



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

5 Post Office Square, Suite 100

BOSTON, MA 02109-3912

CERTIFIED MAIL

November 30, 2010

Henry Lord
Licensed Operator
Lord Associates, Inc.
1506 Providence Highway
Norwood, MA 02062

Re: Authorization to discharge under the Remediation General Permit (RGP) – MAG 910000. Petro Plus Superstation site located at 682 Cummins Highway, Mattapan, Suffolk County; Authorization # MAG910470.

Dear Mr. Lord:

Based on the review of your Notice of Intent (NOI) submitted on behalf Charles River Realty for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Operator, to discharge in accordance with the provisions of the RGP at that site. Your authorization number is listed above.

The checklist enclosed with this RGP authorization indicates the pollutants for which you are required to monitor. The metals lead and iron included in the list are dilution dependent pollutants subject to limitations based on a "Dilution Factor Range". For each parameter the dilution factor of 806 for this site is greater than the allowable dilution factor range established in the RGP. (See the RGP Appendix IV for Massachusetts facilities). Therefore, the ceiling value lead limit of 430 ug/L, and the ceiling value iron limit of 5,000 ug/L are required for compliance at this site.

In addition, in accordance with the RGP you are required not only to mark believed present or believed absent on all the pollutants for the subcategory you are reporting (Sub-category A- Gasoline Only Sites), but you are also required to substantiate its presence or absence by reporting lab results for all the pollutants in this sub-category. Not having received information for pollutants ter-Butyl Alcohol (TBA) (Tertiary- Butanol) and ter-amyl Methyl Ether (TAME), EPA included these with the list of pollutants requiring treatment. Also, indicated on the checklist are the effluent limits, test methods and minimum levels (MLs) for each pollutant. Please note that the check list does not represent the complete requirements of the RGP. Operators must comply with all of the

applicable requirements of this permit, including influent and effluent monitoring, narrative water quality standards, record keeping, and reporting requirements, found in Parts I and II, and Appendices I – VIII of the RGP. See EPA's website for the complete RGP and other information at: <http://www.epa.gov/region1/npdes/mass.html#dgp>.

Finally, please note the following: 1) the list of pollutants attached to this authorization is subject to a recertification if the operations at the site result in a discharge lasting longer than six months, and 2) The RGP requires operators to perform all testing requirements using EPA approved methods found in 40CFR Part 136(See Appendix III and Appendix VI of the RGP.)

This general permit and authorization to discharge will expire on September 9, 2015. The termination date reported for this project appears to be indicated in error, and EPA suspects you meant to write January 31, 2012. If for any reason the discharge terminates sooner, you are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within 30 days of project completion.

Thank you in advance for your cooperation in this matter. Please contact Victor Alvarez at 617-918-1572 or Alvarez.Victor@epa.gov, if you have any questions.

Sincerely,



David M. Webster, Chief
Industrial Permits Branch

Enclosure

cc: Kathleen Keohane, MassDEP

**2010 Remediation General Permit
Summary of Monitoring Parameters^[1]**

NPDES Permit Number:	MAG910470
Date Permit Issued:	November, 2010
Facility/Site Name:	Petro Plus Superstation
Facility/Site Address:	62 Cummings Highway, Mattapan, MA 02126, Suffolk County
	Email address of owner: Michael@charlesriverrealty.com; Phone n: 617-327-8100:
Legal Name of operator:	Lord Associates, Inc.
Operator contact name, title, and Address:	Henry Lord, WWT Plant Operator - Grade 2-#13317 1506 Providence Highway, Norwood, MA 02062; Email: HLORD@LORDENV.CO.
Estimated Date of Completion:	13/31/2012
Category and Sub-Category:	Category I- Petroleum Related Site Remediation, Sub-category A- Gasoline Only Sites.
Receiving Water:	Neponset River

Monitoring & Limits are applicable if checked. All samples are to be collected as grab samples

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
✓	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/l) **, 50 mg/l for hydrostatic testing **, Me#60.2/5mL
	2. Total Residual Chlorine (TRC) ¹	Freshwater = 11 ug/l ** Saltwater = 7.5 ug/l **/ Me#330.5/ML 20ug/L
✓	3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/l/ Me# 1664A/5.0mg/LmL
	4. Cyanide (CN) ^{2, 3}	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/l **/ Me#335.4/ML 5ug/L
✓	5. Benzene (B)	5ug/L /50.0 ug/l for hydrostatic testing only/ Me#8260C/ML 2 ug/L
✓	6. Toluene (T)	(limited as ug/L total BTEX)/ Me#8260C/ ML 2ug/L
✓	7. Ethylbenzene (E)	(limited as ug/L total BTEX))/ Me#8260C/ ML 2ug/L
✓	8. (m,p,o) Xylenes (X)	(limited as ug/L total BTEX))/ Me#8260C/ ML 2ug/L
✓	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) ⁴	100 ug/l)/ Me#8260C/ ML 2ug/L
	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L
✓	11. Methyl-tert-Butyl Ether (MtBE)	70.0 ug/l /Me#8260C/ ML 10ug/L

