MCP), 310 CMR 40.0000. The Site was classified as a Tier IB site on 22 May 1997. Tier IB sites are subject to requirements set forth in M.G.L. Chapter 21 E and in the MCP 310 CMR 40.0000 regarding site assessment, remedial response actions and public involvement. Raytheon, as prior operator at the Site, was required to retain a Licensed Site Professional (LSP) to oversee and approve assessment and remedial activities conducted at the Site. DEP retains the authority to ensure that both technical and public involvement activities are conducted in accordance with state law and regulations.

An LSP is an environmental scientist or engineer experienced in the assessment and cleanup of releases of oil and/or hazardous materials (OHM) to the environment. The LSP's role is to ensure that actions taken to address releases of OHM at a site comply with the requirements of the MCP (310 CMR 40.000) and protect human health, safety, public welfare, and the environment. LSPs are licensed by the State Board of Registration of Hazardous Waste Site Cleanup Professionals (the LSP Board) based upon demonstrating the required level of education, experience and passing an examination. The LSP Board establishes professional standards (addressing technical ability, decision-making experience and ethical practice) that LSPs must meet to remain licensed. The LSP-of-Record for the Site is John C. Drobinski, P.G., LSP of ERM.

Under M.G.L. c. 21E, the LSP is responsible for oversight and approval of assessment and remedial response actions necessary to satisfy the Response Action Performance Standards of the MCP. Response Action Performance Standards include determining the source, nature and extent of releases of OHM attributable to a site; the potential risk posed by a site to human health, safety, public welfare and the environment; whether

cleanup actions are necessary and feasible, and if so, determining and implementing the most appropriate actions. In addition, the MCP process provides opportunities for public involvement throughout the process.

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 where the public indicates interest in becoming involved in this process, the site is designated 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. Due to public interest at the Site, Raytheon has designated the Site as a PIP site, pursuant to the MCP.

This Public Involvement Plan has been prepared by ERM on behalf of Raytheon. It describes how public involvement activities will be implemented in conjunction with the development and implementation of response actions at the Site. The draft Plan was presented by Raytheon at a public meeting on Thursday, 28 September 2000 at 7:30 in the Large Hearing Room, Wayland Town Hall. This final PIP has incorporated public comments or questions received on the draft PIP. The PIP will be implemented in conjunction with the development and implementation of remedial response actions for the Site.

This document is the proposed Public Involvement Plan (PIP or Plan) for the Site located at 430 Boston Post Road, Wayland, Massachusetts. Section 2 contains background information on the Site; including environmental assessment and public involvement histories. Section 3 explains how the remedial response action process addresses community questions that have been raised during the development of the Plan. Section 4 explains the proposed public involvement activities for the Site. Section 5 describes how the plan will be revised in the future.

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2.0 SITE BACKGROUND

2.1 SITE DESCRIPTION AND HISTORY

2.1.1 Site Description

The Site is an approximately 83-acre property located at 430 Boston Post Road in Wayland, Massachusetts (Figure 1). The Site is comprised of a main complex of eight attached buildings, one exterior building and a series of sheds and outbuildings (Figure 2). The Site also includes approximately 32 acres of either wetlands or wetland buffer zones and 41 acres of undeveloped grass and woodlands.

The Site is bounded to the west by the Sudbury River and the Great Meadows National Wildlife Refuge (GMNWR), to the north by the GMNWR and undeveloped property, to the east by Route 27 and to the south by Route 20. Portions of the Site are zoned for residential and limited commercial uses.

2.1.2 Current and Historical Site Uses

Wayland Business Center, LLC (WBC) has owned the Site since December 1997 and redeveloped the existing structures as commercial office space. WBC is intending to redevelop the former radar testing building (Bldg. 12/21) located adjacent to the west side of the driveway. The table below summarizes the previous owners and dates of purchases based on records at the Wayland Town Assessor's Office.

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OWNER	PURCHASE DATE
Wayland Business Group LLC	15 December 1997
Wayland Meadows	22 October 1997
Continental Assurance	18 June 1968
National Boulevard Bank	14 July 1958
Norman Barnes	Gift from previous owner

According to conversations with the Wayland Assessor's Office and information provided by a town surveyor, the Site was a privately owned estate prior to 1956.

Raytheon leased the Site from 1955 to 1996. Facility operations included electronic testing and chemical process research to support Raytheon Electronic Systems' prototype manufacturing. Raytheon operations were terminated and the Site was sold.

While Raytheon occupied the Site, various different laboratory processes were performed, including:

- Photographic Development
- Printed Circuit Board Development
- Machining and Welding
- Electronic Testing
- Spray Painting
- Hydraulic Testing

The categories of chemicals utilized and waste generated from the Site and laboratory processes included:

- Volatile Organic Compounds (VOCs)
- Metals
- Heating and Lubrication Oils (some of which contained variable concentrations of polychlorinated biphenyls (PCBs))
- Water treatment and custodial chemicals

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2.1.3

Release History

The following is a summary of known releases of hazardous materials at the Site. A more detailed description of each release can be found in Section 2.2.

<i>Date</i>	<i>Oil & Hazardous Material Identified</i>	<i>Volume Release</i>	<i>Release Description</i>
10/75	No. 6 Fuel Oil	200 to 250 gallons	Discharged to outfall (OF-01, Figure 2). Release due to failure of heat exchanger and discharge to floor drain. Contained and abated near outfall.
12/89	Insulating oil	60 gallons	Discharge to soil. Release due to failure of primary feeder selector switch. Contained and abated.
3/90	Butyl-cellosolve	>10 lbs. (Reportable Quantity)	Cross-connection of an industrial waste line into the facility stormwater system was discovered. Discharge to OF-01. Cross-connection removed.
10/92	No. 6 Fuel Oil	Unknown	Stained soil was observed during removal of UST. Five (5) cubic yards of soils removed as an Interim Measure.
6/95	Polychlorinated Biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), VOCs, metals.	Unknown	Soil impacts discovered at abandoned dry wells on Site. Limited Removal Actions successfully abated soil impacts.
1/96	No. 6 Fuel Oil	Unknown	Separate phase product was measured at monitoring well adjacent to former location of UST WAY-02. Release Abatement Measure (RAM) completed and Response Action Outcome (RAO) filed in May 1999 (RTN 3-13302).
3/96	Volatile Organic Compounds (VOCs)	Unknown	VOCs were detected in groundwater in excess of reportable concentrations. Release determined to be associated with former process structure. Being addressed under ongoing Phase II/Phase III under RTN 3-13574.

