

Appendix E
Site-Specific Health &
Safety Plan

Raytheon Company

Health & Safety Plan
Former Raytheon Facility
430 Boston Post Road
Wayland, Massachusetts

26 April 2006

0043602

ERM-EnviroClean New England, Inc.
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1.0 INTRODUCTION

1.1 OVERVIEW

This Health and Safety Plan (HASP) has been developed to establish the procedures necessary for protecting personnel, the general public and off-site receptors from potential hazards resulting from activities associated with Phase IV remedial activities at the former Raytheon facility located at 430 Boston Post Road, in Wayland, Massachusetts (Figure 1).

1.2 PURPOSE AND SCOPE

The purpose of this HASP is to address the hazards associated with the presence of hazardous materials in soil and groundwater, as well as related remedial activities. This plan was intended to address activities, which will consist of disturbance, movement, handling of remedial wastes, or similar site-invasive activities, which may result in the potential contact with oil and/or hazardous material (OHM). This HASP is intended for use by ERM EnviroClean employees only. Other subcontractors and parties entering the Site will be required to read and acknowledge this HASP, but must follow their own health and safety protocols and procedures.

The following activities will be carried out as part of the Comprehensive Remedial Action:

- Excavation of impacted soils and restoration of disturbed areas;
and
- Implementation of bioremediation to treat impacted groundwater.

1.3

PROJECT TEAM

A list of key project personnel and site personnel is provided below:

Company	Name	Project Title /Assigned Role	Phone Numbers
Raytheon	Ron Slager	PRP Manager	(508) 490-1707 (617) 675-0377 pager
	Louis Burkhardt	Sr. Environmental Engineer	(978) 436-8238 (508) 727-6593 pager
ERM EC	John Drobinski	Licensed-Site-Professional Site Manager	617-646-7850 617-833-3583 cell
	Rachel Leary	Task Supervisor Competent Person	617-646-7841 617-285-5314 cell
	Jeremy Picard	Task Supervisor Competent Person	617-646-7815 617-519-3267 cell
	Ann McMenemy	Wetlands Specialist	617-646-7812 978-500-6907 cell
To Be Named		General Contractor	
	To be Named	Site Safety and Health Supervisor	
	To be Named	First Aid	

The control of site hazards is dependent upon the degree to which management enforces compliance and employees cooperate with the specified health and safety requirements. Therefore, personnel at all levels of the organization must recognize their individual responsibility to comply. All activities covered by this HASP must be conducted in compliance with this HASP and with applicable federal, state and local health and safety regulations, including 29 CFR 1910.120 and 29 CFR 1926. Personnel covered by this HASP who cannot or will not comply must be excluded from site activities.

1.3.1

Site Managers and Task Supervisors

Site Managers and Task Supervisors are responsible for compliance with company health and safety programs, policies, procedures and applicable laws and regulations. This includes the need for effective oversight and supervision of project staff necessary to control the health and safety aspects of daily operations.

1.3.2 *Site Safety and Health Supervisor (SSHS)*

SSHS are appointed on a per-project basis, by the Project Manager and/or other management representatives. The SSHS is defined by the Occupational Health and Safety Administration (OSHA) 1910.120 as "...the individual located on a hazardous waste site who is responsible to the employer and has the authority and knowledge necessary to implement the site safety and health plan and verify compliance with applicable safety and health requirements."

The SSHS is responsible to both project management and the designated local/regional health and safety representative with regard to the completion of these assigned duties.

1.3.3 *Competent Person*

A "Competent Person", as defined by OSHA 1926.20(b)-Accident Prevention Responsibilities, is the individual "who is capable of identifying existing and predictable hazards in surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them." The competent person may also be the site safety and health supervisor. A competent person must be designated on a site-by-site basis based on the site conditions, scope-of-work, and the individual's ability to recognize site-specific hazards and take appropriate corrective actions. Please note that Rachel Leary and Jeremy Picard are competent persons on behalf of ERM EC only.

1.3.4 *First Aid Personnel*

At least one individual must be present during all on-site activities who has a current (Red Cross or equivalent) training and certification in basic first aid and cardiopulmonary resuscitation (CPR). This person must also have received training and information regarding the company's bloodborne pathogen control program including the required use of "universal precautions" and the availability of Hepatitis B vaccinations (HBV) during yearly physicals.

1.3.5 *Staff*

Ultimate control of health safety is in the hands of each individual employee. Therefore, each employee must become familiar with and comply with all health and safety requirements associated with their position and daily operations. Employees also have the responsibility to notify the appropriate management and/or health and safety

representative of unsafe conditions and accidents/injuries immediately. When employees are issued respirators or any other personal protective equipment (PPE), they are responsible for ensuring that said items are used properly, cleaned as required and maintained in good working order.

1.3.6 *(Sub) contractors*

(Sub) contractors must develop their own HASP related to their specific on-site activities. This HASP has been developed with the intent that all individual contractors/subcontractors will review the contents of this plan, and agree to incorporate the basic practices as a minimum for site operations in their own HASP.

The Site, surrounding properties and physical features as well as the proposed work area are displayed in [Figure 2](#). Raytheon utilized the Site from 1955 to 1995 for electronic testing and chemical process research to support in-house prototype manufacturing. In 1995, Raytheon ceased operations and decommissioned the facility.

Assessment of the potential for past release(s) of oil OHM to soil and/or groundwater associated with Raytheon's historic operations was initiated in 1995. Identification of OHM in Site soil and groundwater required filing a release notification with the Massachusetts Department of Environmental Protection (DEP) in January 1996. Subsequent assessment and remedial response actions have been conducted in accordance with the requirements of the Massachusetts Contingency Plan (MCP, 310 CMR 40.0000). The site is being assessed and remediated under two different Release Tracking Numbers (RTNs), RTN 3-22408 and Tier IB Permit Number W045278 (the "Northern Area") and RTN 3-13302 Tier IB Permit (No. 133939) (the "Southern and Western Areas").

Data from assessment activities, presented in the Phase II, suggest the presence of residual, sorbed and/or dissolved phase volatile organic compounds (VOCs) located in the Northern Area soils that represent the source of dissolved phase impacts to groundwater in the Northern Area. The Phase III - Remedial Action Plan (Phase III) dated 16 December 2005, identified "Excavation of Source Area Saturated Soils" and "Bioremediation in Groundwater" as the preferred remedial approaches for abatement of Site impacts. The Phase III also indicated that pre-remedial characterization activities would need to be conducted to identify chlorinated VOC (CVOC) concentrations in the source area saturated soil.

3.0 HAZARD ASSESSMENT

3.1 CHEMICAL HAZARDS

This chemical hazard assessment is based on site-specific data from previous investigations (*Phase II Comprehensive Site Assessment, 16 December 2005*).

VOCs are the anticipated soil and/or groundwater contaminants. It is not anticipated that inhalation hazards will be present. It is unlikely that soil will be dry enough to generate any impacted dust however the exclusion zone will be monitored for dust as a precaution. A summary of observed contaminant concentrations in soil is provided in Table 1.

Finally, any chemicals brought onto the site by contractors are subject to the contractor's own safety procedures, including Hazard Communication requirements, as discussed below.

3.1.1 *Chemicals Subject to OSHA Hazard Communication*

All chemicals brought on site such as solvents, reagents, and decontamination solutions, or any other hazardous chemical must be accompanied by the required labels, Material Safety Data Sheets (MSDSs), and employee training documentation as required by OSHA 1910.1200.