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
✓	12.tert-Butyl Alcohol (TBA) (TertiaryButanol)	Monitor Only (ug/L)/ Me#8260C/ ML 10ug/L
✓	13. tert-Amyl Methyl Ether (TAME)	Monitor Only (ug/L) /Me#8260C/ ML 10ug/L
✓	14. Naphthalene ⁵	20 ug/l /Me#8260C/ ML 2ug/L
	15. Carbon Tetrachloride	4.4 ug/l /Me#8260C/ ML 5ug/L
	16. 1,2 Dichlorobenzene (o-DCB)	600 ug/l /Me#8260C/ ML 5ug/L
	17. 1,3 Dichlorobenzene (m-DCB)	320 ug/l /Me#8260C/ ML 5ug/L
	18. 1,4 Dichlorobenzene (p-DCB)	5.0 ug/l /Me#8260C/ ML 5ug/L
	18a. Total dichlorobenzene	763 ug/l - NH only /Me#8260C/ ML5ug/L
	19. 1,1 Dichloroethane (DCA)	70 ug/l /Me#8260C/ ML 5ug/L
	20. 1,2 Dichloroethane (DCA)	5.0 ug/l /Me#8260C/ ML 5ug/L
	21. 1,1 Dichloroethene (DCE)	3.2 ug/l/Me#8260C/ ML 5ug/L
	22. cis-1,2 Dichloroethene (DCE)	70 ug/l /Me#8260C/ ML 5ug/L
	23. Methylene Chloride	4.6 ug/l/Me#8260C/ ML 5ug/L
	24. Tetrachloroethene (PCE)	5.0 ug/l /Me#8260C/ ML 5ug/L
	25. 1,1,1 Trichloro-ethane (TCA)	200 ug/l/Me#8260C/ ML 5ug/L
	26. 1,1,2 Trichloro-ethane (TCA)	5.0 ug/l /Me#8260C/ ML 5ug/L
	27. Trichloroethene (TCE)	5.0 ug/l /Me#8260C/ ML 5ug/L
	28. Vinyl Chloride (Chloroethene)	2.0 ug/l /Me#8260C/ ML 5ug/L
	29. Acetone	Monitor Only (ug/L) /Me#8260C/ ML 50ug/L
	30. 1,4 Dioxane	Monitor Only /Me#1624C/ML50 ug/L
	31. Total Phenols	300 ug/l Me#420.1&420.2/ML 2 ug/L/ Me# 420.4 /ML50 ug/L
	32. Pentachlorophenol (PCP)	1.0 ug/l /Me#8270D/ML5ug/L,Me#604 &625/ML10ug/L
	33. Total Phthalates (Phthalate esters) ⁶	3.0 ug/L ** /Me#8270D/ML5ug/L,Me#606/ML10ug/L& Me#625/ML5ug/L
	34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	6.0 ug/l /Me#8270D/ML5ug/L,Me#606/ML10ug/L& Me#625/ML5ug/L
	35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 ug/l
	a. Benzo(a) Anthracene ⁷	0.0038 ug/l /Me#8270D/ ML5ug/L, Me#610/ML5ug/L& Me#625/ML5ug/L
	b. Benzo(a) Pyrene ⁷	0.0038 ug/l /Me#8270D/ ML5ug/L, Me#610/ML5ug/L& Me#625/ML5ug/L

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	c. Benzo(b)Fluoranthene ⁷	0.0038 ug/l /Me#8270D/ ML5ug/L, Me#610/ML5ug/L& Me#625/ML5ug/L
	d. Benzo(k)Fluoranthene ⁷	0.0038 ug/l /Me#8270D/ ML5ug/L, Me#610/ML5ug/L& Me#625/ML5ug/L
	e. Chrysene ⁷	0.0038 ug/l /Me#8270D/ ML5ug/L, Me#610/ML5ug/L& Me#625/ML5ug/L
	f. Dibenzo(a,h)anthracene ⁷	0.0038 ug/l /Me#8270D/ ML5ug/L, Me#610/ML5ug/L& Me#625/ML5ug/L
	g. Indeno(1,2,3-cd) Pyrene ⁷	0.0038 ug/l /Me#8270D/ ML5ug/L, Me#610/ML5ug/L& Me#625/ML5ug/L
	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/l
	h. Acenaphthene	X/Me#8270D/ML5ug/L,Me#610/ML5ug /L & Me#625/ML5ug/L
	i. Acenaphthylene	X/Me#8270D/ML5ug/L,Me#610/ML5ug/L & Me#625/ML5ug/L
	j. Anthracene	X/Me#8270D/ML5ug/L,Me#610/ML5ug/L & Me#625/ML5ug/L
	k. Benzo(ghi) Perylene	X/Me#8270D/ML5ug/L,Me#610/ML5ug/L & Me#625/ML5ug/L
	l. Fluoranthene	X/Me#8270D/ML5ug/L,Me#610/ML5ug/L & Me#625/ML5ug/L
	m. Fluorene	X/Me#8270D/ML5ug/L,Me#610/ML5ug/L & Me#625/ML5ug/L
	n. Naphthalene ⁵	20 ug/l / Me#8270D/ ML5ug/L, Me#610/ML5ug/L & Me#625/ML5ug/L
	o. Phenanthrene	X/Me#8270D/ML5ug/L,Me#610/ML5ug/L & Me#625/ML5ug/L
	p. Pyrene	X/Me#8270D/ML5ug/L,Me#610/ML5ug/L & Me#625/ML5ug/L
	37. Total Polychlorinated Biphenyls (PCBs) ^{8, 9}	0.000064 ug/L / Me# 608/ ML 0.5 ug/L
✓	38. Chloride	Monitor only/Me# 300.0/ ML 0.1ug/L

	<u>Metal parameter</u>	<u>Total Recoverable Metal Limit @ H ¹⁰ = 50 mg/l CaCO3 for discharges in Massachusetts (ug/l)</u> ₁₁		
		<u>Freshwater</u>	<u>Saltwater</u>	
	39. Antimony	141/10mL		
	40. Arsenic **	540/20mL		
	41. Cadmium **	260/10ml		
	42. Chromium III (trivalent) **	1710/15mL		

	<u>Metal parameter</u>	<u>Total Recoverable Metal Limit @ H¹⁰ = 50 mg/l CaCO₃ for discharges in Massachusetts (ug/l)</u> <u>11</u>			
		<u>Freshwater</u>	<u>Saltwater</u>		
	43. Chromium VI (hexavalent) **	1710/10mL			
	44. Copper **	2,070/15mL			
✓	45. Lead **	430/20mL			
	46. Mercury **	2.3/0.2mL			
	47. Nickel **	2,380/20mL			
	48. Selenium **	408/20mL			
	49. Silver	240/10mL			
	50. Zinc **	1480/15mL			
✓	51. Iron	5,000/20mL			

	<u>Other Parameters</u>	<u>Limit</u>
✓	52. Instantaneous Flow	Site specific in CFS
✓	53. Total Flow	Site specific in CFS
✓	54. pH Range for Class A & Class B Waters in MA	6.5-8.3; 1/Month/Grab ¹³
	55. pH Range for Class SA & Class SB Waters in MA	6.5-8.3; 1/Month/Grab ¹³
	56. pH Range for Class B Waters in NH	6.5-8; 1/Month/Grab ¹³
	57. Daily maximum temperature - Warm water fisheries	83°F; 1/Month/Grab ¹⁴
	58. Daily maximum temperature - Cold water fisheries	68°F; 1/Month/Grab ¹⁴
	59. Maximum Change in Temperature in MA - Any Class A water body	1.5°F; 1/Month/Grab ¹⁴
	60. Maximum Change in Temperature in MA - Any Class B water body- Warm Water	5°F; 1/Month/Grab ¹⁴
	61. Maximum Change in Temperature in MA - Any Class B water body - Cold water and Lakes/Ponds	3°F; 1/Month/Grab ¹⁴
	62. Maximum Change in Temperature in MA - Any Class SA water body - Coastal	1.5°F; 1/Month/Grab ¹⁴
	63. Maximum Change in Temperature in MA - Any Class SB water body - July to September	1.5°F; 1/Month/Grab ¹⁴
	64. Maximum Change in Temperature in MA - Any Class SB water body - October to June	4°F; 1/Month/Grab ¹⁴

Footnotes:

¹ Although the maximum values for TRC are 11ug/l and 7.5 ug/l for freshwater, and saltwater respectively, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., Method 330.5, 20 ug/l).

