



WHERE BUSINESS AND THE ENVIRONMENT CONVERGE

588 Silver Street, Agawam, MA 01001 tel 413.789.3530 fax 413.789.2776 www.ecsconsult.com

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

September 24, 2008
Project No. 01-210601

RE: Remediation General Permit Notice of Intent
198 Western Avenue
Allston, Massachusetts 02134

Dear Ms. Herrick:

On behalf of Cumberland Farms, Inc., Environmental Compliance Services, Inc. (ECS) is pleased to submit a Notice of Intent for the Remediation General Permit (RGP) for the property located at 198 Western Avenue in Allston, Massachusetts. The RGP is being sought for the discharge of petroleum-impacted groundwater that will be encountered during remedial excavation activities at the Site. ECS intends to treat the impacted groundwater using filters and liquid-phase carbon prior to discharge to the storm water drainage system.

If you should have any questions concerning this submittal, please do not hesitate to contact our office.

Sincerely,
ENVIRONMENTAL COMPLIANCE SERVICES, INC.

William A. Simmons
Senior Project Manager

JBS/WAS

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

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

a) Name of facility/site :		Facility/site address:	
Location of facility/site : longitude:_____ latitude:_____	Facility SIC code(s):	Street:	
b) Name of facility/site owner :		Town:	
Email address of owner:	State:	Zip:	County:
Telephone no.of facility/site owner :			
Fax no. of facility/site owner :	Owner is (check one): 1. Federal____ 2. State/Tribal____ 3. Private____ 4. other, if so, describe:		
Address of owner (if different from site):			
Street:			
Town:	State:	Zip:	County:
c) Legal name of operator :	Operator telephone no:		
	Operator fax no.:		Operator email:
Operator contact name and title:			
Address of operator (if different from owner):	Street:		
Town:	State:	Zip:	County:
d) Check “yes” or “no” for the following: 1. Has a prior NPDES permit exclusion been granted for the discharge? Yes___ No___, if “yes,” number: 2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes___ No___, if “yes,” date and tracking #: 3. Is the discharge a “new discharge” as defined by 40 CFR 122.2? Yes___ No___ 4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes__ No__			

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes___ No___ If “yes,” 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:	f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y___ N___, if Y, number: 2. phase I or II construction storm water general permit? Y___ N___, if Y, number: 3. individual NPDES permit? Y___ N___, if Y, number: 4. any other water quality related permit? Y___ N___, if Y, number:
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2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage:			
b) Provide the following information about each discharge:	<table border="1"> <tr> <td style="vertical-align: top;">1) Number of discharge points:</td> <td> 2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft³/s)? Max. flow_____ Average flow_____ Is maximum flow a design value? Y___ N___ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. </td> </tr> </table>	1) Number of discharge points:	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft³/s)? Max. flow_____ Average flow_____ Is maximum flow a design value? Y___ N___ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.
1) Number of discharge points:	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft³/s)? Max. flow_____ Average flow_____ Is maximum flow a design value? Y___ N___ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.		
3) Latitude and longitude of each discharge within 100 feet: pt.1:long._____ lat._____; pt.2: long._____ lat._____; pt.3: long._____ lat._____; pt.4:long._____ lat._____; pt.5: long._____ lat._____; pt.6:long._____ lat._____; pt.7: long._____ lat._____; pt.8:long._____ lat._____; etc.			
4) If hydrostatic testing, total volume of the discharge (gals):	5) Is the discharge intermittent_____or seasonal_____?		
Is discharge ongoing Yes _____ No _____?			
c) Expected dates of discharge (mm/dd/yy): start_____ end_____			
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).			

3. Contaminant information. In order to complete this section, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for **all** of the parameters listed in Appendix III. Historical data, (i.e., data taken no more than 2 years prior to the effective date of the permit) may be used if obtained pursuant to: i. Massachusetts' regulations 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E"); ii. New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; or iii. an EPA permit exclusion letter issued pursuant to 40 CFR 122.3, provided the data was analyzed with test methods that meet the requirements of this permit. Otherwise, a new sample shall be taken and analyzed.

a) Based on the analysis of the sample(s) of the untreated influent, the applicant must check the box of the sub-categories that the potential discharge falls within.

