GZA
GeoEnvironmental, Inc.

*Engineers and Scientists*

January 8, 2010
File No. 01.170055.20

Via Electronic Mail: GeneralPermit.Dewatering@epa.gov
US Environmental Protection Agency
Municipal Assistance Unit (CMU)
Dewatering General Permit Processing
1 Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

Re: Amendment to Notice of Intent – Dewatering General Permit
DCAM Project BSC0401 DC1
**Marshall Conant Science Building Modernization and Expansion**
Bridgewater State College
Bridgewater, Massachusetts

Dear Sir or Madam:

133 Federal St
Floor 3
Boston
Massachusetts
02110
617-963-1000
FAX 617-482-6868
www.gza.com

On behalf of Bridgewater State College, GZA GeoEnvironmental, Inc. (GZA) has prepared the attached Amendment to Notice of Intent (NOI) for coverage under the National Pollutant Discharge Elimination System (NPDES) Dewatering General Permit (GDP) during temporary construction-related dewatering for the above referenced project. The purpose of this amendment is to add two additional outfalls to the application, increase the estimated maximum daily flow from 76,000 gallons per day (gpd) to 216,000 gpd, increase the average daily flow from 30,000 to 175,000 gpd, change the flow to continuous, and revise the dewatering end date to December 1, 2010. The original NOI application was submitted on November 3, 2009 and the permit (MAG070341) was issued on November 24, 2009.

Bridgewater State College under the guidance of the Massachusetts Division of Capital and Asset Management (DCAM) will be completing the Marshall Conant Science Building Modernization and Expansion. This project will require temporary dewatering of groundwater in limited areas of the site during construction activities, including a basement excavation below existing groundwater levels. All construction activities that may require dewatering will be conducted on a portion of the site that is less than one-acre in area.

This NOI amendment has been prepared to request coverage under the NPDES DGP for discharge of stormwater and/or uncontaminated groundwater to the existing site stormwater drainage system with subsequent discharge to the nearby Town River. This amendment request consists of the revised NOI with the additional outfalls added and with the original supporting documentation as required by the US Environmental Protection Agency (EPA). The flow map has also been updated to include the additional outfalls. A copy of this NOI amendment has also been submitted to the Massachusetts Department of Environmental Protection (MassDEP) Watershed Permitting Program.

Should you have any questions regarding this NOI amendment, please do not hesitate to contact the undersigned.

Sincerely,
GZA GeoEnvironmental, Inc.

Alfred Jones, P.E.
Senior Project Manager

Bruce W. Fairless, P.E.
Consultant / Reviewer

Mary B. Hall, P.E.
Principal

cc: Barry Heidke, DCAM
Todd Sloan, Payette
Steven Ventresca, Nitsch

J:\170,000-179,999\170055\170055-20.AJ\NPDES\Additional Discharge Location\NPDES Cover Letter for Second Outfall.doc

## II. Suggested Notice of Intent (NOI) Form

**1. General facility information. Please provide the following information about the facility.**

| | | |
|---|---|---|
| **a) Name of facility:**<br>Bridgewater State College | **Mailing Address for the Facility:**<br>131 Summer Street, Bridgewater, Massachusetts 02325 | |
| **b) Location Address of the Facility (if different from mailing address):**<br>Conant Science Building, 48 Park Avenue, Bridgewater MA 02325 | **Facility Location**<br>**longitude:** 41 deg 59'18"<br>**latitude:** 70 deg 58'14" | **Type of Business:**<br>Massachusetts State College<br>**Facility SIC codes:** |