² Limits for cyanide are based on EPA's water quality criteria expressed as micrograms per liter. There is currently no EPA approved test method for free cyanide. Therefore, total cyanide must be reported.

³ Although the maximum values for cyanide are 5.2 ug/l and 1.0 ug/l for freshwater and saltwater, respectively, the compliance limits are equal to the minimum level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 ug/l).

⁴ BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.

⁵ Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the highest value must be used unless the QC criteria for one of the analyses is not met. In such cases, the value from the analysis meeting the QC criteria must be used.

⁶ The sum of individual phthalate compounds(not including the #34, Bis (2-Ethylhexyl) Phthalate . The compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.

⁷ Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

⁸ In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as total PCBs is the sum of all homologue, all isomer, all congener, or all "Oroclor analyses."Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measure of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.

⁹Although the maximum value for total PCBs is 0.000064 ug/l, the compliance limit is equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 0.5 ug/l for Method 608 or 0.00005 ug/l when Method 1668a is approved).

¹⁰ Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.

¹¹ For a Dilution Factor (DF) from 1 to 5, metals limits are calculated using DF times the base limit for the metal. See Appendix IV. For example, iron limits are calculated using $DF \times 1,000\text{ug/L}$ (the iron base limit). Therefore DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit = $1,000 \times 2 = 2,000\text{ ug/L}$, etc. not to exceed the DF=5.

¹² Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B).

¹³ pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.

¹⁴ Temperature sampling per Method 170.1

Lord Associates, Inc.

Environmental Consulting & Licensed Site Professional Services

1506 Providence Highway - Suite 30
Norwood, MA 02062-4647

Voice: 781.255.5554
Fax: 781.255.5535
www.lordenv.com

November 16, 2010

US Environmental Protection Agency
RGP-NOC Processing
Municipal Assistance Unit (CMU)
1 Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

**Re: Notice of Intent Filing For NPDES Permit
682 Cummins Highway
Mattapan, MA.
DEP RTN#3-28746**

Dear EPA:

Please find attached a Notice of Intent (NOI) form with attached supporting documents for the proposed discharge from a groundwater treatment system at the above-referenced site. This work is being undertaken in accordance with an Immediate Response Action Plan approved by the MA Department of Environmental Protection.

Please note that the analytical testing provided in Section 3 is based on un-treated groundwater collected at two representative recovery well locations. Treated groundwater will be discharged to the on-site municipal storm water system that eventually discharges to the Neponset River. A discharge permit is pending approval from the Boston Water & Sewer Department.

Please do not hesitate to contact us if you have any questions or concerns.

Sincerely,
LORD ASSOCIATES, INC.



Ralph J. Tella, CHMM, LSP
Vice President

C: NOI Application Package

B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

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

a) Name of facility/site: Petro Plus Superstation		Facility/site mailing address:	
Location of facility/site: longitude: 42.16°16'44" N latitude: 71.06°15'42" W		Facility SIC code(s): 5500	Street: 682 Cummins Highway
b) Name of facility/site owner:		Town: Mattapan	
Email address of facility/site owner: michael@charlesriverrealty.com		State: MA	Zip: 02126 County: SUFFOLK
Telephone no. of facility/site owner: 617-327-8100		Owner is (check one): 1. Federal ☐ 2. State/Tribal ☐	
Fax no. of facility/site owner: NA		3. Private ☒ 4. Other ☐ if so, describe:	
Address of owner (if different from site):			
Street: 1461 VFW PARKWAY			
Town: WEST ROXBURY		State: MA	Zip: 02132 County: SUFFOLK
c) Legal name of operator: LORD ASSOCIATES, INC.			
Operator telephone no: 781-255-5554		Operator email: HLORD@LORDENV.COM	
Operator fax no.: 781-255-5535		Operator telephone no: 781-255-5554	
Operator contact name and title: HENRY LORD, WASTEWATER TREATMENT PLANT OPERATOR-GRADE 2- #13317			
Address of operator (if different from owner):		Street: 1506 PROVIDENCE HIGHWAY	
Town: NORWOOD	State: MA	Zip: 02062	County: NORFOLK

d) Check Y for "yes" or N for "no" for the following: 1. Has a prior NPDES permit exclusion been granted for the discharge? Y ☐ N ☒ , if Y, number: 2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Y ☐ N ☒ , if Y, date and tracking #: 3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Y ☒ N ☐ 4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y ☒ N ☐	e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y ☒ N ☐ If Y, please list: 1. site identification # assigned by the state of NH or MA: 2. permit or license # assigned: 3. state agency contact information: name, location, and telephone number: DEP BWSC -TIM BOYLE 978-694-3213								
f) Is the site/facility covered by any other EPA permit, including: 1. Multi-Sector General Permit? Y ☐ N ☒ , if Y, number: 2. Final Dewatering General Permit? Y ☐ N ☒ , if Y, number: 3. EPA Construction General Permit? Y ☐ N ☒ , if Y, number: 4. Individual NPDES permit? Y ☐ N ☒ , if Y, number: 5. any other water quality related individual or general permit? Y ☐ N ☒ , if Y, number: 	g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y ☐ N ☒								
h) Based on the facility/site information and any historical sampling data, identify the sub-category into which the potential discharge falls. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%; text-align: left; padding: 5px;"><u>Activity Category</u></th> <th style="width: 70%; text-align: left; padding: 5px;"><u>Activity Sub-Category</u></th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">I - Petroleum Related Site Remediation</td> <td style="padding: 5px;"> A. Gasoline Only Sites ☒ B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) ☐ C. Petroleum Sites with Additional Contamination ☐ A. Volatile Organic Compound (VOC) Only Sites ☐ B. VOC Sites with Additional Contamination ☐ C. Primarily Heavy Metal Sites ☐ A. General Urban Fill Sites ☐ B. Known Contaminated Sites ☐ </td> </tr> <tr> <td style="padding: 5px;">II - Non Petroleum Site Remediation</td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;">III - Contaminated Construction Dewatering</td> <td style="padding: 5px;"></td> </tr> </tbody> </table>		<u>Activity Category</u>	<u>Activity Sub-Category</u>	I - Petroleum Related Site Remediation	A. Gasoline Only Sites ☒ B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) ☐ C. Petroleum Sites with Additional Contamination ☐ A. Volatile Organic Compound (VOC) Only Sites ☐ B. VOC Sites with Additional Contamination ☐ C. Primarily Heavy Metal Sites ☐ A. General Urban Fill Sites ☐ B. Known Contaminated Sites ☐	II - Non Petroleum Site Remediation		III - Contaminated Construction Dewatering	
<u>Activity Category</u>	<u>Activity Sub-Category</u>								
I - Petroleum Related Site Remediation	A. Gasoline Only Sites ☒ B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) ☐ C. Petroleum Sites with Additional Contamination ☐ A. Volatile Organic Compound (VOC) Only Sites ☐ B. VOC Sites with Additional Contamination ☐ C. Primarily Heavy Metal Sites ☐ A. General Urban Fill Sites ☐ B. Known Contaminated Sites ☐								
II - Non Petroleum Site Remediation									
III - Contaminated Construction Dewatering									