3.1.2 *VOC Compounds*

Exposure to the VOC vapors above their respective permissible exposure limits (PELs), as defined by OSHA, may produce irritation of the mucous membranes of the upper respiratory tract, nose and mouth. Overexposure may also result in the depression of the central nervous system. Symptoms of such exposure include drowsiness, headache, fatigue and drunken-like behavior. Trichloroethene (TCE) and tetrachloroethene (PCE) have been determined to be carcinogenic, targeting eyes, skin, liver, kidneys and respiratory system.

The vapor pressures of these compounds are high enough to generate significant quantities of airborne vapor. On sites where low concentrations of these compounds are present in groundwater, the potential inhalation hazard to the field team during chemical oxidation activities is low. Groundwater that will be pumped to the surface to be treated, with be contained in piping and closed top tanks.

3.2

PHYSICAL HAZARDS

Potential physical hazards include injury from the operation of heavy equipment, confined space entry, excavation hazards, trip hazards, fire and explosion, vehicle traffic and noise exposure. No significant biological hazards are expected other than those associated with indigenous plants and insects.

A "Competent Person" must perform frequent and regular inspections of the Site, materials and equipment in accordance with 29 CFR 1926.20 to identify site hazards. All personnel on site should be provided with the information and training necessary to avoid accidental injury, including assuring that the site is maintained in such a way that slip, trip and fall hazards are recognized and eliminated or controlled. Basic PPE (steel-toed boots, hardhats and safety eyewear) must be available and its use enforced.

3.2.1

Heavy Equipment/Construction Hazards

The use of backhoes, front-end loaders, dump trucks, cranes and other heavy equipment represent potentially serious construction hazards. Whenever such equipment is used, personnel in the vicinity should be limited to those who must be there to complete their assigned duties. All personnel must avoid standing, within the turning radius of the equipment or below any suspended load. Job sites must be kept as clean, orderly and sanitary as possible. When water is used, care must be taken to avoid creating muddy or slippery conditions. If slippery conditions are unavoidable, barriers and warning signs must be used to warn of these dangers.

Never turn your back to operating machinery. Never wear loose clothing jewelry, hair or other personal items around rotating equipment or other equipment that could may catch or ensnare. Always stand far enough away from operating machinery to prevent accidental contact resulting from mechanical or human error.

Additionally, the following basic personal protective measures must be observed: hard-hats must be worn to protect against bumps or falling objects. Goggles, face shields or other forms of eye protection must be worn when necessary to protect against chemicals or other hazards. Steel-toed safety shoes or boots are also required. The shoes must be chemically resistant or protected with appropriately selected boots/coverings where necessary. Unless otherwise specified, normal work clothes must be worn. Long sleeves and gloves are also required whenever necessary to protect against hazardous contact, cuts, abrasions

or other possible skin hazards. During pile driving activities double hearing protection is required (i.e. ear plugs and ear muffs)

3.2.2 *Excavations*

All provisions of the OSHA trenching and excavation standard (29 CFR 1926.650-52) must be followed during excavation activities. The estimated location of utility installations, such as sewer, telephone, electric, water lines and other underground installations that may reasonably be expected to be encountered during excavation work, must be determined prior to opening an excavation.

Excavations in contaminated or potentially contaminated areas must be tested for confined spaces atmospheric hazards prior to entry. Excavations should not be entered if other means are available to perform the task requiring entry. If entry into an excavation is required, the atmosphere within the space must be monitored by a trained person to assure that oxygen concentrations are greater than 19.5 percent and less than 23 percent, that combustible gas levels are less than 10 percent of the lower explosive limit (LEL), and that vapor levels are within applicable safe exposure (PEL) and Threshold Limit Values [TLV] limits.

A ladder or similar means of egress must be located in excavations greater than 4 feet in depth so as to require no more than 25 feet of lateral travel for employees. No person should be allowed to enter an excavation greater than 5 feet in depth unless the following conditions have been met:

- the walls of the excavation have been protected using an approved shield (trench box), an approved shoring system, or the walls have been sloped back to an angle of 34 degrees;
- the excavation is free of accumulated water; and
- the excavation has been tested for hazardous atmospheres as noted previously.

At all times the spoils pile and all materials must be placed at least 2 feet from the edge of the excavation to prevent the materials from rolling into the excavation. Personnel must remain at least 2 feet away from the edge of the excavation at all times. Upon completion of a test pit exploration, the excavation should be backfilled and graded. Excavations should never be left open unless absolutely necessary, and then only with proper barricading and controls to prevent accidental injury.

3.2.3 *Confined Space Entry*

Confined spaces may be encountered during the utility survey. If a confined space is encountered and entry is absolutely necessary, appropriate safety precautions must be taken in accordance with the company's safety and health program. Only confined space entry trained personnel will be allowed to perform such activities. Confined space entries should be avoided whenever possible. Trenches (greater than 4 feet in depth) and other excavations will require the air monitoring specified elsewhere in this plan.

Confined space entry means the potentially hazardous entry into any space which, by design, has limited openings for entry and exit, unfavorable natural ventilation which could contain or produce dangerous air contaminants, and which is not intended for continuous employee occupancy. Confined spaces include, but are not limited to, storage vessels, sewers, tunnels, underground utility vaults, and pipelines. Other environments, which must be treated as confined spaces, include pits, basements, garages, warehouses and other indoor areas where mechanical (i.e. diesel, propane, gasoline or similarly powered) equipment must be operated for construction purposes. Excavations are considered confined spaces.

3.2.4 *Underground Utilities and Hazards*

The identification of underground storage tanks (USTs), pipes, utilities and other underground hazards is critically important prior to all excavating and other intrusive activities. In accordance with OSHA 29 CFR 1926.650, the estimated location of utility installations, such as sewer, telephone, electric, water lines and other underground installations that may reasonably be expected to be encountered during excavation work, must be determined prior to opening an excavation. Where public utilities may exist, the utility agencies or operators must be contacted directly or through a utility-sponsored service such as Dig Safe. Where other underground hazards may exist, reasonable attempts must be made to identify their locations as well. Failure to identify underground hazards can lead to fire, explosion, flooding, electrocution or other life threatening accidents. ERM will adhere its subsurface utility clearance policies.

3.2.5 *Overhead-Utilities and Hazards*

Overhead hazards can include low hanging structures, which can cause injury due to bumping into them. Other overhead hazards include falling objects, suspended loads, swinging loads and rotating equipment. Hard-

hats must be worn by personnel in areas where these types of physical hazards are encountered. Barriers or other methods must also be used to exclude personnel from these areas where appropriate. Electrical wires are another significant overhead hazard. According to OSHA (29 CFR 1926.550), the minimum clearance, which must be maintained from overhead electrical wires, is 10 feet from an electrical source rated less than 50 kilovolts (kV). Sources rated greater than 50 kV require a minimum clearance of 10 feet plus 0.4 inches per kV above 50 kV.

3.2.6 *Pedestrian Traffic*

The uncontrolled presence of pedestrians on a drilling or excavation site can be hazardous to both pedestrians and site workers. Prior to the initiation of site activities, the site should be surveyed to determine if, when and where pedestrian may gain access. This includes walkways, parking lots, gates and doorways. Barriers or caution tape should be used to exclude all pedestrian traffic.

3.2.7 *Vehicle Traffic*

All vehicular traffic routes, which could impact worker safety, must be identified and communicated. Barriers will be established to prevent injury from moving vehicles and all workers will be reminded daily and must be aware of on-site vehicular traffic. OSHA (29 CFR 1926.201) specifies that when signs, signals or barricades do not provide adequate protection from highway or street traffic, flag persons must be utilized. Flag persons must wear red or orange garments. Garments worn at night must be reflective. Provisions must be made for pedestrian and traffic control.

