Haley & Aldrich, Inc.
465 Medford St.
Suite 2200
Boston, MA 02129-1400

Tel: 617.886.7400
Fax: 617.886.7600
HaleyAldrich.com

9 December 2010 (Original Submittal 18 November 2009)
File No. 31502-160

US Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code OEP06-4
Boston, MA 02109-3912

Attention: Remediation General Permit NOI Processing

Subject: Notice of Intent (NOI)
Temporary Construction Dewatering
Spaulding Rehabilitation Hospital
Parcels 6 and 7 – Charlestown Navy Yard
Charlestown, Massachusetts

Ladies and Gentlemen:

On 18 November 2009, on behalf of Partner's HealthCare System, Inc., Haley & Aldrich, Inc., (Haley & Aldrich) requested your approval of a National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) for discharge of water due to temporary construction dewatering associated with the excavations on Parcels 5, 6, and 7. Partners HealthCare System, Inc. (Owner) and Walsh Brothers, Incorporated (Operator) were issued permission to discharge under Permit No. MAG910442 on 2 December 2010.

Per the Environmental Protection Agency's letter dated 13 September 2010 to Walsh Brothers, entitled "RE: Notice of Availability of the Final 2010 Remediation General Permit and Re-Application for Coverage under the 2010 Remediation General Permit for Parcel 6 and 7 – Charlestown Navy Yard in Charlestown MA (NPDES Permit Number MAG 910442)", Haley & Aldrich is re-applying for coverage by submitting a Notice of Intent (NOI) to the EPA by December 9, 2010. This request is being submitted within the required 90 days after the effective date of the 2010 RGP.

This resubmittal includes the same information as the 18 November 2010 and includes updated information as appropriate. A summary of dewatering activities and discharge sampling have been submitted via email and as part of Monthly Discharge Monitoring Reports. Please refer to those reports for additional sampling results obtained since the original NOI.

In accordance with the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit in Massachusetts, MAG910000, this letter resubmits a Notice of Intent and the applicable documentation as required by the US Environmental Protection Agency (EPA) for construction site dewatering under the RGP. Temporary dewatering was conducted under the previous permit and is ongoing in support of the construction activities proposed at the Yard's End Parcels 5, 6 and 7 site,

located in the Former Charlestown Navy Yard in Charlestown, Massachusetts, as shown on Figure 1 – Project Locus.

The property owner is Partners HealthCare System, Inc. (Partners), who acquired Parcels 6 & 7 from the Boston Redevelopment Authority (BRA) on 24 May 2010. Partners is in the process of constructing a new facility for the Spaulding Rehabilitation Hospital at Parcel 6. The new facility will consist of an eight-story building with two levels of below-grade parking which requires an excavation of up to 30 ft below ground surface. The work will also include excavations for utility installations, soil remediation, and landscaping. Plans for Parcel 7 includes the repair of an existing seawall, construction of a public access harborwalk, soil remediation, and use for short-term construction staging in conjunction with the proposed redevelopment of Parcel 6. Activities on Parcel 5 are limited to soil remediation to support the establishment of a site driveway area.

Site History

The Charlestown Navy Yard area within which the Site is located was formerly part of the Boston Naval Shipyard of the United States Navy. The northeastern and eastern boundary of the site consists of the Little Mystic River or the Boston Inner Harbor. Historically, the Site was under water and was originally used as a timber receiving dock between 1834 and 1890. By 1920, the Site had been filled and developed with several buildings, scrap storage bins, and a dump area. Over time, 17 naval buildings were located at the Site, including storage facilities for oil, paint, flammables, pipe, steel, machinery, and lumber at various times; a refuse incinerator; a sandblasting facility; and a fire pump house. Several other features were formerly located at the Site, including storage bins, dump areas, a fuel oil underground storage tank, and several aboveground storage tanks.

The Boston Naval Shipyard was decommissioned in 1974. BRA, a municipal redevelopment authority, acquired the Site in 1979 for urban renewal purposes. The Site has been largely unused since that time, with the exception of the use of portions of the Site as a staging area for nearby construction projects. Previously existing buildings at the Site were demolished by the late 1990s.

Regulatory Background

Yard's End Parcels 5, 6 and 7 at the Charlestown Navy Yard were previously reported as one Site to the Massachusetts Department of Environmental Protection (MassDEP) by the BRA in 1990 due to the identification of concentrations of polychlorinated biphenyls (PCBs), oil and grease, and lead in soil. At that time, MassDEP assigned Release Tracking Number (RTN) 3-3372 to the three parcels and subsequently issued a Massachusetts Contingency Plan (MCP, 310 CMR 40.0000) Waiver of Approvals.

Partners conducted due diligence investigations at the Site in 2004 and 2005 and, based on the results, the BRA re-reported the Site to the MassDEP based on oil and hazardous material (OHM) concentrations exceeding MCP Reportable Concentrations at Parcels 6 and 7 in August 2005. At the request of the BRA, MassDEP agreed to assign a new RTN (RTN 3-25132) to Parcels 6 and 7, and to reassign RTN 3-3372 to Parcel 5 only. Although not required due to its status as a municipal redevelopment authority, the BRA voluntarily submitted an MCP Phase I Initial Site Investigation Report, Tier II Classification Submittal and Conceptual Phase II Scope of Work to the MassDEP in August 2006.

Based on concentrations of PCBs detected in soils, and due to uncertainty regarding the date of the release and the original concentration of the release of PCBs, a portion of the Site is subject to regulation under the Toxic Substances Control Act (TSCA). Accordingly, a Self-Implementing Cleanup and Disposal Plan (Self-Implementing Plan) was submitted to the US Environmental Protection Agency on 18 September 2009. Based on comments from the EPA, a Revised Self-Implementing Cleanup and Disposal Plan was submitted on 23 February 2010.

The proposed remedial activities and Site improvements are being conducted pursuant to an MCP Release Abatement Measure (RAM) Plan that was submitted to MassDEP on 22 December 2009 (dated 21 December 2009), and has been coordinated with and conducted in accordance with the requirements of the TSCA Self-Implementing Plan. The RAM Plan and the TSCA Self-Implementing Plan have provided guidance for the management of soils and groundwater at the Site during redevelopment.

Temporary Construction Dewatering Notice of Intent

In support of the NOI, groundwater samples were collected from two observation wells (HA-C2(OW) and HA-10(OW)) located within the project site. The results of water quality testing conducted for this NOI are summarized in Table I. Additional groundwater quality data have been collected at the site from several site observation wells. The results of the additional water quality testing are summarized in Table II. The location of the observation wells is shown on Figure 3.

Dewatering was and will continue to be conducted from sumps or well points located inside the sheeted excavation, and also from smaller, local excavations outside the proposed foundation limits for the installation of utilities and landscaping and for remedial excavation. Dewatering is necessary to control groundwater, seepage, precipitation, surface water runoff and construction-generated water to enable construction in-the-dry. Construction began in December 2009, and construction dewatering and discharge began on 14 April 2010. Currently, discharge is not occurring, but may be restarted as needed to maintain dry excavations. Note that at the restart of discharge, sampling will be performed in accordance with Initial Treatment System Discharge Start Up requirements.

Prior to discharge, collected watering will be routed through a sedimentation tank and bag filter, at a minimum, to remove suspended solids and undissolved chemical constituents (metals), as shown in the Proposed Treatment System Schematic included in Figure 2 herein. Construction dewatering under this RGP NOI will include piping and discharging to storm drains located within and near the site. The storm drains travel a short distance northeast within the site and discharge directly into the Little Mystic Channel/Boston Inner Harbor. The proposed discharge route is shown on Figure 3, Proposed Dewatering Discharge Route.

Chloride Sampling

As required in the new RGP for sampling parameters, Haley & Aldrich collected a water sample from an existing well on 16th Street on 3 December 2010. Chloride was detected at 4900 mg/l in the water sample, which is likely due to the site's coastal environment. The laboratory reports are included in Appendix G.

Appendices

The completed "Suggested Notice of Intent" (NOI) form as provided in the RGP is enclosed in Appendix A. The site operator is Walsh Brothers, Incorporated (Walsh). Walsh is the construction manager and will hire a subcontractor to conduct the Site work, including the dewatering activities. Haley & Aldrich, Inc. (Haley & Aldrich) will monitor the Contractor's dewatering activities on behalf of Partners. In accordance with the requirements for this NOI submission, Partners as the owner and Walsh as the construction manager are listed as co-permittees for this NPDES RGP, and therefore both have signed the NOI form.

Appendix B provides Material Data Safety Sheets (MSDS) and fact sheets for possible chemical additives or treatments to be used in the treatment system. A Best Management Practices Plan (BMPP), which outlines the proposed discharge operations covered under the RGP, is included in Appendix C. Appendices D and E include National Register of Historic Places and Endangered Species Act Documentation, respectively. Appendix F provides the BWSC Permit Application to be submitted separately to the Boston Water and Sewer Commission and a copy of a memorandum sent in January 2010 in response to BWSC's review. A copy of the groundwater testing laboratory results are provided in Appendix G. Appendix H includes the Notice of Change Form to be submitted to the EPA when property ownership is transferred from the BRA to Partners. Appendix I includes the Notice of Availability and the original RGP dated 2 December 2009.

Closing

Thank you very much for your consideration of this NOI. Please feel free to contact us should you wish to discuss the information contained herein or if you need additional information.

Sincerely yours,
HALEY & ALDRICH, INC

Iliana Alvarado, P.E.
Senior Engineer

Mark X. Haley, P.E.
Senior Vice President

Attachments:

Table I - Summary of Groundwater Quality Data
Table II - Summary of Additional Groundwater Quality Data
Figure 1 - Site Locus
Figure 2 - Proposed Treatment System Schematic
Figure 3 - Proposed Dewatering Discharge Routes
Appendix A – Notice of Intent (NOI) for Remediation General Permit (RGP)
Appendix B – MSDS and Fact Sheets
Appendix C – Best Management Practices Plan (BMPP)
Appendix D – National Register of Historic Places and Massachusetts Historical Commission Documentation
Appendix E – Endangered Species Act Documentation
Appendix F – BWSC Permit Application (Resubmitted) & January 2010 Memorandum
Appendix G – Laboratory Data Reports
Appendix H – Notice of Change Form
Appendix I – Notice of Availability and Remediation General Permit

c: Partners HealthCare System, Inc.; Attn: Kathryn West
Partners HealthCare System, Inc.; Attn: Tim Pattison
Partners HealthCare System, Inc.; Attn: David Burson
Walsh Brothers, Inc.; Attn: Attn: James Lyons
Haley & Aldrich, Inc.; Attn: Mark X. Haley
Haley & Aldrich, Inc.; Attn: Lisa Turturro
Vanasse Hangen Brustlin, Inc.; Attn: Mark Junghans
Perkins + Will; Attn: Jessica Stebbins
Boston Water and Sewer Commission; Attn: Francis McLaughlin

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**TABLE I - SUMMARY OF GROUNDWATER QUALITY DATA**
**SPAULDING REHABILITATION HOSPITAL**
**PARCELS 6 AND 7 - CHARLESTOWN NAVY YARD**
**CHARLESTOWN, MASSACHUSETTS**
**FILE NO.: 31502-060**

| LOCATION | HA-C2(OW) | HA-10(OW) |
|---|---|---|
| SAMPLING DATE | 6/1/2009 | 6/1/2009 |
| LAB SAMPLE ID | L0907022-01 | L0907022-02 |
| MATRIX | Aqueous | Aqueous |
| **VOCs by GC/MS (ug/L)** | | |
| Tetrachloroethene | 7.2 | ND(0.75) |
| cis-1,2-Dichloroethene | 3.2 | ND(0.5) |
| Trichloroethene | 1 | ND(0.5) |
| Total VOCs by GC/MS | 11.4 | ND |
| **SVOCs by GC/MS (ug/L)** | | |
| Total SVOCs by GC/MS | ND | ND |
| **SVOCs by GC/MS-SIM (ug/L)** | | |
| Acenaphthene | ND(0.1) | 0.38 |
| 1-Methylnaphthalene | ND(0.1) | 5.6 |
| 2-Methylnaphthalene | ND(0.1) | 1.3 |
| Total SVOCs by GC/MS-SIM | ND | 7.28 |
| **Total Metals (ug/L)** | | |
| Antimony, Total | ND(1) | ND(1) |
| Arsenic, Total | 3.3 | 11.3 |
| Cadmium, Total | ND(0.4) | ND(1) |
| Chromium, Total | ND(1) | ND(1) |
| Chromium, Hexavalent | ND(5) | ND(5) |
| Copper, Total | 4.1 | 13.7 |
| Iron, Total | 5200 | 3500 |
| Lead, Total | 11.6 | 11.3 |
| Mercury, Total | ND(0.1) | 0.4 |
| Nickel, Total | ND(1) | 4.2 |
| Selenium, Total | 5 | 70 |
| Silver, Total | ND(0.8) | ND(0.8) |
| Zinc, Total | 27.1 | 62.8 |
| **Dissolved Metals (ug/L)** | | |
| Antimony, Dissolved | ND(1) | ND(1) |
| Arsenic, Dissolved | 4.6 | 11.6 |
| Cadmium, Dissolved | ND(0.4) | - |
| Chromium, Dissolved | ND(1) | ND(1) |
| Copper, Dissolved | 3.1 | 13.5 |
| Iron, Dissolved | 6000 | 3500 |
| Lead, Dissolved | 5.6 | 9.7 |
| Mercury, Dissolved | ND(0.1) | 0.3 |
| Nickel, Dissolved | 2.5 | 4.3 |
| Selenium, Dissolved | 9 | 69 |
| Silver, Dissolved | ND(0.8) | ND(0.8) |
| Zinc, Dissolved | 22.8 | 60.8 |
| **PCBs (ug/L)** | | |
| Total PCBs | ND | ND |
| **Pesticides by GC (ug/L)** | | |
| 1,2-Dibromoethane | ND(0.0105) | ND(0.0095) |
| **TPH (ug/L)** | | |
| Total Petroleum Hydrocarbons | ND(1600) | ND(1600) |
| **General Chemistry** | | |
| Solids, Total Suspended | 12000 | 36000 |
| Cyanide, Total | ND(2.5) | ND(2.5) |
| Chlorine, Total Residual | ND(10) | ND(10) |
| Phenolics, Total | ND(15) | ND(15) |

**Abbreviations:**
- : Not analyzed
ND(2.5): Not detected; number in parentheses is one-half the laboratory reporting limit

**TABLE II - SUMMARY OF ADDITIONAL**
**GROUNDWATER QUALITY DATA**
**SPAULDING REHABILITATION HOSPITAL**
**PARCELS 6 AND 7 - FORMER CHARLESTOWN NAVY YARD**
**CHARLESTOWN, MASSACHUSETTS**
**FILE NO.: 31502-060**

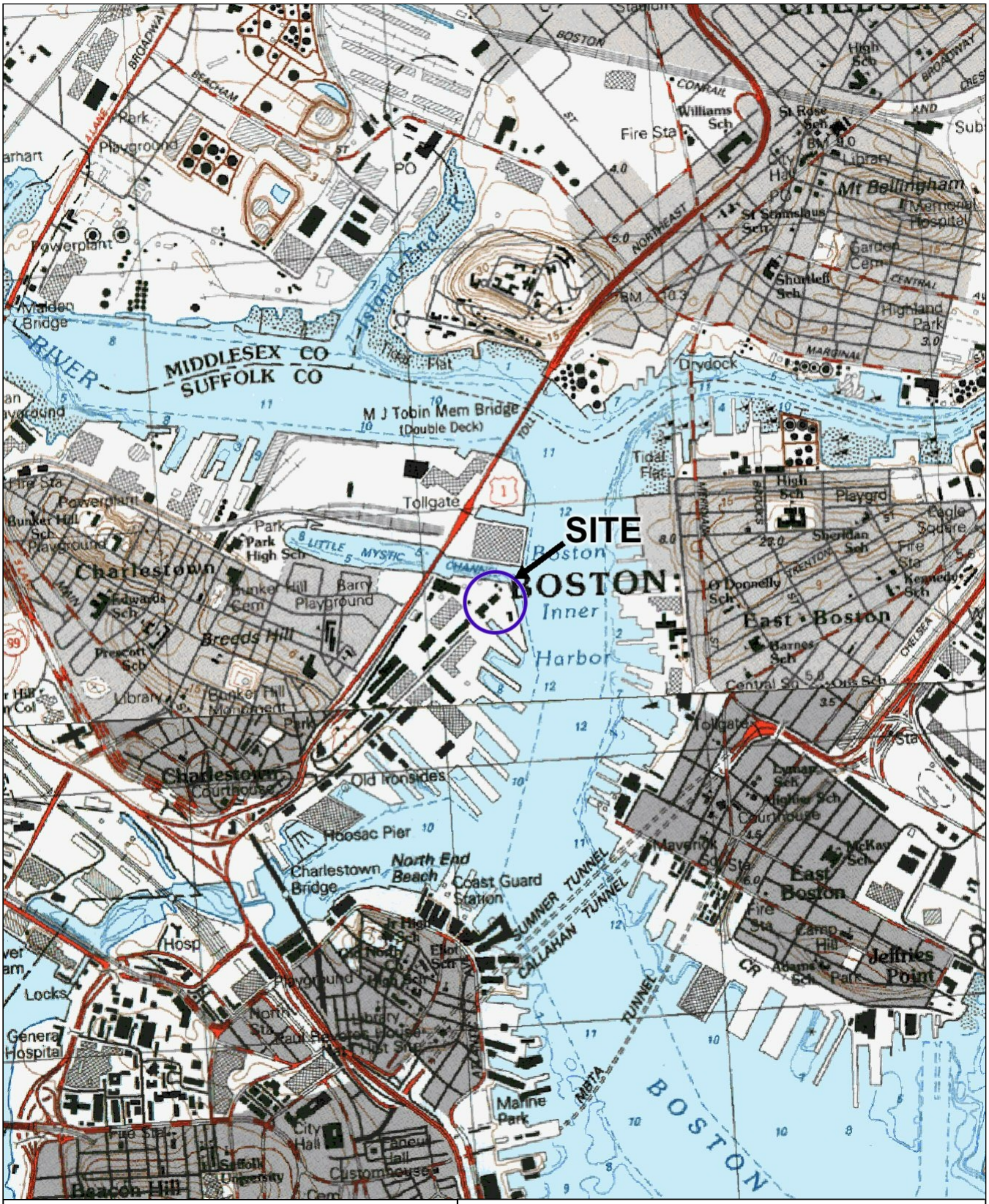
| LOCATION<br>SAMPLING DATE<br>LAB SAMPLE ID<br>MATRIX | Min | Max | HA-I8<br>5/15/2009<br>L0906284-01<br>Aqueous | HA-4<br>5/15/2009<br>L0906284-02<br>Aqueous | HA-F6(OW<br>6/1/2009<br>L0907025-01<br>Aqueous | HA-A6(OW)<br>6/4/2009<br>L0907279-02<br>Aqueous | HA-F2(OW)<br>6/4/2009<br>L0907279-03<br>Aqueous | HA-K6(OW)<br>6/4/2009<br>L0907279-04<br>Aqueous | F2 (OW)<br>6/22/2006<br>Aqueous | I8 (OW)<br>6/22/2006<br>Aqueous |
|---|---|---|---|---|---|---|---|---|---|---|
| **MCP VOCs (ug/L)** | | | | | | | | | | |
| Total VOCs | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **MCP SVOCs (ug/L)** | | | | | | | | | | |
| Bis(2-Ethylhexyl)phthalate | ND(2.4) | 6 | ND(2.45) | ND(2.4) | ND(2.5) | ND(2.5) | ND(2.5) | ND(2.5) | ND(2.5) | ND(2.5) |
| Total MCP SVOCs | ND(6) | 6 | ND | ND | ND | ND | ND | ND | ND | ND |
| **MCP SVOCs by SIM (ug/L)** | | | | | | | | | | |
| Fluoranthene | ND(0.095) | 0.3 | ND(0.1) | ND(0.095) | 0.3 | ND(0.1) | ND(0.1) | ND(0.1) | ND(0.25) | ND(0.25) |
| Pyrene | ND(0.095) | 0.28 | ND(0.1) | ND(0.095) | 0.2 | ND(0.1) | ND(0.1) | ND(0.1) | ND(0.25) | ND(0.25) |
| Total MCP SVOCs by SIM | ND(0.5) | 0.58 | ND | ND | 0.5 | ND | ND | ND | ND | ND |
| **Dissolved Metals (ug/L)** | | | | | | | | | | |
| Antimony, Dissolved | ND(1) | ND(3) | ND(1) | ND(1) | ND(1) | ND(1) | ND(1) | ND(1) | ND(3) | ND(3) |
| Arsenic, Dissolved | ND(2.5) | 11.6 | ND(2.5) | ND(2.5) | ND(2.5) | ND(2.5) | ND(2.5) | ND(2.5) | ND(25) | ND(25) |
| Barium, Dissolved | ND(5) | 100 | 30 | 39 | 44 | 73 | 54 | 59 | ND(100) | ND(100) |
| Beryllium, Dissolved | ND(2) | ND(2) | ND(2) | ND(2) | ND(2) | ND(2) | ND(2) | ND(2) | ND(2) | ND(2) |
| Cadmium, Dissolved | ND(2) | ND(2) | ND(2) | ND(2) | ND(2) | ND(2) | ND(2) | ND(2) | ND(2) | ND(2) |
| Chromium, Dissolved | ND(5) | ND(5) | ND(5) | ND(5) | ND(5) | ND(5) | ND(5) | ND(5) | ND(5) | ND(5) |
| Lead, Dissolved | ND(2.5) | 61 | ND(5) | 22 | ND(5) | ND(5) | ND(5) | ND(5) | 12 | ND(2.5) |
| Mercury, Dissolved | ND(0.1) | 0.1 | ND(0.1) | ND(0.1) | ND(0.1) | ND(0.1) | ND(0.1) | ND(0.1) | ND(0.1) | ND(0.1) |
| Nickel, Dissolved | ND(12.5) | 20 | ND(12.5) | ND(12.5) | ND(12.5) | ND(12.5) | ND(12.5) | ND(12.5) | ND(20) | ND(20) |
| Selenium, Dissolved | ND(5) | 25 | ND(5) | ND(5) | ND(5) | ND(5) | ND(5) | ND(5) | ND(25) | ND(25) |
| Silver, Dissolved | ND(3.5) | ND(3.5) | ND(3.5) | ND(3.5) | ND(3.5) | ND(3.5) | ND(3.5) | ND(3.5) | ND(3.5) | ND(3.5) |
| Thallium, Dissolved | ND(1) | ND(1) | ND(1) | ND(1) | ND(1) | ND(1) | ND(1) | ND(1) | ND(1) | ND(1) |
| Vanadium, Dissolved | ND(5) | ND(25) | ND(5) | ND(5) | ND(5) | ND(5) | ND(5) | ND(5) | ND(25) | ND(25) |
| Zinc, Dissolved | ND(25) | 1700 | 96 | 212 | ND(25) | ND(25) | 528 | 177 | 1700 | 300 |
| **PCBs (ug/L)** | | | | | | | | | | |
| Total PCBs | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **VPH (ug/L)** | | | | | | | | | | |
| C5-C8 Aliphatics, Unadjusted | ND(10) | ND(25) | ND(25) | ND(25) | ND(25) | ND(25) | ND(25) | ND(25) | ND(10) | ND(10) |
| C9-C12 Aliphatics, Unadjusted | ND(10) | ND(25) | ND(25) | ND(25) | ND(25) | ND(25) | ND(25) | ND(25) | ND(10) | ND(10) |
| C9-C10 Aromatics | ND(10) | ND(25) | ND(25) | ND(25) | ND(25) | ND(25) | ND(25) | ND(25) | ND(10) | ND(10) |
| C5-C8 Aliphatics, Adjusted | ND(10) | ND(25) | ND(25) | ND(25) | ND(25) | ND(25) | ND(25) | ND(25) | ND(10) | ND(10) |
| C9-C12 Aliphatics, Adjusted | ND(10) | ND(25) | ND(25) | ND(25) | ND(25) | ND(25) | ND(25) | ND(25) | ND(10) | ND(10) |
| **EPH (ug/L)** | | | | | | | | | | |
| C9-C18 Aliphatics | ND(42.75) | ND(250) | ND(52.5) | ND(52) | ND(50) | ND(42.75) | ND(42.75) | ND(42.75) | ND(250) | ND(250) |
| C19-C36 Aliphatics | ND(42.75) | ND(250) | ND(52.5) | ND(52) | ND(50) | ND(42.75) | ND(42.75) | ND(42.75) | ND(250) | ND(250) |
| C11-C22 Aromatics, Unadjusted | ND(42.75) | ND(75) | ND(52.5) | ND(52) | ND(50) | ND(42.75) | ND(42.75) | ND(42.75) | ND(75) | ND(75) |
| C11-C22 Aromatics, Adjusted | ND(42.75) | ND(75) | ND(52.5) | ND(52) | ND(50) | ND(42.75) | ND(42.75) | ND(42.75) | ND(75) | ND(75) |