**c) Name of facility owner:** Div. of Asset & Capital Mgmt (DCAM) **Owner's email:** barry.heidke@state.ma.us

**Owner's Tel #:** Barry Heidke, 617 727 4030 X 375 **Owner's Fax #:**

**Address of owner (if different from facility address)**

DCAM, One Ashburton Place, 15th Floor, Boston 02108

**Owner is (check one): 1. Federal____ 2. State ✓ 3.Tribal_____ 4. Private_____ 4. Other _____(Describe)**

**Legal name of Operator, if not owner:** Barr & Barr, Construction Manager

**Operator Contact Name:** Keith Lavery, Site Superintendent

**Operator Tel Number:** (413) 652-3024 **Fax Number:** (413) 739-7684

**Operator's email:** klavery@barrandbarr.com

**Operator Address (if different from owner)**

Barr and Barr, 260 Cochituate Road, 2nd Floor Framingham, MA 01701

**d) Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water. Map attached?** ✓ Attachment A

**e) Check Yes or No for the following:**

1. **Has a prior NPDES permit been granted for the discharge? Yes____ No ✓ If Yes, Permit Number:**
2. **Is the discharge a "new discharge" as defined by 40 CFR Section 122.22? Yes ✓ No_____**
3. **Is the facility covered by an individual NPDES permit? Yes ✓ No_____ If Yes, Permit Number** MAR04027
4. **Is there a pending application on file with EPA for this discharge? Yes_____ No ✓ If Yes, date of submittal:**

**2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed)**

a) **Name of receiving water into which discharge will occur:** Town River
**State Water Quality Classification:** Class B **Freshwater:** X **Marine Water:** _____

b) **Describe the discharge activities for which the owner/applicant is seeking coverage:**
1. **Construction dewatering of groundwater intrusion and/or storm water accumulation.**
~~2. Short-term or long-term dewatering of foundation sumps.~~
~~3. Other.~~

c) **Number of outfalls** 3

**For each outfall:**

d) **Estimate the maximum daily and average monthly flow of the discharge (in gallons per day – GPD). Max Daily Flow** 216,000 **GPD**
**Average Monthly Flow** 175,000 **GPD**

e) **What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH** 7 **Min pH** 6

f) **Identify the source of the discharge (i.e. potable water, surface water, or groundwater). If groundwater, the facility shall submit effluent test results, as required in Section 4.4.5 of the General Permit.** Groundwater and Stormwater, See Attachment B

g) **What treatment does the wastewater receive prior to discharge?** Sedimentation tank to bag filter to discharge

h) **Is the discharge continuous? Yes** ✓ **No** _____ **If no, is the discharge periodic (P) (occurs regularly, i.e., monthly or seasonally, but is not continuous all year) or intermittent (I) (occurs sometimes but not regularly) or both (B)** _____
**If (P), number of days or months per year of the discharge** _____ **and the specific months of discharge** _____;
**If (I), number of days/year there is a discharge** _____
**Is the discharge temporary? Yes** ✓ **No** _____
**If yes, approximate start date of dewatering** November 1, 2009 **approximate end date of dewatering** December 1, 2010

i) **Latitude and longitude of each discharge within 100 feet (See http://www.epa.gov/tri/report/siting_tool): Outfall 1: long.**-70.9678 **lat.**41.9928 ;
**Outfall 2: long.**-70.9694 **lat.**41.9886**; Outfall 3: long.**-70.9700 **lat.**41.9878**.**

j) **If the source of the discharge is potable water, please provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water and attach any calculation sheets used to support stream flow and dilution calculations** N/A **cfs**
**(See Appendix VII for equations and additional information)**

**MASSACHUSETTS FACILITIES: See Section 3.4 and Appendix 1 of the General Permit for more information on Areas of Critical Environmental Concern (ACEC):**

k) **Does the discharge occur in an ACEC? Yes _____ No ✓** See Attachment C
**If yes, provide the name of the ACEC:** _____

**3. Contaminant Information**

a) **Are any pH neutralization and/or dechlorination chemicals used in the discharge? If so, include the chemical name and manufacturer; maximum and average daily quantity used as well as the maximum and average daily expected concentrations (mg/l) in the discharge, and the vendor's reported aquatic toxicity (NOAEL and/or $LC_{50}$ in percent for aquatic organism(s)).** NO

b) **Please report any known remediation activities or water-quality issues in the vicinity of the discharge.** See Attachment D

**4. Determination of Endangered Species Act Eligibility: Provide documentation of ESA eligibility as required at Part 3.4 and Appendices III and IV. In addition, respond to the following questions.**

a) **Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes____No✓**
b) **Has any consultation with the federal services been completed ? Yes___ No✓**
c) **Is consultation underway? Yes ____ No✓**
d) **What were the results of the consultation with the U.S. Fish and Wildlife Service and/or NOAA Fisheries Service (check one): a "no jeopardy" opinion _____or written concurrence____ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat.**
e) **Which of the five eligibility criteria listed in Appendix 2, Section B (A,B,C,D,or E) have you met?** A
f) **Please attach a copy of the most current federal listing of endangered and threatened species, found at USF&W website.** See Attachment E

