

TATA & HOWARD  
INCORPORATED

March 26, 2010

3/30/10  
received

US EPA, Region 1  
PWTF GP Processing  
Municipal Assistance Unit (CMU)  
1 Congress Street, Suite 1100  
Boston, MA 02114-2023

MAR 30 2010

Subject: Town of Halifax, Massachusetts – Richmond Park Water Treatment Facility  
Potable Water Treatment Facility General Permit  
NPDES General Permit Notice of Intent  
Transmittal Number X232707

To Whom It May Concern:

On behalf of the Town of Halifax, please find enclosed a complete Notice of Intent (NOI) for inclusion of the Richmond Park Water Treatment Facility under the National Pollutant Discharge Elimination System (NPDES) General Permit for discharges from Potable Water treatment Facilities (PWTF). We are requesting coverage of the discharge under the Massachusetts General Permit (No. MAG640000). The water treatment facility, located at 172 Plymouth Street, was previously granted an NPDES permit for the discharge under Permit Number MAG640008. ✓

The NOI submittal includes the following:

- EPA PWTF NPDES General Permit NOI form.
- Attachment A – description of treatment methods and discharge activities.
- Attachment B – statement regarding Endangered Species Act Eligibility.
- Attachment C – statement regarding National Historic Properties Act Eligibility.
- Locus maps including the WTF location and discharge outfall location (Figure No. 1), Priority and Estimated Habitat (Figure No. 2) and Registered Historical Places (Figure No. 3).
- A Treatment Process Schematic for the facility (Figure No. 4).

As shown on Figure No. 1, the facility discharges to Turkey Swamp, which provides a 7Q10 and dilution factor of 0. The dilution factor has been confirmed with Kathleen Keohane of the Massachusetts Department of Environmental Protection.

In addition, please note that aluminum-containing coagulants are not used at this facility and aluminum monitoring is not required in the Town's sampling protocol.

CONSULTING ENGINEERS

MAIN OFFICE

67 Forest Street, Marlborough, MA 01752  
508-303-9400 Fax: 508-303-9500

OTHER OFFICES

Meriden, CT • Nashua, NH • Goodyear, AZ • Portland, ME  
www.tataandhoward.com

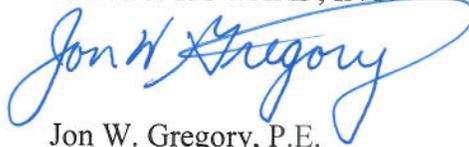
BRANCH OFFICE

10 Riverside Drive, Lakeville, MA 02347  
508-946-1732 Fax: 508-946-6158

We appreciate your assistance with this matter. Should you have any comments or questions regarding this request, please do not hesitate to contact our office.

Sincerely,

TATA & HOWARD, INC.



Jon W. Gregory, P.E.  
Project Manager

Enclosures

cc: Ms. Kathleen Keohane, Mass DEP Central Region  
Division of Watershed Management

Mr. Richard Clark, Superintendent  
Halifax Water Department



Enter your transmittal number

X232707

Transmittal Number

Your unique Transmittal Number can be accessed online: <http://mass.gov/dep/service/online/trasmfrm.shtml>

Massachusetts Department of Environmental Protection

Transmittal Form for Permit Application and Payment

1. Please type or print. A separate Transmittal Form must be completed for each permit application.

2. Make your check payable to the Commonwealth of Massachusetts and mail it with a copy of this form to: DEP, P.O. Box 4062, Boston, MA 02211.

3. Three copies of this form will be needed.

Copy 1 - the original must accompany your permit application. Copy 2 must accompany your fee payment. Copy 3 should be retained for your records

4. Both fee-paying and exempt applicants must mail a copy of this transmittal form to:

MassDEP
P.O. Box 4062
Boston, MA
02211

\* Note: For BWSC Permits, enter the LSP.