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5/96	PCBs, VOCs	Unknown	Soil impacts discovered at Test Pit (TP-3) excavation during Phase I-Initial Site Investigation (Phase I). RAM completed in February 1997 (RTN 3-14042).
5/00	VOCs, PAHs, PCBs, metals, oils.	Unknown	Discovered area of stressed wetland vegetative growth associated with impacts to wetland sediments. DEP approved Immediate Response Action (IRA) to include ongoing Phase II/Phase III assessment (RTN 3-19482).
Note: RTN = Release Tracking Number - Designation used by DEP to track assessment, abatement and closure of reported releases			

Miscellaneous Spills 1990-1993

Based on a review of DEP's files, the following spills have been documented at the Site. The locations of these spills were not identified in the DEP files. DEP requires no further action for closed spills.

Spills on File for 430 Boston Post Road

OHM Released	Quantity Released	Date of Release	Status
Butoxy ethanol	11-50 pounds	12 Feb 1990	Closed
#6 Fuel oil	1-10 gallons	13 Mar 1992	Closed
#6 Fuel oil	Unknown	16 Oct 1992	Closed
Miscellaneous oil	Undetermined	13 Apr 1993	Closed

A complete list of available documentation containing more detailed information about each of the above release(s) and response actions is provided in Appendix A.

2.2

ENVIRONMENTAL ASSESSMENT

The following is a more detailed description of the releases identified in the table in Section 2.1.3.

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October 1975-Release of No. 6 Fuel Oil

In October 1975, an estimated 200 to 250 gallons of No. 6 fuel oil was discharged at the outfall (OF-01, Figure 2). The release was due to failure of a heat exchanger in the boiler room and discharged via a floor drain. Oil was observed to have pooled at the outfall and, due to the low flow conditions, did not reach the Sudbury River. The discharge lines were flushed, and pooled oil and impacted soil were removed for proper off-Site disposal. Because of the age of the release, no further details are available.

November 1980-Surface Impoundment Assessment

The United States Environmental Protection Agency (EPA) conducted a Surface Impoundment Assessment in November 1980. The study incorrectly identified two sanitary wastewater treatment surface impoundments as "waste storage impoundments" based on review of aerial photographs. A Preliminary Assessment was conducted by EPA in November, 1980, and the Site was subsequently listed on the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) List (Site No. MAD990685554). EPA referred the Site to the DEP, and the Site was listed as a Location to be Investigated (LTBI) on 15 January 1987. The Site currently remains on the CERCLIS List pending follow up by the EPA.

July 1989-US Fish & Wildlife Service

In July of 1989 the US Fish & Wildlife Service (USFWS) conducted sediment sampling along the river bank adjacent to the Site and near the NPDES outfall (OF-01) as part of a study of the Great Meadows National Wildlife Refuge (GMNWR). Preliminary results indicated elevated levels of total polynuclear aromatic hydrocarbons (PAHs up to 1,004 parts per million (ppm)), metals (including cadmium, chromium, copper, lead and mercury) and polychlorinated biphenyls (PCBs up to 117 ppm) near outfall OF-01. Contaminant levels were also higher in some of the samples collected along the drainage swale from OF-01 where compared to those collected up or downstream of the Site along the river bank.

ERM conducted sampling in the wetlands in May 1990 to evaluate surface water and sediment quality associated with cross-connection of an industrial waste line (discussed on the next page). ERM conducted additional sampling in the wetland in July 1995 to further evaluate preliminary PCB data reported by USFWS. No elevated PCBs were detected during the 1990 sampling event, and levels less than two parts

per million (ppm) were reported during the 1995 event. ERM was not able to reproduce the USFWS data results.

December 1989-Switch Gear Failure at Building 12

The primary feeder selector switch failed on 9 December 1989 at Building 12 resulting in a release of approximately 60 gallons of insulating oil. Field screening of the insulating oil indicated PCBs; however, analyses by a certified laboratory indicated no PCBs at a detection limit of two ppm in the oil. Hazardous waste manifests indicated that soil and concrete were properly transported, handled, and disposed at a licensed Transfer, Storage, Disposal Facility. ERM collected a soil sample from this area during the Phase I Investigation to evaluate soil quality as a result of the release. Results indicate non-detect for PCBs. No further action was required.

March 1990-Cross Connection of Industrial Waste Line

In March of 1990, a cross connection of an industrial waste line from a former photoetching laboratory into the storm water system was discovered and immediately disconnected. Review of OHM used in the photoetching process indicated that quantities of butyl cellusolve in excess of Reportable Quantities were potentially released through the line. Raytheon notified the DEP, and disconnected this cross-connection.

Raytheon contracted ERM to evaluate the potential for negative environmental impact from the butyl cellusolve release from OF-01. Sediment and surface water samples were analyzed for volatile organic compounds (VOCs including butyl cellusolve), PAHs, PCBs, pesticides and metals. Samples were collected from the discharge line, at the outfall, along the discharge swale and up and downstream of the Site along the Sudbury River. Butyl cellusolve, PCBs and pesticides were not detected; however, metals and PAHs were identified. The study concluded that contaminants posed negligible risk to human health and the environment, and therefore, remediation was not recommended. A Class-B1 Response Action Outcome (RAO) Statement was submitted to DEP to close out this release in July 1995.