**Abbreviations:**
- : Not analyzed
ND(2.5): Not detected; number in parentheses is one-half the laboratory reporting limit

**TABLE II - SUMMARY OF ADDITIONAL**
**GROUNDWATER QUALITY DATA**
**SPAULDING REHABILITATION HOSPITAL**
**PARCELS 6 AND 7 - FORMER CHARLESTOWN NAVY YARD**
**CHARLESTOWN, MASSACHUSETTS**
**FILE NO.: 31502-060**

| LOCATION<br>SAMPLING DATE<br>LAB SAMPLE ID<br>MATRIX | Min | Max | HA-4 (MW)<br>6/21/2006<br>Aqueous | HA-10 (MW)<br>6/21/2006<br>Aqueous | F11 (OW)<br>6/21/2006<br>Aqueous | A6 (OW)<br>6/20/2006<br>Aqueous |
|---|---|---|---|---|---|---|
| **MCP VOCs (ug/L)** | | | | | | |
| Total VOCs | ND | ND | ND | ND | ND | ND |
| **MCP SVOCs (ug/L)** | | | | | | |
| Bis(2-Ethylhexyl)phthalate | ND(2.4) | 6 | ND(2.5) | 6 | ND(2.5) | ND(2.5) |
| Total MCP SVOCs | ND(6) | 6 | ND | 6 | ND | ND |
| **MCP SVOCs by SIM (ug/L)** | | | | | | |
| Fluoranthene | ND(0.095) | 0.3 | ND(0.25) | ND(0.25) | ND(0.25) | ND(0.25) |
| Pyrene | ND(0.095) | 0.28 | ND(0.25) | ND(0.25) | ND(0.25) | ND(0.25) |
| Total MCP SVOCs by SIM | ND(0.5) | 0.58 | ND | ND | ND | ND |
| **Dissolved Metals (ug/L)** | | | | | | |
| Antimony, Dissolved | ND(1) | ND(3) | ND(3) | ND(3) | ND(3) | ND(3) |
| Arsenic, Dissolved | ND(2.5) | 11.6 | ND(15) | ND(15) | ND(15) | ND(15) |
| Barium, Dissolved | ND(5) | 100 | ND(100) | ND(100) | ND(100) | ND(100) |
| Beryllium, Dissolved | ND(2) | ND(2) | ND(2) | ND(2) | ND(2) | ND(2) |
| Cadmium, Dissolved | ND(2) | ND(2) | ND(2) | ND(2) | ND(2) | ND(2) |
| Chromium, Dissolved | ND(5) | ND(5) | ND(5) | ND(5) | ND(5) | ND(5) |
| Lead, Dissolved | ND(2.5) | 61 | ND(2.5) | ND(2.5) | 15 | ND(2.5) |
| Mercury, Dissolved | ND(0.1) | 0.1 | ND(0.1) | ND(0.1) | ND(0.1) | ND(0.1) |
| Nickel, Dissolved | ND(12.5) | 20 | ND(20) | ND(20) | ND(20) | ND(20) |
| Selenium, Dissolved | ND(5) | 25 | ND(25) | ND(25) | ND(25) | ND(25) |
| Silver, Dissolved | ND(3.5) | ND(3.5) | ND(3.5) | ND(3.5) | ND(3.5) | ND(3.5) |
| Thallium, Dissolved | ND(1) | ND(1) | ND(1) | ND(1) | ND(1) | ND(1) |
| Vanadium, Dissolved | ND(5) | ND(25) | ND(25) | ND(25) | ND(25) | ND(25) |
| Zinc, Dissolved | ND(25) | 1700 | 300 | ND(100) | ND(100) | ND(100) |
| **PCBs (ug/L)** | | | | | | |
| Total PCBs | ND | ND | ND | ND | ND | ND |
| **VPH (ug/L)** | | | | | | |
| C5-C8 Aliphatics, Unadjusted | ND(10) | ND(25) | ND(10) | ND(10) | ND(10) | ND(10) |
| C9-C12 Aliphatics, Unadjusted | ND(10) | ND(25) | ND(10) | ND(10) | ND(10) | ND(10) |
| C9-C10 Aromatics | ND(10) | ND(25) | ND(10) | ND(10) | ND(10) | ND(10) |
| C5-C8 Aliphatics, Adjusted | ND(10) | ND(25) | ND(10) | ND(10) | ND(10) | ND(10) |
| C9-C12 Aliphatics, Adjusted | ND(10) | ND(25) | ND(10) | ND(10) | ND(10) | ND(10) |
| **EPH (ug/L)** | | | | | | |
| C9-C18 Aliphatics | ND(42.75) | ND(250) | ND(250) | ND(250) | ND(250) | ND(250) |
| C19-C36 Aliphatics | ND(42.75) | ND(250) | ND(250) | ND(250) | ND(250) | ND(250) |
| C11-C22 Aromatics, Unadjusted | ND(42.75) | ND(75) | ND(75) | ND(75) | ND(75) | ND(75) |
| C11-C22 Aromatics, Adjusted | ND(42.75) | ND(75) | ND(75) | ND(75) | ND(75) | ND(75) |

**Abbreviations:**
- : Not analyzed
ND(2.5): Not detected; number in parentheses is one-half the laboratory reporting limit

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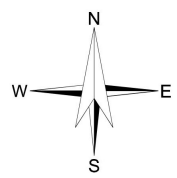


U.S.G.S. QUADRANGLE: BOSTON NORTH, MA

HALEY & ALDRICH

SPAULDING REHABILITATION HOSPITAL
PARCELS 6 AND 7 - CHARLESTOWN NAVY YARD
CHARLESTOWN, MASSACHUSETTS

# PROJECT LOCUS

SCALE: 1:24,000
NOVEMBER 2009

FIGURE 1

31502-060 1.PDF

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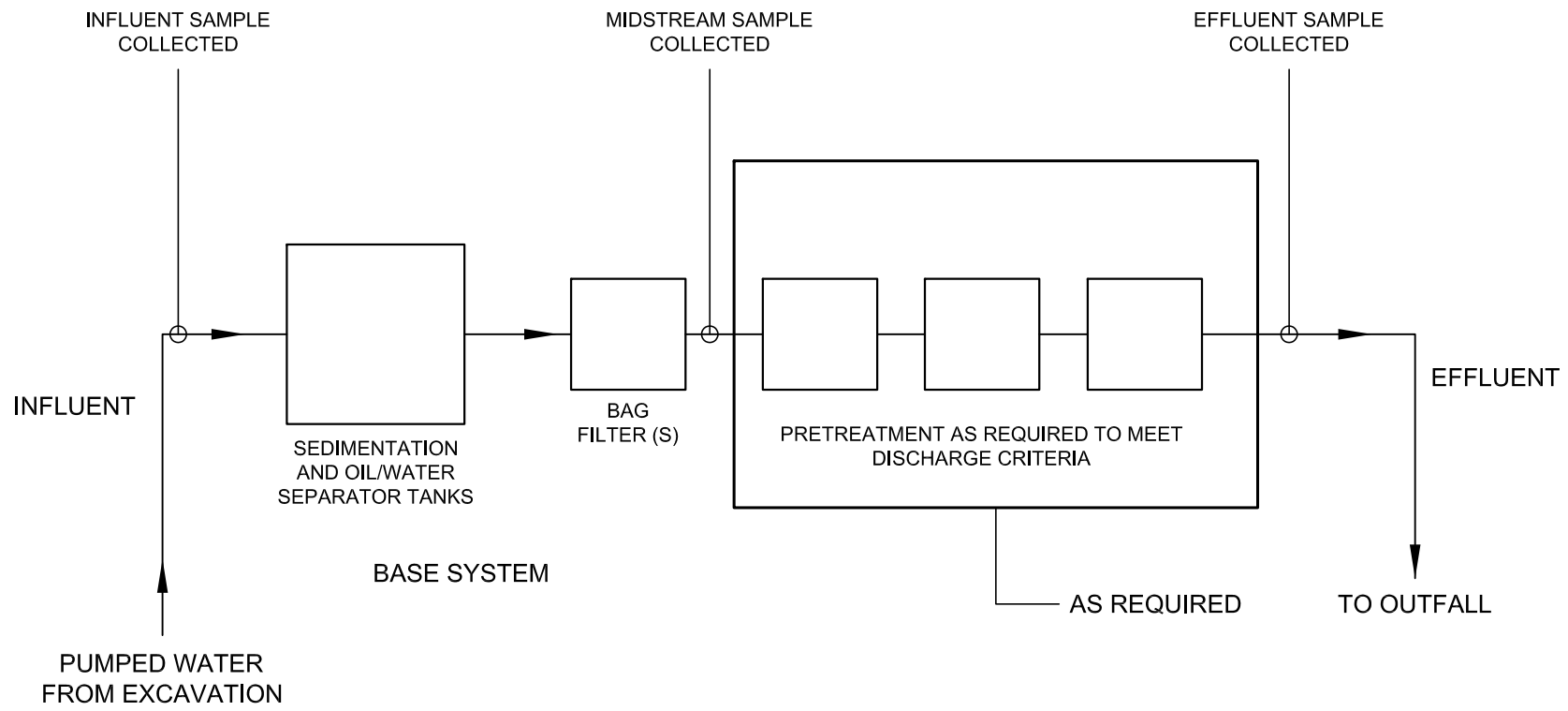



LEGEND:

→ DIRECTION OF FLOW

NOTE:

1. DETAILS OF TREATMENT SYSTEM MAY VARY FROM SYSTEM INDICATED ABOVE. SPECIFIC MEANS AND METHODS OF TREATMENT TO BE SELECTED BY CONTRACTOR. WATER WILL BE TREATED TO MEET REQUIRED EFFLUENT STANDARDS.

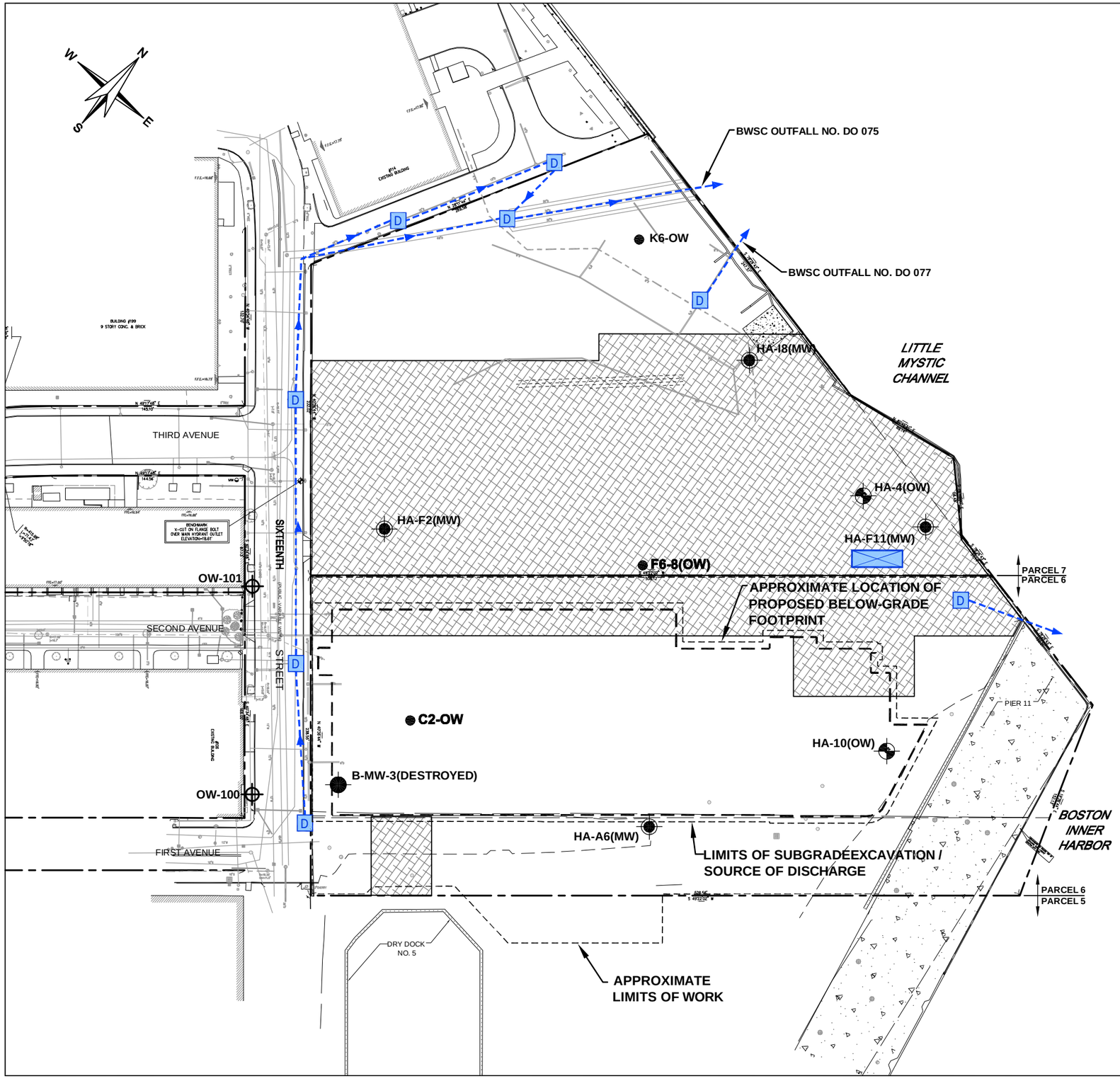
HALEY & ALDRICH

SPAULDING REHABILITATION HOSPITAL
PARCEL 6 AND 7 - CHARLESTOWN NAVY YARD
CHARLESTOWN, MASSACHUSETTS

# PROPOSED TREATMENT SYSTEM SCHEMATIC

SCALE: NONE
NOVEMBER 2009

FIGURE 2




LEGEND:

- D — APPROXIMATE LOCATION OF PROPOSED POINT OF DISCHARGE
- APPROXIMATE ROUTE OF DISCHARGE TO OUTFALL
- APPROXIMATE LOCATION OF PROPOSED TREATMENT SYSTEM
- OW-100 — DESIGNATION AND APPROXIMATE LOCATION OF OBSERVATION WELL INSTALLED BY CARR-DEE CORP. OF MEDFORD, MASSACHUSETTS AND MONITORED BY WALSH BROTHERS IN JUNE 2010
- K6-OW — DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING/MONITORING WELL INSTALLED BY NEW HAMPSHIRE BORING AND MONITORED BY HALEY & ALDRICH, INC. FROM 6 APRIL 2009 TO 29 MAY 2009
- HA-F2(MW) — DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING/MONITORING WELL INSTALLED BY NEW HAMPSHIRE BORING, INC. AND MONITORED BY HALEY & ALDRICH, INC. DURING THE PERIOD 3 APRIL 2006 TO 23 JUNE 2006.
- HA-4 — DESIGNATION AND APPROXIMATE LOCATION OF MONITORING WELL INSTALLED BY NEW HAMPSHIRE BORING, INC. AND MONITORED BY HALEY & ALDRICH, INC. ON 15 AND 16 NOVEMBER 2004.
- B-MW-1 — DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING AND MONITORING WELL INSTALLED BY BROWN & CALDWELL ON 11 AND 12 JUNE 2003.
- APPROXIMATE LIMITS OF TOXIC SUBSTANCES CONTROL ACT (TSCA) REGULATED AREA AND SOURCE OF DISCHARGE

NOTES:

1. EXISTING CONDITIONS BASE PLAN OBTAINED FROM ELECTRONIC DRAWING ENTITLED "10787-EX.DWG" AND PREPARED BY VANASSE HANGEN BRUSTLIN, INC. AND TRANSMITTED ON 5 MAY 2009.
2. PROPOSED BUILDING FOOTPRINT OBTAINED FROM ELECTRONIC DRAWING ENTITLED "UTILITY PLAN", DATED 09/04/2009, ADDENDUM #1 (9/18/09), RECEIVED FROM PERKINS + WILL, BOSTON, MASSACHUSETTS ON 26 OCTOBER 2009.