A. Permit Information

BRP WM 13

Request for General Permit Coverage

1. Permit Code: 7 or 8 character code from permit instructions

2. Name of Permit Category

Surface Water Discharge from a Water Treatment Facility

3. Type of Project or Activity

B. Applicant Information - Firm or Individual

Town of Halifax Water Department

1. Name of Firm - Or, if party needing this approval is an individual enter name below:

2. Last Name of Individual

3. First Name of Individual

4. MI

500 Plymouth Street

5. Street Address

Halifax

MA

02338

781-293-1733

6. City/Town

7. State

8. Zip Code

9. Telephone #

10. Ext. #

Richard Clark

rclark@town.halifax.ma.us

11. Contact Person

12. e-mail address (optional)

C. Facility, Site or Individual Requiring Approval

Richmond Park Water Treatment Facility

1. Name of Facility, Site Or Individual

172 Plymouth Street

2. Street Address

Halifax

MA

02338

781-293-1733

3. City/Town

4. State

5. Zip Code

6. Telephone #

7. Ext. #

8. DEP Facility Number (if Known)

9. Federal I.D. Number (if Known)

10. BWSC Tracking # (if Known)

D. Application Prepared by (if different from Section B)\*

Tata & Howard, Inc.

1. Name of Firm Or Individual

10 Riverside Drive

2. Address

Lakeville

MA

02347

508-946-1732

3. City/Town

4. State

5. Zip Code

6. Telephone #

7. Ext. #

8. Contact Person

9. LSP Number (BWSC Permits only)

E. Permit - Project Coordination

- 1. Is this project subject to MEPA review? [ ] yes [X] no
If yes, enter the project's EOEA file number - assigned when an Environmental Notification Form is submitted to the MEPA unit:

EOEA File Number

F. Amount Due

DEP Use Only

Special Provisions:

- 1. [X] Fee Exempt (city, town or municipal housing authority)(state agency if fee is \$100 or less).
There are no fee exemptions for BWSC permits, regardless of applicant status.
2. [ ] Hardship Request - payment extensions according to 310 CMR 4.04(3)(c).
3. [ ] Alternative Schedule Project (according to 310 CMR 4.05 and 4.10).
4. [ ] Homeowner (according to 310 CMR 4.02).

Permit No:

Rec'd Date:

Reviewer:

Check Number

Dollar Amount

Date

**APPENDIX IV  
NOTICE OF INTENT INSTRUCTIONS  
AND SUGGESTED FORMS**

**I. Notice of Intent (NOI) Instructions**

**A. Required Information**

In order to be covered by the Potable Water Treatment Facility General Permit (PWTF GP) applicants must submit a written NOI to EPA and the appropriate state agency. The NOI consists of either the suggested NOI form included in this Appendix or another form of official correspondence that contains all of the required information listed in the General Permit and the suggested NOI form.

**B. Signature Requirements**

The Notice of Intent must be signed and dated in accordance with the signatory requirements of 40 CFR Section 122.22, including the certification statement shown on the suggested NOI form.

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.

**C. Submission of NOI to EPA**

Signed and completed NOI forms and attachments must be submitted to EPA at the address included in Appendix VI. A copy of the NOI form and any additional state required forms must also be submitted to the appropriate state agency at the addresses included in Appendix VI. See Part 4.2 and Appendix VI of the PWTF GP for additional State requirements.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND - REGION I  
ONE CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

Request for General Permit Authorization to Discharge Wastewater  
(Notice of Intent to be covered by the General Permit (NOI))

Potable Water Treatment Facility (PWTF)  
NPDES General Permit No. MAG640000 and NHG640000

A. Facility Information

1. Facility Owner:

Name Town of Halifax Water Department e-mail rclark@town.halifax.ma.us  
Street/PO Box 500 Plymouth Street City Halifax  
State Massachusetts Zip Code 02338  
Contact Person Richard Clark Telephone Number 781-293-1733