October 1992-Removal of Underground Storage Tank (UST) WAY-01

On 13-16 October 1992, Badger Engineers, Inc. (Badger) monitored removal of a 20,000-gallon fiberglass UST (WAY-01) used for the storage of No. 6 fuel oil. The tank was installed in the early 1980s adjacent to the boiler room. Limited oil staining of soil was observed around the access

port at the top of the tank and at the return line. The DEP was notified of the release and assigned Tracking No. ERB-N92-1340. Badger monitored removal of approximately five cubic yards of oil-contaminated peastone. Additional sampling was conducted to confirm clean closure of the excavation. A Release Categorization Form was submitted to DEP. The DEP responded that no further remedial actions were required.

January 1996- Release of No. 6 Fuel Oil From WAY-02 Reported to DEP

As part of the Phase I - Initial Site Investigation (Phase I), a monitoring well (MW-11) was installed downgradient of a former 20,000-gallon steel underground storage tank (UST) (WAY-02). The tank was installed in 1956 and used for storage of No. 6 fuel oil. Raytheon records indicate that the tank was relined in 1970 and 1983 before it was pumped out and abandoned in place in 1988. Tetrachloroethene (PCE) was reportedly used as an occasional fuel conditioner (5 gallons of PCE for every 20,000 gallons of oil).

Oil contaminated soil was encountered from depths of five to nineteen feet below ground surface (bgs) during boring advancement and well installation. Subsequent gauging of MW-11 with a petroleum interface probe indicated 0.12 feet of petroleum product in the well. On 2 January 1996, Raytheon verbally notified the DEP of the presence of product in accordance with MCP requirements for 72-hour release notification. Raytheon requested approval for implementation of an Immediate Response Action (IRA) consisting of additional assessment and soil removal, if appropriate. The DEP granted approval of the IRA and issued RTN 3-13302.

ERM conducted additional assessment during January 1996 to further evaluate the nature and extent of hydrocarbon compounds in soil and groundwater, and to determine if additional time-critical response actions were warranted under the IRA. Based on the results of this assessment, an IRA Completion Report was submitted on 4 March 1996 and, at DEP's request, an amendment to this report submitted on 28 March 1996. Results of the IRA indicated:

- hydrocarbon compounds consistent with No. 6 fuel oil were located beneath the paved courtyard and Building 3 at depths ranging from 5 to 22 feet bgs;
- separate phase petroleum product was identified in two wells near the former UST, and low concentrations of dissolved phase VOCs were detected in areas immediately downgradient of the product;

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- site conditions do not pose an Imminent Hazard to human health, safety, public welfare or the environment at the present time, or for the time period likely to be required until Comprehensive Response Actions can be completed;
- the unmitigated migration of OHM at the site, at present and for the time period until Comprehensive Response Actions can be completed, does not warrant a time-critical response under an IRA;
- additional response actions will be conducted as either a Release Abatement Measure (RAM) or as a Comprehensive Response Action.

March 1996- Release of OHM to Groundwater Reported to DEP

In conducting the Phase I, Raytheon obtained knowledge of the presence of VOCs in groundwater in excess of applicable Reportable Concentrations (RCGW-1) requiring submittal of written notification to the Department. Compounds included: 1,1-dichloroethene (2.0-4.8 ug/l); benzene (11-25 ug/l); naphthalene (30 ug/l); tetrachloroethene (6.1-17 ug/l) and trichloroethene (8.6-72 ug/l). Raytheon submitted written Release Notification on 14 March 1996 to the DEP. The DEP responded issuing a Notice of Responsibility (NOR) and RTN 3-13574 on 28 March 1996.

Additional groundwater monitoring wells were installed at the Site under the Phase II Site Assessment. Approximately three deep overburden wells and eleven shallow overburden wells were installed to evaluate the vertical and lateral extent of impact. Groundwater monitoring results indicated that the plume is limited to the shallow overburden and extends to the south of the source area. Groundwater monitoring has been ongoing.

May 1996 - Phase I Initial Site Investigation

A Phase I - Initial Site Investigation was completed to determine the general environmental conditions at the Site and to determine if Site operations have resulted in a release of OHM to the environment in excess of Reportable Concentrations per 310 CMR 40.0000. The results of the Phase I included:

- Release(s) of No. 6 Fuel Oil from WAY-02 (UST) have impacted soil and groundwater
- Dissolved phase groundwater contamination maintains a low potential to impact current public water supplies

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- Impacted soil at test pit location TP-3 required a release abatement and notification was submitted by 22 July 1996
- PAHs, PCBs and metals were detected in drywells and wetland sediments
- Comprehensive response actions and tier classification will likely be necessary by 2 January 1997

May 1996 - Soil Impacts at Test Pit (TP-3)

As part of the 1996 Phase I, test pit locations were selected based on review of historic aerial photographs. Test pits were excavated to depths ranging from five to nine feet. Analytical results at one of the six locations excavated (TP-3) indicated elevated levels of an unknown hydrocarbon and PCBs. A Release Notification Form was submitted to the DEP on 25 July 1996. The DEP issued a NOR to Raytheon on 8 August 1996 and assigned Release Tracking Number 3-14042 to the Site.

A Release Abatement Measure (RAM) Plan was prepared and submitted on 4 October 1996. Removal by excavation resulted in off-Site disposal of 71 tons of remediation waste. Post-removal concentrations of PCBs in soil at TP-3 were below the MCP Method 1 Standard of 2 ppm. A RAM Completion Statement was submitted to the DEP on 19 February 1997.

January 1997 - Tier Classification

The Numerical Ranking Score Sheet (NRS) and Tier Classification were submitted pursuant to 310 CMR 40.0510. The Site was designated at Tier IB site. This designation required Raytheon to perform response actions pursuant to the MCP without prior approval from the DEP.