Gasoline Only	VOC Only	Primarily Metals	Urban Fill Sites	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
Fuel Oils (and Other Oils) only	VOC with Other Contaminants	Petroleum with Other Contaminants	Listed Contaminated Sites	Contaminated Dredge Condensates	Hydrostatic Testing of Pipelines/Tanks	Well Development or Rehabilitation

b) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids										
2. Total Residual Chlorine										
3. Total Petroleum Hydrocarbons										
4. Cyanide										
5. Benzene										
6. Toluene										
7. Ethylbenzene										
8. (m,p,o) Xylenes										
9. Total BTEX ⁴										

⁴BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide ⁵ (1,2- Dibromo-methane)										
11. Methyl-tert-Butyl Ether (MtBE)										
12. tert-Butyl Alcohol (TBA)										
13. tert-Amyl Methyl Ether (TAME)										
14. Naphthalene										
15. Carbon Tetra-chloride										
16. 1,4 Dichlorobenzene										
17. 1,2 Dichlorobenzene										
18. 1,3 Dichlorobenzene										
19. 1,1 Dichloroethane										
20. 1,2 Dichloroethane										
21. 1,1 Dichloroethylene										
22. cis-1,2 Dichloro-ethylene										
23. Dichloromethane (Methylene Chloride)										
24. Tetrachloroethylene										

⁵EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane										
26. 1,1,2 Trichloroethane										
27. Trichloroethylene										
28. Vinyl Chloride										
29. Acetone										
30. 1,4 Dioxane										
31. Total Phenols										
32. Pentachlorophenol										
33. Total Phthalates ⁶ (Phthalate esthers)										
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]										
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)										
a. Benzo(a) Anthracene										
b. Benzo(a) Pyrene										
c. Benzo(b)Fluoranthene										
d. Benzo(k) Fluoranthene										
e. Chrysene										

⁶The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min- imum)	Type of Sample (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)
f. Dibenzo(a,h) anthracene										
g. Indeno(1,2,3-cd) Pyrene										
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)										
h. Acenaphthene										
i. Acenaphthylene										
j. Anthracene										
k. Benzo(ghi) Perylene										
l. Fluoranthene										
m. Fluorene										
n. Naphthalene-										
o. Phenanthrene										
p. Pyrene										
37. Total Polychlorinated Biphenyls (PCBs)										
38. Antimony										
39. Arsenic										
40. Cadmium										
41. Chromium III										
42. Chromium VI										

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min- imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper										
44. Lead										
45. Mercury										
46. Nickel										
47. Selenium										
48. Silver										
49. Zinc										
50. Iron										
Other (describe):										

c) For discharges where **metals** are believed present, please fill out the following:

<i>Step 1:</i> Do any of the metals in the influent have a reasonable potential to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y____ N____	If yes, which metals?
<i>Step 2:</i> For any metals which have reasonable potential to 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? Metals: _____ DF: _____	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 “Yes,” 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:						
b) Identify each applicable treatment unit (check all that apply):	Frac. tank	Air stripper	Oil/water separator	Equalization tanks	Bag filter	GAC filter
	Chlorination	Dechlorination	Other (please describe):			
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 _____ Maximum flow rate of treatment system _____ Design flow rate of treatment system _____						
d) A description of chemical additives being used or planned to be used (attach MSDS sheets):						

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

a) Identify the discharge pathway:	Direct _____	Within facility__	Storm drain_____	River/brook_____	Wetlands _____	Other (describe):
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:						
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 dischargers, 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 _____,						
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water _____ 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? Yes _____ No _____ If yes, for which pollutant(s)? Is there a TMDL? Yes _____ No _____ If yes, for which pollutant(s)?						

6. Results of Consultation with Federal Services: Please provide the following information according to requirements of Part I.B.4 and Appendices II and VII.

a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes___ No <u>✓</u> Has any consultation with the federal services been completed? Yes___ No <u>✓</u> or is consultation underway? Yes___ No <u>✓</u> What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (check one): a "no jeopardy" opinion? ___ or written concurrence ___ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?
b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge? Yes___ No <u>✓</u> Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes___ No <u>✓</u>

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.