3.2.8 *Noise*

Noise exposure can be affected by many factors, including the number and types of noise sources (continuous versus intermittent or impact), and the proximity to noise intensifying structures such as walls or building which cause noise to bounce back or echo. The single most important factor effecting total noise exposure is distance from the source. The closer one is to the source the louder the noise will be. The operation of a drill rig, pile driving equipment, backhoe or other mechanical equipment can be sources of significant noise exposure. In order to reduce the exposure to this noise, personnel working in areas of excessive noise must use hearing protection (earplugs or earmuffs).

3.2.9 *Heat and Cold Stress*

Overexposure to temperature extremes can present significant risks to personnel if simple precautions are not observed. Typical control measures designed to prevent heat stress include dressing properly, drinking plenty of the correct types of fluids, and establishing an appropriate work/break regimen. Typical control measures designed to prevent cold stress also include dressing properly, and establishing an appropriate work/break regimen. The SSHS and Site Superintendent must assure that the appropriate heat and cold stress control measures are implemented.

3.2.10 *Fire and Explosion*

The possibility of flammable materials being encountered during field activities must be recognized and the appropriate steps necessary to minimize fire and explosion must be observed. This includes situations where excessive organic vapors or free product are encountered. When this occurs, monitoring with a combustible gas indicator (CGI) is required.

Excessive organic vapors, for the purposes of initiating the use of a CGI, are defined as sustained readings (i.e., continuous for at least 5 minutes) at or above 250 units or as an instantaneous reading at or above 1,000 units on the PID, in close proximity (i.e. within 1 foot or less) of the excavation or other area of potential exposure.

In situations where flammable materials (e.g. gasoline, acetylene cylinders, hexane, and methanol) are used on site, the following precautions must be observed:

- keep flammable and combustible materials away from heat, sparks and open flames;
- do not smoke around flammable or combustible materials;
- keep all flammable and combustible liquids in approved and properly labeled safety containers and segregate all flammable materials from other incompatible materials such as oxidizers.

3.2.11 *Fire Protection*

Contractors must comply with the following requirements as applicable:

- Fire Prevention, 29 CFR 1926.15 1: Electrical wiring and equipment for light, heat or power purposes are to be installed in compliance with the

National Electrical Code. Portable battery-powered lighting equipment used in connection with the storage, handling or use of flammable gases or liquids are to be the type approved for the hazardous location.

- Fire Extinguishers, 29 CFR 1926.150(c): Contractors are to ensure that at least one ten-pound-capacity type ABC fire extinguisher is provided within 100 feet of each work areas. Fire fighting equipment is to be periodically inspected and maintained in operating condition. Extinguishers subject to freezing are to be protected from freezing.
- Fuel Cans, 29 CFR 1926.351: Approved self-closing safety cans with flame arrest protection are to be used when necessary for dispensing small quantities of fuel.

3.3 *BIOLOGICAL HAZARDS*

Potential biological hazards for all sites include poisonous plants, insects or other animals that carry disease (i.e. Lyme disease, rabies) or venom (i.e. bees, snakes, spiders).

3.3.1 *Insects*

Insects represent significant sources (vectors) of disease transmission. Therefore, precautions to avoid or minimize potential contact should be considered prior to all field activities. Disease or harmful effects can be transmitted through bites, stings or through direct contact with insects or through ingestion of foods contaminated by certain insects. Examples of disease transmitted by insect bites include encephalitis and malaria from contaminated mosquitoes, Lyme disease and spotted fever from contaminated ticks. Stinging insects, such as bees and wasps, are prevalent throughout the country, particularly during the warmer months. The stings of these insects can be painful, and cause serious allergic reactions to some individuals.

3.3.2 *Lyme Disease*

Lyme disease is an infection caused by the bite of certain ticks, primarily deer, dog and wood ticks. The symptoms of Lyme disease usually start out as a skin rash then progress to more serious symptoms. The more serious symptoms can include lesions, headaches, arthritis and permanent damage to the neurological system. If detected early the disease can be treated successfully with antibiotics. The following steps are

recommended for prevention of Lyme disease and other diseases transmitted by ticks:

- Beware of tall grass, bushes, woods and other areas where ticks may live;
- Wear good shoes, long pants tucked into socks, a shirt with a snug collar, good cuffs around the wrists and tails tucked into the pants. Insect/tick repellents may also be useful; and
- Carefully monitor for the presence of ticks. Carefully inspect clothes and skin when undressing. If a tick is attached to the skin it should be removed with fine-tipped tweezers. You should be alert for early symptoms over the next month or so. If you suspect that a tick has bitten you, you should contact a physician for medical advice.

3.3.3 *Poisonous Plants*

The possible presence of poisonous plants should be anticipated for field activities in wooded or heavily vegetated areas. Contact with poison ivy, poison oak and sumac result in an intensely itching skin rash and characteristic blister-like lesions. Contact with these plants should be avoided.

3.3.4 *Rats, Snakes and Other Vermin*

Certain animals, particularly those that feed on garbage and other wastes, can represent significant vectors of disease transmission. Therefore, precautions to aid and/or minimize potential contact with (biting) animals (such as rats) or animal waste (such as pigeon droppings) should be considered prior to all field activities. Rats, snakes and other wild animals can inflict painful bites. The bites can be poisonous (as in the case of some snakes), or disease causing (as in the case of rabid animals). Avoidance of these animals is the best protection.

4.0

MONITORING

Air monitoring falls into two separate categories:

- direct reading/exclusion zone monitoring.
- and personal exposure monitoring.

Exclusion zone monitoring is conducted in order to evaluate potential airborne hazards on a "real time" basis so that action levels specified in this HASP can be implemented. Personal exposure monitoring is conducted as part of a company's own HASP in order to establish a database of occupational exposure for OSHA compliance purposes. This HASP addresses only exclusion zone monitoring.

4.1

EXCLUSION ZONE MONITORING

The exclusion zone monitoring required for the site will be conducted using the direct reading instruments as indicated in the table below. The data provided by these instruments can be used to determine the appropriate control actions and personal protective equipment requirements.

Equipment calibration must be performed in accordance with the manufacturer's instructions. Field checks using the appropriate reference standards must be made on site at the minimum frequency of twice per shift (pre and post sampling). A daily log of all instrument readings, as well as all field reference checks and calibration information must be maintained.

The following table summarizes the types of environmental monitoring, the required frequencies and the appropriate response actions applicable to this site:

Chemical Identification	Instrument Type	Monitoring Frequency	Instrument Reading	Response Action
Total VOCs	PID	Continuously during intrusive activities or confined space entries.	0- 10 units 10-100 units >100 units	Level D Level C Level B
Dust	MIE Real-time Aerosol Monitor	Upwind and downwind during excavation activities	0.0004mg/m ³ 0.15 mg/m ³	Implement dust controls and potential use respirators
Confined Space Entry				
LEL	CGI or LEL/O ₂ meter	Continuously during intrusive activities or confined space entries.	>10% LEL	Entry prohibited. Determine source of elevated LEL and implement controls prior to entry.
Oxygen	O ₂ meter	Continuously during intrusive activities or confined space entries.	<20.9% (O ₂ deficient) or >23% (O ₂ rich)	Entry prohibited. Determine source of elevated LEL and implement controls prior to entry.