March 1998 - RAM Plan for WAY-02 (UST) Historic Impacts

As discussed above, UST WAY-02 was a 20,000-gallon No. 6 Fuel Oil tank that was abandoned in place in 1988, since a portion of the tank was located under the building. On 2 January 1996, Raytheon notified the DEP of the presence of separate phase product in groundwater (MW-11). An IRA Plan consisting of additional assessment was submitted to the DEP. The IRA plan was approved by the DEP and Release Tracking Number 3-13302 for the fuel oil release. ERM submitted an IRA Completion Report and Amendment dated 4 and 28 March 1998 respectively. ERM recommended additional remedial response actions be conducted as a

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RAM or as comprehensive response actions. These response actions were likely to include in-situ remediations with DEP approval.

In March 1998, the current property owner (WBC) elected to independently conduct a RAM in an effort to hasten cleanup for the WAY-02 release. The RAM included:

- Removal of a structure for access to the tank.
- Installation of structural support and sheet piling to secure the building during excavation up to but not beneath the building.
- Removal and segregation of approximately 2,000 cubic yards of clean soil.
- Excavation, characterization, segregation, staging, removal and off-Site disposal/recycling of 3,300 cubic yards of petroleum impacted soil.
- Field screening with HNu photo-ionization detector (PID), olfactory and visual evidence. Petroleum impacted soils were typically described as black, saturated sands. Sampling and laboratory analysis were conducted to confirm residual impacts following removal.
- No evidence of impact was detected inside the abandoned tank therefore the 20,000 gallon tank (filled with concrete) was left in place and used as backfill.
- Backfill of remedial excavation with clean fill.

A Partial Class A-3 RAO was filed by Haley & Aldrich on behalf of WBC (current owner) in May 1999. A Class A-3 RAO was achieved as a result of RAM activities completed at the Site and based on the results of a Method 3 Risk Characterization and constitutes a Permanent Solution for RTN 3-13302.

April 2000 - Imminent Hazard Condition

As part of the Phase II-Comprehensive Site Assessment (Phase II) further evaluation of wetland sediments was conducted. Correlation of areas of sediment impact with the results of vegetative mapping and analysis of plant tissue defined this area as having the potential for an Imminent Hazard (IH) condition. Pursuant to 40.0321, Raytheon and ERM verbally notified DEP of the potential IH condition on 26 April 2000 and agreed to file an Immediate Response Action (IRA) Plan pursuant to 310 CMR

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40.0412. DEP approved the IRA Plan that included continued assessment of the nature and extent of impact in the wetlands and further evaluation of potential risks to human health and the environment consistent with the existing Phase II Scope of Work.

The DEP issued a Notice of Responsibility and RTN 3-19482 to Raytheon on 9 May 2000. On 26 June 2000, the Release Notification Form, IH Evaluation and IRA Plan were submitted to the DEP. Further assessment is ongoing as part of the Phase II and IRA Plan.

May 2000 - Major Permit Modification Application

Pursuant to 310 CMR 40.0530, a Major Permit Modification Application was filed on 25 May 2000 to upgrade the Site tier classification and permit from IB to IA following the re-evaluation of the Site Numerical Ranking Score (NRS). The application was available for public comment from 30 June to 20 July 2000.

September 2000 - Notice of Proposed Permit Decision

On 7 September 2000, Raytheon received a Notice of Proposed Permit Decision from the DEP. The DEP determined, based its review of the Major Permit Modification Application that a new Tier IB permit would be issued with special conditions. The first of the three conditions require Raytheon to install fencing and post signage around the wetland area to deter trespassers from fishing or consuming any plant or animal species. The second and third conditions respectively, require Raytheon to submit the Phase II Comprehensive Site Assessment and Phase III Remedial Action Plan within one year of the effective date of the permit and submit the Phase IV Remedy Implementation Plan no later than 1.5 years of the effective date of the permit.

Summary

The following summarizes nature and extent of impact, as identified above, to the Raytheon site:

- All identified releases to soil have been closed under the MCP. There are no significant impacts to soil remaining at the Site.
- The impacts to groundwater are limited to the shallow overburden plume that has been defined during Site assessment activities. Further assessment activities are planned and remedial solutions will be identified and assessed in the Phase III Remedial Action Plan (RAP).

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- The nature and extent of impacts to wetland sediments is currently being defined. The majority of the impact is adjacent to OF-01. Potential receptors are limited to the aquatic, terrestrial and plant species in the wetlands. Assessment activities will continue in order to define the nature and extent of impact in the wetlands and to further evaluate potential risks to the environment.

The investigations will consist of those tasks provided in the Phase II SOW and Addendum dated 27 February 1998 and 20 September 1999 respectively, and the IRA Plan, dated 26 June 2000. Phase II and Phase III activities are tentatively scheduled for completion by 31 December 2000 and early 2001 respectively.

The intent of this section of the plan is to provide the reader with the complete environmental assessment history. Therefore, comments on the PIP should be limited to planned activities and should not encompass completed investigations at the Site.

2.3

PUBLIC INVOLVEMENT HISTORY

On 24 June 2000, DEP and Raytheon received a petition from residents of Wayland requesting that the Site at 430 Boston Post Road in Wayland be designated a PIP site, in accordance with M.G.L. c. 21E. Therefore the Site has been designated as a PIP site, and Raytheon has developed this PIP.

In developing this proposed Public Involvement Plan, Raytheon conducted interviews on 22 August 2000 with key officials and individuals interested in the Site. Concerns identified are presented in Exhibit I.

A public meeting was held on 28 September 2000 to present general Site information and an update on site assessment activities. It also provided PIP participants and the general public an opportunity to question and comment on the draft PIP. Written comments received at the end of the public comment period were incorporated into the Plan as appropriate.