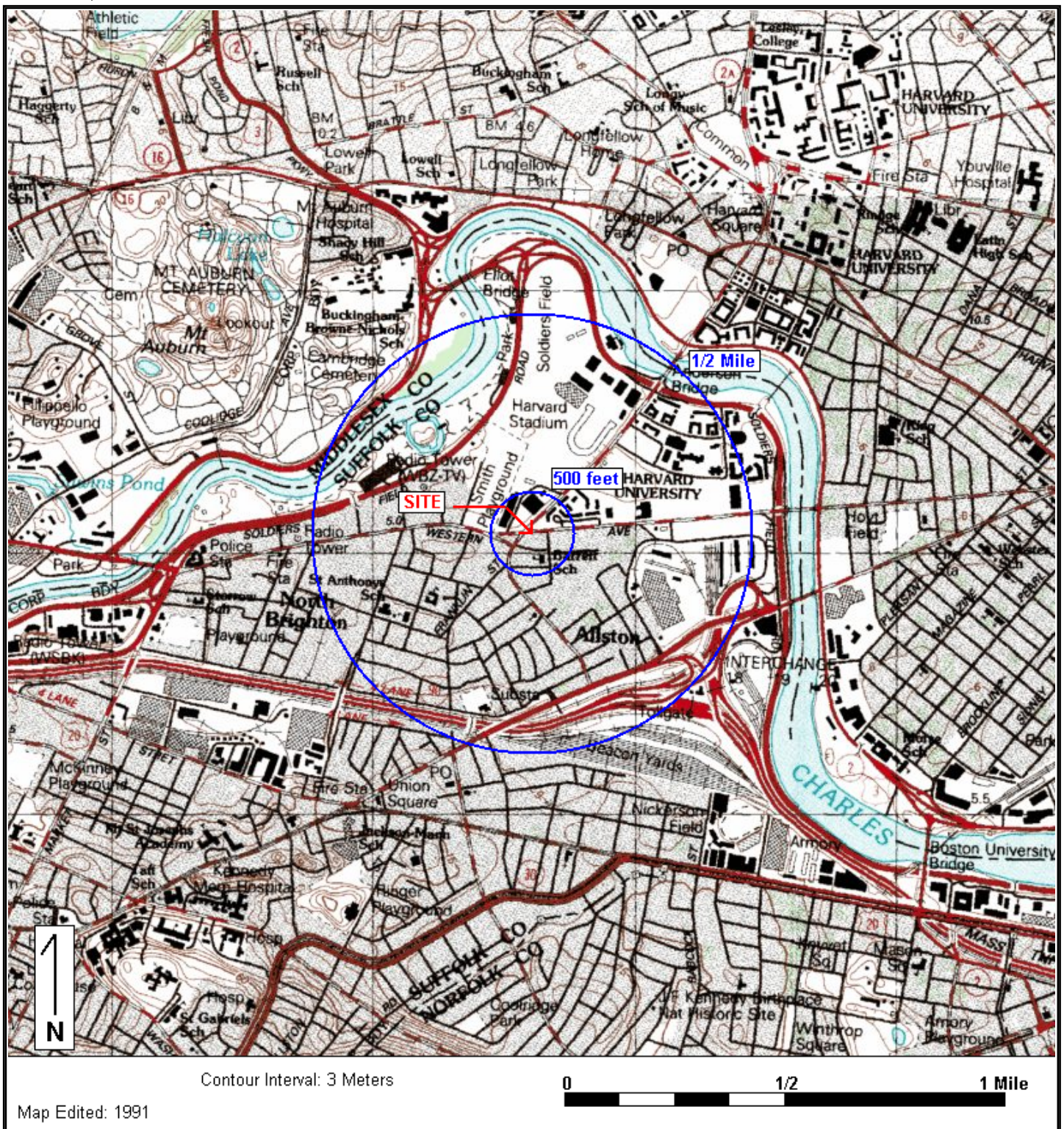
Facility/Site Name:	Exxon gasoline station
Operator signature:	
Title:	Field Service Manager
Date:	09/24/08



Environmental Compliance Services, Inc.
588 Silver Street
Agawam, MA 01001
Phone 413.789.3530 Fax 413.789.2776
www.ecsconsult.com