4.1.1

Total VOCs

A photoionization detector (PID), equipped with a 10.2 eV or an 11.7 eV lamp, calibrated with isobutylene and referenced to benzene in air, will be used to monitor the general area and the breathing zone of workers during intrusive activities and to assess the potential presence of organic vapors.

4.1.2

Confined Space Entry

Air monitoring for excavations and confined space entries must be conducted in accordance with the information provided below. If a confined space is encountered and entry is absolutely necessary, the SHSC must be notified to coordinate the entry. Only confined space entry trained personnel will be allowed to perform such activities. Confined

space entries should be avoided whenever possible. Trenches (greater than 4 feet in depth) and other excavations will require the air monitoring specified in the table in Section 4.1.

Monitoring of confined spaces must be conducted in the following order only:

1. oxygen (O₂ meter)
2. explosive/combustible atmospheres (CGI/LEL meter)
3. other toxics (VOCs, H₂S)

Confined space entry monitoring must be continuous during the entire entry. Action levels for confined space entry monitoring are provided in the table in Section 4.1.

4.1.3 *Dust Monitoring*

Dust (PM-10) monitoring with an MIE Real-time Aerosol Monitor will be performed during all excavation and soil movement activities (e.g. loading, backfilling, etc.). Upwind and downwind dust monitoring locations will be determined on a daily basis. Since wind directions can change daily, the upwind and downwind locations will coincide with the excavation area, as applicable. Additionally, dust monitoring will be performed next to the excavation area. Personal exposure monitoring will be implemented if PM-10 levels are detected in the excavation area above action levels during site cleanup or other remedial activities.

Background values will be established prior to commencement of work. An increase of dust concentration, measured in mg dust/cubic meter, of approximately 25% above background levels, for a period of 15 minutes, is the action level.

Exceedance of the action levels may trigger one or more of the following actions:

- a work stoppage or change in intrusive activities
- use of water to suppress dust
- the use of respirators by construction personnel
- public notification to the Town of Wayland Board of Health

4.2

MITIGATIVE MEASURES FOR CONTROL OF EMISSIONS

Based on odors and/or results of air monitoring, vapor emissions resulting from site operations may need to be suppressed. Appropriate mitigative measures would include ceasing operations until the cause of the emissions is identified and controlled. Vapor control measures may include immediate backfilling of the excavation, use of vapor suppression foams, and covering of exposed soil piles with polyethylene or tarps. Dust emissions control actions may consist of applying a water spray to the source area.

4.3

PERSONAL EXPOSURE MONITORING

Personal exposure monitoring for the purpose of determining individual time-weighted average exposures may be required for specific operations or activities. Although the data provided by the real-time instruments specified above can be used to determine the appropriate control actions and personal protective equipment requirements, the data may be inappropriate for use in determining employee time-weighted average exposures as required by specific OSHA regulations.

According to 29 CFR 1910.120 personal exposure monitoring for the purpose of determining individual time-weighted average exposures is required only during site cleanup or other remedial activities. However, there are other compound-specific OSHA regulations requiring personal exposure monitoring. Contractors must assess the need for conducting personal exposure monitoring based specifically for their individual employees operations and anticipated exposures.

The following table specifies the initial level of protection required for each task. The table is arranged according to major project tasks. The personal protection requirements are based on the anticipated chemical and physical hazards, past uses of the site and potential exposure routes (i.e., inhalation, skin contact, and ingestion). **Personnel will be required to upgrade levels of protection based on the air monitoring results.** The SSHS and the Site Manager will determine the level of protection and will inform all other personnel.

Task	Initial Level of Protection
General site work - No contact hazards (utility survey, contractor oversight, traffic/pedestrian control).	Level D
General site work - Contact hazards (all intrusive activities, dewatering activities, soil and groundwater sampling and all other tasks involving potential contact with soil or groundwater).	Modified Level D
Chemical Oxidation Activities - Personnel Protective Equipment will be donned to address hazards associated with the injection of oxidant.	Modified Level D
Excavation Activities - Equipment Operators (provided that the operators remain inside of the equipment). Operators would be required to don Level C PPE if required based on air monitoring results.	Modified Level D

Personal protective equipment will be donned as described below for the activities described in the table above. Based on available analytical data and anticipated activities, it is assumed that most activities will require Level D or Modified Level D PPE with contingencies for Level C PPE. Levels of protection for the tasks not included in the table above will be determined by the SSHS in consultation company safety and health officials.

5.1 **LEVEL D**

Level D PPE is defined as the following, or similar, equipment:

- Hard-hat;

- Work clothes;
- Steeled-toed work boots;
- Hearing protection (if necessary);
- Eye protection; and
- Reflective orange vest if working on or near public roadways.

5.2 *MODIFIED LEVEL D*

Modified Level D is specified where there is a contact hazard but not an inhalation hazard. Modified Level D PPE is defined as the following, or similar:

- Hard-hat;
- **Tyvek coveralls** over work clothes;
- Steel-toed work boots;
- **Nitrile gloves (or equivalent);**
- Hearing protection (if necessary);
- Eye protection; and
- Reflective orange vest if working on or near public roadways.

If the potential exists for contact with liquids, personnel will be required to wear a coated chemical protective suit (e.g., polycoated tyvek, Saranex, etc.).

5.3 *LEVEL C*

Based on specific activities, air monitoring results and/or the presence of unanticipated dusty conditions, Level C respiratory protection may be required. Level C PPE is defined as the following, or similar:

- Hard-hat;
- Tyvek coveralls over work clothes;

- Steel-toed work boots with **disposable boot covers**;
- Nitrile gloves (or equivalent);
- Hearing protection (if necessary);
- Eye protection;
- Reflective orange vest if working on or near public roadways; and
- **Full-face air purifying respirator with combination High Efficiency Particulate (HEPA)/organic vapor/acid gas cartridges.**

If the potential exists for contact with liquids, personnel will be required to wear a coated chemical protective suit (e.g., polycoated tyvek, Saranex, etc.).

All personnel who will be required to wear air-purifying respirators must have been qualitatively or quantitatively fit-tested for the particular brand and size respirator he/she will be wearing on-site. Normal eyeglasses cannot be worn under full-face respirators because the temple bars interfere with the face seal. As a result, special spectacle inserts designed for use with respirators must be available for workers requiring corrective lenses. Each contractor required to wear respirators must have procedures for selecting, using and maintaining said respirators.

5.4

LEVEL B

If air monitoring results indicate the need to go to Level B protection, the SSHS must be notified in order to evaluate the situation. Engineering controls may be implemented in lieu of Level B PPE; however, additional air monitoring must be conducted after the implementation of the engineering control and prior to the re-entry of site personnel to determine the effectiveness of the control.

Site-specific training in the use and limitations of Level B protection must be conducted prior to the use of Level B on site. Training will also include a review of the revised emergency procedures. Level B PPE will consist of the Modified Level D PPE, plus:

- A full-face, positive-pressure, demand-mode, supplied air breathing apparatus or equivalent

LEVEL A

In situations where the type of chemical, concentration and potential exposure route are not known, the SSHS must be notified in order to evaluate the situation for upgrade for Level A PPE. Engineering controls may be implemented in lieu of Level A PPE; however, additional air monitoring must be conducted after the implementation of the engineering control and prior to the re-entry of site personnel to determine the effectiveness of the control.

Site-specific training in the use and limitations of Level A protection must be conducted prior to the use of Level A on site. Training will also include a review of the revised emergency procedures. Level A PPE will consist of the Modified Level D PPE, plus:

- A full-face, positive-pressure, demand-mode, supplied air breathing apparatus or equivalent; and
- Fully encapsulating chemical-resistant suit.