3.0 ADDRESSING PUBLIC CONCERNS

3.1 THE SITE CLEANUP PROCESS

The process for assessing and cleaning up “disposal” sites as set forth in the MCP is designed to address the effects of a site on health, safety, public welfare, and the environment. Once a release of OHM has been confirmed at a disposal site, the MCP includes options for immediate abatement when and where feasible, including:

- Limited Removal Actions (LRAs) to address small quantities of soil or sediment impacted by relatively minor releases of OHM.
- Immediate Response Actions (IRAs) to address sudden or other time critical releases that have or could result in adverse exposure to human health or the environment;
- Release Abatement Measures (RAMs) to remediate localized releases and/or mitigate the impacts of larger releases until more comprehensive remedial actions can be taken at a site;

If a release cannot be sufficiently addressed to meet MCP requirements within one year of discovery (Phase I), additional assessment and remedial response actions proceed over an additional five years. At this time the site must be tier classified pursuant to 310 CMR 40.0500. The tier classification process includes assessing site conditions using the Numerical Ranking System (310 CMR 40.1500). Based on the score determined, a tier classification (Tier IA, IB, IC or II) is assigned and if appropriate, a permit is issued by the DEP to provide for the following:

- Comprehensive field investigation of the nature and extent of impact of OHM to potentially impacted media (i.e., soil, groundwater, sediment, surface water and air), and an evaluation of the potential risk posed to the public and the environment from a site (Phase II);
- Identification and evaluation of remedial response action alternatives and selection of feasible measures that will achieve a permanent cleanup at a site (Phase III);
- Implementation of the selected remedial response actions (Phase IV);

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- Operation, maintenance and monitoring of the implemented remedial actions (Phase V); and
- Submittal of a Phase V Completion Statement and Response Action Outcome (RAO) Statement.

Physical work at a disposal site includes sampling and other environmental field testing, and the implementation of the selected response action(s). It may also include the implementation of measures designed to stabilize conditions 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.

At each step of the remedial response action process, plans for work are developed, the work is conducted, and reports describing results of each phase (Phases I through V reports) and recommendations for the next step are prepared. The documents, which 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.

As noted in Exhibit I, the public has raised some questions about the Site. The remedial response action planning process is designed to address the concerns about the nature and extent of site impacts; potential risks posed to health, safety, public welfare, and the environment; and the feasibility and adequacy of proposed cleanup measures. The public involvement process allows public concerns to be addressed as part of the preparation and submittal of the Phase I through V investigation reports, remediation plans, and other reports to DEP.

4.0 PUBLIC INVOLVEMENT ACTIVITIES

4.1 PURPOSE

In accordance with the MCP (40.1400), activities undertaken to involve the public in response actions serve two purposes:

- to inform the public the about the risks posed by a disposal site, the status of remedial response actions, and the opportunities for public involvement; and
- to solicit the concerns of the public about the disposal site and response actions, and shall consider, address and, where relevant and material to the response action, incorporate these concerns in planning remedial response actions.

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

4.2 INFORMING THE PUBLIC

Raytheon will provide site-specific information to the public by establishing information repositories; developing and maintaining a mailing list to distribute information about the Site; and providing advance notification to local officials and residents about Site activities, as appropriate under the MCP.

4.2.1 Information Repositories

Publicly Available Site Files: Files on the Site are maintained at the Northeast Regional DEP Office. Appointments to view these files can be made by contacting the DEP Northeast Regional Office at 205A Lowell Street, Wilmington, Massachusetts 01887, (978) 661-7600.

Local Information Repositories: Raytheon has established and will maintain a local information repository to provide Wayland residents with easy access to information about Site investigations and proposed remedial plans. The Site information repository contains a complete copy of the DEP files on the Site including: the Tier Classification and permit

application; the Public Involvement Plan Interim Guidance for Waiver Sites (and DEP's update); work plans; sampling and field testing plans; technical reports and documents summarizing results and recommendations; 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. Raytheon will send information to the repository as it is developed.

The information repository for the Site is located at:

Primary Location

Wayland Public Library
Louise Brown
5 Concord Rd
Wayland, MA 01778
(508) 358-2311

Library Hours:

Mon-Thur 9am to 9pm
Friday 9am to 6pm
Saturday 10am to 5pm
Sunday 2pm to 5pm (closed in summer)

Secondary Location

Board of Health
Wayland Town Hall
41 Cochituate Road
Wayland, MA 01778
(508) 358-7701

Please call Board of Health
for an appointment

4.2.2

Mailing List

Raytheon will establish a mailing list for the Site (the "Mailing List"). The Mailing List may include: petitioners, interested residents, Site abutters, local and regional news media, municipal officials (specifically the Chief local Municipal Officer and the Chairperson of the Board of Health), state legislators, DEP, and anyone else indicating an interest in receiving information about the Site.

The Mailing List will be used to distribute notices of upcoming public meetings, fact sheets, notices of public comment periods on, and the availability of documents in, the information repositories, and any other information about the Site. Raytheon will maintain the Mailing List and update it as necessary. Raytheon will also provide DEP with a copy of the Mailing List.

Anyone wishing to be added to the Mailing List can call or write to:

Ronald Slager
Raytheon Company
1001 Boston Post Road
MS-1-2-1567
Marlborough, MA 01752
(508) 490-1707

4.2.3 *Municipal Notifications*

Chief Municipal Officer and Board of Health

The Chief Municipal Officer and the Board of Health will be notified if any of the following activities are conducted:

- the purpose, nature and expected duration of any field work related to the implementation of Phase IV remedial activities;
- the use of respirators and other personal protective equipment (PPE) required under Level A, B or C as defined in the site specific Health and Safety Plan (HASP); and
- sampling of any drinking water supply wells, indoor air or surface soils at any residential property at, adjacent to or downgradient from the Site.

Notification will be made at least three days prior to the commencement of field work. Notification will be based on plans for field work. If plans are modified or the level of protection is upgraded during the course of work to Level C or above, notification will be made as soon as possible.

Additionally, the Chief Municipal Officer and Board of Health will be notified of the implementation of any RAM. Notification will include information about the purpose, nature and expected duration of the RAM. Notification will be made at least seven days prior to the implementation of the RAM.