MA-70005-Allston-198 Western Avenue
198 Western Avenue
Allston, MA 02134

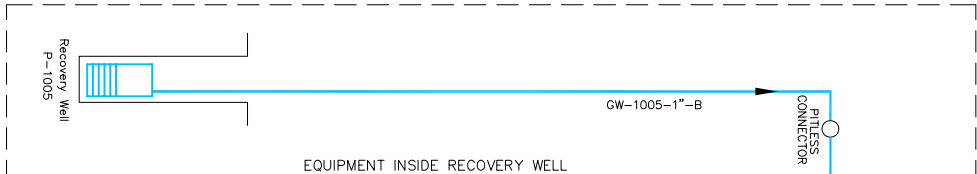
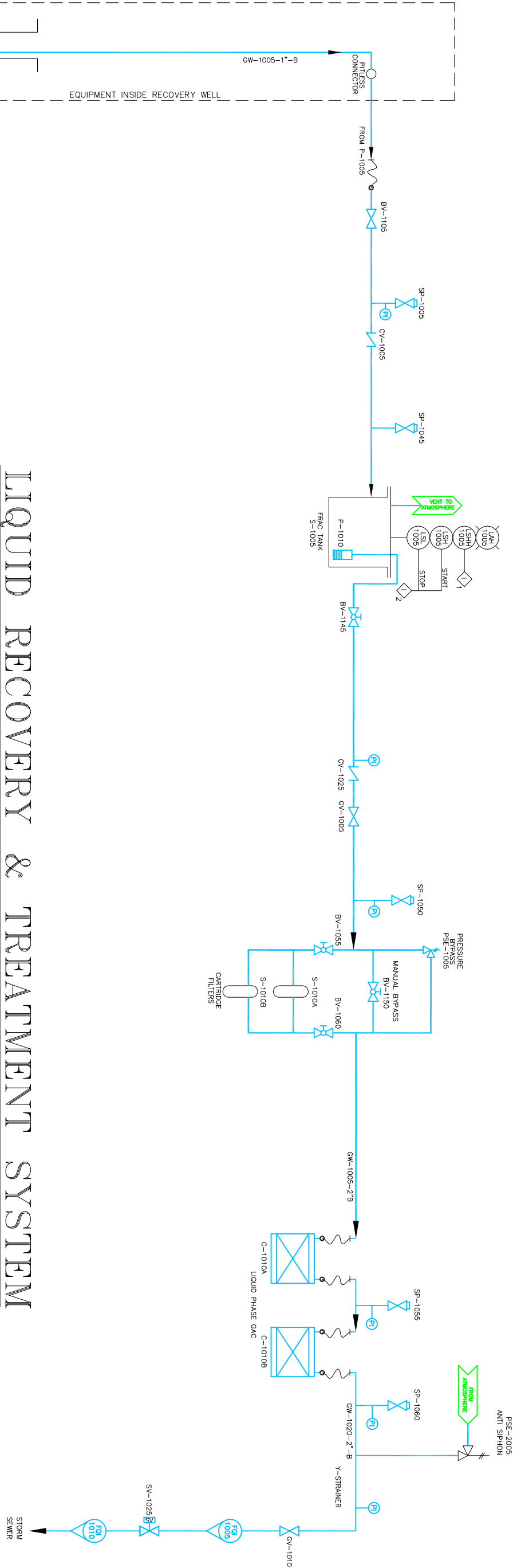
Figure 1: SITE LOCUS



Base Map: U.S. Geological Survey; Quadrangle Location: Boston South, MA

Lat/Lon: 42° 21' 48" NORTH, 71° 7' 45" WEST - UTM Coordinates: 19 324659 EAST / 4692300 NORTH

Generated By: Christine DiMaio



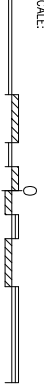
I.D.	DESCRIPTION
C-1010	LIQUID PHASE GAC
P-1005	ELECTRIC SUBMERSIBLE PUMP
P-1010	ELECTRIC SUBMERSIBLE PUMP
S-1005	FRAC. TANK
S-1010	PARTICULATE FILTERS, 75 PSI MAX