To minimize both exposure of unprotected personnel and migration of contamination due to tracking by personnel or equipment, work areas where intrusive site activities will be conducted be clearly identified with appropriate equipment such as caution tape, fencing, or similar equipment. Work areas or zones will be established as suggested in the "Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities," NIOSH/OSHA/USCG/EPA, November, 1985. This document recommends the area surrounding each of the work areas to be divided into three zones whenever possible and plausible:

- the exclusion zone or "Hot" zone;
- contamination reduction zone (CRZ);
- and the support zone.

6.1***EXCLUSION ZONE***

Each exclusion zone will consist of the active work areas where site activities are taking place. A 15-foot radius will be established as the typical perimeter of the zone; however, this may be modified as necessary in order to protect unprotected personnel from chemical or physical hazards that may occur as a result of site operations. The perimeter of the zone will be marked with brightly colored hazard tape. All personnel entering these areas must wear the prescribed level of protective equipment.

6.2***CONTAMINATION REDUCTION ZONE***

Each contamination reduction zone (CRZ) will be a passageway between the exclusion and support zones. The CRZ is where personnel will begin the sequential decontamination process when exiting the exclusion zone. To prevent cross contamination and for accountability purposes, all personnel must enter and leave the exclusion zone through the CRZ.

6.3 *SUPPORT ZONE*

The support zone will coincide with the project site trailer (if applicable) and/or equipment staging area, and will consist of an area outside the exclusion zone and CRZ where support vehicles and equipment will be staged, and other general site activities will be conducted.

6.4 *OTHER SITE CONTROL AND SAFETY MEASURES*

The following measures are designed to augment the specific health and safety guidelines provided in this plan:

- The "buddy system" will be used at all times by all personnel. No one is to perform exclusion zone work alone. The standby team member must be intimately familiar with the procedures for initiating an emergency response.
- Avoidance of contamination is of the utmost importance. Whenever possible, avoid contact with contaminated (or potentially contaminated) surfaces or materials. Walk around (not through) puddles and discolored surfaces. Do not kneel on the ground or set equipment on the ground. Protect air-monitoring instruments from water by either using either the instrument in the provided case or by wrapping the instrument in plastic if a case is not provided. If the instrument is wrapped in plastic, openings are made in the bag for sample intake and exhaust.
- Hands and face must be thoroughly washed upon leaving the work area and before eating, drinking or any other activities.
- Eating, drinking, chewing gum or tobacco, smoking or any practice that increases the probability of hand-to-mouth transfer and ingestion of materials is prohibited except in the support zone after proper decontamination.
- Beards or other facial hair that interfere with respirator fit are prohibited for anyone who is required to wear a respirator.
- The use of alcohol or drugs is prohibited during the conduct of field operations. Working under the influence of prescription drugs or over-the-counter medication that may cause drowsiness or loss of alertness is also prohibited.

- All equipment must be decontaminated or discarded, as designated by the SSHS before leaving the site.
- Safety equipment (PPE) described in Section 5.0 will be required for all field personnel unless otherwise approved by the SSHS.

6.5

SITE SECURITY

The Site Manager is responsible for identifying the presence of all employees on site. A Sign-in/Sign-out log will be maintained for this purpose or the information will be kept in the SSHS's field book.

Equipment left on site during off-hours must be locked, immobilized and/or otherwise secured to prevent theft or unauthorized use or access.

7.0

DECONTAMINATION

Proper decontamination is required of **all personnel and equipment** before leaving the site. All materials and equipment used for decontamination must be disposed of properly. Clothing, tools, buckets, brushes, and all other equipment that is contaminated must be secured in drums or other containers and labeled. Clothing not completely decontaminated on site should be secured in plastic bags before being removed from the site.

7.1

PERSONNEL DECONTAMINATION

Personnel decontamination will be accomplished by following a systematic procedure of cleaning and removal of PPE. Contaminated PPE such as boots and face shields will be rinsed free of gross contamination, scrubbed clean in a detergent solution and then rinsed clean. To facilitate this, a three-basin wash system will be set up on site. The wastewater will be transferred to drums, which will be labeled and left on site for disposal.

Disposable PPE, such as Tyvek coveralls, gloves, outer boots, etc. will be disposed of as general refuse. Respirators will be cleaned after each use with respirator wipe pads and will be stored in plastic bags after cleaning. Alternative chemical decontamination procedures, such as steam-cleaning field boots, may be used if available.

7.1.1

Decontamination Sequence

Steps required will depend on the level of protection worn in accordance with Section 5.0:

1. Remove and wipe clean hard hat
2. Rinse boots and gloves of gross contamination
3. Scrub boots and gloves clean
4. Rinse boots and gloves
5. Remove outer boots
6. Remove outer gloves

7. Remove Tyvek coveralls
8. Remove respirator, wipe clean and store
9. Remove inner gloves
10. Boots that have been decontaminated can be worn into the support zone.

7.2 *EQUIPMENT DECONTAMINATION*

Measures should be taken to prevent contamination of sampling and monitoring equipment. Sampling devices become contaminated, but monitoring instruments, unless they are splashed, usually do not. Once contaminated, instruments are difficult to clean without damaging them. Any delicate instrument that cannot be easily decontaminated should be protected while it is being used. Protect air-monitoring instruments from water by either using the instrument in the provided case or by wrapping the instrument in plastic if a case is not provided. If the instrument is wrapped in plastic, openings are made in the bag for sample intake and exhaust.

If solvents are used for decontamination of equipment all safety precautions specified on the manufacturer's warning label and MSDS must be observed. Solvents or rinsate generated during the decontamination process will be drummed, labeled, and disposed of with other substances from the site.

Wooden tools are difficult to decontaminate because they absorb chemicals. Wooden hand tools will be kept on site for the project duration and handled only by protected workers. At the end of the site activities, wooden tools will be discarded if they can not be decontaminated properly.

The method generally used to decontaminate heavy equipment is to wash them with water under high pressure or to scrub accessible parts with detergent/water solution under pressure. Washwater from decontamination of backhoe buckets and related equipment will be collected for disposal.

Personnel conducting the decontamination must be adequately protected contaminated mists and aerosols can be generated. PPE, as specified in Section 5.0, must be worn, including Level C respiratory protection.

8.0 *MEDICAL MONITORING AND TRAINING REQUIREMENTS*

8.1 *MEDICAL*

All personnel covered by this HASP must be active participants in a medical monitoring program that complies with 29 CFR 1910.120(f). Each individual must have completed an annual surveillance examination and/or an initial baseline examination within the last year prior to performing any work on this site covered by this HASP. Each contractor is responsible for implementing and maintaining the medical monitoring program for its employees.

8.2 *TRAINING*

All personnel covered by this HASP must have completed the appropriate training requirements specified in 29 CFR 1910.1200 Hazard Communication and 29 CFR 1910.120(e). This requirement applies to individuals who may conduct work within and exclusion zone. Each individual must have completed an annual 8-hour refresher training course and/or initial 40-hour training course within the last year prior to performing any work on this site covered by this HASP. Also, at least one employee must be on site during all invasive site activities to act as the site manager and SSHS. This individual must have documentation of at least three days of supervised field experience as well as completion of the specified 8-hour training course for managers and supervisors.

8.3 *SUBCONTRACTORS*

Subcontractors will be required to provide specific written documentation prior to their performing any work on site that each individual assigned to this project has completed the medical monitoring and training requirements specified above.