All of the above notifications may be made orally or in writing. Oral notification will be followed by written notice within seven days of the oral notification. A copy of each written notice will be submitted with its filing to the Chief Municipal Officer, the Board of Health and the DEP.

The Chief Municipal Officer and Board of Health will also be notified of the availability of any RAO Statement. Notification may take the form of copies of correspondence to the DEP, which contain or summarize the

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decisions regarding the Statement or a notice of availability of the Statement. Notifications of the availability of any RAO Statement will be made in writing. A copy of each written notice will be submitted to the DEP concurrently with its filing with the Chief Municipal Officer and Board of Health.

Fire and Police Departments

If issues of public safety are involved, the Wayland Fire and Police Departments will be notified of any threat to public safety prior to the implementation of remedial actions, unless prior notification is impracticable.

4.2.4 *Notification to Local Officials and Residents of and Major Milestones and Events*

The MCP (310 CMR 40.1403) requires community notification of major planning and implementation milestones at disposal sites. Major milestones include:

- 1) field work involving any IRAs for Imminent Hazards, implementation of any RAMs, the use of personal protective equipment (Level A, B or C protection) or use of respirators, residential sampling and Phase IV remedial actions; and
- 2) the completion of each phase of the remediation process including IRA Completion Statements for Imminent Hazards, RAOs, and Activity and Use Limitations (AULs).

Notification of field work will include information on the type of work and its approximate duration. Raytheon will notify people on the "Notification List" in advance in writing or by telephone the day before activity is scheduled to begin. A written notice will follow any notification given by telephone. Notification at the end of a remedial phase will include a summary of the phase report and information on where the report can be reviewed. The Notification List is as follows:

Notification List

<u>Name</u>	<u>Affiliation</u>	<u>Address & Phone</u>
Jeff Ritter	Executive Secretary	Town Building 41 Cochituate Road Wayland, MA 01778 (508) 358-3620
Steven Calichman	Board of Health	Town Building 41 Cochituate Road Wayland, MA 01778 (508) 358-3616
Linda Segal	Selectman (Key Petitioner)	Town Building 41 Cochituate Road Wayland, MA 01778 (508) 665-0724 (781) 894-1444 (phone mail)
Susan Pope	State Representative	Room 237 State House Boston, MA 02133 Telephone: (617) 722-2305
Susan Fargo	State Senator	Room 504 State House Boston, MA 02133 Telephone: (617) 722-1572
Chris Lane	Property Owner	Wayland Business Center c/o Congress Group Ventures One Memorial Drive Cambridge, MA 02142

4.3

SOLICITING PUBLIC INVOLVEMENT

Raytheon will provide opportunities for public input regarding Site cleanup decisions by holding public comment periods and preparing summaries of all comments received during the public comment period and responses to them.

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4.3.1 *Public Meetings*

Raytheon will brief the public about the status of the Site during the remedial action process. Meetings will take place at the time when any of the following events occur:

- Draft Public Involvement Plan
- Phase II Comprehensive Response Action
 - Scope of Work (already submitted)
 - Report
 - Risk Assessment Scope of Work (already submitted)
- Phase III Remedial Action Plan
- Phase IV Remedy Implementation Plan
- IRA and RAM Plans
- RAOs (including AULs)

Meetings will serve two purposes:

- 1) to provide community officials and the general public with progress reports 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.

Raytheon will send notices announcing public meetings to individuals on the Mailing List 14 days prior to any meeting dates. Meetings will generally take place at the Large Hearing Room in the Wayland Town Hall. Raytheon will prepare meeting summaries in the information repository.

4.3.2 *Public Comment Periods*

Raytheon will 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 Mailing List. The notice will include the title of the document, where it is available for review, information about how to submit comments to Raytheon, and

the length of the public comment period. Raytheon will be responsible for providing document copies to the information repositories and to the DEP Site file, as well as sending out notices of availability of any documents it prepares under the MCP.

Documents available for public comment will include:

- Draft Public Involvement Plan and any subsequent revisions;
- Phase II Comprehensive Response Action
 - Scope of Work
 - Report
 - Risk Assessment Scope of Work
 - Final Risk Assessment
- Phase III Remedial Action Plan;
- Phase IV Remedy Implementation Plan;
- IRA and RAM Plans and completion statements;
- RAOs (including AULs).

4.3.3 *Response to Comments*

Raytheon will prepare a summary of all comments received for each document available for public comment, and Raytheon's responses to each. A copy of this response summary will be sent to all those who submitted comments and will be placed in the information repository and the DEP Site files. Raytheon will also send a notice of availability of the response summary to the Mailing List.

5.0

REVISIONS TO THIS PLAN

This Public Involvement Plan may be revised as necessary during the course of the remedial response action process. If revisions are proposed, Raytheon will place copies of any proposed changes in the local information repository, and will send a notice of the availability of recommended changes to the Mailing List. Raytheon will hold a twenty-day public comment period on the proposed revised PIP. Raytheon will review any comments received and revise the PIP as appropriate. The final revised plan will be placed in the information repository and notice of availability will be sent to all on the Mailing List.

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EXHIBIT I COMMUNITY CONCERNS ABOUT THE SITE

From 22 August 2000 Meeting with Raytheon and ERM

Attendees:

<i>Name</i>	<i>Affiliation</i>
Ron Slager	Raytheon
Rachel Leary	ERM
John Drobinski	ERM
Joe Laydon	Planning Board
Katie Holden	Conservation
Jeff Ritter	Executive Secretary
Linda Segal	Selectman
Steven Calichman	Health Director

The primary reason for the selectman requesting this PIP Process was to understand environmental issues at the Site, because the Town of Wayland may have interest in acquiring certain portions of it. The following are concerns about the Site and the Public Involvement Plan (PIP) Process, identified by the town officials in attendance:

- The impact the remedial investigation and restoration would have on the occupants of the current office building on-Site and future Site occupants. Town officials suggested making information available to the building occupants either through the property owner or by other means.
- The Primary Information Repository location will be determined by the Executive Secretary. The Secondary Information Repository location will be the Board of Health Office.
- The following people and/or organizations will be added to the Mailing List:

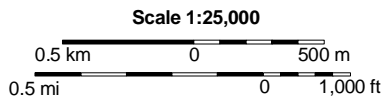
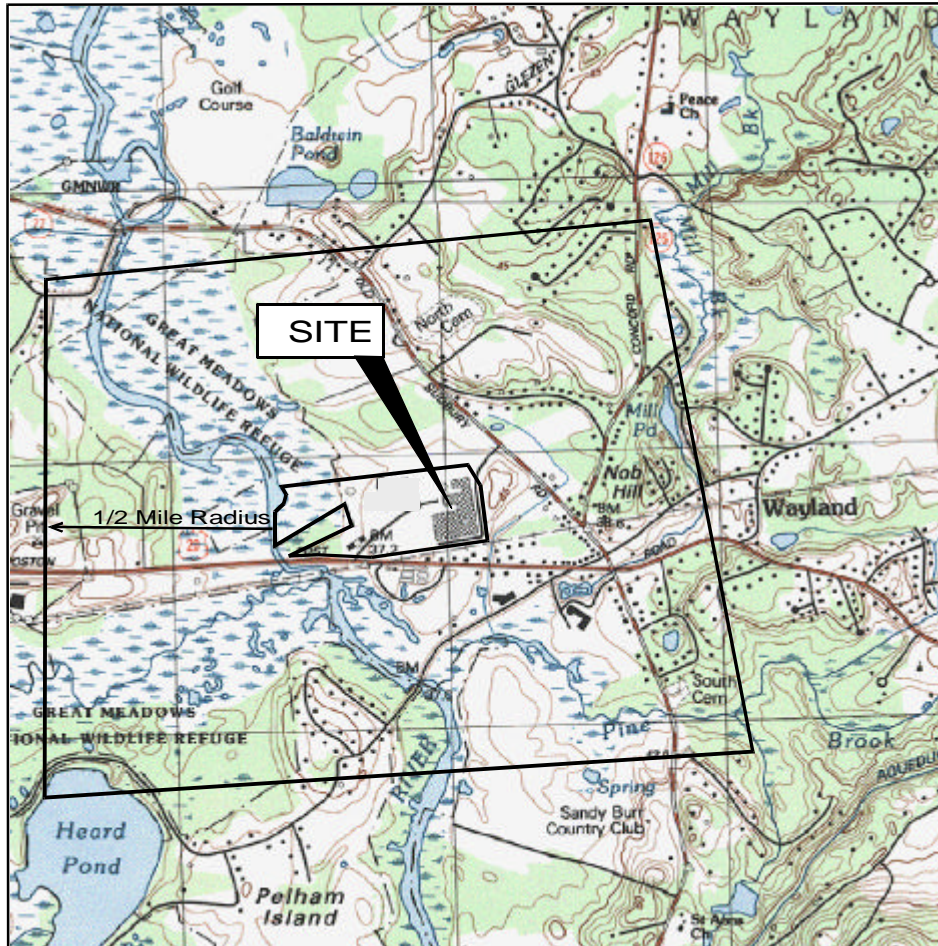
Planning Department
Conservation Commission
Wastewater Management - Gene Roberts
Surface Water Quality
National Parks Service - Jamie Fosberg


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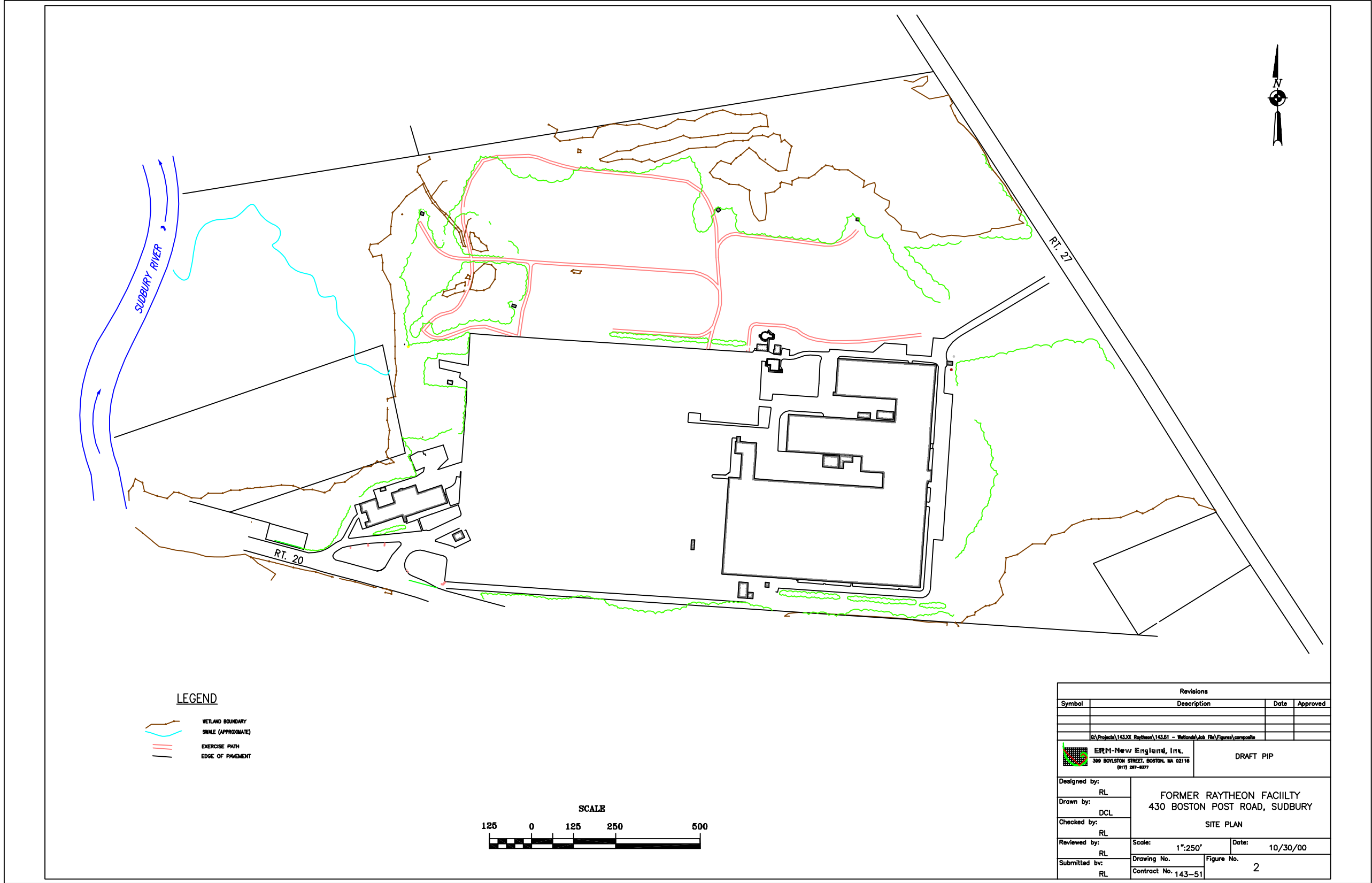
Congress Group
Bright Horizons via Congress Group