IV - Miscellaneous Related Discharges	A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites ☐ B. Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites ☐ C. Hydrostatic Testing of Pipelines and Tanks ☐ D. Long-Term Remediation of Contaminated Sumps and Dikes ☐ E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) ☐
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2. Discharge information. Please provide information about the discharge, (attaching additional sheets as necessary) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage:	
Treatment of contaminated groundwater including phase separation, filtration, and carbon absorption. Discharge to municipal storm drain system.	
b) Provide the following information about each discharge:	
1) Number of discharge points: 1	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft³/s)? Max. flow 0.02 Is maximum flow a design value? Y ☐ N ☒ Average flow (include units) 0.002 Is average flow a design value or estimate? Estimate
3) Latitude and longitude of each discharge within 100 feet:	
pt. 1: lat 42.16'08.60"N long 71.05'43.65"W	pt. 2: lat. long
pt. 3: lat. long	pt. 4: lat. long
pt. 5: lat. long	pt. 6: lat. long
pt. 7: lat. long	pt. 8: lat. long etc.
4) If hydrostatic testing, total volume of the discharge (gals) NA	5) Is the discharge intermittent ☒ or seasonal ☐ ? Is discharge ongoing? Y ☐ N ☒
c) Expected dates of discharge (mm/dd/yy): start 11/31/2010 end 13/31/2012	
d) Please attach a line drawing or flow schematic showing water flow through the facility including:	
1. sources of intake water. 2. contributing flow from the operation. 3. treatment units. and 4. discharge points and receiving waters(s) SEE ATTACHED	

3. Contaminant information.

a) Based on the sub-category selected (see Appendix III), indicate whether each listed chemical is believed present or believed absent in the potential discharge. Attach additional sheets as needed.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids (TSS)		☐	☒	2	Grab	2504D	5000	68000	3.74	24250	0.13
2. Total Residual Chlorine (TRC)		☒	☐								
3. Total Petroleum Hydrocarbons (TPH)		☐	☒	2	Grab	DEP VPH	20 UG/l	36860	2.0	19620	0.11
4. Cyanide (CN)	57125	☒	☐								
5. Benzene (B)	71432	☐	☒	2	GRAB	DEP VPH	5 ug/L	22930	1.3	630	0.003
6. Toluene (T)	108883	☐	☒	2	GRAB	DEP VPH	5 ug/L	12400	0.7	8620	0.05
7. Ethylbenzene (E)	100414	☐	☒	2	GRAB	DEP VPH	5 ug/L	1720	0.1	1480	0.08
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☐	☒	2	GRAB	DEP VPH	5 ug/L	9900	0.5	10300	0.06
9. Total BTEX ²	n/a	☐	☒	2	GRAB	DEP VPH	5 ug/L	27000	1.5	21030	0.12
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) ³	106934	☒	☐								
11. Methyl-tert-Butyl Ether (MTBE)	1634044	☐	☒	2	GRAB	DEP VPH	5 ug/l	5440	0.3	318	0.002
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☒	☐								

* Numbering system is provided to allow cross-referencing to Effluent Limits and Monitoring Requirements by Sub-Category included in Appendix III, as well as the Test Methods and Minimum Levels associated with each parameter provided in Appendix VI.

² BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

³ EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
13. tert-Amyl Methyl Ether (TAME)	9940508	☒	☐								
14. Naphthalene	91203	☐	☒	2	grab	DEP VPH	5 UG/L	350	0.02	150	0.002
15. Carbon Tetrachloride	56235	☒	☐								
16. 1,2 Dichlorobenzene (o-DCB)	95501	☒	☐								
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒	☐								
18. 1,4 Dichlorobenzene (p-DCB)	106467	☒	☐								
18a. Total dichlorobenzene		☒	☐								
19. 1,1 Dichloroethane (DCA)	75343	☒	☐								
20. 1,2 Dichloroethane (DCA)	107062	☒	☐								
21. 1,1 Dichloroethene (DCE)	75354	☒	☐								
22. cis-1,2 Dichloroethene (DCE)	156592	☒	☐								
23. Methylene Chloride	75092	☒	☐								
24. Tetrachloroethene (PCE)	127184	☒	☐								
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒	☐								
26. 1,1,2 Trichloro-ethane (TCA)	79005	☒	☐								
27. Trichloroethene (TCE)	79016	☒	☐								

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
28. Vinyl Chloride (Chloroethene)	75014	☒	☐								
29. Acetone	67641	☒	☐								
30. 1,4 Dioxane	123911	☒	☐								
31. Total Phenols	108952	☒	☐								
32. Pentachlorophenol (PCP)	87865	☒	☐								
33. Total Phthalates (Phthalate esters) ⁴		☒	☐								
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☒	☐								
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐								
a. Benzo(a) Anthracene	56553	☒	☐								
b. Benzo(a) Pyrene	50328	☒	☐								
c. Benzo(b)Fluoranthene	205992	☒	☐								
d. Benzo(k)Fluoranthene	207089	☒	☐								
e. Chrysene	21801	☒	☐								
f. Dibenzo(a,h)anthracene	53703	☒	☐								
g. Indeno(1,2,3-cd) Pyrene	193395	☒	☐								
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐								

⁴ The sum of individual phthalate compounds.