8.4 *SITE SAFETY MEETINGS*

Prior to the commencement of on-site activities, a site safety meeting will be held to review the specific requirements of this HASP. Short safety refresher meetings will be conducted by the SSHS weekly or as needed throughout the duration of site activities. In addition, the SSHS will

ensure that site visitors have had the required training in accordance with 29 CFR 19 10.120 and will provide pre-entry safety briefings.

9.0 *EMERGENCY ACTION PLAN*

9.1 *GENERAL REQUIREMENTS*

OSHA defines emergency response as any "response effort by employees from outside the immediate release area or by other designated responders (i.e., mutual-aid groups, local fire departments, etc.) to an occurrence which results, or is likely to result in an uncontrolled release of a hazardous substance." Personnel covered by this HASP may not participate in any emergency response where there are potential safety or health hazards (i.e., fire, explosion, or chemical exposure). The company's response actions will be limited to evacuation and medical/first aid as described within this section below.

The basic elements of an emergency evacuation plan include employee training, alarm systems, escape routes, escape procedures, critical operations or equipment, rescue and medical duty assignments, designation of responsible parties, emergency reporting procedures, and methods to account for all employees after evacuation.

9.1.1 *Employee Information*

Employees must be instructed in the specific aspects of emergency evacuation applicable to the site as part of the site safety meeting prior to the commencement of all on-site activities. On-site refresher or update training is required anytime escape routes or procedures are modified or personnel assignments are changed.

9.1.2 *Emergency Signal and Alarm Systems*

An emergency communication system must be in effect at all sites. The most simple and effective emergency communication system in many situations will be direct verbal communications. Each site must be assessed at the time of initial site activity and periodically as the work progresses. Verbal communications must be supplemented anytime voices can not be clearly perceived above ambient noise levels (i.e., noise from heavy equipment, backhoes, etc.) and anytime a clear line-of-sight can not be easlily maintained between all project personnel because of distance, terrain or other obstructions.

When verbal communications must be supplemented, emergency signals (using handheld airhorns or other devices) must be implemented. All site personnel are authorized to initiate an emergency evacuation.

The SSHS and the Site Manager will be responsible for accounting for all personnel onsite after an emergency evacuation has been conducted.

9.1.3 *Emergency Information*

Emergency Numbers: Police: 911
 Fire: 911
 Ambulance: 911

Hospital: Metro West Medical Center
 67 Union Street
 Natick, Massachusetts
 (508) 650-7000 (main number)

Directions to Hospital:

Travel time - Approximately 7.5 miles, 20 minutes.

	Total Miles	Directions
1.	0.8	Turn left onto BOSTON POST ROAD heading east.
2.	1.0	Turn right onto Cochituate Rd/MA-126/MA-27
3.	1.2	Stay on Cochituate Rd/MA-27
4.	3.7	Cochituate Rd/MA-27 turns into Main Street/MA-27
5.	0.3	Turn left onto E. Central St./MA-135
6.	0.4	Turn right onto Union Street

9.1.4 *Incident Reporting Procedures*

Any incident (other than minor first aid treatment) resulting in injury, illness or property damage requires an accident investigation and report. The investigation should be initiated as soon as emergency conditions are under control. The purpose of this investigation is not to attribute blame, but to determine the pertinent facts so that repeat or similar occurrences can be avoided.

The investigation should begin while details are still fresh in the mind of anyone involved. The person administering first aid may be able to start the fact gathering process if the injured are able to speak. Pertinent facts must be determined. Questions beginning with who, what, when, where,

and how are usually most effective to discover ways to improve job performance in terms of efficiency and quality of work, as well as safety and health concerns.

Appendix F
Spill Prevention, Control and
Countermeasures Plan

Raytheon Company

Spill Prevention Control and
Countermeasures Plan

Former Raytheon Facility

430 Boston Post Road

Wayland, Massachusetts

17 May 2006

43601

Environmental Resources Management

399 Boylston Street, 6th Floor

Boston, Massachusetts 02116

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Table 1 Emergency Notification Numbers

FIGURES

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Figure 2 Facility Plan

This Spill Prevention and Control Countermeasures (SPCC) Plan was prepared for the remedial investigation and remedial solution implementation activities at the former Raytheon facility located in Wayland, Massachusetts (Site). The anticipated activities include installation of a coffer dam, excavation of impacted soils, and implementation of an enhanced bioremediation program in accordance with the requirements of the Phase IV Remedy Implementation Plan and the Massachusetts Contingency Plan (MCP).

This SPCC Plan applies only to MCP activities and is not intended to cover any manufacturing or facility activities. The Massachusetts Department of Environmental Protection (MA DEP) tracks this Site under Release Tracking Number (RTN) 3-22408 and Tier IB Permit No. W045278.

Raytheon utilized the Site from 1955 to 1995 for electronic testing and chemical process research to support in-house prototype manufacturing. In 1995, Raytheon ceased operations and decommissioned the facility. Identification of impacts to Site soil and groundwater in the Northern Area of the Site prompted Raytheon to submit a Release Notification Form (RNF) to MA DEP on 17 December 2002. Of the three reportable conditions identified in the 2002 RNF, only the detection of VOCs in Northern Area groundwater is relevant to the scope of work covered by this SPCC.

In accordance with MCP requirements, a Phase I - Initial Site Investigation Report was filed with MA DEP on 17 December 2003. The Site was subsequently Tier Classified as a Tier IB "Disposal Site" and issued a permit from MA DEP to conduct additional assessment and remedial response actions under Phase II. A Phase II Comprehensive Site Assessment Report, submitted 16 December 2005, further defined the nature and extent of contamination at the Site and evaluated potential risks. The Phase III Remedial Action Plan was prepared alongside the Phase II to evaluate and select a remedial alternative. The Phase III evaluation concluded that "Excavation of Source Area Saturated Soils" and "Bioremediation in Groundwater" are the preferred remedial approaches for abatement of Northern Area impacts. The intent of Phase IV activities is to abate impacts to Northern Area soil and groundwater that potentially pose risk, as identified in the Phase II report.

2.0 *SITE DESCRIPTION*

2.1 *SITE LOCATION*

The Site is located at the former Raytheon facility in Wayland, Massachusetts at 430 Boston Post Road. A Site location map is provided as [Figure 1](#). The Sudbury River borders the Site to the west and Route 27 borders the Site to the east. The Great Meadows National Wildlife Refuge abuts the Site to the north. Access to the Site is via Boston Post Road (Route 20) to the south. Based on review of applicable United States Geologic Survey (USGS) topographic maps, the approximate geographic coordinates of the Site are 42° 21' 30.5" north latitude and 71° 22' 19.6" west longitude (TRCC, 1991). The approximate Universal Transverse Mercator (UTM) coordinates of the Site are Zone 19 304800 E 4692800 N (Figure 1).

2.2 *SITE ACTIVITIES*

Potential Site activities that will be taking place that are applicable under this plan may include:

- Installation of sheet pile to construct a coffer dam;
- Excavation of approximately 4,700 cubic yards (yd³) of soil;
- Installation of a subsurface injection gallery;
- Backfilling, grading, and restoration of disturbed areas;
- Injection of carbon substrate into groundwater; and
- Groundwater monitoring activities.

2.3 *FACILITY DRAINAGE*

The portion of the Site that borders the Sudbury River is the area of concern. The area in which the excavation and injection will be conducted is a grassy meadow. Stormwater runoff from the meadow and drainage system in the parking lot is toward Sudbury River. Other activities,

including soil transport and staging, equipment decontamination, and water treatment will be conducted along the northern extent of the facility parking lot.