I.D.	DESCRIPTION
1	LSHH-1005 SHUTS OFF P-1005
2	LSH-1005 TURNS P-1010 ON, LSL-1005 TURNS P-1010 OFF

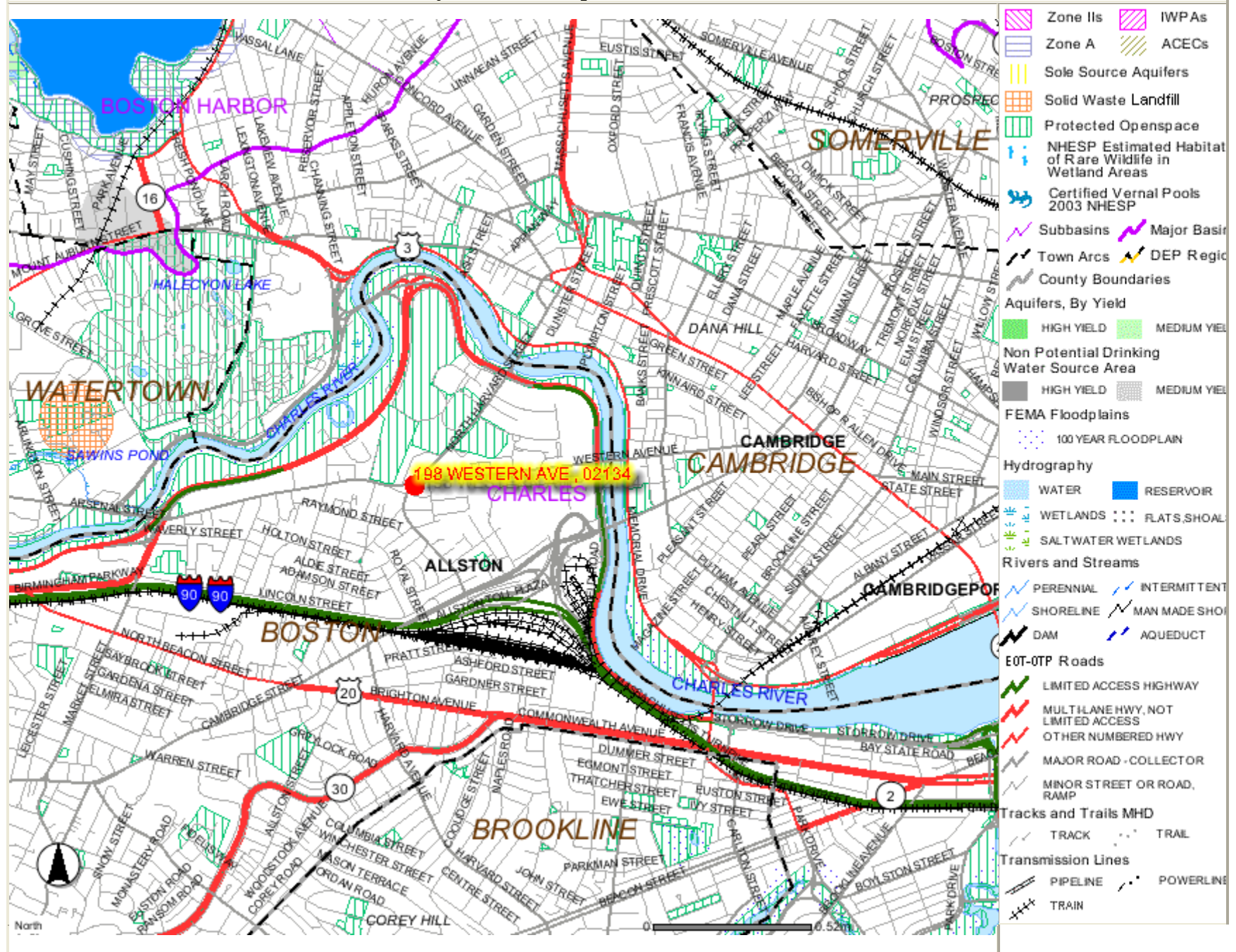
EQUIPMENT SCHEDULE

INTERLOCKS SCHEDULE

LIQUID RECOVERY & TREATMENT SYSTEM

 997 Milbury Street, Unit G, Worcester, MA 01607 Phone: 508-756-9034 Fax: 508-757-7083 ecs@ecsma.com		CLIENT: Cumberland Farms, Inc.		PROJECT: CFI Exxon 198 Western Avenue Allston, Massachusetts		COMPUTER CADFILE : 210601-PID.dwg	
GRAPHIC SCALE: 		TITLE: Piping & Instrumentation Diagram		DRAWN BY: RAS		DESIGNED BY: NJB	
				SCALE: N.T.S.		CHECKED BY: NJB	
				DATE: Sept. 2008		JOB NO.: 210601	
						FIGURE NO.: 2	