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
h. Acenaphthene	83329	☒	☐								
i. Acenaphthylene	208968	☒	☐								
j. Anthracene	120127	☒	☐								
k. Benzo(ghi) Perylene	191242	☒	☐								
l. Fluoranthene	206440	☒	☐								
m. Fluorene	86737	☒	☐								
n. Naphthalene	91203	☒	☐								
o. Phenanthrene	85018	☒	☐								
p. Pyrene	129000	☒	☐								
37. Total Polychlorinated Biphenyls (PCBs)	85687;	☒	☐								
	84742;										
	117840;										
	84662;										
	131113;										
	117817.										
38. Chloride	16887006	☒	☐								
39. Antimony	7440360	☒	☐								
40. Arsenic	7440382	☒	☐								
41. Cadmium	7440439	☒	☐								
42. Chromium III (trivalent)	16065831	☒	☐								
43. Chromium VI (hexavalent)	18540299	☒	☐								
44. Copper	7440508	☒	☐								
45. Lead	7439921	☒	☐								
46. Mercury	7439976	☒	☐								
47. Nickel	7440020	☒	☐								
48. Selenium	7782492	☒	☐								
49. Silver	7440224	☒	☐								
50. Zinc	7440666	☒	☐								
51. Iron	7439896	☒	☐								
Other (describe):		☒	☐								

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
		☐	☐								
		☐	☐								

b) For discharges where metals are believed present, please fill out the following (attach results of any calculations):

<i>Step 1:</i> Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y ☐ N ☐		If yes, which metals?
<i>Step 2:</i> For any metals which exceed the Appendix III limits, calculate the dilution factor (DF) using the formula in Part I.A.3.c (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metal: DF: Metal: DF: Metal: DF: Metal: DF: Etc.		Look up the limit calculated at the corresponding dilution factor in Appendix IV. Do any of the metals in the influent have the potential to exceed the corresponding effluent limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y ☐ N ☐ If Y, list which metals:

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system: Groundwater is pumped from 5 recovery wells at approximately 0.1 gpm to a holding tank. The water is then transferred to a bag filter, oil water separator, and carbon contact vessels prior to discharge to a local municipal storm drain.					
b) Identify each applicable treatment unit (check all that apply):	Frac. tank ☐ Chlorination ☐	Air stripper ☐ De-chlorination ☐	Oil/water separator ☒ Other (please describe):	Equalization tanks ☒	Bag filter ☒ GAC filter ☒

c) Proposed average and maximum flow rates (gallons per minute) for the discharge and the design flow rate(s) (gallons per minute) of the treatment system:
Average flow rate of discharge 1 gpm Maximum flow rate of treatment system 10 gpm
Design flow rate of treatment system 20 gpm

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):
none

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	Direct to receiving water ☐	Within facility (sewer) ☐	Storm drain ☒	Wetlands ☐	Other (describe): <u></u>
------------------------------------	--	--	---	-----------------------------------	---------------------------

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:
Storm drain discharges to Neponset River located approximately 1 mile to the southeast.

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:
1. For multiple discharges, number the discharges sequentially.
2. For indirect discharges, indicate the location of the discharge to the indirect conveyance and the discharge to surface water
The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.

d) Provide the state water quality classification of the receiving water B

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 16.1 cfs
Please attach any calculation sheets used to support stream flow and dilution calculations.

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y ☒ N ☐ If yes, for which pollutant(s)? fecal coliform bacteria

Is there a final TMDL? Y ☒ N ☐ If yes, for which pollutant(s)?

6. ESA and NHPA Eligibility.

Please provide the following information according to requirements of Permit Parts I.A.4 and I.A.5 Appendices II and VII.

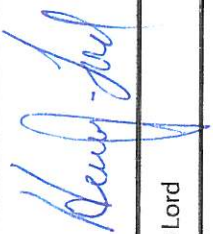
- a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?
A ☒ B ☐ C ☐ D ☐ E ☐ F ☐
- b) If you selected Criterion D or F, has consultation with the federal services been completed? Y ☐ N ☐ Underway ☐
- c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is "not likely to adversely affect" listed species or critical habitat received? Y ☐ N ☐
- d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.
- e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?
1 ☒ 2 ☐ 3 ☐
- f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

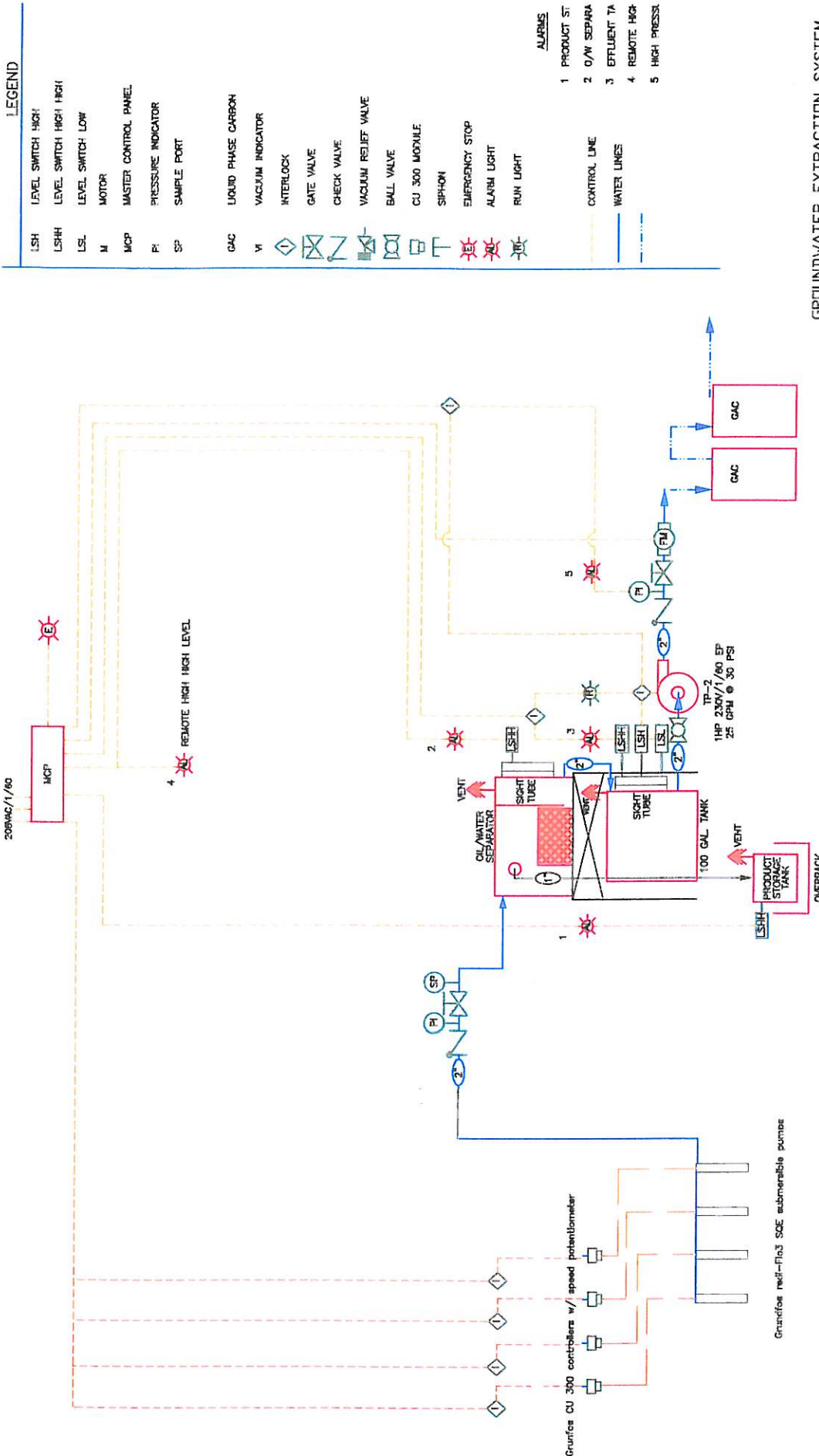
7. Supplemental information.

Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

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

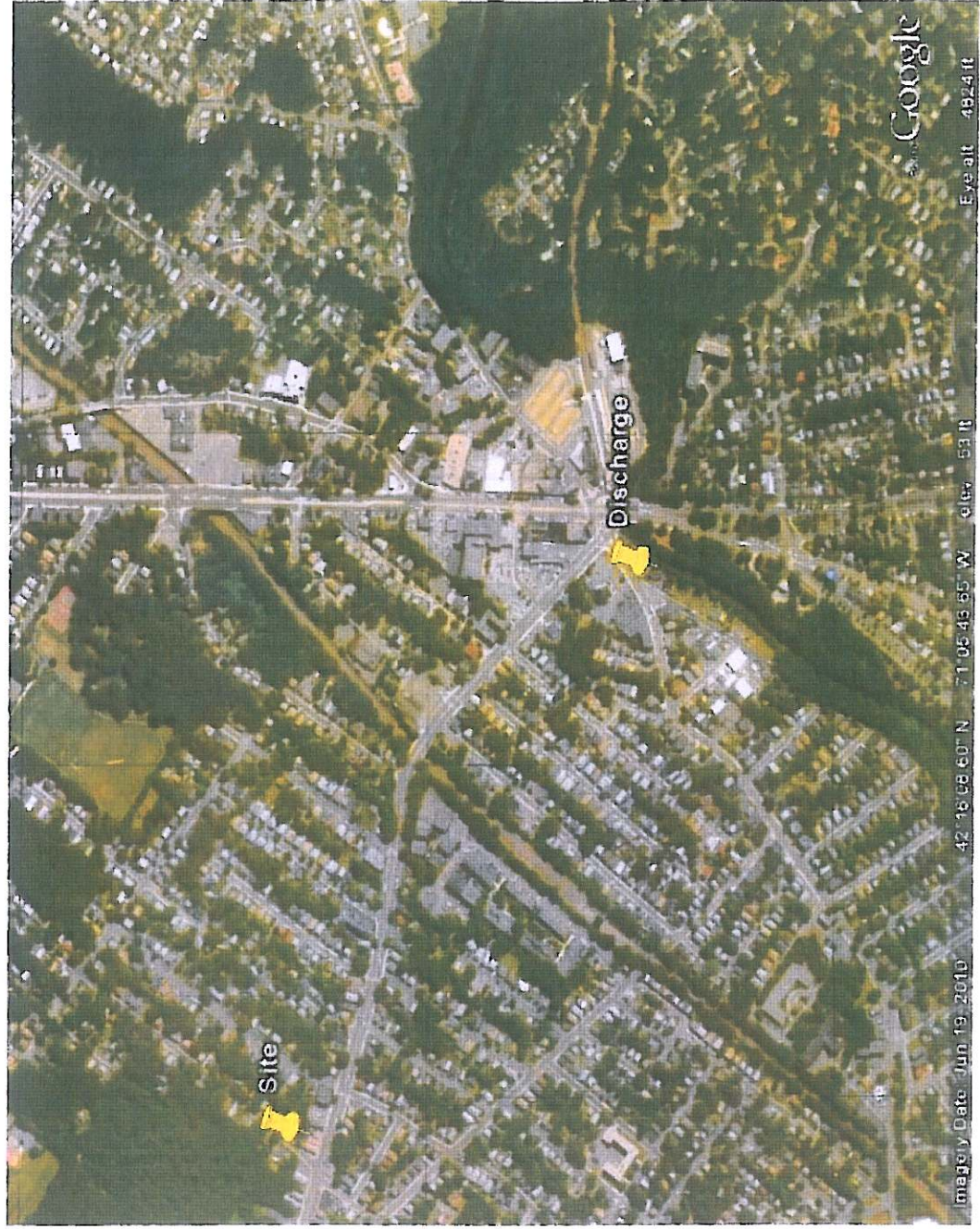
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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:	Petro Plus Superstation
Operator signature:	
Printed Name & Title:	Henry Lord
Date:	11/5/2010



Prepared By:
 LORD ASSOCIATES, INC
 1506 PROVIDENCE HIGHWAY UNIT 30
 NORWOOD, MASSACHUSETTS 02062
 September 7, 2010

Storm Water Discharge Location





Massachusetts StreamStats

Flow Estimates Based on Flows at Nearby Streamgaging Stations

Date: Tue Nov 9 2010 08:39:59 Mountain Standard Time

NAD27 Latitude: 42.2669 (42 16 01)

NAD27 Longitude: -71.0947 (-71 05 41)

NAD83 Latitude: 42.2670 (42 16 01)

NAD83 Longitude: -71.0942 (-71 05 39)

ReachCode: 01090001023185

Measure: 40.21

User-Selected Site Watershed Area, in square miles: 99.9

Use Regulated Station: No

Upstream Gage(s)				
STATID	NAME	AREA (mi ²)	RATIO	ISREGULATED
01105554	NEPONSET RIVER AT GREENLODGE ST NEAR CANTON, MA	88.48	0.8857	No
01105000	NEPONSET RIVER AT NORWOOD, MA	34.7	0.3473	No
01105500	EAST BRANCH NEPONSET RIVER AT CANTON, MA	27.2	0.2723	No
01104850	MINE BROOK AT WALPOLE, MA	5.99	0.0600	Yes

Downstream Gage

No records found.