**5. Documentation of National Historic Preservation Act requirements: Please respond to the following questions:**

a) **Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility site or in proximity to the discharge? Yes _____ No ✓**
b) **Have any State or Tribal historic preservation officers been consulted in this determination? Yes _____ or No ✓ If yes, attach the results of the consultation(s).**
c) **Which of the three National Historic Preservation Act requirements listed in Appendix 3, Section C (1,2 o3) have you met?** 1

**6. 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**

**7. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22 (see below) including the following certification:**

I certify under penalty of law that (1) no biocides or other chemical additives except for those used for pH adjustment and/or dechlorination are used in the dewatering system; (2) the discharge consists solely of dewatering and authorized pH adjustment and/or

dechlorination chemicals; (3) the discharge does not come in contact with any raw materials, intermediate product, water product or finished product; (4) if the discharge of dewatering subsequently mixes with other permitted wastewater (i.e.stormwater) prior to discharging to the receiving water, any monitoring provided under this permit will be only for dewatering discharge; (5) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act; and (6) 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 Name:** Bridgewater State College, Conant Science Building Expansion

**Operator signature:**

**Title:** Site Superintendent, Barr & Barr

**Date:** 12/21/09

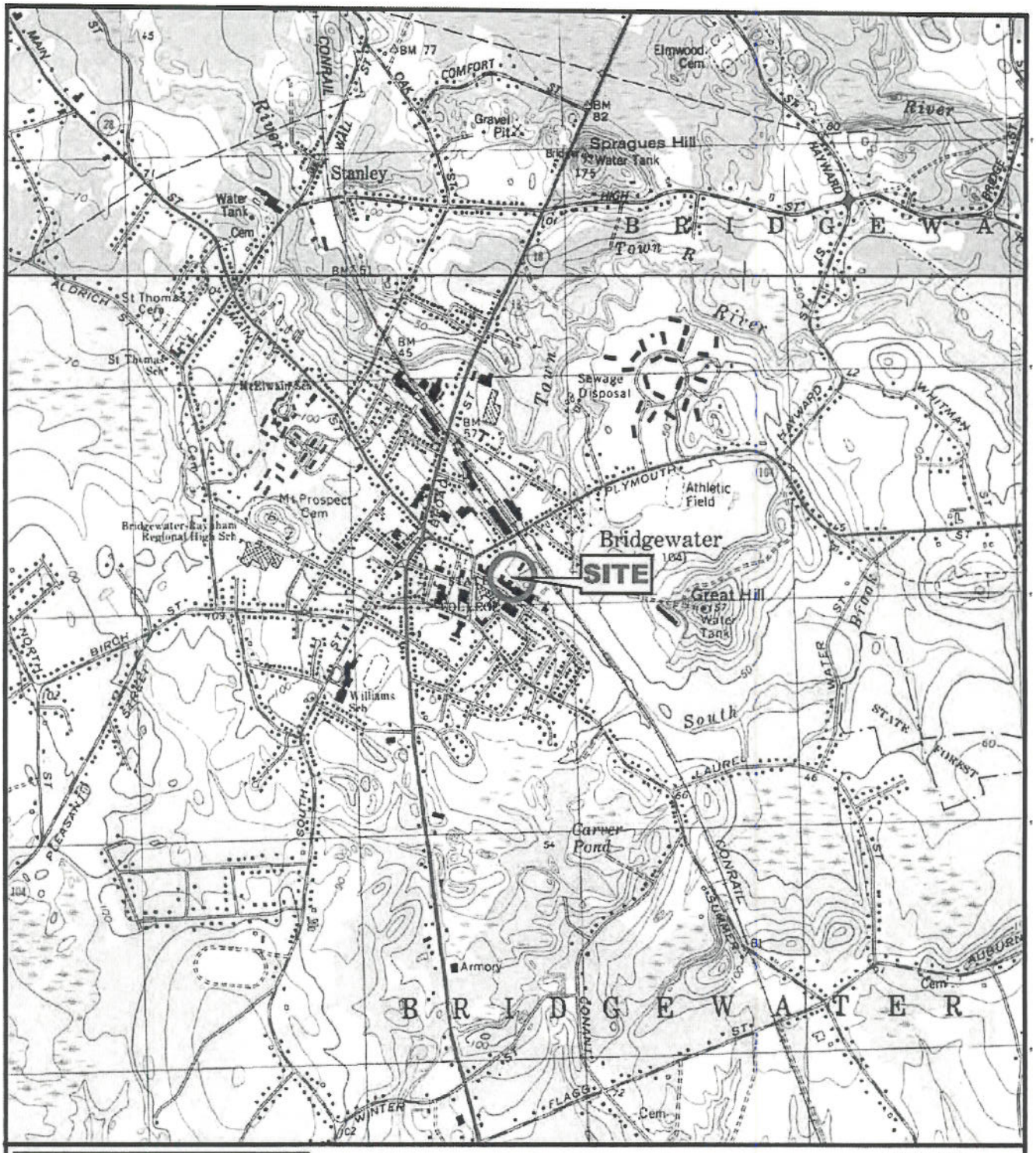
Federal regulations require this application to be signed as follows:

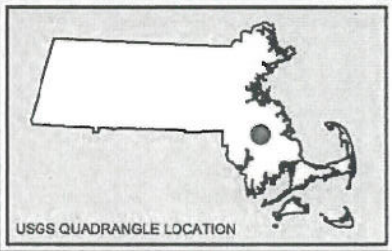
1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For partnership or sole proprietorship, by a general partner or the proprietor, respectively, or,
3. For a municipality, State, Federal or other public facility, by either a principal executive officer or ranking elected official.

## ATTACHMENT A

Figure 1

- A site locus plan.
- Aerial photograph including topographic features showing the location of the Site where dewatering will occur and the path to the outfall at the nearby Town River, in Bridgewater, Massachusetts.
- Site plan showing stormwater discharge lines to be used for the work.
- Plan showing the Taunton River basin and the associated River Category B.




SOURCE : SCANNED USGS TOPOGRAPHIC QUADRANGLES
SCANNED BY THE MASSACHUSETTS EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS, MASSGIS. DISTRIBUTED JUNE, 2001.

Data Supplied by : MASSGIS

0 1,000 2,000 4,000 6,000 Feet

N W E S

GZA

PROJ. MGR.: AJ
DESIGNED BY: AJ
REVIEWED BY: AJ
OPERATOR: EMD

DATE: 02-17-2009

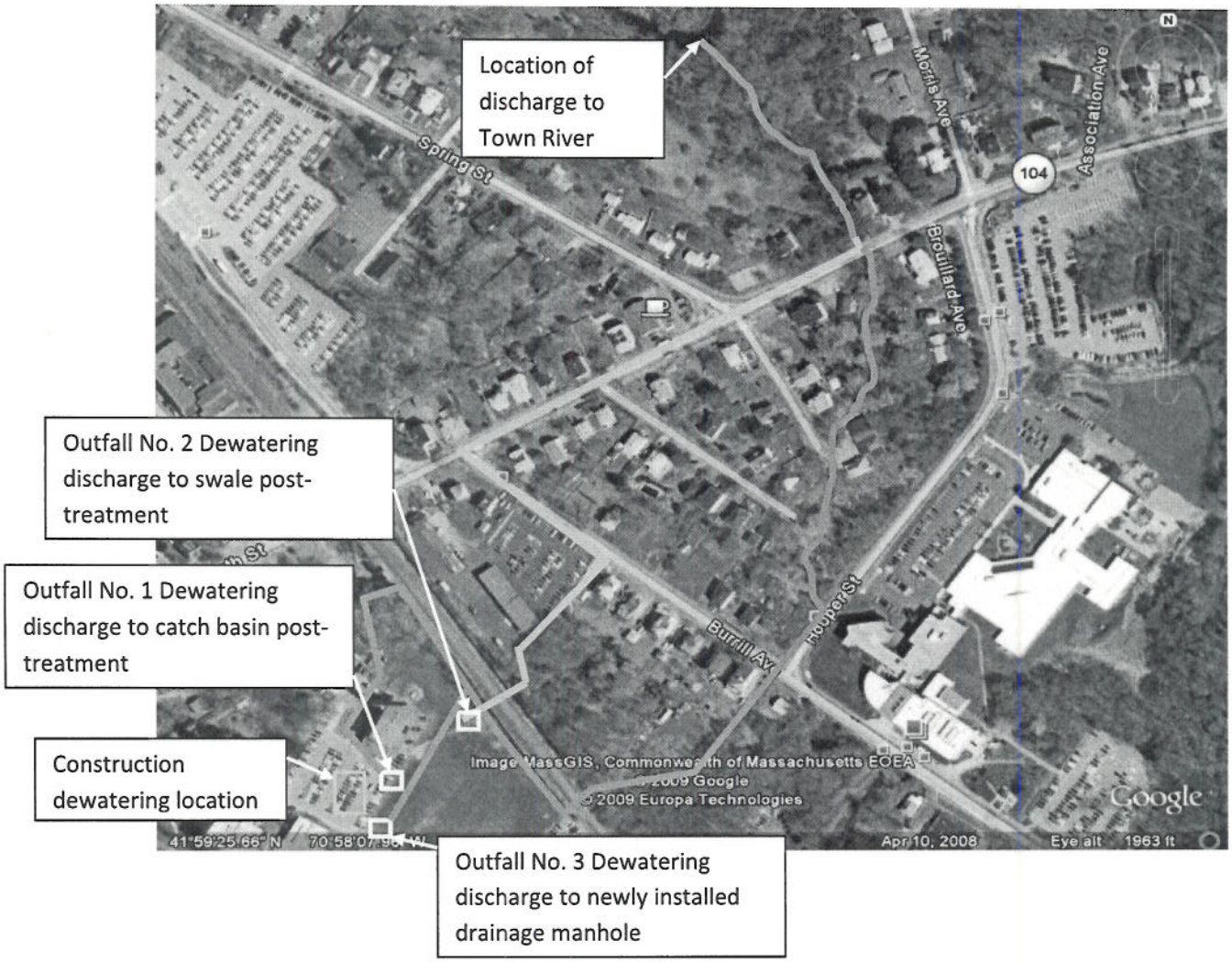
# LOCUS PLAN

BRIDGEWATER STATE COLLEGE - MARSHALL CONANT SCIENCE BUILDING EXPANSION
PARK AVENUE
BRIDGEWATER, MASSACHUSETTS

JOB NO. 01.0170055.00

FIGURE NO. 1

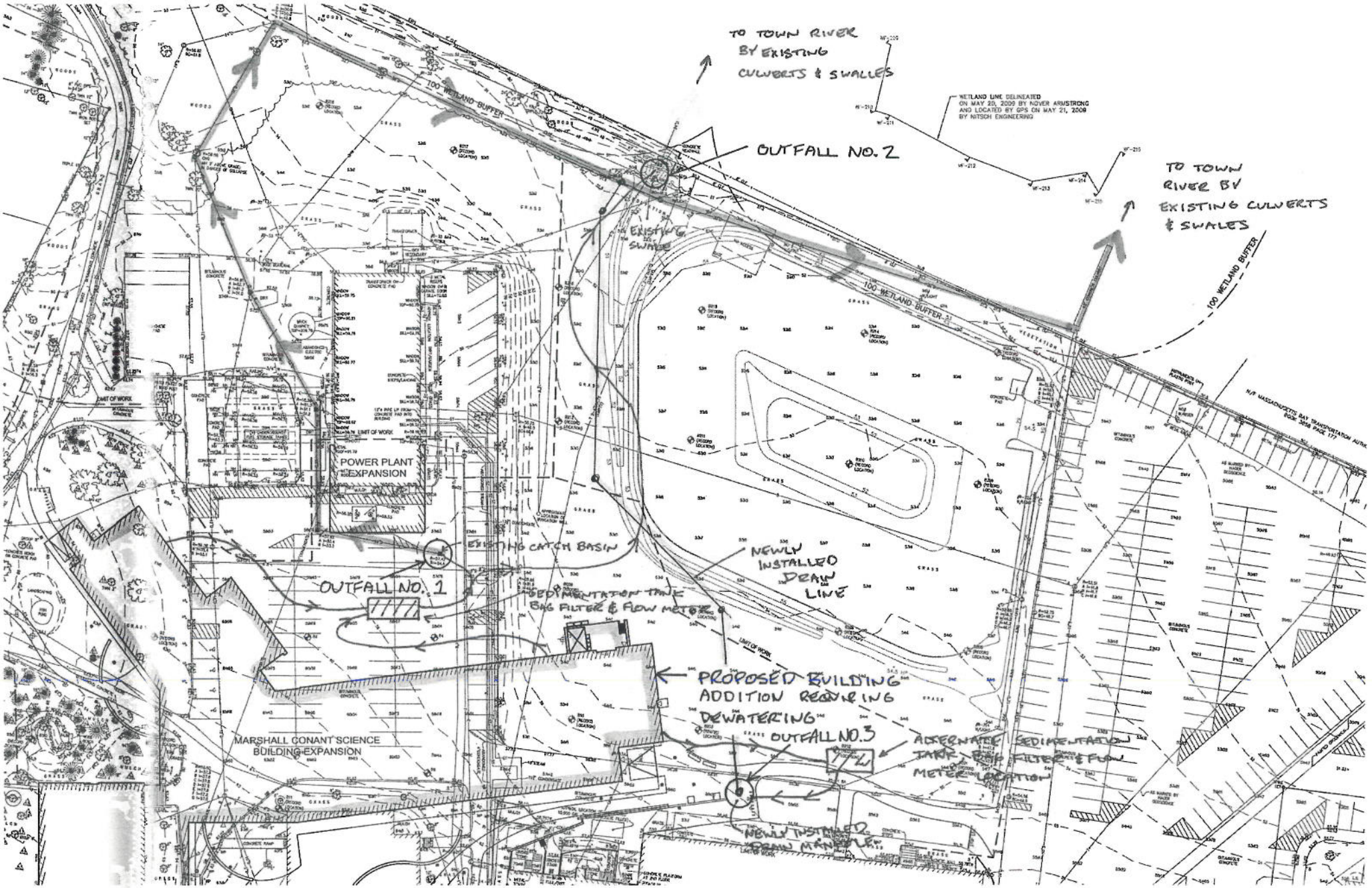
J:\170,000-179,999\170055\170055-00.AJ\Figures\GIS\MXDs\170055-00_LOCUS-v1_F01.mxd