0 80 160
SCALE IN FEET

HALEY & ALDRICH

SPAULDING REHABILITATION HOSPITAL
PARCEL 6 AND 7 - CHARLESTOWN NAVY YARD
CHARLESTOWN, MASSACHUSETTS

# PROPOSED DEWATERING DISCHARGE ROUTES

SCALE: AS SHOWN
DECEMBER 2010

FIGURE 3

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**APPENDIX A**

**Notice of Intent (NOI) for Remediation General Permit (RGP)**

## 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**: Charlestown Navy Yard, Parcels 6 & 7 | | **Facility/site** mailing address: | | |
| Location of **facility/site**:<br>longitude: 42 22 43<br>latitude: 71 2 57 | Facility SIC code(s): | Street: Parcels 6 and 7<br>Intersection of First Avenue and 16th Street | | |
| b) Name of **facility/site owner:** Partners HealthCares System, Inc. | | Town: Charlestown (Boston) | | |
| Email address of facility/site owner: dburson@partners.org | | State: MA | Zip: 02129 | County: Suffolk |
| Telephone no. of facility/site **owner**: (617) 724-5233 | | | | |
| Fax no. of facility/site **owner**: | | **Owner** is (check one): 1. Federal ○ 2. State/Tribal ○<br>3. Private ◉ 4. Other ○ if so, describe: | | |
| Address of **owner** (if different from site): | | | | |
| Street: 101 Merrimac Street | | | | |
| Town: Boston | State: MA | Zip: 02114 | County: Suffolk | |
| c) Legal name of **operator**: | | **Operator** telephone no: (617) 878-4800 | | |
| Walsh Brothers Construction | | **Operator** fax no.: (617) 720-6116 | **Operator** email: jlyons@walshbrothers.com | |
| **Operator** contact name and title: Jim Lyons, Project Executive | | | | |
| Address of **operator** (if different from owner): | Street: 210 Commercial Street | | | |
| Town: Boston | State: MA | Zip: 02109 | County: Suffolk | |

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:

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.

| **Activity Category** | **Activity Sub-Category** |
|---|---|
| I - Petroleum Related Site Remediation | A. Gasoline Only Sites ☐<br>B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) ☐<br>C. Petroleum Sites with Additional Contamination ☐ |
| II - Non Petroleum Site Remediation | A. Volatile Organic Compound (VOC) Only Sites ☐<br>B. VOC Sites with Additional Contamination ☐<br>C. Primarily Heavy Metal Sites ☐ |
| III - Contaminated Construction Dewatering | A. General Urban Fill Sites ☒<br>B. Known Contaminated Sites ☒ |

| | |
|---|---|
| IV - Miscellaneous Related Discharges | A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites ☐<br>B. Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites ☐<br>C. Hydrostatic Testing of Pipelines and Tanks ☐<br>D. Long-Term Remediation of Contaminated Sumps and Dikes ☐<br>E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) ☐ |

**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:

Temporary construction dewatering in support of new below grade construction.

b) Provide the following information about each discharge:

1) Number of discharge points: 3

2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, $ft^3/s$)?
Max. flow 0.223 Is maximum flow a **design value**? Y ○ N ◉
Average flow (include units) 0.223 Is average flow a design value or estimate?

3) Latitude and longitude of each discharge within 100 feet:
pt.1: lat. 72 2 54 long. 42 22 44 pt.2: lat. 71 2 56 long. 42 22 46 ;
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):

5) Is the discharge intermittent ◉ or seasonal ○ ?
Is discharge ongoing? Y ○ N ◉

c) Expected dates of discharge (mm/dd/yy): start Dec 9, 2009 end Nov 1, 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 Figure 2 (Proposed Treatment Schematic) and Figure 3 (Proposed Dewatering Discharge Route).

**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 | 2540D | 1000 | 36000 | | | |
| 2. Total Residual Chlorine (TRC) | | ☒ | ☐ | 2 | GRAB | 4500CL-D | 20 | ND | | | |
| 3. Total Petroleum Hydrocarbons (TPH) | | ☒ | ☐ | 2 | GRAB | 1664A | 3200 | ND | | | |
| 4. Cyanide (CN) | 57125 | ☒ | ☐ | 2 | GRAB | 4500CN-CE | 5 | ND | | | |
| 5. Benzene (B) | 71432 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 6. Toluene (T) | 108883 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 7. Ethylbenzene (E) | 100414 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 8. (m,p,o) Xylenes (X) | 108883; 106423; 95476; 1330207 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 9. Total BTEX [2] | n/a | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) [3] | 106934 | ☒ | ☐ | 2 | GRAB | 504.1 | 0.5 | ND | | | |
| 11. Methyl-tert-Butyl Ether (MtBE) | 1634044 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol) | 75650 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 20 | ND | | | |

***** 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.

| 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) |
| 13. tert-Amyl Methyl Ether (TAME) | 9940508 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 14. Naphthalene | 91203 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 15. Carbon Tetrachloride | 56235 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 16. 1,2 Dichlorobenzene (o-DCB) | 95501 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 17. 1,3 Dichlorobenzene (m-DCB) | 541731 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 18. 1,4 Dichlorobenzene (p-DCB) | 106467 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 18a. Total dichlorobenzene | | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 19. 1,1 Dichloroethane (DCA) | 75343 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 20. 1,2 Dichloroethane (DCA) | 107062 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 21. 1,1 Dichloroethene (DCE) | 75354 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 22. cis-1,2 Dichloroethene (DCE) | 156592 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 23. Methylene Chloride | 75092 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 2.5 | ND | | | |
| 24. Tetrachloroethene (PCE) | 127184 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 25. 1,1,1 Trichloro-ethane (TCA) | 71556 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 26. 1,1,2 Trichloro-ethane (TCA) | 79005 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 27. Trichloroethene (TCE) | 79016 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |

| 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) |
| 28. Vinyl Chloride (Chloroethene) | 75014 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 0.5 | ND | | | |
| 29. Acetone | 67641 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 5 | ND | | | |
| 30. 1,4 Dioxane | 123911 | ☒ | ☐ | 14 | GRAB | 624 / 8260 | 250 | ND | | | |
| 31. Total Phenols | 108952 | ☒ | ☐ | 2 | GRAB | 420.1 | 30 | ND | | | |
| 32. Pentachlorophenol (PCP) | 87865 | ☒ | ☐ | 2 | GRAB | 624 / 8260 | 0.8 | ND | | | |
| 33. Total Phthalates (Phthalate esters) [4] | | ☒ | ☐ | 4 | GRAB | 624 / 8260 | 5 | ND | | | |
| 34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate] | 117817 | ☐ | ☒ | 14 | GRAB | 624 / 8260 | 5 | 6 | | | |
| 35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH) | | ☐ | ☐ | 14 | GRAB | 8270 C | | | | | |
| a. Benzo(a) Anthracene | 56553 | ☒ | ☐ | 14 | GRAB | 8270 C | 0.1 | ND | | | |
| b. Benzo(a) Pyrene | 50328 | ☒ | ☐ | 14 | GRAB | 8270 C | 0.1 | ND | | | |
| c. Benzo(b)Fluoranthene | 205992 | ☒ | ☐ | 14 | GRAB | 8270 C | 0.1 | ND | | | |
| d. Benzo(k)Fluoranthene | 207089 | ☒ | ☐ | 14 | GRAB | 8270 | 0.1 | ND | | | |
| e. Chrysene | 21801 | ☒ | ☐ | 14 | GRAB | 8270 C | 0.1 | ND | | | |
| f. Dibenzo(a,h)anthracene | 53703 | ☒ | ☐ | 14 | GRAB | 8270 C | 0.1 | ND | | | |
| g. Indeno(1,2,3-cd) Pyrene | 193395 | ☒ | ☐ | 14 | GRAB | 8270 C | 0.1 | ND | | | |
| 36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH) | | ☐ | ☐ | 14 | GRAB | | | | | | |

[4] The sum of individual phthalate compounds.

| 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) |
| h. Acenaphthene | 83329 | ☐ | ☒ | 14 | GRAB | 8270 C | 0.02 | 0.38 | | | |
| i. Acenaphthylene | 208968 | ☒ | ☐ | 14 | GRAB | 8270 C | 0.02 | ND | | | |
| j. Anthracene | 120127 | ☒ | ☐ | 14 | GRAB | 8270 C | 0.02 | ND | | | |
| k. Benzo(ghi) Perylene | 191242 | ☒ | ☐ | 14 | GRAB | 8270 C | 0.1 | ND | | | |
| l. Fluoranthene | 206440 | ☐ | ☒ | 14 | GRAB | 8270 C | 0.02 | 0.3 | | | |
| m. Fluorene | 86737 | ☒ | ☐ | 14 | GRAB | 8270 C | 0.02 | ND | | | |
| n. Naphthalene | 91203 | ☒ | ☐ | 14 | GRAB | 8270 C | 0.02 | ND | | | |
| o. Phenanthrene | 85018 | ☒ | ☐ | 14 | GRAB | 8270 C | 0.02 | ND | | | |
| p. Pyrene | 129000 | ☐ | ☒ | 14 | GRAB | 8270 C | 0.02 | 0.28 | | | |
| 37. Total Polychlorinated Biphenyls (PCBs) | 85687; 84742; 117840; 84662; 131113; 117817. | ☒ | ☐ | 14 | GRAB | 608 | 0.02 | ND | | | |
| 38. Chloride | 16887006 | ☐ | ☒ | 1 | GRAB | 1,9251 | 100 | 4,900,000 | | | |
| 39. Antimony | 7440360 | ☒ | ☐ | 2 | GRAB | 6020 | 2 | ND | | | |
| 40. Arsenic | 7440382 | ☐ | ☒ | 2 | GRAB | 6020 | 6.6 | 11.3 | | | |
| 41. Cadmium | 7440439 | ☒ | ☐ | 2 | GRAB | 6020 | 0.8 | ND | | | |
| 42. Chromium III (trivalent) | 16065831 | ☒ | ☐ | 2 | GRAB | 6020 | 2 | ND | | | |
| 43. Chromium VI (hexavalent) | 18540299 | ☒ | ☐ | 2 | GRAB | 3500CR-D | 10 | ND | | | |
| 44. Copper | 7440508 | ☐ | ☒ | 2 | GRAB | 6020 | 2 | 13.7 | | | |
| 45. Lead | 7439921 | ☐ | ☒ | 2 | GRAB | 6020 | 2 | 11.6 | | | |
| 46. Mercury | 7439976 | ☐ | ☒ | 2 | GRAB | 245.1 | 0.2 | 0.4 | | | |
| 47. Nickel | 7440020 | ☐ | ☒ | 2 | GRAB | 6020 | 2 | 4.2 | | | |
| 48. Selenium | 7782492 | ☐ | ☒ | 2 | GRAB | 6020 | 4 | 70 | | | |
| 49. Silver | 7440224 | ☒ | ☐ | 2 | GRAB | 6020 | 1.6 | ND | | | |
| 50. Zinc | 7440666 | ☐ | ☒ | 2 | GRAB | 6020 | 20 | 62.8 | | | |
| 51. Iron | 7439896 | ☐ | ☒ | 2 | GRAB | 200.7 | 50 | 5200 | | | |
| 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) |
| See Attached Table | | ☐ | ☐ | | | | | | | | |
| | | ☐ | ☐ | | | | | | | | |

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

| | |
|---|---|
| *Step 1:* 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?<br>Copper, Lead, Iron |
| *Step 2:* 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?<br>Metal: (Saltwater Discharge) DF:<br>Metal: DF:<br>Metal: DF:<br>Metal: DF:<br>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)?<br>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:

See attached Figure 2 (Proposed Treatment Schematic).

| | | | | | | |
|---|---|---|---|---|---|---|
| b) Identify each applicable treatment unit (check all that apply): | Frac. tank ☒ | Air stripper ☐ | Oil/water separator ☒ | Equalization tanks ☐ | Bag filter ☒ | GAC filter ☐ |
| | Chlorination ☐ | De-chlorination ☐ | Other (please describe): | GAC, Ion exchange, Precipitation System, if necessary | | |

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 100 gpm Maximum flow rate of treatment system 100 gpm
Design flow rate of treatment system Not Applicable gpm

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 to receiving water ☒ | Within facility (sewer) ☐ | Storm drain ☒ | Wetlands ☐ | Other (describe): |
|---|---|---|---|---|---|

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:
Effluent will be discharged to a storm drain located within or near the site, which discharges into the Little Mystic Channel/Boston Harbor.

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 SB

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water (Saltwater Discharge) 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)?

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 ◉

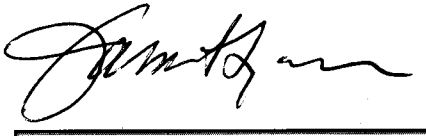
f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

**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: | Parcels 6 and 7 - Charlestown Navy Yard |
| Operator signature: |  |
| Printed Name &Title: | JAMES F. LYONS / PROJECT EXECUTIVE |
| Date: | 12/09/2010 |

**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: | Parcels 6 and 7 - Charlestown Navy Yard |
| ~~Operator~~ OWNER signature: | David S. Burgoyne |
| Printed Name &Title: | DAVID S. BURGOYNE, SR. PROJECT MGR. |
| Date: | 12.09.10 |

**APPENDIX B**

**MSDS and Fact Sheets**

# USFILTER WESTATES CARBON

# AQUACARB® 830 AND 1240

## Coal based granular activated carbon

(Formerly KG-401 and KG-502)

FOR MUNICIPAL, INDUSTRIAL AND REMEDIAL WATER TREATMENT

### Description & Applications

AquaCarb® 830 and AquaCarb® 1240 are high activity granular activated carbons manufactured from selected grades of bituminous coal. Manufactured by direct activation, they exhibit exceptional hardness and attrition resistance and have become a cost effective choice for use in municipal, industrial and remedial water treatment applications. These high surface area microporous carbons have been specifically developed for the removal of a broad range of organic contaminants from potable, waste and process waters.

- ANSI/NSF Standard 61 classified for use in potable water applications
- Fully conforms to physical, performance and leachability requirements established by the current ANSI/AWWA B604 (which includes the Food Chemical Codex requirements)
- A detailed quality assurance program guarantees consistent quality from lot to lot and shipment to shipment

### Quality Control

All AquaCarb® activated carbons are extensively quality checked at our State of California certified environmental and carbon testing laboratory located in Los Angeles, CA. USFilter's laboratory is fully equipped to provide complete quality control analyses using ASTM standard test methods in order to assure the consistent quality of all AquaCarb® carbons.

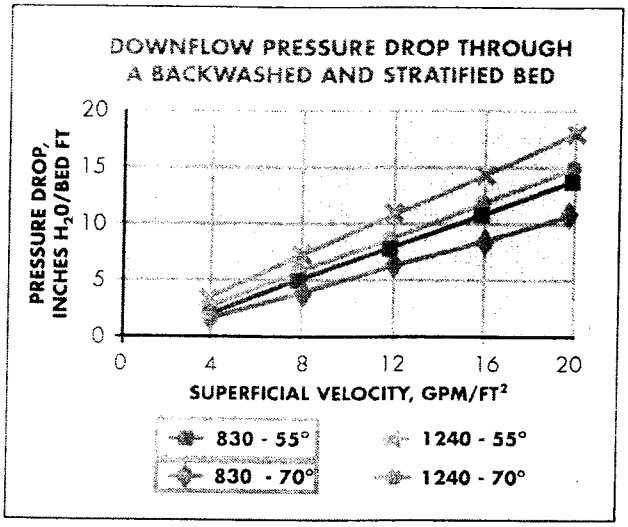
Our technical staff offers hands-on guidance in selecting the most appropriate system, operating conditions and carbon to meet your needs. For more information, contact your nearest USFilter representative.

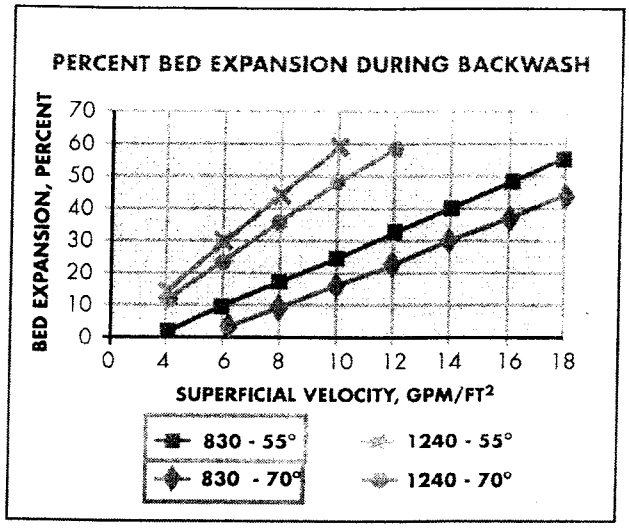
USFilter

# AQUACARB® 830
# AQUACARB® 1240

## Coal based granular activated carbon

(Formerly KG-401 and KG-502)




Safety Note: Wet activated carbon depletes oxygen from the air and therefore dangerously low levels of oxygen may be encountered. Whenever workers enter a vessel containing activated carbon, the vessel's oxygen content should be determined and work procedures for potentially low oxygen areas should be followed. Read Material Safety Data Sheet (MSDS) before using this product.

All information presented herein is believed reliable and in accordance with accepted engineering practices. USFilter makes no warranties as to the completeness of this information. Users are responsible for evaluating individual product suitability for specific applications. USFilter assumes no liability whatsoever for any special, indirect or consequential damages arising from the sale, resale or misuse of its products.

**SPECIFICATIONS/TYPICAL PROPERTIES**

| Specification | AquaCarb® 830 | AquaCarb® 1240 |
|---|---|---|
| Carbon Type | Bituminous Coal | Bituminous Coal |
| Mesh Size, U.S. Sieve | 8 x 30 | 12 x 40 |
| Effective Size, mm | 0.8 - 1.1 | 0.55 - 0.75 |
| Uniformity Coefficient (max) | 2.1 | 1.9 |
| Iodine No., $mgI_2/g$ (min.) | 900 | 1000 |
| Abrasion No., Wt. % (min.) | 80 | 80 |
| Apparent Density, g/cc | 0.46 - 0.54 | 0.46 - 0.54 |

USFilter reserves the right to change the specifications referred to in this literature at any time without prior notice. AquaCarb is a trademark of United States Filter Corporation or its affiliates.

USFilter

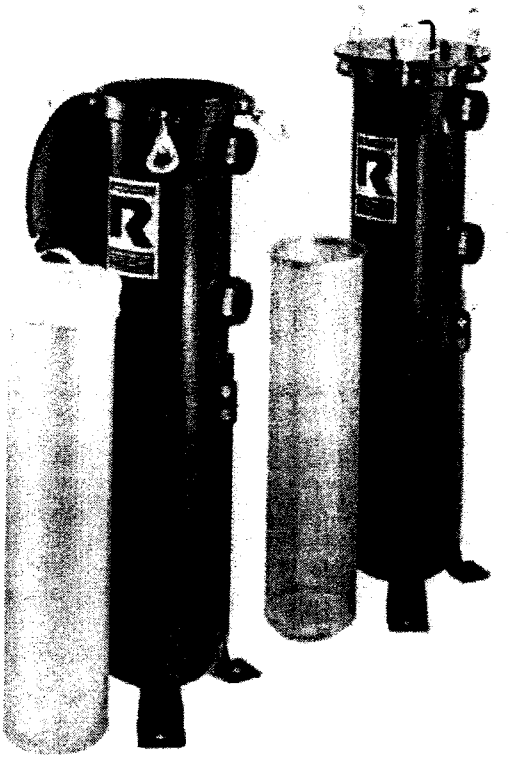
Westates
Customer and
Technical Service Network:

Gulf Coast Region 800.659.1723
*(Louisiana)* 225.744.3153
Western Region 800.659.1771
Mid-Atlantic Region 800.659.1717
Midwest Region 708.345.7290
Northwest Region 800.659.1718
Southeast Region 225.744.3153
New England Region 800.659.1717

*www.usfilter.com*

# Model NCO Bag or Cartridge Filter Housings

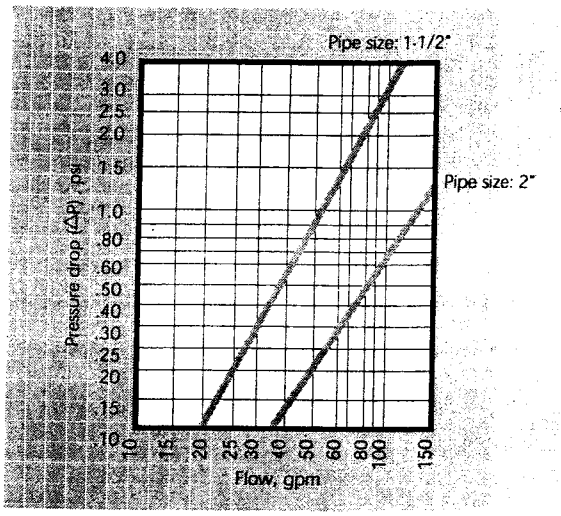
Low cost filter housings for flow rates to 100 gpm*



NCO high-capacity filters offer an exceptional value in basic filtration applications. Offered in a size 2 and size 12 bag housing, the NCO is also available with our Platinum 700 cartridge series.