The following flows were estimated based on the closest upstream streamgage for the selected ungaged site.

Upstream drainage-area ratio estimates based on station 01105554					
Low-Flow Statistics					
Flow types	Flow description	Flow factor	Streamgage flows	Streamgage years of record	Estimated ungaged flows
M7D2Y	7_Day_2_Year_Low_Flow	1.1291	5.14		5.8
M7D10Y	7_Day_10_Year_Low_Flow	1.1291	14.3		16.1
Flow-Duration Statistics					
Flow types	Flow description	Flow factor	Streamgage flows	Streamgage years of record	Estimated ungaged flows
D99	99_Percent_Duration	1.1291	7.2		8.13
D98	98_Percent_Duration	1.1291	9.42		10.6
D97	97_Percent_Duration	1.1291	11.4		12.9
D95	95_Percent_Duration	1.1291	14.6		16.5
D93	93_Percent_Duration	1.1291	17.7		20
D90	90_Percent_Duration	1.1291	22.3		25.2
D85	85_Percent_Duration	1.1291	30.7		34.7
D80	80_Percent_Duration	1.1291	42.5		48
D75	75_Percent_Duration	1.1291	54.4		61.4
D70	70_Percent_Duration	1.1291	65.3		73.7
D65	65_Percent_Duration	1.1291	78		88.1
D60	60_Percent_Duration	1.1291	97.9		111
D55	55_Percent_Duration	1.1291	120		135
D50	50_Percent_Duration	1.1291	145		164

NEPONSET RIVER (SEGMENT MA73-03)

Location: Confluence with Mother Brook, Boston to Milton Lower Falls Dam, Milton/Boston

Segment Area: 3.7 miles.

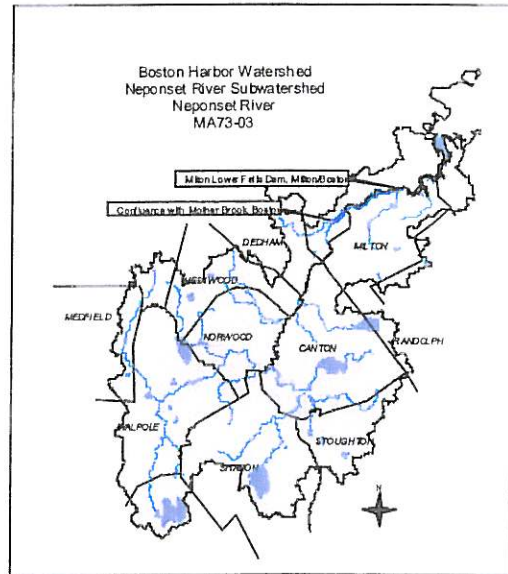
Classification: Class B, Warm Water Fishery, CSO*.

(*In the updated 2002 SWQS, the CSO designation will be removed from the Neponset River. See classification section.)

Land-use estimates for the subwatershed (map inset, gray shaded area):

Residential	37%
Forest	36%
Open Land	9%

This segment is on the 1998 303(d) list of impaired waters for priority organics, metals, organic enrichment/ low DO, pathogens, and oil and grease (MA DEP 1999a). This segment is located within the Neponset River Estuary ACEC (MA DEM August 2000). There are two dams located along this segment of the Neponset River: the Neponset River Dam- Hyde Park and the Lower Mills Dam. A feasibility study for dam removal of the Milton Lower Falls Dam and the second obstruction, Tilestone is underway. In anticipation of improved access to this system DMF has been stocking both American shad and blueback herring into the Neponset system. Since 1996, over 16,000 blueback herring and almost 1000 American shad have been transported from other source systems and released into the upper Neponset River in Canton. The Neponset herring are managed under state regulations (Brady 2001).



WMA WATER WITHDRAWAL SUMMARY (APPENDIX G, TABLE G1):

Facility	PWS ID#	WMA Permit #	WMA Registration #	Source G = ground	Authorized Withdrawal (MGD)	1999 Average Withdrawal (MGD)
Bay State Paper Company			31903501	Neponset River	2.06	0.46

SURFACE NPDES DISCHARGE SUMMARY:

There are no wastewater discharges in this segment. However, all communities in the Boston Harbor Watershed (excluding Boston) are required to obtain Phase II NPDES storm water general permit coverage for their municipal drainage systems. EPA is currently writing this general permit (with input from DEP) and a preliminary draft is currently available for internal review. The draft for public comment should be available by the end of June 2002. The final version of the Phase II storm water general permit for regulated small municipal separate storm sewer systems (MS4) will be issued by December 9, 2002. The towns must submit applications for coverage under the permit to EPA by March 10, 2003 (Scarlet 2002).

USE ASSESSMENT

AQUATIC LIFE

Chemistry - water

NepRWA collected bimonthly water quality samples at six stations on this segment of the Neponset River between 1997 and 2001:

- NER165- Neponset River at Fairmount railroad station (1997-2001)
- NER175- Neponset River at Truman parkway (1997)
- NER178- Neponset River at Monposet Street (1998)
- NER185- Neponset River at Ryan Playground (1997-2001)
- NER200- Neponset River at Adams Street Bridge (1997-2001)

NER215- Neponset River at Granite Ave (1998)

Samples were analyzed for DO, temperature, pH, TSS, ammonia, and total phosphorus (as P) (NepRWA 1998, 1999, 2001a, and 2001b). Based on the field collection techniques (i.e., bucket sampling) the accuracy of these dissolved oxygen data is suspect and therefore are not presented in this assessment report.

MWRA collected water quality samples at one station, 055 (above the dam in Milton at Baker Circle) at the downstream end of this segment of the Neponset River between 1996 and 2000 as part of their ongoing receiving water monitoring program. Parameters measured included DO, percent saturation, temperature, turbidity, and chlorophyll *a* (Coughlin 2002).

DO

MWRA dissolved oxygen concentrations ranged from 2.03 to 17.68 mg/L with only 15 of the 397 samples less than 5.0 mg/L. Percent saturation ranged between 23.8 and 196.4% with 16 less than 60% and three greater than 115% (n=397). No samples were collected pre-dawn and, therefore, do not represent a worst-case scenario. It should be noted that the 15 low dissolved oxygen concentrations were recorded during the summer months of June, July and August, in both the surface and bottom waters.

