Environmental
Resources
Management

399 Boylston Street, 6th Floor
Boston, MA 02116
(617) 646-7800
(617) 267-6447 (fax)

11 September 2007
Reference: 0051545

US Environmental Protection Agency
Ann Herrick
Industrial NPDES Permits (CIP)
1 Congress Street, Suite 1100
Boston, MA 02114-2023

Re: Notice of Change
Remediation General Permit MAG910262
Former Raytheon Facility
Wayland, Massachusetts

Dear Ms. Herrick:

On behalf of Raytheon Company (Raytheon), Environmental Resources Management (ERM) is submitting this Notice of Change (NOC) for Remedial General Permit (RGP) authorization MAG910262. The authorization letter was received from the United States Environmental Protection Agency (US EPA) on 3 October 2006. The original RGP was submitted for the discharge of treated water from excavation and dewatering activities. An on-site system was designed to treat water generated by activities associated with the excavation of volatile organic compound (VOC) impacted soil. This excavation is being conducted under ongoing Massachusetts Contingency Plan (MCP) Phase IV activities at the former Raytheon facility at 430 Boston Post Road in Wayland, Massachusetts (Site; Figure 1).

Excavation activities commenced on 5 July 2007 and water collection began later that week. Water pumped from the excavation to date is stored in fractionation tanks on Site; none has been discharged to date. It is anticipated that the total volume to be treated and discharged will not exceed 100,000 gallons. Currently, the excavation has been backfilled to the water table and any additional water generated will be from pressure-washing the sheet pile with town water as they are removed from the ground.

This NOC requests permission to change the discharge location from the specified catch basin near the treatment system to a direct discharge to the Sudbury River (Attachment A). The catch basin drains to a swale in an adjacent wetland and ultimately drains to the Sudbury River. See Figure 2 for the current site layout.

As indicated in the Notice of Intent (NOI; ERM, 7 September 2006), the primary chemicals of concern are VOCs. However, the system influent also contains detectable concentrations of naturally-occurring arsenic, copper, nickel, and iron. Table 1 summarizes the results of total metals analyses performed on influent and effluent samples. Influent samples results for arsenic, copper and nickel have been at or above the current RGP discharge standards. Switching the discharge location to the river will allow use of a dilution factor for metals. The dilution factor calculated using the 7Q10 of the Sudbury River is 96 (Attachment B), resulting in RGP effluent limitations for arsenic and copper of 960 µg/L and 499 µg/L respectively. As shown in Table 1, the average effluent arsenic concentration is 27.6 µg/L and the average effluent copper concentration is 15.5 µg/L. Therefore, discharging directly to the Sudbury River will allow discharge of the treated water without altering the system from its current configuration.

Thank you for your attention to this matter and if you have any questions or comments please contact the undersigned at (617) 646-7800.

Sincerely,

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

Rachel B. Leary, P.E.
Project Manager

Enclosures:

	Table 1	Summary of Metals Analyses
	Figure 1	Site Locus Map
	Figure 2	Site Layout
	Attachment A	Notice of Change Form
	Attachment B	Dilution Factor Calculation

CC: Massachusetts Department of Environmental Protection
Division of Watershed Management
627 Main Street, 2nd Floor
Worcester, MA 01608
Louis Burkhardt, Raytheon
Brian Monahan, Wayland Conservation Commission
Ben Gould, CMG Environmental
PIP Repositories

Tables

Table 1
Summary of Metals Analyses
Excavation Dewatering Treatment System
Former Raytheon Facility

Remediation General Permit #MAG910262

	DF Discharge Limit	RGP Discharge Limit	Influent			Effluent			Average Effluent Concentrations
			8-Aug-07	10-Aug-07	15-Aug-07	10-Aug-07	22-Aug-07	23-Aug-07	
Total Metals (µg/L)									
Arsenic	960	10	2.30	5.10	16.4	49.2	17.5	16.0	27.6
Copper	500	5.2	16.1	33.2	106.1	3.20	30.3	13.0	15.5
Nickel	2,780	29	6.20	30.7	96.8	7.70	40.8	NA	24.3
Iron	96,000	1,000	2,600	24,000	100,000	750	ND	NA	750

Notes:

ND = Not detected at or above method detection limit.