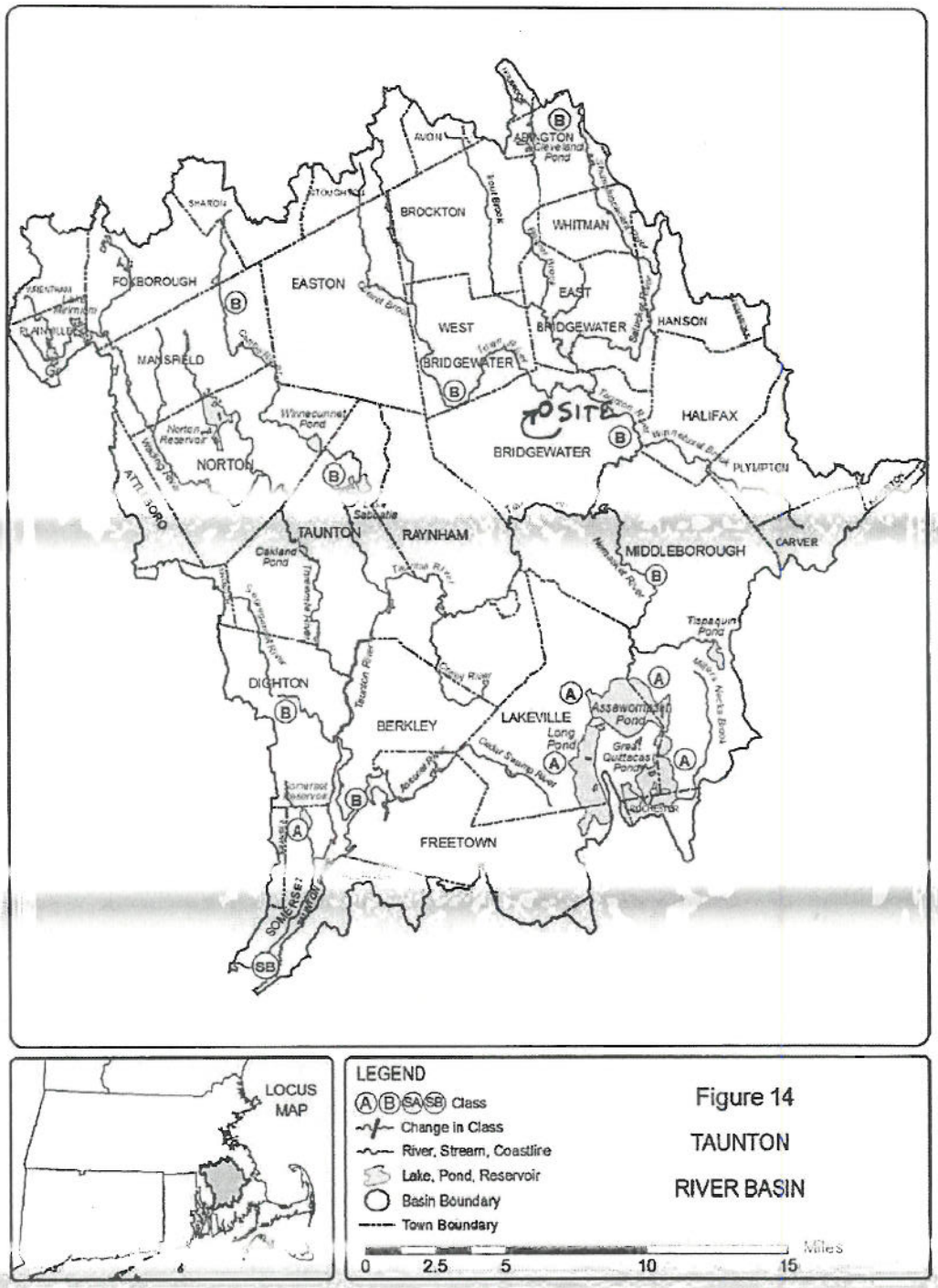

Plan Showing Route of Dewatering Discharge to Catch Basin, Swale and Drain Manhole (post-treatment) and Route to Town River

Bridgewater State College

Bridgewater, Massachusetts


TO TOWN RIVER BY EXISTING CULVERTS & SWALES
100' WETLAND BUFFER
OUTFALL NO. 2
WETLAND LINE DELINEATED ON MAY 20, 2009 BY NOVER ARMSTRONG AND LOCATED BY GPS ON MAY 21, 2009 BY NITSCH ENGINEERING
TO TOWN RIVER BY EXISTING CULVERTS & SWALES
EXISTING SWALE
100' WETLAND BUFFER
POWER PLANT EXPANSION
EXISTING CATCH BASIN
NEWLY INSTALLED DRAW LINE
OUTFALL NO. 1
SEDIMENTATION TANK BAG FILTER & FLOW METER
PROPOSED BUILDING ADDITION REQUIRING DEWATERING
OUTFALL NO. 3
ALTERNATE SEDIMENTATION TANK, BAG FILTER & FLOW METER LOCATION
NEWLY INSTALLED DRAW MANHOLE
MARSHALL CONANT SCIENCE BUILDING EXPANSION