Temperature

All temperature measurements (both NepRWA's and MWRA's) were below the SWQS for a Class B waterbody (n=481).

pH

NepRWA pH measurements ranged from 5.9 to 8.6 SU (n=64) with four less than 6.3 SU and one greater than 8.5 SU.

Turbidity

MWRA turbidity readings ranged between 0 and 37 NTU with an average of 5.81 NTU (n=265).

Total Suspended Solids

NepRWA TSS concentrations ranged between 1 and 64 mg/L (n=91) with five concentrations greater than 25 mg/L (two during dry weather and three, all on the same day, during wet weather).

Ammonia-Nitrogen (as N)

NepRWA ammonia concentrations ranged between 0.011 and 0.333 mg/L (n=84). All measurements were below the acute and chronic water quality criteria for ammonia-nitrogen.

Total Phosphorus (as P)

Total phosphorus concentrations ranged between 0.003 and 0.262 mg/L (n=81) with 65 concentrations greater than 0.05 mg/L and 13 greater than 0.1 mg/L (16%).

Chlorophyll a

MWRA chlorophyll *a* concentrations ranged from 0.5 to 312 µg/L (n=178).

Chemistry- sediment

As part of the DEP 1994 survey, sediment chemical analyses were conducted at one station (upstream, Baker Dam) on this segment of the Neponset River (Kennedy *et al.* 1995). Several analytes (e.g., Pb, Hg, and Cu) exceeded the S-EL threshold, while TP, TKN, As, Cd, Cr, Ni and Zn exceeded the L-EL. Oil deposits were also noted during this sediment sampling.

Although total phosphorus concentrations were somewhat elevated and dissolved oxygen concentrations were occasionally low during the summer months, the *Aquatic Life Use* for this segment of the Neponset River is currently not assessed. Historical sediment data indicates that the *Aquatic Life Use* was impaired. Recent sediment data and biological data for this segment are needed to determine if contaminated sediments continue to negatively impact the aquatic life. Due to the probability of negative

impacts associated with historically high contaminant levels in sediments and the possible negative impacts caused by elevated levels of total phosphorus and low dissolved oxygen concentrations, this segment of the Neponset River is on "Alert Status".

FISH CONSUMPTION

MDPH issued a fish consumption advisory for the Neponset River from the Hollingsworth and Vose Dam to the Tilestone Dam due to elevated levels of PCBs in fish tissue (MDPH 2001a). The MDPH advisory recommends the following:

3. Children younger than 12-years, pregnant women, and nursing mothers, should not consume any brown bullhead from the Neponset River.
4. The general public should limit consumption of brown bullhead from the Neponset River to two meals per month.

Based on the MDPH site-specific fish consumption advisory, 0.9 miles of this segment of the Neponset River are assessed as non-support for the *Fish Consumption Use*.

PRIMARY CONTACT AND SECONDARY CONTACT RECREATION

NepRWA also conducted fecal coliform bacteria monitoring on this segment of the Neponset River as part of their water quality monitoring program between 1997 and 2001 (NepRWA 1998, 1999, 2001a, and 2001b). Samples were collected during both wet and dry weather conditions. Fecal coliform bacteria counts (n=91) ranged between 25 and 250,000 cfu/100mL (dry weather). Overall, fecal coliform bacteria counts were greater than 2,000 cfu/100mL on ten occasions (five dry and five wet). During the primary contact season (n=56) 29 counts were greater than 400 cfu/100mL (approximately 50% during dry weather).

MWRA collected fecal coliform bacteria samples as part of their ongoing receiving water monitoring program at one station (055) at the downstream end of this segment of the Neponset River (Coughlin 2002). Samples were collected during both wet and dry weather conditions. Fecal coliform bacteria counts ranged from 70 to 20,800 cfu/100mL (n=251) with 13 counts greater than 4,000 cfu/100mL. The highest count was during dry weather conditions. During the primary contact recreation season, fecal coliform bacteria counts ranged between 120 and 20,800 cfu/100mL with 121 of the 159 samples greater than 400 cfu/100mL (76%).

Based on the elevated pathogen counts collected during dry weather conditions, the *Primary* and *Secondary Contact Recreational* uses are assessed as non-support.

AESTHETICS

NepRWA's water quality sampling indicated relatively low instream turbidity (NepRWA 1998, 1999, 2000, 2001). Large quantities of trash and debris have been identified throughout this segment of the Neponset River (NepRWA 2002). Secchi disk depth readings recorded by MWRA at station 055, at the lower impounded section of this segment, ranged from 6 to 9 m (n=88).

Based on the prevalence of trash and debris, the *Aesthetics Use* for this segment the Neponset River is assessed as non-support.

Neponset River (MA73-03) Use Summary Table

Designated Uses		Status	Causes		Sources	
			Known	Suspected	Known	Suspected
Aquatic Life*		NOT ASSESSED *				
Fish Consumption		NON-SUPPORT 0.9 miles NOT ASSESSED 2.8 miles	PCBs		Unknown	
Primary Contact		NON-SUPPORT	Pathogens		Unknown	Urban Runoff/ storm sewers
Secondary Contact		NON-SUPPORT	Pathogens		Unknown	Urban Runoff/ storm sewers
Aesthetics		NON-SUPPORT	Trash and debris		Urban Runoff/ storm sewers	

* "Alert Status" issues identified – see *Aquatic Life Use Assessment*

RECOMMENDATIONS NEPONSET RIVER (MA73-03)

- Investigate possible sources of total phosphorus to the Neponset River including point and nonpoint sources of pollution.
- The DWM 1994 benthic macroinvertebrate surveys identified a moderately impacted benthic community. Conduct a biological survey on the Neponset River to determine if water quality has improved and the biota has recovered.
- Conduct additional sediment analyses (metals and toxicity) to determine if the historical contamination is currently impacting water quality and the biota.
- Investigate possible additional sources and continue to monitor pathogen levels in the Neponset River to determine if the ongoing sewer repair projects are effective.
- Work with NepRWA to conduct a citizen outreach education workshop to educate local residents and landowners about good stream stewardship (i.e., yard waste disposal practices, reduction of impervious services, and road runoff).
- Conduct a stream cleanup along this segment of the Neponset River.
- Work with the highway departments to implement BMPs to reduce sediment inputs and trash and debris from road crossings.