NCO housings provide large dirt-holding capacity combined with a rugged design rated to 150 psi. The housings incorporate a newly designed hinged, eyenut cover that is easily removed, reducing time spent on bag or cartridge change-out. The NCO bag housing offers versatility for any piping arrangement, utilizing our unistyle design (side and bottom outlet). Two connection sizes are available for both bag and cartridge filters.

The NCO housings are electropolished creating a smooth, easy-to-clean surface. Customize them with several options including, gauges and switches. A variety of filter bags or cartridges (rated 0.5µ absolute to 100µ nominal) can be utilized in this housing. Keep your filtration process cost effective without sacrificing quality.




* Based on housing only. Fluid viscosity, filter bag used, and expected dirt loading should be considered when sizing a filter.

Permanently piped housings are opened without special tools

Carbon or stainless steel housings

Covers are O-ring sealed

O-ring seals: Buna N, EPR and Viton®

150 psi rated housing

Heavy-duty basket, over 50% open area

Uses standard number 1, 2 or 12 size bags and 500 or 700 series cartridges

Filter selection surface area is:
2.3 square feet (number 1 size bag),
4.4 square feet (number 2 size bag),
5.6 square feet (number 12 size bag)
85 square feet (500 series cartridge)
125 square feet (700 series cartridge)

1-1/2-inch or 2-inch NPT inlet and outlet

1/4-inch NPT vent connection

Adjustable leg assembly

# How To Order

Build an ordering code as shown in the example.

NSF QUALITY SYSTEM REGISTERED TO ISO 9001: 1994

**Example :** Housing: **NCO8-30 - 2P - * - 150** Options: **- C - B - PB**

**MODEL**
**NCO8** (#1, #2 bag & 500 cartridge)
**NLCO8** (#12 bag)
**NCO8135** (700 cartridge)
**NCO8135** convertible

**BASKET SIZE**
15-inch (NCO only) = **15**
30-inch (NCO or NLCO) = **30**
NCO8135 = **No Symbol**

**PIPE SIZE**
1-1/2-inch female NPT = **1-1/2P**
2-inch female NPT = **2P**

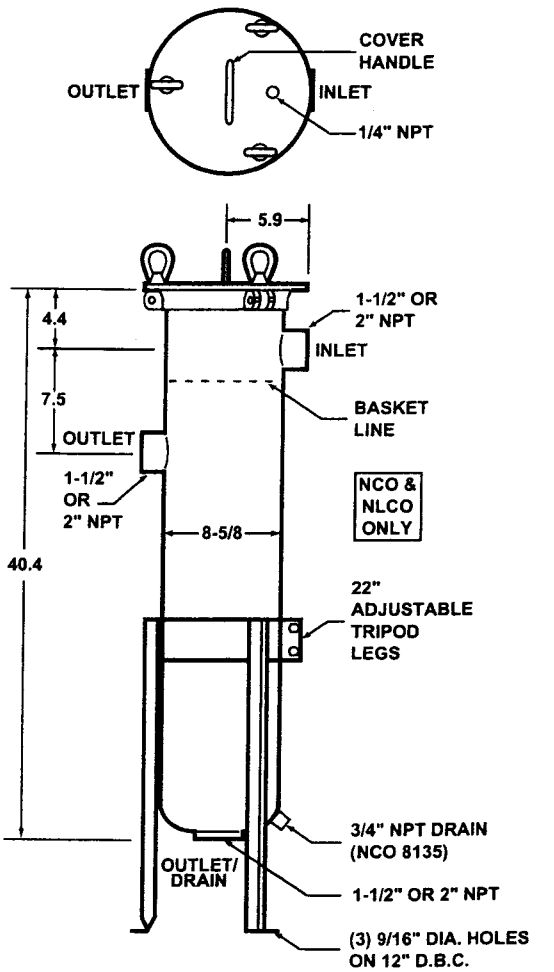
**OUTLET STYLE**
Side/Bottom Unistyle (NCO or NLCO) = *****
Bottom = **1**

**PRESSURE RATING**
150 psi = **150**

**HOUSING MATERIAL**
Carbon steel = **C**
304 Stainless steel = **S**

**COVER SEAL**
Buna N = **B**
Ethylene propylene = **E**
Viton® Fluoroelastomer = **V**

**BASKET TYPE**
Filter bag basket (NCO or NLCO) = **PB**
700 Cartridge (NCO8135) = **700**
Convertible (NCO8135) = **700PB**




1. Filter bags are specified separately. See Rosedale Master Catalog 3rd edition.
2. Basket material is compatible with housing.
3. Weight (approximately): 70 lbs.

**Rosedale Products, Inc.**
3730 W. Liberty Rd, Ann Arbor, MI 48103
Tel: 800-821-5373 or 734-665-8201
Fax: 734-665-2214
http://www.rosedaleproducts.com/
E-mail: filters@rosedaleproducts.com

Call us today for our complete catalog or visit our web site to see our entire product line.

Sheet NCO-100 5M605 Printed in USA

# RESINTECH ASM-10-HP

**ANION EXCHANGE RESIN**
**ARSENIC SELECTIVE**

**RESINTECH ASM-10-HP** is a strongly basic hybrid anion exchange resin specially formulated to selectively remove arsenic. It is supplied in the salt form as clean, moist, tough, uniform, spherical beads.

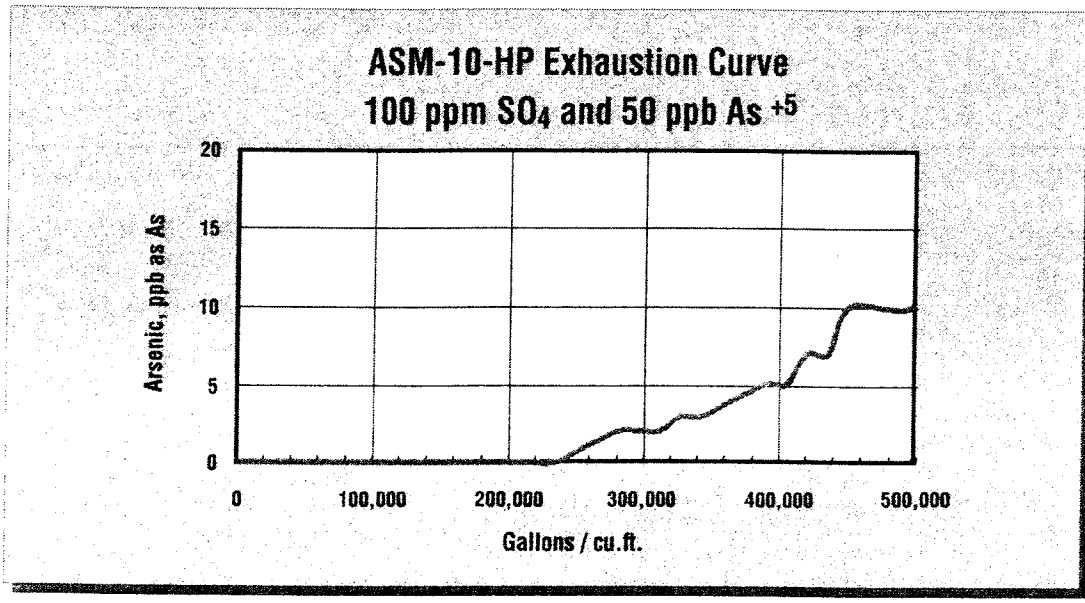
*RESINTECH ASM-10-HP* exhibits extraordinary throughput capacity in arsenic removal service on potable water supplies. Its performance is virtually unaffected by common anions, such as chlorides, bicarbonates or sulfates. It is effective over the entire pH range of potable water.

*RESINTECH ASM-10-HP* is also available in organic trap, perchlorate selective and nitrate selective configured resins. These resins are fully selective for arsenic, but still retain their original ion exchange selectivity.

## FEATURES & BENEFITS

- **TREMENDOUS AFFINITY FOR ARSENIC OVER OTHER ANIONS**
  Highest arsenic removal capacity of organic based arsenic removal media
- **MADE FROM NSF/ANSI-61 VALIDATED ANION EXCHANGE RESIN**
- **NO ARSENIC DUMPING**
  Effluent arsenic levels will not exceed influent levels if resin is operated past exhaustion point
- **EFFECTIVE ACROSS THE ENTIRE POTABLE WATER pH RANGE**
- **SINGLE USE OR REGENERABLE APPLICATIONS**
- **SUPERIOR PHYSICAL STABILITY**
  Spherical and uniform particle size provide low pressure drop and greater resistance to bed compaction. Unlike granular, coated medias, ASM-10-HP will not shed particles.

## Exhaustion Curve




1 Resintech Plaza • 160 Cooper Road • West Berlin,NJ 08091 • Phone:(856)768-9600 • Fax:(856)768-9601 • E-mail:ixresin@resintech.com • Web Site:www.resintech.com

# RESINTECH® ASM-10-HP

## PHYSICAL PROPERTIES (Cl form)

| | |
|---|---|
| Polymer Structure | Styrene with DVB |
| Functional Group | R-N-R$^+$Cl$^-$ |
| Ionic Form, as shipped | Chloride |
| Physical Form | Tough, Spherical Beads |
| Screen Size Distribution | 16 to 50 Nominal |
| - 50 mesh (U.S. Std) | Less than 1 Percent |
| pH Range | 4 to 10 |
| Water Retention | 35 to 55 Percent |
| Solubility | Insoluble |
| Approximate Shipping Weight | 44 lbs./ft$^3$ |
| Total Capacity | >1.0 meq / mL |
| Sphericity | > 93 Percent |

## WATER QUALITY GUIDELINES

Feedwater quality (aside from arsenic) should generally be of potable quality. Please consult your ResinTech technical salesman for recommendations outside the following guidelines:

| | |
|---|---|
| Conductivity | 1000 micromhos/cm |
| Chloride | 250 ppm |
| Sulfate | 250 ppm |
| pH | 5.5 to 9.5 |
| Phosphate | 5 ppm |
| Silica | 10 ppm |
| Turbidity | 5 NTU |
| Chlorine | 0.3 ppm |

## SUGGESTED OPERATING CONDITIONS

| | |
|---|---|
| Flow Rate | 2 to 10 gpm/cu. ft. |
| | 1 to 20 gpm/sq. ft. |
| Pressure Loss | 25 psi max. |
| Temperature | 170°F max. |

## OPERATING CAPACITY

Under ideal conditions, the 1st cycle throughput capacity for arsenic removal with approximately 50 ppb As$^{+5}$ in the inlet is greater than 500,000 gallons per cu. ft., while producing less than 10 ppb of effluent arsenic. The throughput capacity varies inversely with changes in the influent arsenic levels.

*RESINTECH ASM-10-HP* has modest capacity for arsenite (As$^{+3}$). It is suggested that if the arsenite concentration exceeds 20% of the total arsenic present, the feedwater should be pre-chlorinated to ensure conversion to arsenate (As$^{+5}$).

*ASM-10-HP* is also selective for other oxy-anions, such as selenate. It will remove modest amounts of both phosphate and silica.

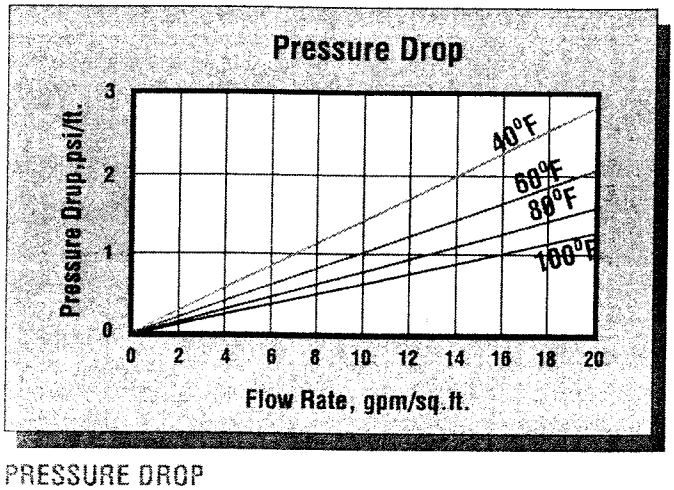
### REGENERATION

ResinTech ASM-10-HP can be partially regenerated in the field with alkaline brine. For additional information contact your local ResinTech representative.

### DISPOSAL

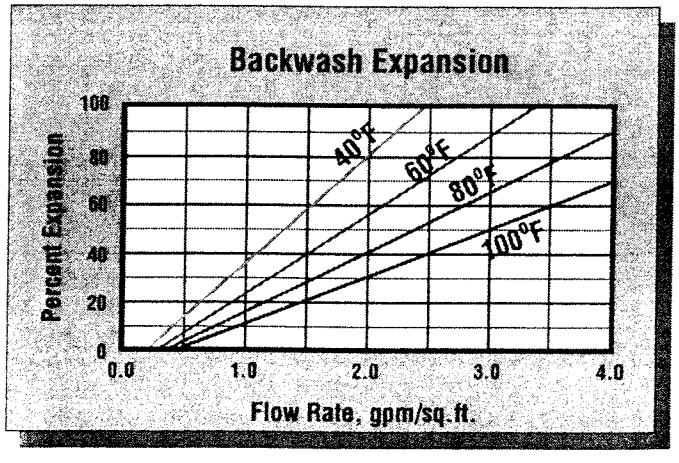
It is recommended that users review local regulations and consult with local authorities on the best method of disposal.

## HYDRAULIC PROPERTIES




### PRESSURE DROP

The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various water temperatures.




### BACKWASH

After each cycle the resin bed should be backwashed at a rate that expands the bed 50 to 75 percent. This will remove any foreign matter and reclassify the bed.

RESINTECH

# CGS

**CATION EXCHANGE RESIN**
**SOFTENING GRADE**
**Na FORM**

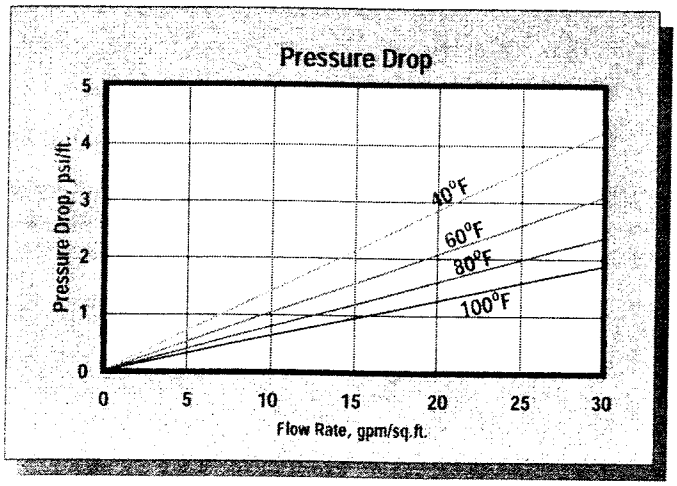
**RESINTECH CGS** is a high purity, light colored, high capacity, gel type sulfonated polystyrene cation resin supplied in the sodium form as moist, tough uniform spherical beads. *ResinTech CGS* specifically is intended for use in all water softening applications,including beverages, potable water and water used for food processing. It's high capacity and high DVB content provide long life and good chlorine resistance in all potable water applications. (It is also available as a dark colored product *RESINTECH CGS-BL* with identical properties.)

## FEATURES & BENEFITS

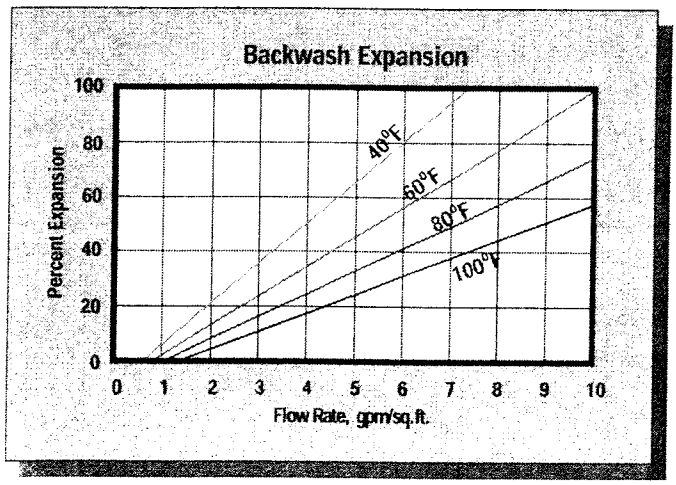
- **COMPLIES WITH FDA REGULATIONS FOR POTABLE WATER APPLICATIONS**
  Conforms to paragraph 21CFR173.25 of the Food Additives Regulations of the F.D.A.*
- **EXCELLENT REGENERATION EFFICIENCY**
  Virtually the same operating capacity as premium grade *ResinTech CG8-BL*
- **NSF/ANSI-61 VALIDATED**
- **UNIFORM PARTICLE SIZE**
  16 to plus 50 mesh range; gives a LOWER PRESSURE DROP while maintaining SUPERIOR KINETICS.
- **SUPERIOR PHYSICAL STABILITY**
  90% plus sphericity and high crush strengths together with a very uniform particle size provide greater resistance to bead breakage while maintaining low pressure drops.
- **LOW COLOR THROW**

*For potable water applications, the resin must be properly pre-treated, usually by multiple exhaustion and regeneration cycles, to insure compliance with extractable levels.

## HYDRAULIC PROPERTIES




PRESSURE DROP - The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate, at various temperatures.




BACKWASH - After each cycle the resin bed should be backwashed at a rate that expands the bed 50 to 75 percent. This will remove any foreign matter and reclassify the bed. The graph above shows the expansion characteristics of *RESINTECH CGS* in the sodium form.