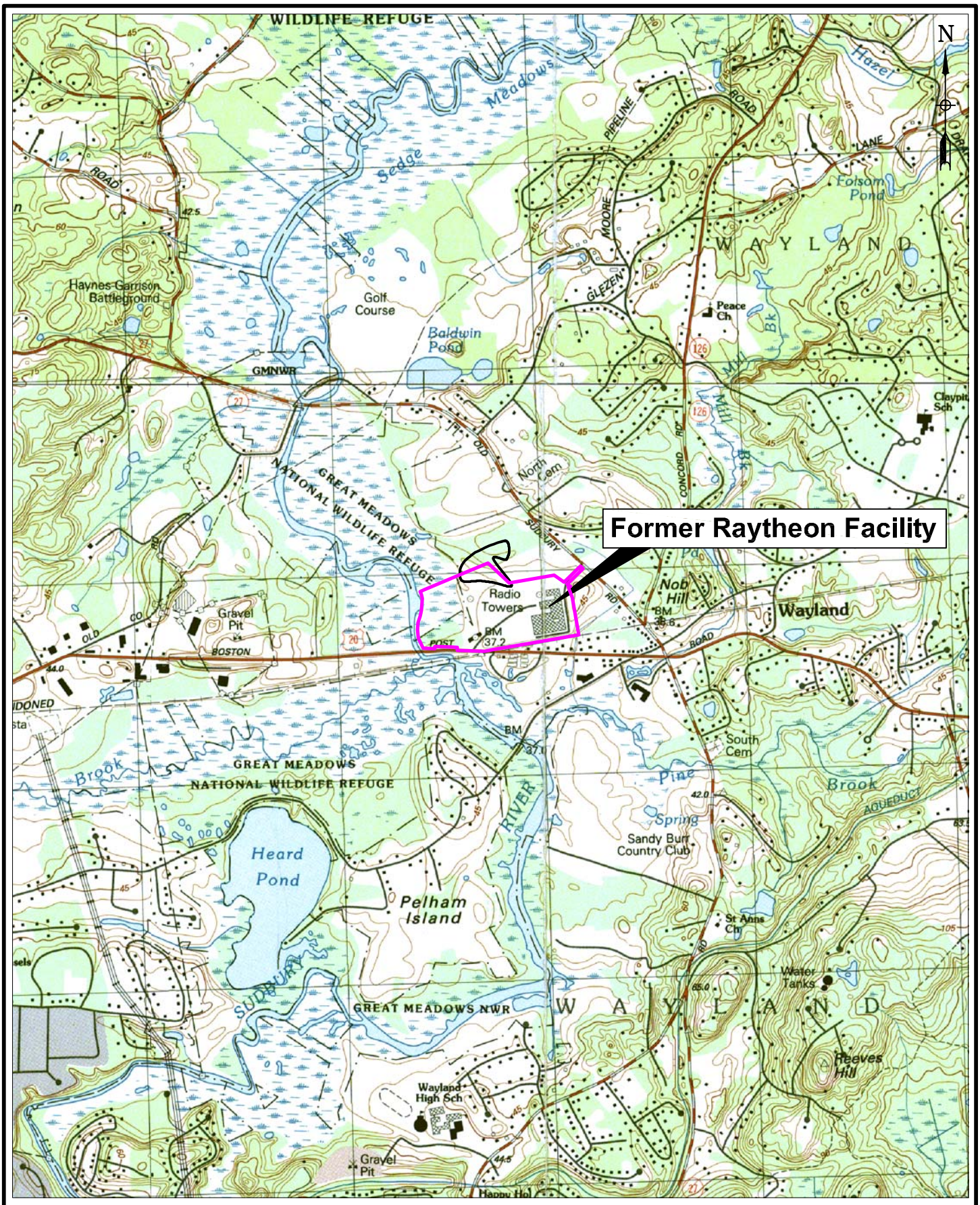
NA = Not analyzed.

DF = Dillution factor.

µg/L = Micrograms per liter (parts per billion [ppb]).

Apparent increase in arsenic concentration from influent to effluent on 10 August is likely due to intermittant operation of treatment system.