4.06: continued



4.06: continued

TABLE 14
TAUNTON RIVER BASIN

| BOUNDARY | MILE POINT | CLASS | QUALIFIERS |
|---|---|---|---|
| Taunton River | | | |
| Source to Rt. 24 Bridge | 40.8 - 21.2 | B | Warm Water |
| Rt. 24 Bridge to mouth | 21.2 - 0.0 | SB | Shellfishing<br>CSO |
| Salisbury Plain & Matfield Rivers | | | |
| Brockton WWTF to confluence | - | B | Warm Water |
| Town River | | | |
| Bridgewater WWTF to confluence | 2.4 - 0.0 | B | Warm Water |
| Nemasket River | | | |
| Middleborough WWTF to confluence | - | B | Warm Water |
| Saw Mill Brook | | | |
| Entire Length | 1.5 - 0.0 | B | Warm Water |
| Mill River | | | |
| Outlet Lake Sabbatia, Taunton to confluence with Taunton River | 3.4 - 0.0 | B | Warm Water |
| Three Mile River | | | |
| Source to confluence | 15.8 - 0.0 | B | Warm Water |
| Wading River (Attleboro Reservoir) | | | |
| Source to water supply intake in Mansfield and tributaries thereto | | A | Public Water Supply |
| From water supply intake, Mansfield to confluence with Three Mile River | | B | Warm Water |
| Assawompset Pond | | | |
| Source to outlet in Lakeville and those tributaries thereto | - | A | Public Water Supply |
| Great Quittacas Pond | | | |
| Source to outlet in Lakeville and those tributaries thereto | - | A | Public Water Supply |

4.06: continued

TABLE 14
TAUNTON RIVER BASIN (continued)

| BOUNDARY | MILE POINT | CLASS | QUALIFIERS |
|---|---|---|---|
| Little Quittacas Pond | | | |
| Source to outlet in Lakeville and those tributaries thereto | - | A | Public Water Supply |
| Long Pond | | | |
| Source to outlet in Lakeville and those tributaries thereto | - | A | Public Water Supply |
| Pocksha Pond | | | |
| Source to outlet in Lakeville and those tributaries thereto | - | A | Public Water Supply |
| Somerset Reservoir | | | |
| Source to outlet in Somerset and those tributaries thereto including Segreganset River from pumping station, Dighton to source | - | A | Public Water Supply |
| Monponsett Pond | | | |
| Source to outlet in Halifax and those tributaries thereto | - | A | Public Water Supply |
| Elders Pond | | | |
| Source to outlet in Lakeville and those tributaries thereto | - | A | Public Water Supply |
| Brockton Reservoir (Avon Reservoir, Salisbury Brook Reservoir) | | | |
| Reservoir to outlet in Avon and those tributaries thereto | - | A | Public Water Supply |

## ATTACHMENT B

Laboratory analytical results for groundwater effluent sample. All constituents analyzed are non-detect or below applicable water quality standards.

| | | | | B-101 FILT | | B-101 UNFILT | |
|---|---|---|---|---|---|---|---|
| | | | | 0910-00068-001 | | 0910-00068-002 | |
| | | | | 10/09/2009 | | 10/09/2009 | |
| | | | | Result | RL | Result | RL |
| EPA 6010B | METALS | | | | | | |
| | Antimony | 7440-36-0 | mg/L | < | 0.025 | < | 0.025 |
| | Arsenic | 7440-38-2 | mg/L | < | 0.010 | < | 0.010 |
| | Cadmium | 7440-43-9 | mg/L | < | 0.0050 | < | 0.0050 |
| | Chromium | 7440-47-3 | mg/L | < | 0.0050 | < | 0.0050 |
| | Copper | 7440-50-8 | mg/L | < | 0.015 | < | 0.015 |
| | Iron | 7439-89-6 | mg/L | 1.6 | 0.025 | < | 0.025 |
| EPA 7470A | Mercury | 7439-97-6 | mg/L | < | 0.00040 | < | 0.00040 |
| | Nickel | 7440-02-0 | mg/L | < | 0.010 | < | 0.010 |
| | Silver | 7440-22-4 | mg/L | < | 0.0050 | < | 0.0050 |
| | Zinc | 7440-66-6 | mg/L | < | 0.010 | < | 0.010 |
| SM 3500CrD | Hexavalent Chromium | 18540-29-9 | mg/L | < | 0.010 | < | 0.010 |
| SM 2340B | HARDNESS | | | | | | |
| | Hardness | | mg/L CaCO3 | 135 | 0.20 | 130 | 0.20 |
| EPA 6010B | Calcium | 7440-70-2 | mg/L | 43 | 0.13 | 41 | 0.13 |
| EPA 6010B | Magnesium | 7439-95-4 | mg/L | 6.8 | 0.025 | 6.7 | 0.025 |
| EPA 150.2 | pH | | std µnits | 6.96 | | 6.38 | |

*Note: The "pdf" file provided by the laboratory contains all Quality Control information, and should be considered to supersede all other report formats, including this Excel spreadsheet.*