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# RESINTECH® CGS

## PHYSICAL PROPERTIES

| | |
|---|---|
| Polymer Structure | Styrene Crosslinked with DVB |
| Functional Group | $R\text{-}(SO_3)^-M^+$ |
| Ionic Form, as shipped | Sodium |
| Physical Form | Tough, Spherical Beads |
| Screen Size Distribution | 16 to 50 |
| +16 mesh (U.S. Std) | < 5 percent |
| -50 mesh (U.S. Std) | < 1 percent |
| pH Range | 0 to 14 |
| Sphericity | 90+ percent |
| Uniformity Coefficient | Approx. 1.6 |
| Water Retention | |
| Sodium Form | 48 to 54 percent |
| Solubility | Insoluble |
| Shipping Weight | |
| Sodium Form | 48 lbs./cu.ft. |
| Total Capacity | |
| Sodium Form | 1.8 meq/ml min |

## SUGGESTED OPERATING CONDITIONS

| | |
|---|---|
| Maximum Temperature | |
| Sodium Form | $250^0$ F |
| Minimum Bed Depth | 24 inches |
| Backwash Rate | 50 to 75% Bed Expansion |
| Regenerant (NaCl or KCl) | |
| Concentration | 10 to 15 percent |
| Flow Rate | 0.5 to 1.5 gpm/cu.ft. |
| Contact Time | > 20 minutes |
| Level | 4 to 15 pounds/cu.ft. |
| Displacement Rate | Same as Regen Flow Rate |
| Volume | 10 to 15 gallons/cu.ft. |
| Fast Rinse Rate | Same as Service Flow Rate |
| Volume | 35 to 60 gallons/cu.ft. |
| Service Flow Rate | 2 to 10 gpm/cu.ft. |

## OPERATING CAPACITY

### Sodium Chloride (NaCl) Regeneration

The sodium cycle operating capacity of *RESINTECH CGS* for hardness removal at various regeneration levels with an influent calcium/magnesium ratio of 2/1 and a hardness level of 500 ppm, as $CaCO_3$, is shown in the following table:

| Pounds NaOH/cu.ft. | Capacity Kilograins/cu.ft. |
|---|---|
| 5 | 20.0 |
| 7.5 | 25.4 |
| 10 | 29.0 |
| 15 | 33.0 |

### Potassium Chloride (KCl) Regeneration

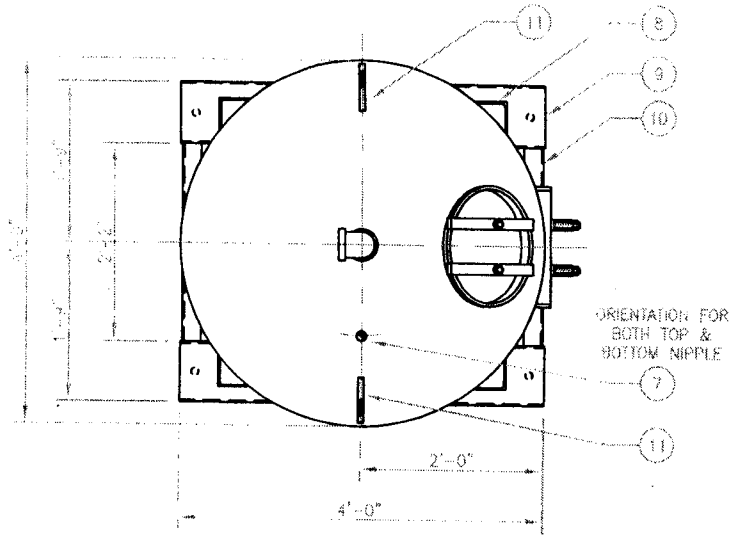
The potassium cycle operating capacity of *RESINTECH CGS* for hardness removal at various regeneration levels with an influent calcium/magnesium ratio of 2/1 and a hardness level of 500 ppm, as $CaCO_3$, is shown in the following table:

| Pounds NaOH/cu.ft. | Capacity Kilograins/cu.ft. |
|---|---|
| 5 | 16.6 |
| 7.5 | 21.8 |
| 10 | 26.6 |
| 15 | 31.2 |

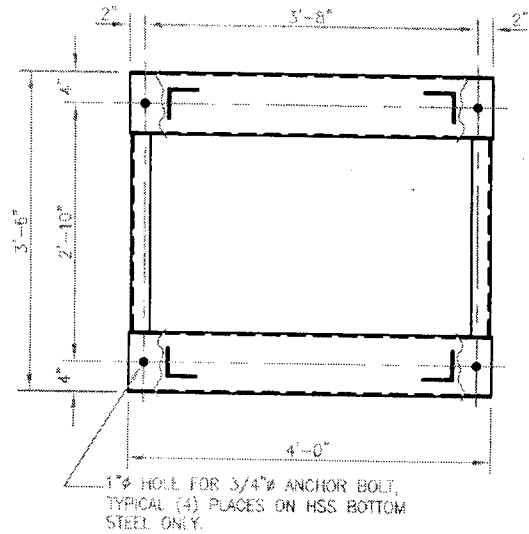
## APPLICATIONS

### Softening

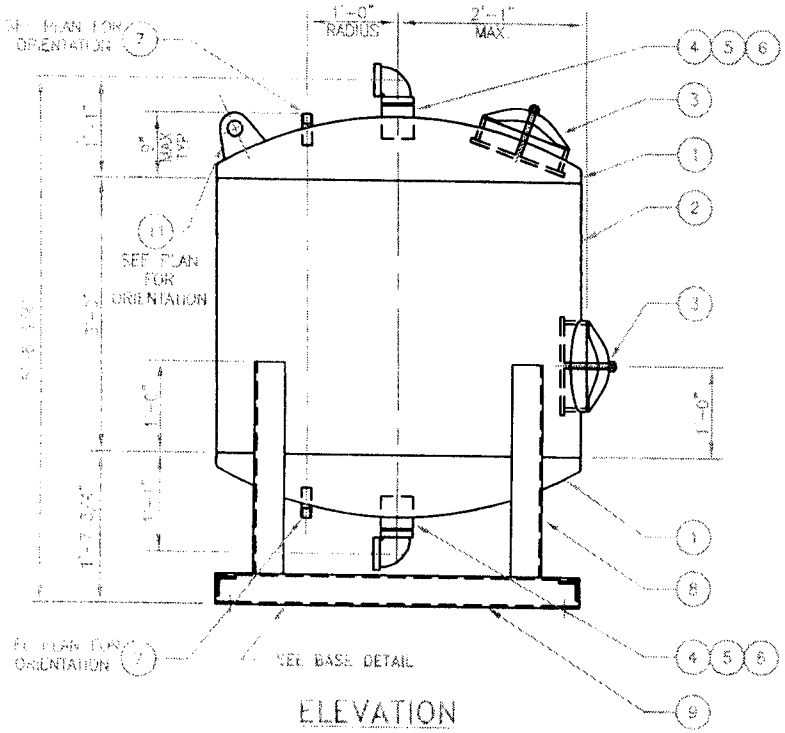
*RESINTECH CGS* is ideally suited for industrial, commercial, or residential softening applications where free chlorine is not present because of its high capacity, uniform particle size and good physical stability.




PLAN




BASE DETAIL




ELEVATION

| # | QTY. | DESCRIPTION |
|---|---|---|
| 1 | 2 | C.S. STD. Flanged&Dished Non-Code tank head 3/16" THK. |
| 2 | 1 | C.S. 3/16" THK. x 48" OD x 36" Long |
| 3 | 2 | C.S. Elliptical Non-Code Manway Assembly 12"x16" w/ 2 yoke |
| 4 | 2 | 3"ø, 150 LBS, C.S. Black Pipe Threaded Coupling |
| 5 | 2 | 3"ø, SCH 40, C.S. Close Threaded Nipple |
| 6 | 2 | 3"ø, 150 LBS, C.S. Black Pipe 90° Elbow |
| 7 | 2 | 1"ø, SCH 40, C.S. 4" Long Threaded Nipple |
| 8 | 4 | Angle 4" x 4" x 1/4" Support Leg |
| 9 | 2 | HSS 8" x 4" x 1/4" Base |
| 10 | 2 | Angle 2 1/2" x 2 1/2" x 1/4" Cross Tie |
| 11 | 2 | Lifting Lug (Design by Fabricator, See Note 2) |

**GENERAL NOTES**

1) MATERIAL SHALL BE CARBON STEEL GRADE A 36 UNLESS NOTED OTHERWISE.

2) FABRICATOR TO DESIGN LIFTING LUGS TO MEET 4000 LBS LIFTING REQUIREMENT.

3) TANK INTERIOR SHALL BE SANDBLASTED TO SSPC-SP-5 WHITE METAL FINISH, PAINTING BY OTHERS.

4) TANK EXTERIOR SANDBLASTING AND PAINTING BY OTHERS.

5) TANK SHALL BE LEVEL +/- ONE DEGREE.

6) FABRICATION TOLERANCE SHALL BE +/- (1/4) INCH.

7) UNLESS NOTED OTHERWISE, ALL WELDS SHALL BE SEAL WELD, ALL JOINTS SHALL BE WELDED BOTH SIDE WHERE APPLICABLE.

8) STEEL PLATES JOINING METHOD SHOWN ARE INTENDED FOR REFERENCES ONLY, FINAL STEEL JOINING METHOD SHALL BE DETERMINE BY FABRICATOR TO SUIT THEIR SHOP PREFERENCES.

9) THE TANK SHALL BE PRESSURE TESTED TO HOLD WATER AT FULL CAPACITY AT 75 PSI PRIOR SHIPMENT.

10) THIS DRAWINGS IS THE PROPERTY OF GROUND/WATER TREATMENT & TECHNOLOGY, INC

| NO. | REVISIONS | DATE |
|---|---|---|
| A | FOR QUOTATION | 06/28/05 |

# 1000 LBS LIQUID PHASE ADSORPTION TANK GENERAL ARRANGEMENT & DETAILS

| | | | |
|---|---|---|---|
| SCALE: | NONE | APPROVED: | DRAWN BY: TLo |
| DATE: | 06/27/05 | | |

GROUNDWATER TREATMENT & TECHNOLOGY
P.O. BOX 1174
DENVILLE, NJ 07834

FILE: 11-1181 DRAWING NUMBER: M-01

# SBG1

**ANION EXCHANGE RESIN**
**TYPE ONE GEL**
**Cl OR OH FORM**

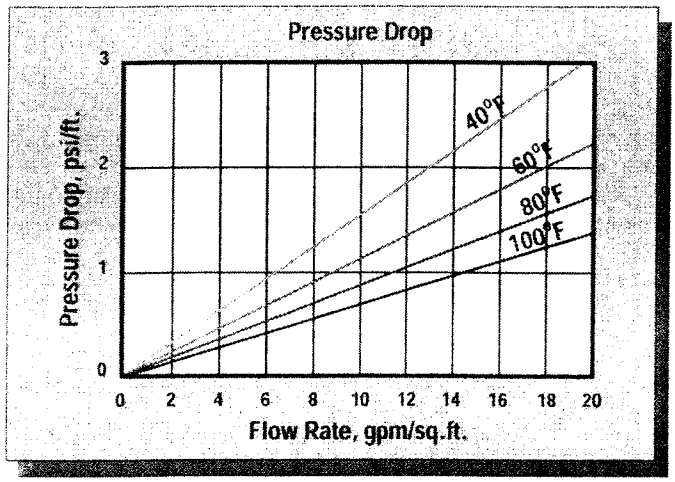
**ResinTech SBG1** is a high capacity, shock resistant, gelular, Type 1, strongly basic anion exchange resin supplied in the chloride or hydroxide form as moist, tough, uniform, spherical beads. *ResinTech SBG1* is intended for use in all types of deionization systems and chemical processing applications. It is similar to *ResinTech SBG1P* but has a higher volumetric capacity and exhibits lower TOC leach rates. This makes it the better performer in single use applications such as in cartridge deionization and when high levels of regeneration are used such as in polishing mixed beds. On the other hand, *ResinTech SBG1P* is more resistant to organic fouling and gives higher operating capacities at low regeneration levels such as those used in make up demineralizers.

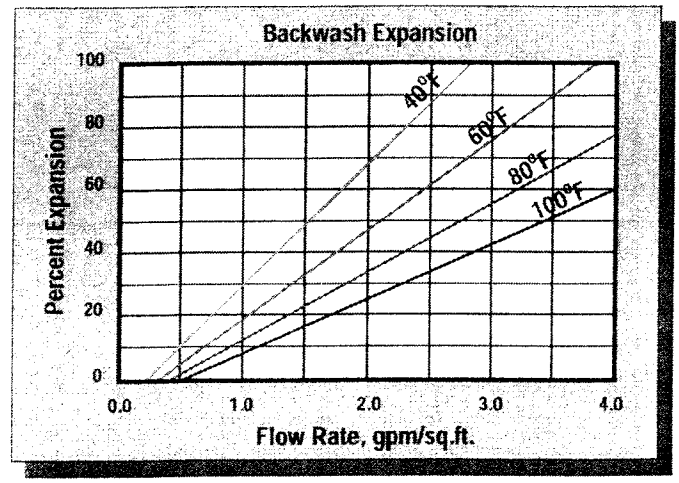
## FEATURES & BENEFITS

- **COMPLIES WITH FDA REGULATIONS FOR POTABLE WATER APPLICATIONS.**
  Conforms to paragraph 21CFR173.125 of the Food Additives Regulations of the F.D.A.*
- **HIGH TOTAL CAPACITY**
  Provides longer run lengths in single use applications or where high levels of regeneration are used such as in mixed bed polishers, cartridge demineralizers.
- **UNIFORM PARTICLE SIZE**
  16 to plus 50 mesh range; gives a LOWER PRESSURE DROP while maintaining SUPERIOR KINETICS.
- **SUPERIOR PHYSICAL STABILITY**
- **LOWER TOC LEACH RATE**
  Makes it ideal for polishing mixed beds in wafer washing and other high purity water polishing applications.

*For potable water applications, the resin must be properly pre-treated, usually by multiple exhaustion and regeneration cycles, to ensure compliance with extractable levels.

## HYDRAULIC PROPERTIES




### PRESSURE DROP

The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate, at various temperatures.

### BACKWASH

After each cycle the resin bed should be backwashed at a rate that expands the bed 50 to 75 percent. This will remove any foreign matter and reclassify the bed. The graph above shows the expansion characteristics of *ResinTech SBG1* in the sodium form.

1 Resintech Plaza · 160 Cooper Road · West Berlin NJ 08091 · Phone:(856)768-9600 · Fax:(856)768-9601 · E-mail:ixresin@resintech.com · Web Site:www.resintech.com

# RESINTECH® SBG1

## PHYSICAL PROPERTIES

| | |
|---|---|
| Polymer Structure | Styrene Crosslinked with DVB |
| Functional Group | R-N-$(CH_3)_3{}^+Cl^-$ |
| Ionic Form, as shipped | Chloride or Hydroxide |
| Physical Form | Tough, Spherical Beads |
| Screen Size Distribution | 16 to 50 |
| +16 mesh (U.S. Std) | < 5 percent |
| -50 mesh (U.S. Std) | < 1 percent |
| pH Range | 0 to14 |
| Sphericity | > 93 percent |
| Uniformity Coefficient | Approx. 1.6 |
| Water Retention | |
| Chloride Form | 43 to 50 percent |
| Hydroxide Form | Approx. 53 to 60 percent |
| Solubility | Insoluble |
| Approximate Shipping Weight | |
| Cl Form | 44 lbs/cu.ft. |
| OH Form | 41 lbs/cu.ft. |
| Swelling Cl- to OH- | 18 to 25 percent |
| Total Capacity | |
| Cl Form | 1.45 meq/ml min |
| OH Form | 1.15 meq/ml min |

## SUGGESTED OPERATING CONDITIONS

| | |
|---|---|
| Maximum Continuous Temperature | |
| Hydroxide Form | 140°F |
| alt Form | 170°F |
| Minimum Bed Depth | 24 inches |
| Backwash Rate | 50 to 75 percent Bed Expansion |
| Regenerant Concentration* | 2 to 6 percent |
| Regenerant Flow Rate | 0.25 to 1.0 gpm/cu.ft. |
| Regenerant Contact Time | At least 40 Minutes |
| Regenerant Level | 4 to 10 pounds/cu.ft. |
| Displacement Rinse Rate | Same as Regenerant Flow Rate |
| Displacement Rinse Volume | 10 to 15 gals/cu.ft. |
| Fast Rinse Rate | Same as Service Flow Rate |
| Fast Rinse Volume | 35 to 60 gals/cu.ft. |
| Service Flow Rates | |
| Polishing Mixed Beds | 3 to 15 gpm/cu.ft. |
| Non-Polishing Apps. | 2 to 4 gpm/cu.ft. |

## OPERATING CAPACITY

The operating capacity of *RESINTECH SBG1* for a variety of acids at various regeneration levels when treating an influent with a concentration 500 ppm, expressed as $CaCO_3$ is shown in the following table:

| Pounds NaOH/ft³ | Capacity Kilograms per cubic foot | | | |
|---|---|---|---|---|
| | HCl | $H_2SO_4$ | $H_2SiO_3$ | $H_2CO_3$ |
| 4 | 11.3 | 14.0 | 14.7 | 18.6 |
| 6 | 12.8 | 16.3 | 17.3 | 19.8 |
| 8 | 14.3 | 13.3 | 19.5 | 21.6 |
| 10 | 15.5 | 20.0 | 22.2 | 22.2 |

## APPLICATIONS

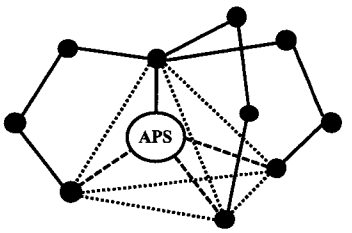
**DEMINERALIZATION** – *RESINTECH SBG1* is highly recommended for use in mixed bed demineralizers, wherever complete ion removal; superior physical and osmotic stability and low TOC leachables are required such as in wafer fabrication and other ultrapure applications.

*RESINTECH SBG1* has high total capacity and low swelling on regeneration and provides maximum operating capacity in cartridge deionization applications. It is ideal for single use applications such as precious metal recovery, radwaste disposal and purification of toxic waste streams.

Highly crosslinked Type 1, styrenic anion exchangers have greater thermal and oxidation resistance than other types of strong base resins. They can be operated and regenerated at higher temperatures. The combination of lower porosity, high total capacity and Type 1 functionality make *RESINTECH SBG1* the resin of choice when water temperatures exceed 85°F and where the combination of carbon dioxide, borate and silica exceed 40% of the total anions.

*RESINTECH SBG1P* and *RESINTECH SBG1* are quite similar; the difference between them is the degree of porosity. *RESINTECH SBG1P* has greater porosity that gives it faster kinetics, and greater ability to reversibly sorb slow moving ions such as Naturally occurring Organic Matter (NOM). At lower regeneration levels and where chlorides make up a substantial portion of the anion load, or where the removal and elution of naturally occurring organics is of concern *RESINTECH SBG1P*, SBACR or SBG2 should be considered. At the higher regeneration levels used in mixed bed polishers *RESINTECH SBG1* provides higher capacity, and the lowest possible TOC leach rates.

# Applied Polymer Systems, Inc.




# Material Safety Data Sheet

## 1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

**Product Name:** APS 702aa Floc Log

**Supplied:**
Applied Polymer Systems, Inc.
519 Industrial Drive
Woodstock, GA 30189
www.siltstop.com
Tel. 678-494-5998
Fax. 678-494-5298

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Identification of the preparation:** Anionic water-soluble Co-polymer gel

## 3. HAZARD IDENTIFICATION

**Placement of these materials on wet walking surface will create extreme slipping hazard.**

## 4. FIRST AID MEASURES

**Inhalation:** None

**Skin contact:** Contact with wet skin could cause dryness and chapping. Wash with soap and water. Use of rubber gloves required.

**Eye contact:** Rinse thoroughly with plenty of water, also under the eyelids, seek medical attention in case of persistent irritation.

**Ingestion:** Consult a physician

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Water, water spray, foam, carbon dioxide, dry powder.

**Special fire-fighting precautions:** Floc Logs that become wet render surfaces extremely slippery.

**Protective equipment for firefighters:** No special equipment required.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** No special precautions required.

**Methods for cleaning up:** Dry wipe as well as possible. Keep in suitable and closed containers for disposal. After cleaning, flush away traces with water.

## 7. HANDLING AND STORAGE

**Handling:** Avoid contact with skin and eyes. Wash hands after handling.

**Storage:** Keep in a cool, dry place.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering controls:** Use dry handling areas only.

**Personal protection equipment**

| | |
|---|---|
| **Respiratory Protection:** | None |
| **Hand protection:** | Dry cloth, leather or rubber gloves. |
| **Eye Protection:** | Safety glasses with side shields. Do not wear contact lenses. |
| **Skin protection:** | No special protective clothing required. |
| **Hygiene measures:** | Wash hands before breaks and at end of work day. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| **Form:** | Granular semi-solid gel |
| **Color:** | White to Brown |
| **Odor:** | None |
| **pH:** | 7.89 |
| **Melting point:** | N/A |
| **Flash point:** | N/A |
| **Vapor density:** | N/A |

## 10. STABILITY AND REACTIVITY

**Stability:** Product is stable, no hazardous polymerization will occur.

**Materials to avoid:** Oxidizing agents may cause exothermic reactions.

**Hazardous decomposition products:** Thermal decomposition may produce nitrogen oxides (NOx), carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

**Oral:**

LC 50/*Daphnia Magna*/48h/>420mg/L

**Inhalation:** None

## 12. ECOLOGICAL INFORMATION

**Water Flea:** LC 50/*Daphnia Magna*/48h/>420mg/l

**Algae:** EC 50/*Selenastrum capricornutum*/96h>500mg/l

**Bioaccumulation:** The product is not expected to bioaccumulate.

**Persistence / degradability:** Not readily biodegradable: ( ~85% after 180 days ).

## 13. TRANSPORT AND REGULATORY INFORMATION

**Not regulated by DOT,** **RCRA status-Not a hazardous waste**

**NFPA and HMIS ratings:**

| | | | | | | |
|---|---|---|---|---|---|---|
| **NFPA** | **Health:** | **3** | **Flammability:** | **0** | **Reactivity:** | **1** |
| **HMIS** | **Health** | **2** | **Flammability** | **0** | **Reactivity** | **1** |

Back

# Floc Log Specifications:

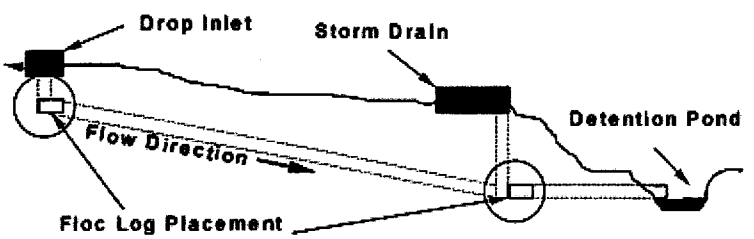
**Floc Log Specifications:**
ANSI/NSF Standard Drinking Water Treatment Chemical Additives
EPA/600/R-98/182 168 Hr. Chronic Toxicity Test (Pimephales promelas)
EPA/600/4-90/027F 48Hr. Acute Static Screen Toxicity Test (Daphnia Magna)

APS, Inc. currently has over (40) types of Floc Log ®. Each are designed for specific soils or lithologies. Each Floc Log ® is tailored for the specific requirement of water chemistry and soil within your geographical area. Most soils within EPA Region 4 have been classified and will not require a soil and water sample. Areas outside EPA Region 4 will require a soil and water sample. There is no charge for this analysis.