Figures



Scale 1:25,000

0.5 km 0 500 m

0.5 mi 0 1,000 ft

Legend

Subject Property Line

Disposal Site Boundary

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

ERM

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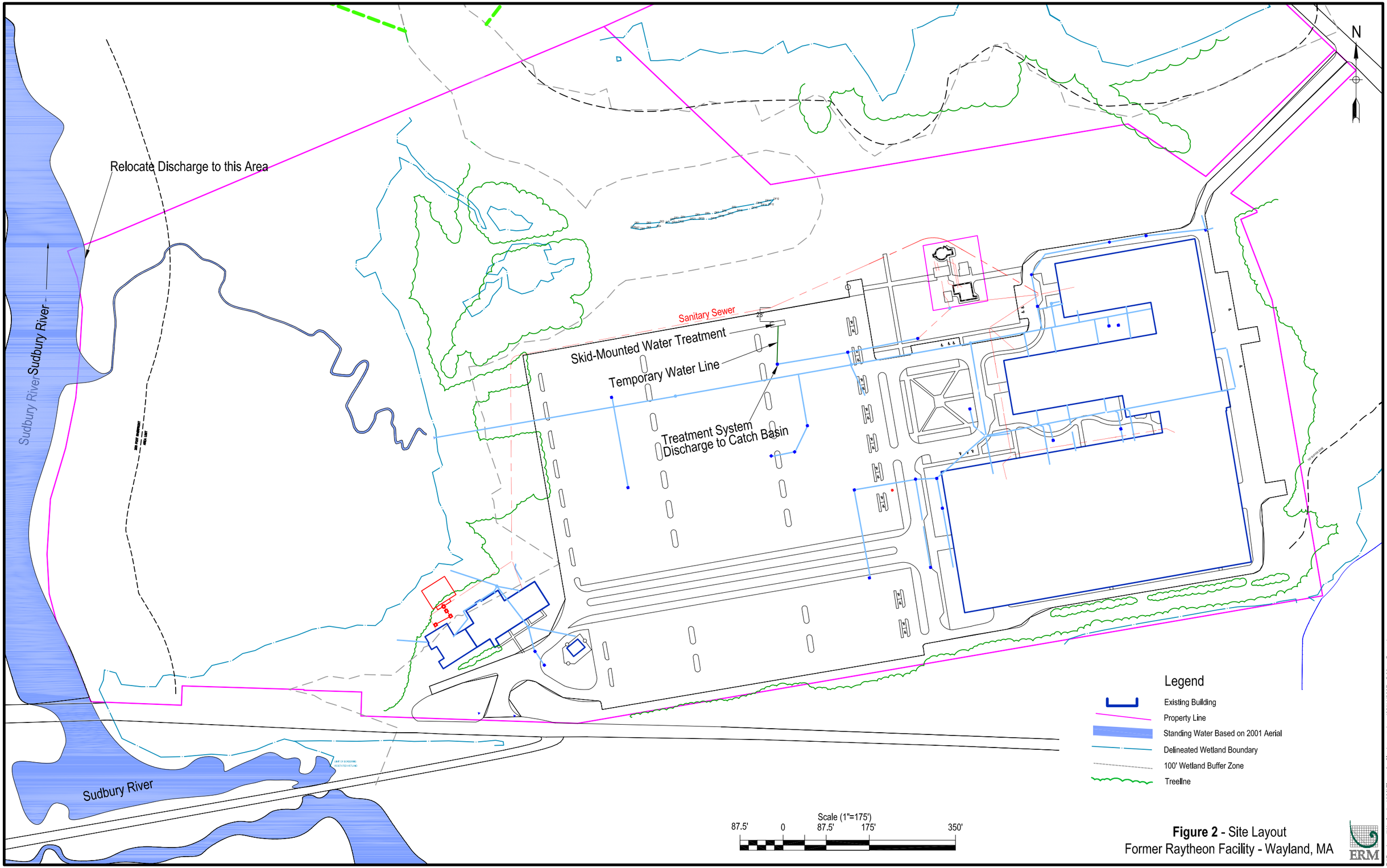