- It was also agreed Public meetings will be scheduled per the requirements identified in Section 4.31.





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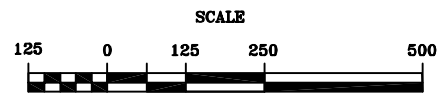



 ENVIRONMENTAL RESOURCES MANAGEMENT			
399 Boylston Street, Boston, Massachusetts 02116 (617) 267-8377			
CLIENT NAME:	Raytheon	DRAWN BY: RBC	DATE: 5/25/00
FILE NAME:	Locus Map	SCALE: 1:25,000	PROJ: 143.51
RAYTHEON COMPANY WAYLAND, MA			
LOCUSMAP			FIGURE NO: 1
PRINCIPAL-IN-CHARGE: JD		PROJECT MANAGER: JMcT	



LEGEND

-  WETLAND BOUNDARY
-  SWALE (APPROXIMATE)
-  EXERCISE PATH
-  EDGE OF PAVEMENT



Revisions			
Symbol	Description	Date	Approved
G:\Projects\143\Raytheon\143.51 - Wetland\Job File\Figures\compsite			
 ERM-New England, Inc. 399 BOSTON STREET, BOSTON, MA 02116 (617) 257-8277		DRAFT PIP	
Designed by: RL		FORMER RAYTHEON FACILITY 430 BOSTON POST ROAD, SUDBURY SITE PLAN	
Drawn by: DCL			
Checked by: RL		Scale: 1"=250'	Date: 10/30/00
Reviewed by: RL		Drawing No.	Figure No.
Submitted by: RL		Contract No. 143-51	2

APPENDIX A

INVENTORY OF AVAILABLE DOCUMENTS

1. Sampling and Analysis at Raytheon, 25 May 1990
2. ARCS for EPA Region I, October 1991
Screening Site Inspection - Final Report
3. Additional Assessment Activities, letter to DEP dated 25 June 1995
RTN # 3-13303, 3-13574, 3-14042
4. LSP Opinion, 31 July 1995
RTN # #-1783
5. Assessment and Imminent Hazard Evaluation, 28 August 1996
RTN # 3-14042
6. Imminent Hazard Evaluation letter, 3 October 1996
7. RAM Plan, 4 October 1996
RTN # 3-14042
8. Tier Classification and Tier IB Permit Application, January 1997
9. RAM Completion Report, 19 February 1997
RTN # 3-14042
10. RAM Plan, 5 March 1998
RTN # 3-13302
11. Submittal of Phase II Scope of Work, 10 April 1998
RTN # 3-13303
12. RAM 120- Day Status Report, 29 June 1998
RTN # 3-13302
13. Bill of Lading Package, 25 November 1998
RTN # 3-13302

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14. Notification of Delay in Compliance Deadlines - Submittal of Phase II/III Reports, 29 March 1999
RTN # 3-13302
15. Haley & Aldrich, Class A-3 RAO, May 1999
RTN # 3-13302
16. Phase II Site Assessment Update, 30 June 1999
RTN # 3-13302
17. Addendum No. 1 to Phase II Scope of Work, 20 September 1999
RTN # 3-13302
18. Major Permit Modification Application - Permit No. 133939, Former Raytheon Facility, 430 Boston Post Road, Wayland, Massachusetts
25 May 2000
19. Release Notification Form, Imminent Hazard Evaluation and Immediate Response Action Plan, Former Raytheon Facility, 430 Boston Post Road, Wayland, Massachusetts, Permit No. 133939
26 June 2000

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GLOSSARY OF TERMS

AUL	Activity and Use Limitations
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
DEP	Massachusetts Department of Environmental Protection
EPA	Environmental Protection Agency
ERM	Environmental Resources Management
GMNWR	Great Meadows National Wildlife Refuge
HASP	Health and Safety Plan
IH	Imminent Hazard
IRA	Immediate Response Action
LRA	Limited Removal Action
LTBI	Location to be Investigated
LSP	Licensed Site Professional
MCP	Massachusetts Contingency Plan
M.G.L.	Massachusetts General Law
NOR	Notice of Responsibility
NRS	Numerical Ranking System
OHM	Oil and/or Hazardous Materials
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PCE	Tetrachloroethene

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PID	Photoionization Detector
PIP	Public Involvement Plan
PPE	Personal Protective Equipment
ppm	parts per million
RAM	Release Abatement Measure
RAO	Response Action Outcome
RAP	Remedial Action Plan
RC	Reportable Concentration
RQ	Reportable Quantity
RTN	Release Tracking Number
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank
VOCs	Volatile Organics Compounds
WBC	Wayland Business Center