Floc Log ® is available in two forms, clarifier and particle. Clarifier Floc Log ® is used for colloidal water and very fine suspended particles. Particle Floc Log ® is used for heavily particle laden water in areas before sediment traps and sediment ponds.

**Enhancement tools and Engineering designs are available on request:**
**APS Particle Curtain, APS Soft Armor,**
**APS Floc Log Mix Tank, APS Byron Box**

**Consult your local distributor or Applied Polymer Systems, Inc. for proper Floc Log © type, correct application and other Silt Stop products.**




**Applied Polymer Systems, Inc.**
519 Industrial Drive • Woodstock, GA 30189
**678.494.5998**
info@siltstop.com

**APPENDIX C**

**Best Management Practices Plan (BMPP)**

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**
**REMEDIATION GENERAL PERMIT**
**SPAULDING REHABILITATION HOSPITAL**
**PARCELS 6 AND 7 - CHARLESTOWN NAVY YARD**
**CHARLESTOWN, MASSACHUSETTS**

# Best Management Practices Plan

A Notice of Intent for a Remediation General Permit (RGP) under the National Pollutant Discharge Elimination System (NPDES) has been submitted to the US Environmental Protection Agency (EPA) in anticipation of temporary construction dewatering planned to occur at the Former Charlestown Navy Yard Parcels 6 and 7 project site located in Charlestown, Massachusetts. This Best Management Practices Plan (BMPP) has been prepared as an Appendix to the RGP and will be posted at the site during the time period that temporary construction dewatering is occurring at the site.

## Water Treatment and Management

Construction dewatering effluent is anticipated to be pumped from well points installed in sump pits within the excavation, through hoses, and directly into a tank for sedimentation control. The effluent will then flow through any necessary treatment systems and discharge through hoses to catch basins on site that discharge to the Boston Inner Harbor or the Little Mystic Channel. Dewatering effluent treatment may consist of bag filters, granular activated carbon (GAC), ion exchange, or precipitation, as required.

## Discharge Monitoring and Compliance

Regular sampling and testing will be conducted at the influent to the system and the treated effluent as required by the RGP. This includes chemical testing required within the first month of discharging, and the monthly testing to be conducted through the end of the scheduled discharge.

Monitoring will include checking the condition of the treatment system, assessing the need for treatment system adjustments based on monitoring data, observing and recording daily flow rates and discharge quantities, and verifying the flow path of the discharged effluent.

The total monthly flow will be monitored by checking and documenting the flow through the flow meter to be installed on the system. Flow will be maintained below the “system design flow” by regularly monitoring flow and adjusting the amount of construction dewatering as needed.

Monthly monitoring reports will be compiled and maintained at the site.

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**
**REMEDIATION GENERAL PERMIT**
**SPAULDING REHABILITATION HOSPITAL**
**PARCELS 6 AND 7 - CHARLESTOWN NAVY YARD**
**CHARLESTOWN, MASSACHUSETTS**

## System Maintenance

A number of methods will be used to minimize the potential for violations for the term of this permit. Scheduled regular maintenance of the treatment system will be conducted to verify proper operation. Regular maintenance will include checking the condition of the treatment system equipment such as the fractionization tanks, filters, hoses, pumps, and flow meters. Equipment will be monitored daily for potential issues or unscheduled maintenance requirements.

Employees who have direct or indirect responsibility for ensuring compliance with the RGP will be trained by the Operator.

## Miscellaneous Items

It is anticipated that the excavation support system, erosion control measures, and the nature of the site and surrounding infrastructure will minimize potential runoff to or from the site. The project specifications also include requirements for erosion control. Site security for the treatment system will be covered within the overall site security plan.

No adverse affects on designated uses of surrounding surface water bodies is anticipated. The nearest surface water body is the Boston Harbor (Little Mystic Channel/Inner Boston Harbor), which borders the northern and eastern limit of the site. Dewatering effluent will be pumped to a sedimentation tank and bag filter, at a minimum, prior to discharge to the storm drains.

## Management of Treatment System Materials

Dewatering effluent will be pumped directly to the treatment system from the excavation with use of hoses and sumps to minimize handling. The Contractor will establish staging areas for equipment or materials storage that may be possible sources of pollution away from any dewatering activities, to the extent practicable.

Sediment from the fractionization tank used in the treatment system will be characterized and removed from the site to an appropriate receiving facility, in accordance with applicable laws and regulations. If used, granular activated carbon and/or ion exchange resin may be recycled and/or removed from the site to an appropriate receiving facility. Bag filters, if used, will be disposed of as necessary.

**Appendix D**

**National Register of Historic Places and**
**Massachusetts Historical Commission Documentation**

# The Commonwealth of Massachusetts

William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission



September 30, 2009

Secretary Ian A. Bowles
EOEEA
MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Attn: William Gage, MEPA Unit

RE: Spaulding Rehabilitation Hospital, DEIR, Boston; MHC# 40432; EOEA# 13861

Dear Secretary Bowles:

The Massachusetts Historical Commission (MHC) has reviewed the Final Environmental Impact Report (FEIR) for the above referenced project and have the following comments. The proposed project site is within the Charlestown Navy Yard, which is listed in the State and National Registers of Historic Places and is a National Historic Landmark. The MHC, the General Services Administration, the Advisory Council on Historic Preservation and the Boston Redevelopment Authority entered into a Memorandum of Agreement (MOA) concerning the rehabilitation, restoration, demolition and new construction activities in the Navy Yard. Pursuant to this agreement, the MHC must review and approve new construction.

The proposed construction will occur on Parcel 6 and will involve the development of a 150-bed, state-of-the art rehabilitation hospital facility. The project will include 300 underground parking spaces, Harborwalk, and exterior public open space.

The building design elements presented in the FEIR design generally appear to conform to the Design Guidelines set forth as part of the stipulations of the MOA. The information provided in the FEIR shows the building's relationship to its surrounding historic context while also appearing as clearly new construction. MHC looks forward to review of the specific materials and color palette for each of the building components when they become available.

These comments are offered to assist in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800), M.G.L. Chapter 9, Section 26-27C (950 CMR 71.00), the MOA for the Navy Yard and MEPA. Please do not hesitate to contact Brandee Loughlin of my staff if you have any questions.

Sincerely,

Brona Simon

Brona Simon
Acting Executive Director
Deputy State Historic Preservation Officer
Massachusetts Historical Commission

xc: Judith C. Waterston, Spaulding Rehabilitation Hospital Network
Boston Redevelopment Authority
Boston Landmarks Commission
Terry Savage, National Park Service

220 Morrissey Boulevard. Boston, Massachusetts 02125
(617) 727-8470 • Fax: (617) 727-5128
www.sec.state.ma.us/mhc

## Index by State and City

National Register Information System 08/27/2009 11:28:23

**No filter** Include filter in navigation ☐

| Row | STATE | COUNTY | RESOURCE NAME | ADDRESS | CITY | LISTED | MULTIPLE |
|---|---|---|---|---|---|---|---|
| 1 | MA | Suffolk | **Hoosac Stores 1 & 2-Hoosac Stores 3** | 25 and 115 Water St. | Charlestown | 1985-08-14 | |

Page 1

First Page Next Page Refresh Export

# Massachusetts Historical Commission

William Francis Galvin, Secretary of the Commonwealth



## Massachusetts Cultural Resource Information System

## MACRIS

The Massachusetts Cultural Resource Information System (MACRIS) allows you to search the Massachusetts Historical Commission database for information on historic properties and areas in the Commonwealth.

Users of the database should keep in mind that it does not include information on all historic properties and areas in Massachusetts, nor does it reflect all the information on file on historic properties and areas at the Massachusetts Historical Commission.

**Click here to begin your search of the MACRIS database.**

# Massachusetts Cultural Resource Information System
## MACRIS

MHC Home | MACRIS Home

| | |
|---|---|
| **Inventory No:** | BOS.CO |
| **Historic Name:** | Boston Naval Shipyard |
| **Common Name:** | Charlestown Navy Yard - Boston Navy Yard |
| **Address:** | |
| **City/Town:** | Boston |
| **Village/Neighborhood:** | Charlestown; Charlestown East |
| **Local No:** | |
| **Year Constructed:** | |
| **Architect(s):** | Baldwin, C. Loammi; Billings, Joseph E.; Parris, Alexander; Treadwell, Daniel |
| **Architectural Style(s):** | |
| **Use(s):** | Military Other; Museum; Other Water Related; Ship Yard |
| **Significance:** | Archaeology, Historic; Architecture; Economics; Engineering; Industry; Invention; Landscape Architecture; Military; Politics Government; Social History; Transportation |
| **Area(s):** | |
| **Designation(s):** | Nat'l Historic Landmark (11/15/1966); Nat'l Register District (11/15/1966) |

New Search Previous

MHC Home | MACRIS Home

# National Register Research

**National Register of Historic Places database**

Since its inception in 1966, more than 80,000 properties have been listed in the National Register. Together these records hold information on more than 1.4 million individual resources--buildings, sites, districts, structures, and objects--and therefore provide a link to the country's heritage at the national, state, and local levels.

**The Documentation** consists of

- National Register registration form, which provides a physical description of the place, information about its history and significance, and a bibliography.
- Photographs
- Maps (We are plotting our properties into **Google Earth layers**)

Examine sample National Register nominations by looking at our **Sample Nominations** page or a highlighted property in our **weekly list.**

**Research our Collection:**

- We are currently digitizing our records and have put many of them online in our **database at: http://nrhp.focus.nps.gov/**
- Our older database, the NRIS, is still online at: **http://www.nr.nps.gov/.** The NRIS is good for looking at MPS covers.
- Visit our archives. Open Monday through Friday 9:00am to noon . For security reasons, an appointment is necessary to access our building. To schedule an appointment please contact Ricah Marquez: 202-354-2226 or **e-mail**
- Many State Historic Preservation Offices (SHPOs) have digitized their files and put them online. The depth of information available varies from state to state, but ranges from basic locational information to searchable databases with downloadable narrative descriptions and photos. You can check their websites to see if they have the information you need. **List of SHPOs extended information.**
- Request copies of individual nominations either via **e-mail** please include your mailing address and the property name, county, and state. or postal mail:
  National Register of Historic Places
  National Park Service
  1839 C St., NW (MS 2280)
  Washington, DC 20240

  **Please note**, due to irradiation of USPS mail in Washington, DC, we recommend sending official correspondence to us by direct or overnight mail at the following address:

  1201 Eye St., NW
  8th Floor (MS 2280)
  Washington, DC 20005

Did You Know? Joachim de Brum House
The Joachim de Brum House is the only plantation home in the Marshall Islands. Wealthy foreigners and their servants used Brum House over the years. It reflects the architecture and style of the native culture.

**APPENDIX E**

**Endangered Species Act Documentation**

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**
**REMEDIATION GENERAL PERMIT**
**SPAULDING REHABILITATION HOSPITAL**
**PARCELS 6 AND 7 - CHARLESTOWN NAVY YARD**
**CHARLESTOWN, MASSACHUSETTS**

## Endangered Species Act Review

In accordance with the NPDES Remediation General Permit Appendix VII, Section D "The Steps To Determine if the ESA Eligibility Criteria Can Be Met", no endangered species or threatened species or critical habitat are in the proximity of this project site or the points of discharge as verified in the attached ESA Section 7 letter, dated 30 November 2010. The project site meets Criterion A.

# United States Department of the Interior

FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5087
http://www.fws.gov/newengland

January 4, 2010

To Whom It May Concern:

This project was reviewed for the presence of federally-listed or proposed, threatened or endangered species or critical habitat per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website:

(http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm)

Based on the information currently available, no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service (Service) are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under Section 7 of the Endangered Species Act is not required.

This concludes the review of listed species and critical habitat in the project location(s) and environs referenced above. No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your cooperation. Please contact Mr. Anthony Tur at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office

# FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN MASSACHUSETTS

| COUNTY | SPECIES | FEDERAL STATUS | GENERAL LOCATION/HABITAT | TOWNS |
|---|---|---|---|---|
| Barnstable | Piping Plover | Threatened | Coastal Beaches | All Towns |
| | Roseate Tern | Endangered | Coastal beaches and the Atlantic Ocean | All Towns |
| | Northeastern beach tiger beetle | Threatened | Coastal Beaches | Chatham |
| | Sandplain gerardia | Endangered | Open areas with sandy soils. | Sandwich and Falmouth. |
| | Northern Red-bellied cooter | Endangered | Inland Ponds and Rivers | Bourne (north of the Cape Cod Canal) |
| Berkshire | Bog Turtle | Threatened | Wetlands | Egremont and Sheffield |
| Bristol | Piping Plover | Threatened | Coastal Beaches | Fairhaven, Dartmouth, Westport |
| | Roseate Tern | Endangered | Coastal beaches and the Atlantic Ocean | Fairhaven, New Bedford, Dartmouth, Westport |
| | Northern Red-bellied cooter | Endangered | Inland Ponds and Rivers | Raynham and Taunton |
| Dukes | Roseate Tern | Endangered | Coastal beaches and the Atlantic Ocean | All Towns |
| | Piping Plover | Threatened | Coastal Beaches | All Towns |
| | Northeastern beach tiger beetle | Threatened | Coastal Beaches | Aquinnah and Chilmark |
| | Sandplain gerardia | Endangered | Open areas with sandy soils. | West Tisbury |
| Essex | Small whorled Pogonia | Threatened | Forests with somewhat poorly drained soils and/or a seasonally high water table | Gloucester, Essex and Manchester |
| | Piping Plover | Threatened | Coastal Beaches | Glocester, Essex, Ipswich, Rowley, Revere, Newbury, Newburyport and Salisbury |
| Franklin | Northeastern bulrush | Endangered | Wetlands | Montague |
| | Dwarf wedgemussel | Endangered | Mill River | Whately |
| Hampshire | Small whorled Pogonia | Threatened | Forests with somewhat poorly drained soils and/or a seasonally high water table | Hadley |
| | Puritan tiger beetle | Threatened | Sandy beaches along the Connecticut River | Northampton and Hadley |
| | Dwarf wedgemussel | Endangered | Rivers and Streams. | Hadley, Hatfield, Amherst and Northampton |
| Hampden | Small whorled Pogonia | Threatened | Forests with somewhat poorly drained soils and/or a seasonally high water table | Southwick |
| Middlesex | Small whorled Pogonia | Threatened | Forests with somewhat poorly drained soils and/or a seasonally high water table | Groton |
| Nantucket | Piping Plover | Threatened | Coastal Beaches | Nantucket |
| | Roseate Tern | Endangered | Coastal beaches and the Atlantic Ocean | Nantucket |
| | American burying beetle | Endangered | Upland grassy meadows | Nantucket |
| Plymouth | Piping Plover | Threatened | Coastal Beaches | Scituate, Marshfield, Duxbury, Plymouth, Wareham and Mattapoisett |
| | Northern Red-bellied cooter | Endangered | Inland Ponds and Rivers | Kingston, Middleborough, Carver, Plymouth, Bourne, and Wareham |
| | Roseate Tern | Endangered | Coastal beaches and the Atlantic Ocean | Plymouth, Marion, Wareham, and Mattapoisett. |
| Suffolk | Piping Plover | Threatened | Coastal Beaches | Winthrop |
| Worcester | Small whorled Pogonia | Threatened | Forests with somewhat poorly drained soils and/or a seasonally high water table | Leominster |

-Eastern cougar and gray wolf are considered extirpated in Massachusetts.
-Endangered gray wolves are not known to be present in Massachusetts, but dispersing individuals from source populations in Canada may occur statewide.
-Critical habitat for the Northern Red-bellied cooter is present in Plymouth County.

7/31/2008

**Original Endangered Species Act Documentation**

# MASSACHUSETTS AREAS OF CRITICAL ENVIRONMENTAL CONCERN
## June 2009

**Total Approximate Acreage: 268,000 acres**
Approximate acreage and designation date follow ACEC names below.

**Bourne Back River**
(1,850 acres, 1989) Bourne

**Canoe River Aquifer and Associated Areas** (17,200 acres, 1991) Easton, Foxborough, Mansfield, Norton, Sharon, and Taunton

**Cedar Swamp**
(1,650 acres, 1975) Hopkinton and Westborough

**Central Nashua River Valley**
(12,900 acres, 1996) Bolton, Harvard, Lancaster, and Leominster

**Cranberry Brook Watershed**
(1,050 acres, 1983) Braintree and Holbrook

**Ellisville Harbor**
(600 acres, 1980) Plymouth

**Fowl Meadow and Ponkapoag Bog**
(8,350 acres, 1992) Boston, Canton, Dedham, Milton, Norwood, Randolph, Sharon, and Westwood

**Golden Hills**
(500 acres, 1987) Melrose, Saugus, and Wakefield

**Great Marsh (originally designated as Parker River/Essex Bay)**
(25,500 acres, 1979) Essex, Gloucester, Ipswich, Newbury, and Rowley

**Herring River Watershed**
(4,450 acres, 1991) Bourne and Plymouth

**Hinsdale Flats Watershed**
(14,500 acres, 1992) Dalton, Hinsdale, Peru, and Washington

**Hockomock Swamp**
(16,950 acres, 1990) Bridgewater, Easton, Norton, Raynham, Taunton, and West Bridgewater

**Inner Cape Cod Bay**
(2,600 acres, 1985) Brewster, Eastham, and Orleans

**Kampoosa Bog Drainage Basin**
(1,350 acres, 1995) Lee and Stockbridge

**Karner Brook Watershed**
(7,000 acres, 1992) Egremont and Mount Washington

**Miscoe, Warren, and Whitehall Watersheds**
(8,700 acres, 2000) Grafton, Hopkinton, and Upton

**Neponset River Estuary**
(1,300 acres, 1995) Boston, Milton, and Quincy

**Petapawag**
(25,680 acres, 2002) Ayer, Dunstable, Groton, Pepperell, and Tyngsborough

**Pleasant Bay**
(9,240 acres, 1987) Brewster, Chatham, Harwich, and Orleans

**Pocasset River**
(160 acres, 1980) Bourne

**Rumney Marshes**
(2,800 acres, 1988) Boston, Lynn, Revere, Saugus, and Winthrop

**Sandy Neck Barrier Beach System**
(9,130 acres, 1978) Barnstable and Sandwich

**Schenob Brook Drainage Basin**
(13,750 acres, 1990) Mount Washington and Sheffield

**Squannassit**
(37,420 acres, 2002) Ashby, Ayer, Groton, Harvard, Lancaster, Lunenburg, Pepperell, Shirley, and Townsend

**Three Mile River Watershed**
(14,280 acres, 2008) Dighton, Norton, Taunton

**Upper Housatonic River**
(12,280 acres, 2009) Lee, Lenox, Pittsfield, Washington

**Waquoit Bay**
(2,580 acres, 1979) Falmouth and Mashpee

**Weir River**
(950 acres, 1986) Cohasset, Hingham, and Hull

**Wellfleet Harbor**
(12,480 acres, 1989) Eastham, Truro, and Wellfleet

**Weymouth Back River**
(800 acres, 1982) Hingham and Weymouth

ACEC acreages above are based on MassGIS calculations and may differ from numbers originally presented in designation documents and other ACEC publications due to improvements in accuracy of GIS data and boundary clarifications. Listed acreages have been rounded to the nearest 50 or 10 depending on whether boundary clarification has occurred. For more information please see, http://www.mass.gov/dcr/stewardship/acec/aboutMaps.htm.