Figure 2 - Site Layout
Former Raytheon Facility - Wayland, MA

ERM

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Attachment A
NOC Form

B. Suggested Form for the Consolidated General Permit Notice of Change (NOC)

1. General site information. Please provide the following information about the site:

<table>
<tr><td colspan="3">a) Name of facility/site:
Former Raytheon Facility</td><td colspan="4">Facility/site address:</td></tr>
<tr><td colspan="2">Location of facility/site:
longitude: 422153.42 N
latitude: 712211.40 W</td><td>Facility SIC code(s):
3812</td><td colspan="4">Street: 430 Boston Post Road</td></tr>
<tr><td colspan="3"></td><td>Town: Wayland</td><td>State: MA</td><td>County: Middlesex</td><td>Zip: 01778</td></tr>
<tr><td colspan="7">b) Name of facility/site owner: Raytheon Company, Louis Burkhardt</td></tr>
<tr><td colspan="3">Owner is (check one): 1. Federal____ 2. State/Tribal____
3. Private___✔___ 4. other_____, if so, describe:</td><td colspan="4">Telephone no. of facility/site owner: (978) 436-8238
Fax no. of facility/site owner: (978) 436-8581</td></tr>
<tr><td colspan="3">Address of owner:</td><td colspan="4">City/Town: Billerica</td></tr>
<tr><td colspan="3">Street: 880 Technology Park Drive, MS 2-2124-01</td><td>State: MA</td><td>Zip: 01821</td><td colspan="2">County: Middlesex</td></tr>
<tr><td colspan="3">c) Legal name of operator:
Environmental Resources Management RCM</td><td colspan="4">Operator telephone no: (617) 646-7800
Operator fax no.: (617) 267-6447</td></tr>
<tr><td colspan="7">Operator contact name and title: Rachel Leary, Project Manager</td></tr>
<tr><td colspan="3">Address of operator (if different from owner):</td><td colspan="4">Street: 399 Boylston Street, 6th Floor</td></tr>
<tr><td colspan="3">Town: Boston</td><td>State: MA</td><td>Zip: 02116</td><td colspan="2">County: Suffolk</td></tr>
</table>

2. Type of changes:

Please check all that apply:	Eligible changes for use of NOC:
	1. Request for a reduction in monitoring requirements based on sampling and analytical data. Written approval by EPA is required.
	a) For a reduction in **influent** monitoring frequency, the permittee must provide 6 consecutive months of influent monitoring data.
	b) For a reduction in **effluent** monitoring frequency of an applicable parameter, the permittee must provide 12 consecutive months of data demonstrating compliance with the parameter limits, the minimum level (ML) (see Part I.D.1.d), or demonstrating no toxicity (where whole effluent toxicity testing (WET) is required).
	2. A change in flow conditions which may increase or decrease the daily average or maximum flow rate by more than twenty-five (25) percent, provided the design flow capacity of the treatment system is not exceeded and the dilution factor will not change to a value greater than five (5), where the discharge contains metals.
	3. A change in treatment which:
	a) affects the design flow of the system but does not change the dilution factor to a value greater than five (5), where the discharge contains metals.
	b) adds or removes any major operable unit of the system
	4. The use of chemical treatment additives that will not add any pollutants which may cause a violation of receiving water standards or cause the overall effluent to violate effluent limitations. Attach the material safety data sheets (MSDS) and prior approval from the Director.
✔	5. Change of discharge location within the same receiving water as submitted in the NOI.
	6. Temporary cessation of discharge greater than 120 days. Describe (using additional sheets as needed):
	a) reasons for the interruption or cessation of discharge:
	b) estimated time frame when the discharge will cease and be re-started:
	c) how "start-up" monitoring will resume when the discharge is re-started:
	7. Change in pH range in MA:
	8. Change to administrative information:

3. Signature requirements. The Notice of Intent must be signed by the permittee in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

> *I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

Facility/Site Name: Former Raytheon Facility

Signature of permittee(s): Rachel B Leary

Title: Project Manager

Date: 9/11/07

Attachment B
Dilution Factor Calculation

Attachment B
Calculation of Dilution Factor
Remediation General Permit Authorization MAG910262

$$DF = (Qd + Qs) / Qd$$

Where:

DF = Dilution Factor
Qd = Design Flow Rate of System (cubic feet per second)
Qs = 7Q10 of Sudbury River

Qd = 50 gallons per minute = 0.1115 cubic feet per second
Qs = 10.65 cubic feet per second

DF = (0.1115 + 10.65) / 0.1115

DF = 96.516