DEP Priority Resource Map – 198 Western Ave., Allston, MA





StreamStats Data-Collection Station Report

USGS Station Number 01104500

Station Name CHARLES RIVER AT WALTHAM, MA

[Click here to link to available data on NWIS-Web for this site.](#)

Descriptive Information

Station Type	Gaging Station, continuous record
Regulated?	True
Period of Record	1931-present
Remarks	Flow affected by Mother Brook diversion, diversions to and from basin for municipal supplies, and reservoir regulations.
Latitude (degrees NAD83)	42.3723186
Longitude (degrees NAD83)	-71.2336667
Hydrologic unit code	01090001
Local Basin	20-Charles
County	017-Middlesex
MCD	72600-Waltham city
Directions to station	800 feet downstream from Moody Street

Physical Characteristics

Characteristic Name	Value	Units	Citation Number
Drainage_Area	227	square miles	30

Streamflow Statistics

Statistic Name	Value	Units	Citation Number
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Peak-Flow Statistics

10_Year_Peak_Flood	2410	cubic feet per second	12
100_Year_Peak_Flood	4200	cubic feet per second	12
25_Year_Peak_Flood	3070	cubic feet per second	12
50_Year_Peak_Flood	3610	cubic feet per second	12
500_Year_Peak_Flood	5780	cubic feet per second	12
Mean_Annual_Flood	502	cubic feet per second	12

Low-Flow Statistics

7_Day_10_Year_Low_Flow	14.3	cubic feet per second	19
7_Day_2_Year_Low_Flow	34	cubic feet per second	19

Flow-Duration Statistics

1_Percent_Duration	1380	cubic feet per second	41
10_Percent_Duration	680	cubic feet per second	41
20_Percent_Duration	495	cubic feet per second	41
25_Percent_Duration	430	cubic feet per second	41
30_Percent_Duration	377	cubic feet per second	41
40_Percent_Duration	292	cubic feet per second	41
5_Percent_Duration	880	cubic feet per second	41
50_Percent_Duration	222	cubic feet per second	41
60_Percent_Duration	167	cubic feet per second	41
70_Percent_Duration	118	cubic feet per second	41
75_Percent_Duration	97	cubic feet per second	41
80_Percent_Duration	77	cubic feet per second	41
90_Percent_Duration	44	cubic feet per second	41
95_Percent_Duration	30	cubic feet per second	41
99_Percent_Duration	7.9	cubic feet per second	41

General Flow Statistics

Average_daily_streamflow	309.739	cubic feet per second	41
Maximum_daily_flow	2940	cubic feet per second	41
Minimum_daily_flow	0.2	cubic feet per second	41
Std_Dev_of_daily_flows	296.365	cubic feet per second	41

Base_Flow_Statistics

Average_BFI_value	0.632	dimensionless	42
Number_of_years_to_compute_BFI	72	years	42
Std_dev_of_annual_BFI_values	0.087	dimensionless	42

Citations

Citation	Citation Name
Number	

-
- 12 Murphy, P.J., 2001, Evaluation of mixed-population flood-frequency analysis: American Society of Civil Engineers, Journal of Hydrologic Engineering, v. 6, no. 1, p. 62-70
- 19 Wandle, S.W., Jr., 1984, Gazetteer of Hydrologic Characteristics of Streams in Massachusetts--Coastal River Basins of the North Shore and Massachusetts Bay: U.S. Geological Survey Water-Resources Investigations Report 84-4281.
- 30 Imported from NWIS file
- 41 Wolock, D.M., 2003, Flow characteristics at U.S. Geological Survey streamgages in the conterminous United States: U.S. Geological Survey Open-File Report 03-146, digital data set, available on World Wide Web at URL <http://water.usgs.gov/lookup/getspatial?qsitesdd>
- 42 Wolock, D.M., 2003, Base-flow index grid for the conterminous United States: U.S. Geological Survey Open-File Report 03-263, digital data set, available on World Wide Web at URL <http://water.usgs.gov/lookup/getspatial?bfi48grd>
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