## Towns with ACECs within their Boundaries June 2009

| TOWN | ACEC |
|---|---|
| Ashby | Squannassit |
| Ayer | Petapawag |
| | Squannassit |
| Barnstable | Sandy Neck Barrier Beach System |
| Bolton | Central Nashua River Valley |
| Boston | Rumney Marshes |
| | Fowl Meadow and Ponkapoag Bog |
| | Neponset River Estuary |
| Bourne | Pocasset River |
| | Bourne Back River |
| | Herring River Watershed |
| Braintree | Cranberry Brook Watershed |
| Brewster | Pleasant Bay |
| | Inner Cape Cod Bay |
| Bridgewater | Hockomock Swamp |
| Canton | Fowl Meadow and Ponkapoag Bog |
| Chatham | Pleasant Bay |
| Cohasset | Weir River |
| Dalton | Hinsdale Flats Watershed |
| Dedham | Fowl Meadow and Ponkapoag Bog |
| Dighton | Three Mile River Watershed |
| Dunstable | Petapawag |
| Eastham | Inner Cape Cod Bay |
| | Wellfleet Harbor |
| Easton | Canoe River Aquifer |
| | Hockomock Swamp |
| Egremont | Karner Brook Watershed |
| Essex | Great Marsh |
| Falmouth | Waquoit Bay |
| Foxborough | Canoe River Aquifer |
| Gloucester | Great Marsh |
| Grafton | Miscoe-Warren-Whitehall Watersheds |
| Groton | Petapawag |
| | Squannassit |
| Harvard | Central Nashua River Valley |
| | Squannassit |
| Harwich | Pleasant Bay |
| Hingham | Weir River |
| | Weymouth Back River |
| Hinsdale | Hinsdale Flats Watershed |
| Holbrook | Cranberry Brook Watershed |
| Hopkinton | Miscoe-Warren-Whitehall Watersheds |
| | Cedar Swamp |
| Hull | Weir River |
| Ipswich | Great Marsh |
| Lancaster | Central Nashua River Valley |
| | Squannassit |
| Lee | Kampoosa Bog Drainage Basin |
| | Upper Housatonic River |
| Lenox | Upper Housatonic River |
| Leominster | Central Nashua River Valley |
| Lunenburg | Squannassit |
| Lynn | Rumney Marshes |
| Mansfield | Canoe River Aquifer |
| Mashpee | Waquoit Bay |
| Melrose | Golden Hills |
| Milton | Fowl Meadow and Ponkapoag Bog |
| | Neponset River Estuary |

| TOWN | ACEC |
|---|---|
| Mt. Washington | Karner Brook Watershed |
| | Schenob Brook |
| Newbury | Great Marsh |
| Norton | Hockomock Swamp |
| | Canoe River Aquifer |
| | Three Mile River Watershed |
| Norwood | Fowl Meadow and Ponkapoag Bog |
| Orleans | Inner Cape Cod Bay |
| | Pleasant Bay |
| Pepperell | Petapawag |
| | Squannassit |
| Peru | Hinsdale Flats Watershed |
| Pittsfield | Upper Housatonic River |
| Plymouth | Herring River Watershed |
| | Ellisville Harbor |
| Quincy | Neponset River Estuary |
| Randolph | Fowl Meadow and Ponkapoag Bog |
| Raynham | Hockomock Swamp |
| Revere | Rumney Marshes |
| Rowley | Great Marsh |
| Sandwich | Sandy Neck Barrier Beach System |
| Saugus | Rumney Marshes |
| | Golden Hills |
| Sharon | Canoe River Aquifer |
| | Fowl Meadow and Ponkapoag Bog |
| Sheffield | Schenob Brook |
| Shirley | Squannassit |
| Stockbridge | Kampoosa Bog Drainage Basin |
| Taunton | Hockomock Swamp |
| | Canoe River Aquifer |
| | Three Mile River Watershed |
| Truro | Wellfleet Harbor |
| Townsend | Squannassit |
| Tyngsborough | Petapawag |
| Upton | Miscoe-Warren-Whitehall Watersheds |
| Wakefield | Golden Hills |
| Washington | Hinsdale Flats Watershed |
| | Upper Housatonic River |
| Wellfleet | Wellfleet Harbor |
| W Bridgewater | Hockomock Swamp |
| Westborough | Cedar Swamp |
| Westwood | Fowl Meadow and Ponkapoag Bog |
| Weymouth | Weymouth Back River |
| Winthrop | Rumney Marshes |

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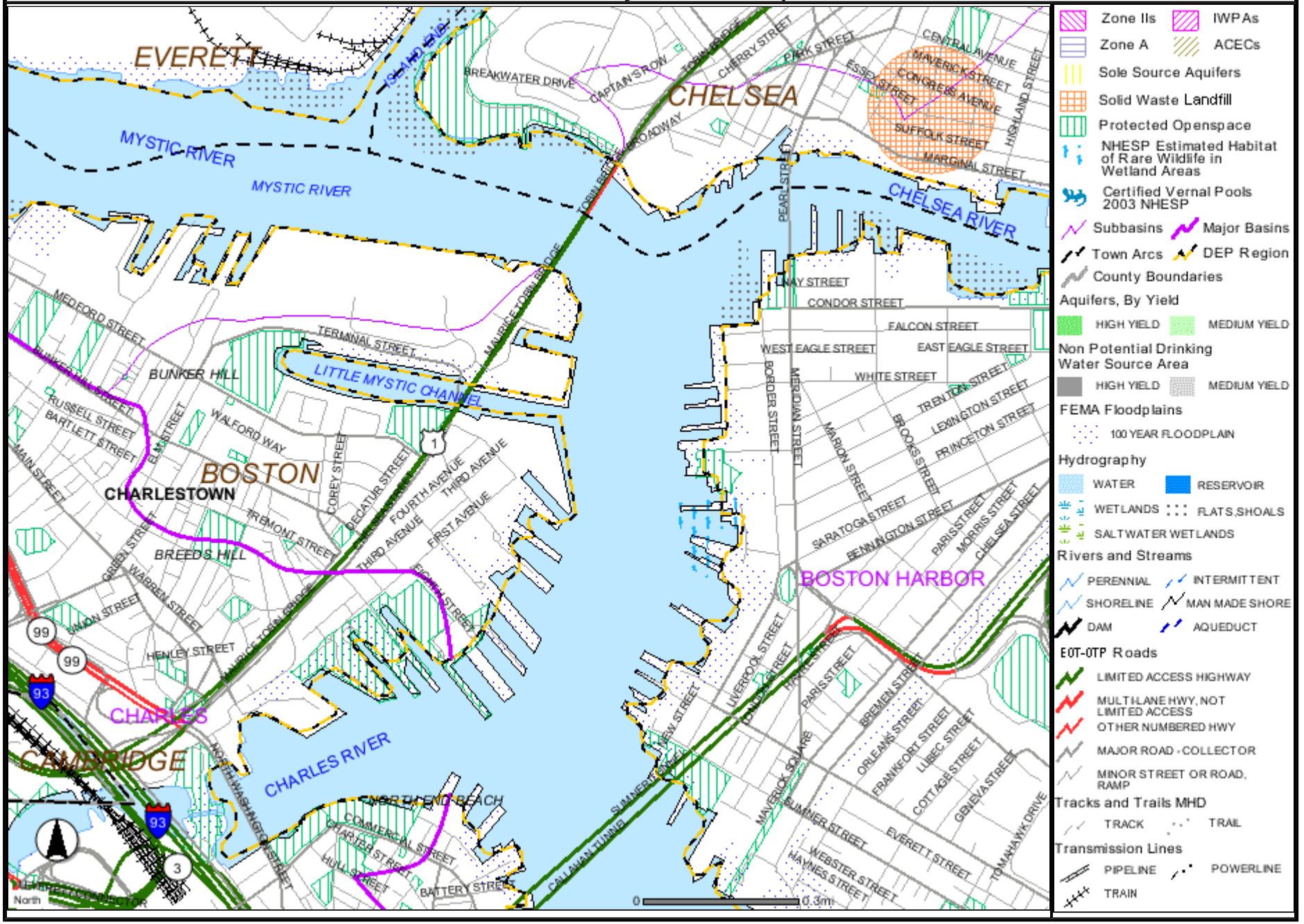
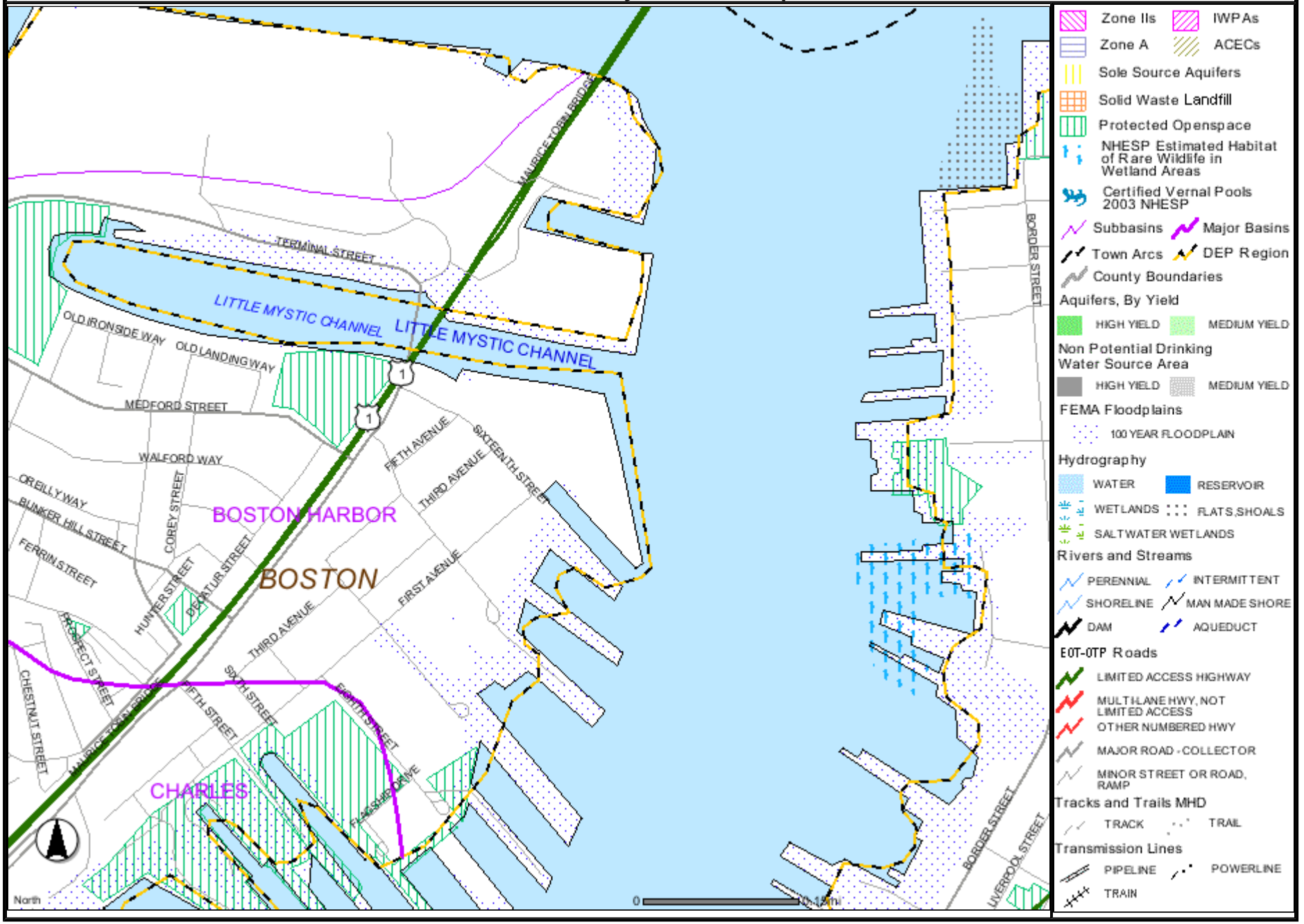
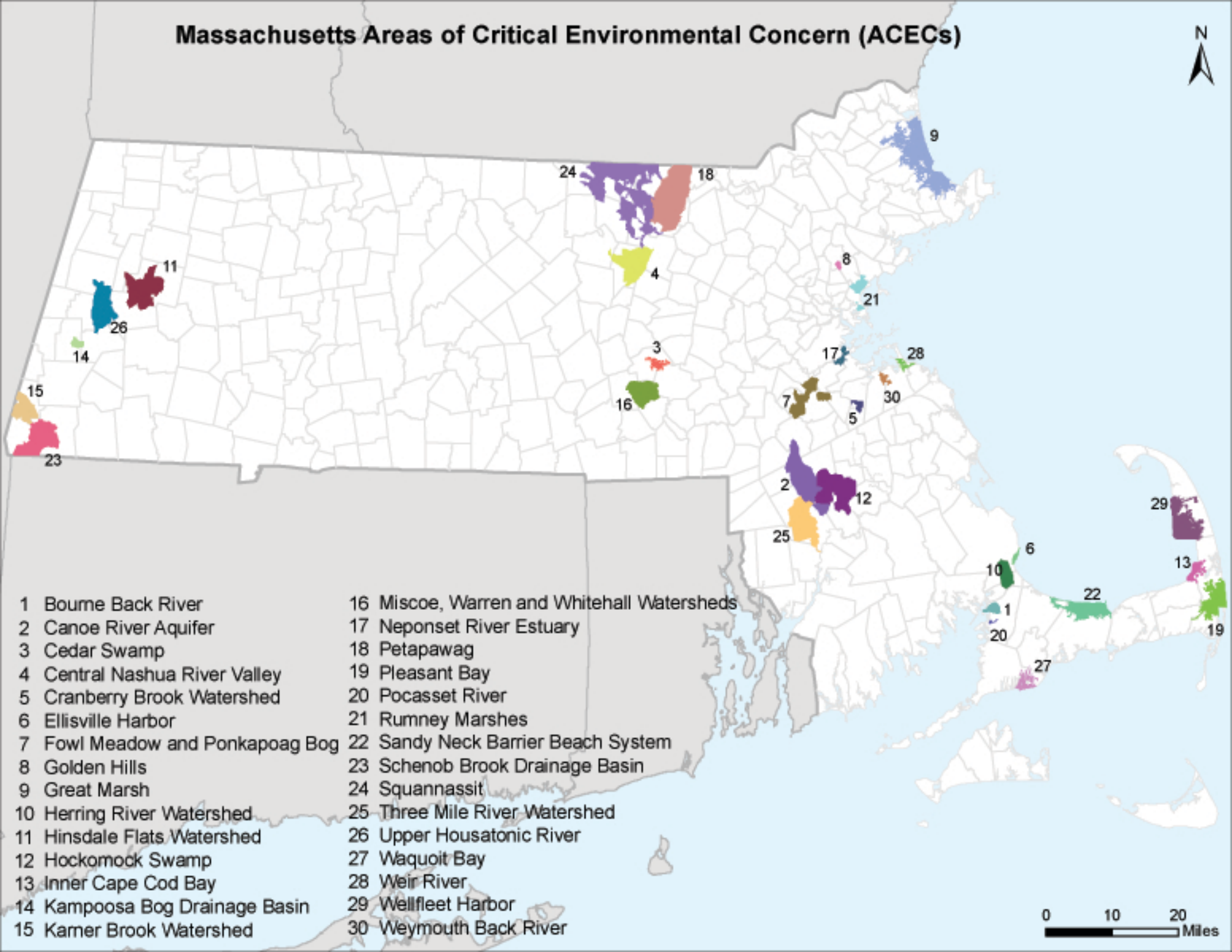
# DEP Priority Resource Map



# DEP Priority Resource Map



# Massachusetts Areas of Critical Environmental Concern (ACECs)




1 Bourne Back River
2 Canoe River Aquifer
3 Cedar Swamp
4 Central Nashua River Valley
5 Cranberry Brook Watershed
6 Ellisville Harbor
7 Fowl Meadow and Ponkapoag Bog
8 Golden Hills
9 Great Marsh
10 Herring River Watershed
11 Hinsdale Flats Watershed
12 Hockomock Swamp
13 Inner Cape Cod Bay
14 Kampoosa Bog Drainage Basin
15 Karner Brook Watershed
16 Miscoe, Warren and Whitehall Watersheds
17 Neponset River Estuary
18 Petapawag
19 Pleasant Bay
20 Pocasset River
21 Rumney Marshes
22 Sandy Neck Barrier Beach System
23 Schenob Brook Drainage Basin
24 Squannassit
25 Three Mile River Watershed
26 Upper Housatonic River
27 Waquoit Bay
28 Weir River
29 Wellfleet Harbor
30 Weymouth Back River

**APPENDIX F**

**BWSC Permit Application (Resubmitted)**
**&**
**January 2010 Memorandum**

**BWSC PERMIT APPLICATION (RESUBMITTED)**

Facility/Business Name: **Proposed Spaulding Rehabilitation Hospital**

Mailing Address: **Parcels 6 and 7 – Charlestown Navy Yard– Charlestown, MA**

Authorized Representative concerning information provided herein:

Name: **David Burson** Title: **Senior Project Manager**

Phone #: (**617) 726-8449** Beeper #: _____ Fax #: **(617) 724-2740**

Owner of property being dewatered: **Partners HealthCare System, Inc.**

Note: Resubmitted per EPA.

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Location of Discharge:

Street **Intersection of First Avenue and 16th Street** Neighborhood **Charlestown**

Discharge is to a : Sanitary Sewer Combined Sewer (Storm Drain) (Circle One)

BWSC Outfall #: **DO075 and DO077** Receiving Waters: **Boston Harbor**

**Note: Discharge (after sedimentation and treatment) will be to storm drain located within the site; refer to NPDES text for complete description of discharge.**

---

Temporary Discharges: **January 2010** To **November 2011** (Provide anticipated dates of discharge)

| | | | | | |
|---|---|---|---|---|---|
| _____ | Groundwater Remediation | _____ | Tank Removal/Installation | **X** | Foundation Excavation |
| _____ | Utility/Manhole Pumping | _____ | Test Pit | **X** | Trench Excavation |
| _____ | Accum. Surface Water | _____ | Hydrogeologic Testing | _____ | Other _____ |

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Permanent Discharges:

| | | | |
|---|---|---|---|
| ____ | Foundation Drainage | ____ | Crawl Space/Footing Drain |
| ____ | Accumulated Surface Water | ____ | Non-contact/Uncontaminated Cooling |
| ____ | Non-contact/Uncontaminated Process | ____ | Other _____ |

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1. Attach a Site Plan showing the source of the discharge and the location of the point of discharge (i.e. the sewer pipe or catch basin). **(Refer to NPDES Application previously provided, and revised figure attached)**
2. If discharging to a sanitary or combined sewer, attach a copy of MWRA's Sewer Use Discharge permit or application. Include meter number, size, make and start reading. All discharges to sanitary or combined sewer are assessed current sewer charges.
3. If discharging to a separate storm drain, attach a copy of EPA's NPDES Permit or NOI application, or NPDES Permit exclusion letter for the discharge, as well as other relevant information. **(Previously provided)**
4. Dewatering Drainage Permit will be denied or revoked if applicant fails to obtain the necessary permits from MWRA or EPA.

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Submit to: Mr. Francis M. McLaughlin Phone: 617-989-7000
Manager, Engineering Customer Services Fax: 617-989-7732
Boston Water and Sewer Commission
980 Harrison Avenue
Roxbury, MA 02119

BWSC Use Only

Date Received: _____ Comments:

Haley & Aldrich, Inc.
465 Medford St.
Suite 2200
Boston, MA 02129-1400

Tel: 617.886.7400
Fax: 617.886.7600
HaleyAldrich.com

**MEMORANDUM**

14 January 2010
File No. 31502-180

TO: Boston Water and Sewer Commission
Phillip D. Denton, Site Plan Engineer

FROM: Haley & Aldrich, Inc.
Kenneth N. Alepidis, Iliana Alvarado

SUBJECT: Responses to BWSC Comments dated 4 December 2009 on
Temporary Construction Dewatering Notice of Intent (NOI) Application
Spaulding Rehabilitation Hospital
Parcels 6 and 7 – Charlestown Navy Yard
Charlestown, Massachusetts

On behalf of our client, Partners HealthCare System, Inc. (Partners), Haley & Aldrich, Inc. (Haley & Aldrich) has prepared responses to the comments you provided on the BWSC permit application for discharge of dewatering effluent generated from the proposed Spaulding Rehabilitation Hospital, Parcels 6 and 7 – Charlestown Navy Yard project, located in Charlestown, Massachusetts.