The surface water drainage at the facility is identified on [Figure 2](#) and consists of 40 catch basins located throughout the Site. Some catch basins are located in the vicinity of potential investigative and remedial areas. Drainage from the asphalt-paved parking lot is collected in the catch basins and then flows northwest to the discharge point at the wetland boundary adjacent to Sudbury River.

3.0

SECURITY

The following security measures are in place at the facility:

- The Site is currently an office development and does not require 24-hour security;
- Additional security measures will be implemented as needed.

4.0 *SPILL PREVENTION MEASURES*

4.1 *STORAGE FACILITIES*

4.1.1 *Bulk Storage*

No bulk storage of hazardous chemicals is proposed during remedial activities.

4.1.2 *Container Storage*

The majority of hazardous materials to be brought on site will be fuel for the various pieces of heavy equipment necessary to install sheet pile and excavate impacted soil. Small amounts of fuel will also be on site to power generators for providing power to the water treatment apparatus and construction oversight offices.

Sodium lactate and soybean oil are the carbon substrates that may be injected into the subsurface. While significant volumes of either of these two substances may be temporarily staged on site, neither is considered a hazardous material.

Quantities of hazardous chemicals (methanol) used for decontamination of excavation and monitoring equipment will be stored in small quantities (e.g., < 1-gallon containers) and within the field vehicles.

In order to minimize the potential for spills from the storage of hazardous materials, the following spill prevention measures will be in place:

- All containers holding hazardous materials will have secondary containment, capable of holding 110% of the volume of any one container in an area;
- Spill response material will be located in close proximity to the container storage to allow for fast response and to minimize the impacts of any spills; and
- In instances when drill rigs or other trucks are to be fueled, they will be fueled off-site when possible. If that is not possible, spill control material will be in close proximity of the re-fueling and an ERM

observer will monitor the task to insure that the tanks are not overfilled.

5.0

PERSONNEL TRAINING

ERM will ensure that all of its employees and subcontractors are fully briefed on the contents of this SPCC Plan prior to working at the facility.

ERM employees will be limited to first-response actions, such as:

- Notifying Site/Task Manager;
- Notifying a cleanup contractor, if directed by Site/Task Manager; and
- Placing absorbent material to limit the impacts of any spills.

Formal spill response and cleanup will be performed by spill response contractors for those spills beyond the capability of the Site staff to appropriately and safely respond to. In general, spills greater than 10 gallons or spills of extremely hazardous materials should be handled by qualified spill response contractors. The spill response contractors designated to respond to a hazardous material spill will have training in proper emergency response procedures. This training will generally include:

- Spill contingency procedures as defined by Occupational Safety and Health Administration (OSHA) in 29 CFR 1910.120; and
- Proper use and disposal of all cleanup materials.

Designated Site personnel will coordinate with subcontractors to perform emergency response procedures. A qualified emergency response contractor will be retained to take response actions above and beyond the training expertise of on-site personnel when spill conditions warrant such actions.

6.0 *SPILL REPORTING, RESPONSE AND CLEANUP*

6.1 *REPORTABLE SPILLS*

Discharges of OHM to the environment should be reported immediately to the Massachusetts Department of Environmental Protection (MA DEP) or state police.

The following table identifies various agencies/individuals, which may need to be notified in the event of a spill:

Table 1. Emergency Notification Numbers

Authority to Contact	Reason for Contact	Telephone Number
MA DEP Regional Office	Hazardous Material spills to land or water (during regular working hours (9-5))	(978) 661-7681
State Police Communications Center	Hazardous Material spills to land or water (during non-working hours)	(888) 304-1133
Coast Guard	Hazardous Material spill to water	(617) 223-8480
Site/Task Manager	Hazardous Material spills to land or water (during regular working hours (9-5))	(617) 646-7800
Cyn Environmental	Emergency cleanup assistance	(800) 242-5818
Wayland Police and Fire Departments	Emergency notification	911 (from mobile phone, dials state police) (508) 358-4721

6.2 *SPILL REPORTING*

Following an accidental release, a report shall be made out by the Raytheon Site representative and/or qualified designee. The report shall contain the following information:

- Names, addresses and telephone numbers of those directly involved, including clean-up contractors;
- Exact location of release, facility name, location, and owner;
- Source of release;
- Material released and estimated quantity;
- Closest body of water to release and distance to surface water;
- Brief summary of what happened, date and time of occurrence, and names of observers;
- Action taken for cleanup; and
- Agencies notified.

A copy of the accidental release report shall be sent to MA DEP as well as Wayland Fire Department.

6.3 ***SPILL RESPONSE***

In the event of a spill, the ERM Site safety coordinator and/or their qualified designee will immediately direct all non-response personnel to remain in a safe location away from the spill site. The ERM Site safety coordinator and/or their designee will then immediately assess the magnitude of the spill and take appropriate actions to contain the spill. Particular care will be taken to ensure that no spilled materials run onto unpaved surfaces, into the Sudbury River or enter the stormwater drains.

The following specific containment and cleanup information is provided:

Minor Spills (< 10 gallons)

1. Prevent the spill from reaching the Sudbury River or stormwater drains by using absorbent pads/mats or an absorbent material.
2. Remediate the spill area according to all local, state, and federal regulations.

Major Spills (> 10 gallons)

1. Contain the spill or release to the smallest area possible using booms or any other effective barriers.
2. Notify Wayland Business Center immediately. They will in turn notify the appropriate officials and agencies as necessary. It will be the responsibility of the Raytheon Site Manager and/or his designee to ensure all appropriate notifications are made.
3. In the event that additional emergency cleanup assistance is required, Raytheon will request assistance from an appropriate response contractor (e.g., Cyn Environmental).
4. The emergency response contractor shall collect all hazardous waste discharged, including absorbent materials and contaminated booms. All cleanup materials shall be disposed of in accordance with all applicable hazardous waste regulations.
5. All reusable emergency equipment (e.g., personal protection equipment) will be decontaminated.
6. All contaminated wash water, waste solutions or residues generated during cleanup shall be collected and disposed of as hazardous waste, in compliance with all applicable local, state and federal regulations.
7. Raytheon and ERM shall keep all records relating to the spill of hazardous materials for a period of at least three years after the spill has been cleaned up or for such longer periods of time as required in any unresolved enforcement actions.

6.4 SPILL RESPONSE EQUIPMENT

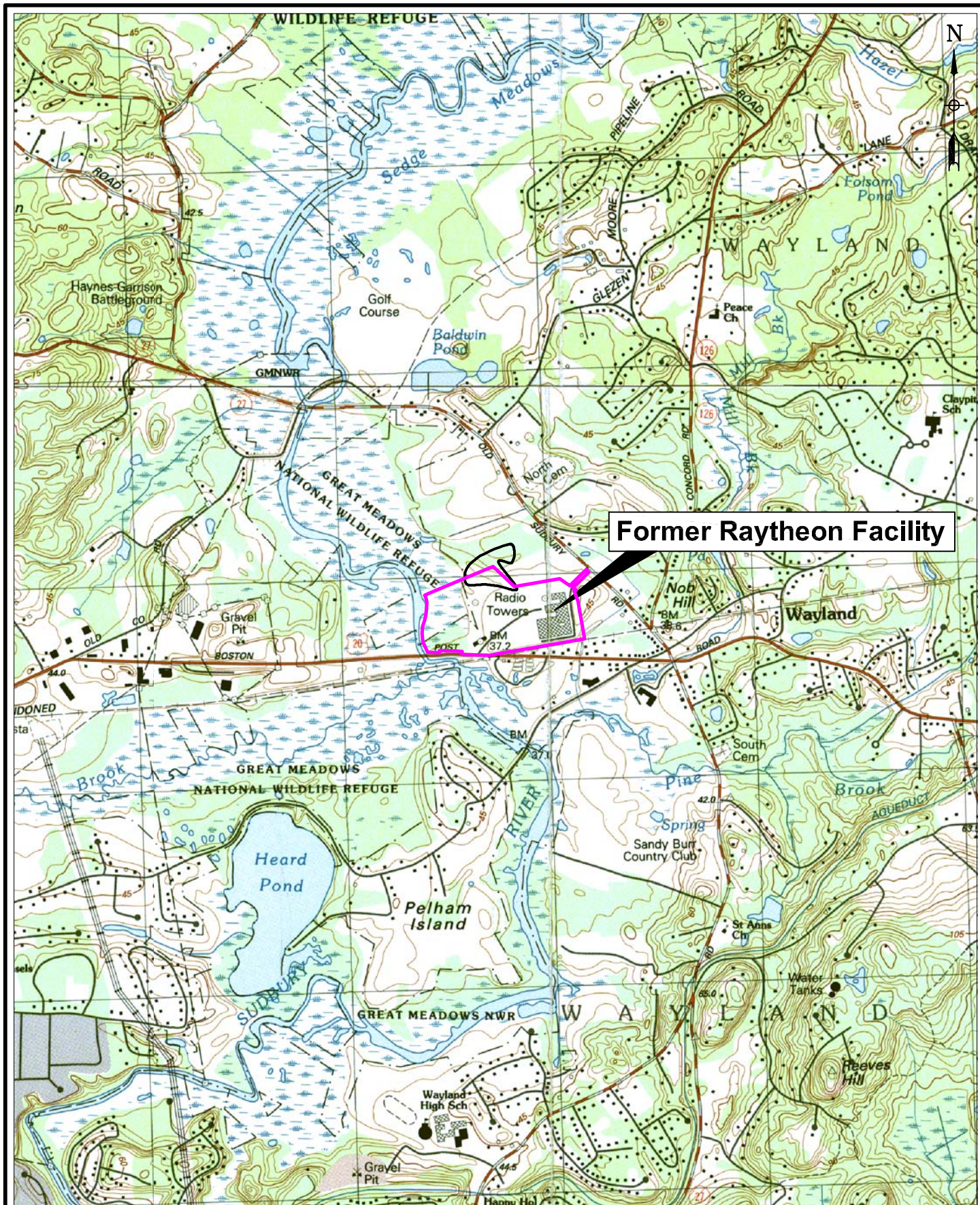
Spill response equipment maintained at the Site will include:

- Absorbent pads and mats;
- Loose absorbent materials;
- Containment booms;
- Personal protection equipment (Level D, including protective suits, gloves and boots);
- Fire extinguishers; and

- First aid supplies.

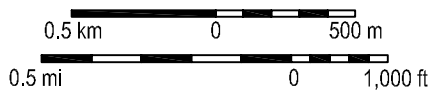
All of the above equipment shall be maintained and inspected monthly.

Figures



Former Raytheon Facility

Scale 1:25,000





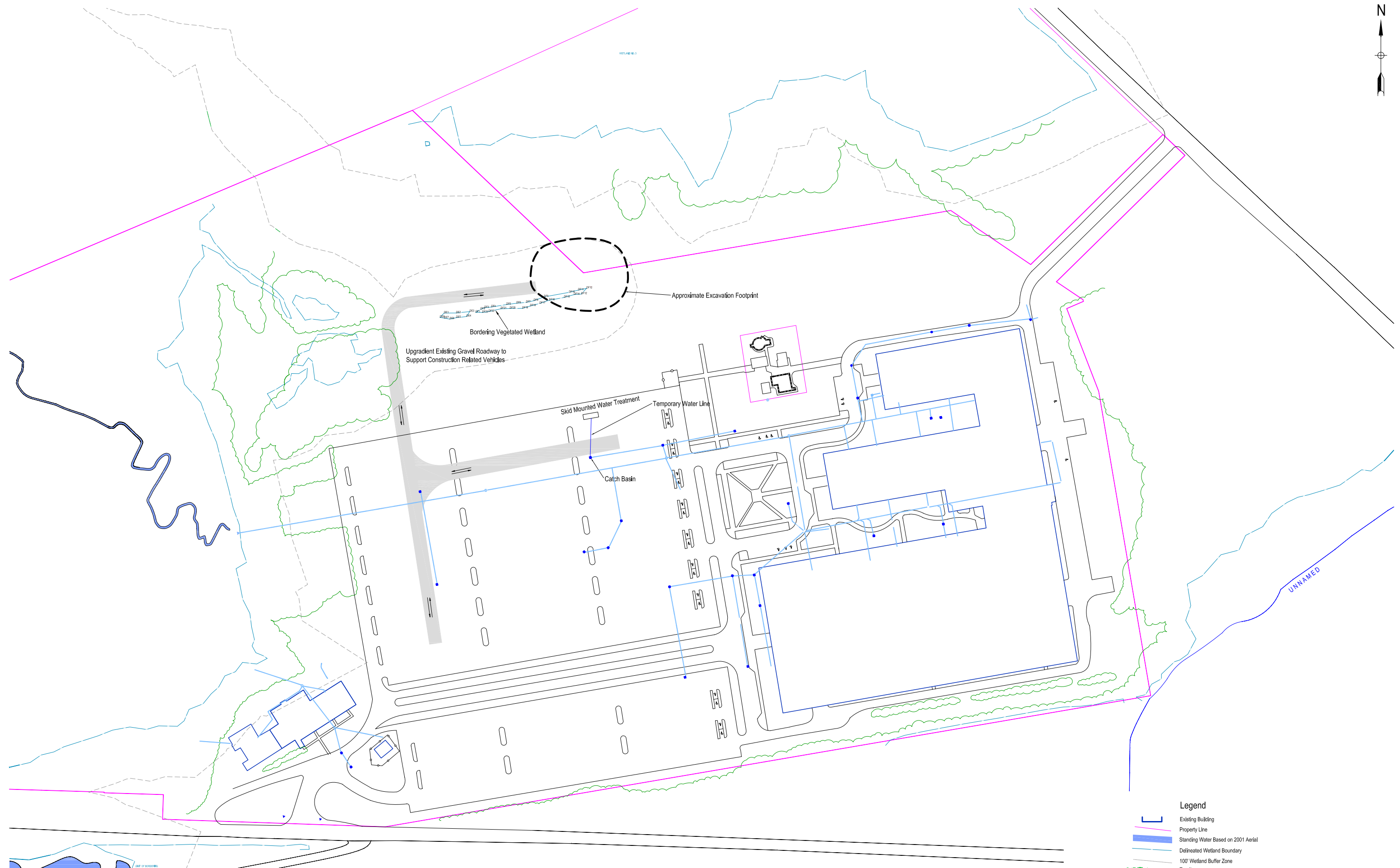
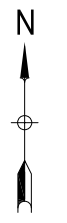






Legend	
	Subject Property Line
	Disposal Site Boundary

Figure 1 - Site Locus Map
Former Raytheon Facility - Wayland, MA





- Legend**
-  Existing Building
 -  Property Line
 -  Standing Water Based on 2001 Aerial
 -  Delineated Wetland Boundary
 -  100' Wetland Buffer Zone
 -  Treeline

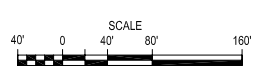


Figure 2 - Site Features and Treatment System
Former Raytheon Facility - Wayland, MA
28 July 2006