The Notice of Intent package for the Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) for the Spaulding Rehabilitation Hospital project was provided to the US Environmental Protection Agency (EPA) on 18 November 2009, and included a copy of the BWSC Application form. The Notice of Intent package, along with the BWSC Application form, was also provided to the BWSC on 18 November 2009.

This document provides supplemental information requested in your e-mail to Ms. Iliana Alvarado of Haley & Aldrich, dated 4 December 2009, regarding the Temporary Construction Dewatering Notice of Intent (NOI) Application submitted for the Spaulding Rehabilitation Hospital project.

As discussed via telephone on 4 January 2009, the general contractor is currently installing erosion control and bringing in trailers; pretrenching for sheeting and excavation and off-site transportation of soil are scheduled to start in the next week or two. During the call you requested that Haley & Aldrich provide responses to your comments in writing.

Please see below for the responses to the BWSC comments:

*a.* ***Revised Site Plan: please revise the site plan shown in figure 2 to identify and delineate the point and source(s) of discharge (i.e. sewer manhole or catch basin)***

Figure 2 is the Proposed Treatment System Schematic which presents the potential treatment of dewatering effluent that will be generated during construction and eventually discharged to the outfall under the NPDES RGP permit. Figure 3 presents the discharge locations.

Figure 3 (Proposed Dewatering Discharge Routes) provides and calls out the approximate locations of the proposed discharges (manhole locations) and the route of discharge to proposed outfalls (from the manhole locations). Locations ("point and sources") of discharge are described in the permit application cover letter as follows:

> "Dewatering will be conducted from sumps or well points located inside the sheeted excavation, and also from smaller, local excavations outside the proposed foundation limits for the installation of utilities and landscaping and for remedial excavation."

Figure 3 also shows the limits of the subgrade excavations and the approximate limits of the site work. The sumps, well points and excavations are anticipated to be located throughout the subject site during construction activities.

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*b.* ***Dewatering Application: The dewatering application must be completed in its entirety. Please list the BWSC Outfall number on the Dewatering Permit Application, and provide all pertinent company and/or contact information.***

The BWSC outfall numbers for the three locations as presented in Figure 3 are as follows:

- **DO075** – northernmost outfall shown;
- **DO077** – middle outfall shown;
- The southernmost outfall shown (on Parcel 6) is not identified/numbered by the BWSC.

Pertinent company and/or contact information was provided in the NPDES RGP NOI package and in the BWSC Permit Application form.

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*c.* ***Metering: a meter shall be furnished at the owner's expense, and shall be plumbed/configured to meter all discharges during the dewatering operation. The meter type, meter number, size and make (Mfg) must be listed on the site plan, including the initial (start) meter reading. Please note that all discharges must be recorded in cubic feet.***

Per the NPDES RGP permit, the discharge instantaneous flow and total flow is required to be monitored during dewatering discharge operations. The contractor proposes to install a Badger Recordall® Turbo 450 – 3" meter (Meter Number : 0105) with a start reading of 954,200 gallons meter for that purpose.

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*d.* ***Discharge Fees & Billing: All discharges to sanitary or combined sewer are assessed current sewer charges. A fee Schedule for sewer rates are available on-line at: www.bwsc.org/customer service/rates. The Commission will issue a monthly bill for all dewatering activities based on monthly meter readings obtained by field services personnel. DO NOT SEND PAYMENTS.***

The dewatering effluent, as proposed in the NOI application and described in the cover letter text, will be discharged to storm drains and not to sanitary or combined sewers. Therefore, fees for sewer rates are not applicable.

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We trust that the information provided above fulfills documentation requirements to support final BWSC approval of the dewatering discharges from the Spaulding Rehabilitation Hospital project in Charlestown, MA, to the Little Mystic Channel/Boston Inner Harbor through the BWSC outfalls discussed above. Discharge under the NPDES RGP NOI has been authorized by the US EPA in a letter dated 2 December 2009, under authorization #MAG910442.

Please feel free to contact us should you wish to discuss the information contained herein or if you need additional information. Thank you.

**APPENDIX G**

**Laboratory Data Reports**

Provided in separate PDF due to file size.

**APPENDIX H**

**Notice of Change Form**

**Remediation General Permit**
**Appendix V**

**Notice of Change (NOC)**
**Suggested Forms & Instructions**

## II. Notice of Change (NOC) Suggested Form & Instructions

**A. Notice of Change Instructions –** Permittees authorized to discharge under the RGP may request a change to certain conditions of the authorization and/or permit list without submission of a new NOI. Such changes are not permit modifications as provided for under 40 CFR § 122.62. At a minimum, the permittee must provide the following information in a letter or on the suggested NOC form below.

### 1. General facility/site information.

a) Provide the **facility/site** name and mailing address in the spaces provided. Provide the site location, including longitude and latitude. Provide the facility SIC code(s).
b) Provide the NPDES authorization number assigned by EPA.
c) Provide the site/property **owner's** name, address, telephone and fax numbers, and email address, if different from the facility/site information. Indicate whether the owner is a federal, State, Tribal, or private entity.
d) Provide the **operator's** name, mailing address, and telephone and fax numbers, and email address, if different from the owner's information.

See Appendix V, Part I for definitions of owner/operator.

### 2. Type of changes.

a) Indicate the type of eligible change being requested by checking the boxes that apply or by providing a narrative as an attachment. Eligible changes consist of:

1. Reduction in certain monitoring requirements - Certain monitoring requirements may be reduced upon demonstration by ongoing sampling and analytical data.
i. To be eligible for a reduction in **influent** monitoring, the permittee must provide a minimum of 6-12 consecutive months of data. This data must be submitted with the NOC.
ii. To be eligible for a reduction in **effluent** monitoring, the permittee must provide 12-24 consecutive months of data demonstrating compliance with the applicable parameter limits, applicable ML (see Part I.D.1.d), or demonstrating no toxicity, in the case where whole effluent toxicity testing is required. This type of change requires written approval by the Director. Prior to receiving written approval, the permittee must continue to monitor at the frequency specified in the RGP. This data must be submitted with the NOC.

2. Change in flow conditions - NOC can be used to notify of 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 that:
i. the design flow of the treatment system is **not** exceeded; and
ii. the dilution factor would not change to a value greater than five (5) dilutions, where the discharge contains metals.

3. Change in treatment - NOC can be used as notification of a change in treatment if:
a) the change adds or removes any major operable unit of the system, provided that the permittee continues to meet the effluent limits in the permit; and
b) the change affects the design flow of the system but does not change the dilution factor to a value greater than five (5) dilutions, where the discharge contains metals.

4. Chemical additives - The permittee may propose the use of chemical treatment additives (e.g., foam control, emulsifiers, chelating agents, flocculating agents, pH adjusting chemicals, etc.) not described in the NOI to enhance the treatment system performance. The permittee must demonstrate that the addition of such agents will not add any pollutants which may cause a violation of receiving water standards or cause the overall effluent to violate effluent limitations. The permittee must attach, with the NOC, the material safety data sheets (MSDS) for the chemical(s) proposed to be added. This type of change requires prior approval by the Director.

5. Change of discharge location - Providing that the receiving water information submitted with the original NOI (or for applicants covered by a prior application for individual permit) remains the same, the location of the discharge may be modified. However, for changes in receiving water, a new NOI is required.

6. Temporary cessation of discharge - For any temporary interruption or cessation of discharge planned to extend greater than 120 days, the permittee must submit a NOC including:
a) the reasons for the interruption or cessation of discharge,
b) the estimated time frame when the discharge will cease and be re-started, and
c) an acknowledgment that "start-up" monitoring will be resumed when the discharge is re-started as required.

7. Change in pH range in MA - For facilities/sites in Massachusetts, the permittee may request that the pH range be widened due to naturally occurring conditions in the receiving water or the naturally occurring source water is unaltered by the permittee's operation. The scope of any demonstration must receive prior approval from the MassDEP. An NOC must be submitted to the Director upon approval from the State.

8. Change to administrative information - Certain administrative information may be changed via an NOC, including changes in address or contact information and transfer of

ownership. For change in ownership, 40 CFR 122.61(b) requires that the permittee submit:
a) notice to the Director at least 30 days prior to the transfer date;
b) inclusion of a written agreement between the new and existing permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them.

Such transfer of ownership will be automatic unless the Director has notified the existing and proposed new permittee of the Director's intent to revoke and reissue coverage under the RGP or an individual permit.

**3. Signature requirements.**

The Notice of Change must be signed by the permittee (.i.e., 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.*

If filling out the suggested NOC form electronically on EPA's website, the signature page must be signed and faxed or mailed to EPA at the fax number and/or address listed in Section II.C. below.

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

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

| | | | | | |
|---|---|---|---|---|---|
| a) Name of **facility/site**: | | **Facility/site** address: | | | |
| Location of **facility/site**:<br>longitude:<br>latitude: | Facility SIC code(s): | Street: | | | |
| | | Town: | State: | County: | Zip: |
| b) NPDES authorization number assigned by EPA: | | | | | |
| c) Name of **facility/site owner:** | | | | | |
| **Owner** is (check one): 1. Federal ◯ 2. State/Tribal ◯ 3. Private ◯ 4. other ◯, if so, describe: | | Telephone no. of facility/site **owner**: | | | |
| | | Fax no. of facility/site **owner**: | | | |
| | | Email address of facility/site **owner**: | | | |
| Address of **owner**: | | City/Town: | | | |
| Street: | | State: | Zip: | County: | |

| | | | | | |
|---|---|---|---|---|---|
| d) Legal name of **operator**: | | **Operator** telephone no: | | | |
| | | **Operator** fax no.: | | | |
| | | **Operator** email address: | | | |
| **Operator** contact name and title: | | | | | |
| Address of **operator** (if different from owner): | | Street: | | | |
| Town: | | State: | Zip: | County: | |

## 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 6-12 consecutive months of influent monitoring data. |
| ☐ | b) For a reduction in **effluent** monitoring frequency of an applicable parameter, the permittee must provide 12- 24 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. |
| | |

| Please check all that apply: | Eligible changes for use of NOC: |
|---|---|
| ☐ | 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):<br>a) reasons for the interruption or cessation of discharge:<br>b) estimated time frame when the discharge will cease and be re-started:<br>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.<br>Change in ownership? Y__ N__<br>If yes, what is date of ownership transfer (MM/DD/YYYY)? Is written agreement between the new and existing permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them included? Y__ N__ |

**3. Signature requirements.** The Notice of Change 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:

Signature of permittee(s): _____

Print Full Name and Title:

Date:

**C. Submission of NOC Forms** - Signed and completed NOC forms and attachments must be submitted to EPA-NE at either the following address:

U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code OEP06-4
Boston, MA 02109-3912
ATTN: Remediation General Permit NOC Processing

or electronically mailed to NPDES.Generalpermits@epa.gov

or faxed to the EPA Office at 617-918-0505

A copy of any NOC form filed with EPA-NE must also be filed with state agencies. The state agency may elect to develop a state specific form or other information requirements.

For dischargers Massachusetts, a copy of the NOC must also be submitted to:

Massachusetts Department of Environmental Protection
Division of Watershed Management
627 Main Street, 2nd floor
Worcester, MA 01608

For dischargers in New Hampshire, a copy of the NOC must also be submitted to:

New Hampshire Department of Environmental Services
Water Division
Wastewater Engineering Bureau
P.O. Box 95
Concord, New Hampshire 03302-0095.

Filing with Municipalities - A copy of the NOC must be submitted to the municipality in which the discharge is located.

**APPENDIX I**

**Notice of Availability and Remediation General Permit**

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**Region 1**
**1 Congress Street, Suite 1100**
**BOSTON, MA 02114-2023**

**CERTIFIED MAIL – RETURN RECEIPT REQUESTED**

December 2, 2009

William Schuster
Project manager
Walsh Brothers Inc.
210 Commercial Street
Boston, MA 02109

Re: Authorization to discharge under the Remediation General Permit (RGP) – MAG910000.
Parcels 6 and 7, Charlestown Navy Yard site at First and 16th Street, Charlestown, MA 02129.
;Authorization # MAG910442.

Dear Mr. Schuster:

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

The enclosed checklist designates the monitoring parameters applicable to your discharge. Please note that the checklist 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 . This general permit and authorization to discharge expire on September 9, 2010. This project reportedly will terminate on 11/01/2011. EPA requests that a Notice of Termination (NOT) is submitted 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, Mass DEP
Kenneth N. Alepidis, Haley&Alrich ✓

SUMMARY OF MONITORING PARAMETERS[1] UNDER THE REMEDIATION GENERAL PERMIT (RGP)

**Facility/Site Name: PARCELS 6 AND 7- CHARLESTOWN NAVY YARD**
**OPERATOR: Will Schuster/ Walsh Brothers Inc. 617878-4800**
**Facility/Site Address: FIRST AVENUE AND 16TH STREET**
**Sub-category - Urban Fill (Ground water recovery/ MCP site) - Estimated date of completion: 11/01/11**
**Permit # MAG910442** **Permit Issued: December 2009**

| Monitor checked parameters | Parameter to be monitored (see Parts I.C. and I.D. and Appendix III of the RGP for specific limits and requirements) | Monitor checked parameters | Parameter to be monitored (see Parts I.C. and I.D. and Appendix III of the RGP for specific limits and requirements) |
|---|---|---|---|
| ✔ | 1. Total Suspended Solids (TSS) | | 27. Trichloroethylene (TCE) |
| | 2. Total Residual Chlorine (TRC) | | 28. Vinyl Chloride (Chloroethene) |
| | 3. Total Petroleum Hydrocarbons (TPH) | | 29. Acetone |
| | 4. Cyanide (CN)[2] | | 30. 1,4 Dioxane |
| | 5. Benzene (B) | | 31. Total Phenols |
| | 6. Toluene (T) | | 32. Pentachlorophenol (PCP) |
| | 7. Ethylbenzene (E) | | 33. Total Phthalates |
| | 8. (m,p,o) Xylenes (X) | ✔ | 34. Bis (2-Ethylhexyl) Phthalate |
| | 9. Total BTEX[3] | | 35. Total Group I Poly. Aromatic Hyd. |
| | 10. Ethylene Dibromide (EDB) | | a. Benzo(a) Anthracene |
| | 11. Methyl-tert-Butyl Ether (MtBE) | | b. Benzo(a) Pyrene |
| | 12. tert-Butyl Alcohol (TBA) | | c. Benzo(b)Fluoranthene |
| | 13. tert-Amyl Methyl Ether (TAME) | | d. Benzo(k)Fluoranthene |
| | 14. Naphthalene | | e. Chrysene |
| | 15. Carbon Tetrachloride | | f. Dibenzo(a,h)anthracene |
| | 16. 1,4 Dichlorobenzene (p-DCB) | | g. Indeno(1,2,3-cd) Pyrene |
| | 17. 1,2 Dichlorobenzene (o-DCB) | | 36. Total Group II Polycyclic Aromatic Hydrocarbons |
| | 18. 1,3 Dichlorobenzene (m-DCB) | ✔ | h. Acenaphthene |
| | 18.a. Total dichlorobenzene | | i. Acenaphthylene |
| | 19. 1,1 Dichloroethane (DCA) | | j. Anthracene |
| | 20. 1,2 Dichloroethane (DCA) | | k. Benzo(ghi) Perylene |
| | 21. 1,1 Dichloroethylene (DCE) | ✔ | l. Fluoranthene |
| | 22. cis-1,2 Dichloro-ethylene (DCE) | | m. Fluorene |
| | 23. Dichloromethane (Methylene Chloride) | | n. Naphthalene |
| | 24. Tetrachloroethylene (PCE) | | o. Phenanthrene |
| | 25. 1,1,1 Trichloro-ethane (TCA) | ✔ | p. Pyrene |
| | 26. 1,1,2 Trichloro-ethane (TCA) | | 37. Total Polychlorinated Biphenyls (PCBs) |
| Monitor checked parameters | Parameter to be monitored (see Parts I.C. and I.D. and Appendix III of the RGP for specific limits and requirements) | Monitor checked parameters | Parameter to be monitored (see Parts I.C. and I.D. and Appendix III of the RGP for specific limits and requirements) |

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|---|---|---|---|
| | 38. Antimony | ✔ | 52. Total Flow |
| ✔ | 39. Arsenic | | 53. pH Range for Class A & Class B Waters in MA |
| | 40. Cadmium | ✔ | 54. pH Range for Class SA & Class SB Waters in MA |
| | 41. Chromium III (trivalent) | | 55. pH Range for Class B Waters in NH |
| | 42. Chromium VI (hexavalent) | | 56. Daily maximum temperature - Warm water fisheries |
| ✔ | 43. Copper | | 57. Daily maximum temperature - Cold water fisheries |
| ✔ | 44. Lead | | 58. Maximum Change in Temperature in MA - Any Class A water body |
| | 45. Mercury | | 59. Maximum Change in Temperature in MA - Warm Water |
| ✔ | 46. Nickel | | 60. Maximum Change in Temperature in MA - Cold Water and Lakes/Ponds |
| ✔ | 47. Selenium | | 61. Maximum Change in Temperature in MA -Coastal |
| | 48. Silver | | 62. Maximum Change in Temperature in MA - July to September |
| ✔ | 49. Zinc | | 63. Maximum Change in Temperature in MA - October to June |
| ✔ | 50. Iron | | |
| ✔ | 51. Instantaneous Flow | | |

**Footnotes:**

1. This checklist does not represent the complete requirements of the RGP. Operators must comply with all of the applicable requirements of the remediation general permit (RGP), including influent monitoring, narrative water quality standards, etc. Operators must follow the RGP, including Parts I, II, and Appendices I - VIII in order to comply with the specific applicable requirements.

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

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
Five Post Office Square - Suite 100
BOSTON, MA 02109-3912

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

September 13, 2010

Will Schuster,
210 Commercial Street
Boston, MA 02109

RE: Notice of Availability of the Final 2010 Remediation General Permit and Re-Application for Coverage under the 2010 Remediation General Permit for Parcels 6 and 7 - Charlestown Navy Yard in Charlestown, MA **(NPDES Permit Number MAG910442)**

Dear Will Schuster:

EPA has issued the Final Remediation General Permit for discharges from groundwater remediation activities to waters of the Commonwealth of Massachusetts (including both Commonwealth and Indian country lands) and the State of New Hampshire. This general permit, referred to as the 2010 Remediation General Permit (RGP), is effective on September 10, 2010, and replaces the 2005 RGP.

According to EPA's database, Parcels 6 and 7 - Charlestown Navy Yard in Charlestown, MA was authorized on 11/1/2009 for coverage by the 2005 RGP under NPDES Permit Number MAG910442. You are listed as the operator for this facility/site.

Operators that applied and received coverage under the 2005 RGP must do one of the following: **(1) re-apply for coverage by submitting a Notice of Intent (NOI) to EPA by December 9, 2010 (no later than 90 days after the effective date of the 2010 RGP);** (2) submit a Notice of Termination (NOT) to EPA by December 9, 2010; or (3) apply for an individual permit. (If you apply for an individual permit, you are not likely to have continuous permit coverage during the application review, public notice and final issuance of your individual permit.)

The Notice of Intent for this facility listed an expected termination date on 12/2/2009. If the discharge has been terminated, please submit a NOT to EPA and MassDEP.

For operators that submit a complete and timely NOI, coverage will be maintained under the 2005 RGP until EPA authorizes the discharge under the 2010 RGP or notifies the permittee of permit termination. Please visit EPA's website at http://www.epa.gov/NE/npdes/rgp.html for the NOI and NOT forms.

The Federal Register notice of availability, the Final RGP and appendices, and additional useful information are posted on EPA's website at http://www.epa.gov/NE/npdes/rgp.html. To receive a hard copy of the documents via United States mail, please contact Victor Alvarez at Alvarez.Victor@epa.gov or 617-918-1572.

Should you have any questions relative to the General Permit program do not hesitate to contact Shelly Puleo at 617-918-1545. Technical questions relative to your specific discharge(s) should be addressed to Victor Alvarez at Alvarez.Victor@epa.gov or 617-918-1572.

Sincerely,

David M. Webster

David M. Webster, Chief
Industrial Permits Branch
Office of Ecosystem Protection

cc: Robert Kubitt, MassDEP