2. Facility Operator (if different from above):

Name \_\_\_\_\_ e-mail (optional) \_\_\_\_\_  
Street/PO Box \_\_\_\_\_ City \_\_\_\_\_  
State \_\_\_\_\_ Zip Code \_\_\_\_\_  
Contact Person \_\_\_\_\_ Telephone Number \_\_\_\_\_

3. Facility Data (attach topographic map or other map showing facility and discharge location(s)):

Name Richmond Park Water Treatment Facility e-mail (optional) \_\_\_\_\_  
Street/PO Box 172 Plymouth Street City Halifax  
State Massachusetts Zip Code 02338  
Contact Person Richard Clark Telephone Number 781-293-1733  
Facility Latitude 41° 59' 41.06" Facility Longitude -70° 50' 10.90"

4. Standard Industrial Classification (SIC Codes) and Descriptions of Processes:

SIC Code(s) 4941  
Description(s) Water Supply

5. Current Permitting Status (please check yes or no):

1. Has a prior NPDES permit been granted for the discharge? Yes  (Permit Number: MAG640008)  
No \_\_\_\_\_
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 \_\_\_\_\_ (Permit Number \_\_\_\_\_) No
4. Is there a pending application on file with EPA for this discharge? Yes \_\_\_\_\_ (Date of submittal: \_\_\_\_\_)  
No

B. Discharge Information

1. Name of Receiving Waterbody Turkey Swamp to Palmer Mill Brook
2. Type of Receiving Waterbody (e.g. stream, lake, reservoir, estuary etc) stream
3. State Water Quality Classification: \_\_\_\_\_ Freshwater:  Marine Water: \_\_\_\_\_
4. Describe the discharge activities for which the owner/applicant is seeking coverage, including process discharges not specifically authorized in the PWTF GP which need to be authorized for discharge (and which attain the

effluent limits and other conditions of the general permit). This description should include all treatment methods used on the wastewater prior to discharge including lagoons, baffles, filter presses etc. If lagoons are used at the facility, please include the number and size of lagoons; the size and elevation of the entry pipe; the time of travel from the entry point of the discharge into the lagoon to the entry point to the receiving water; and the length of backwash cycle for any combination of number of filters. (attach extra sheets if necessary):

See Attachment A for description.

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5. Please provide a diagram depicting the treatment methods, outfalls, and receiving water.

6. Number of outfalls: 1 Latitude and Longitude for each outfall (attach additional pages if necessary)  
 OUTFALL # Latitude 41° 59' 37.64" Longitude -70° 50' 07.06"  
 OUTFALL # Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

For each outfall:

7. What is the proposed sampling location(s) and proposed consistent times of the month for collecting samples:

Monthly samples are collected from the outfall. Samples are collected on the 2nd Tuesday of the month.

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**C. Effluent Characteristics**

1. List here and attach information on any water additives used at the facility (including chemicals for pH adjustment, dechlorination, control of biological growth, and control of corrosion and scale in water pipes): Potassium Permanganate,  
Sodium Hypochlorite, Sodium Hydroxide.

2. Please report here any known remediation activities or water-quality issues in the vicinity of the discharge.

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3. Are aluminum-containing coagulants used at this facility? Yes \_\_\_ No

4. Does the discharge contain residual chlorine? Yes  No \_\_\_

5. Does the facility provide treatment to remove arsenic from the raw water source? Yes \_\_\_ No

6. Are phosphorus-containing chemicals added to the treated water at this facility? Yes \_\_\_ No

7. All applicants must attach a separate sheet listing all laboratory results (minimum of five) for total recoverable aluminum (in micrograms per liter) taken within the last six months. Do not include dilution when recording your results. See Section 4.4.5 of General Permit for more information.

8. Please include the following effluent data for each outfall:

<u>Characteristic (report if measured)</u>	<u>Average Monthly</u>	<u>Maximum Daily</u>
Discharge Flow (gpd)	<u>13,800</u>	<u>28,000</u>
TSS (mg/l)	<u>25</u>	<u>44</u>
pH (s.u.)	<u>(min) 6.6</u>	<u>(max) 8.1</u>
Total Recoverable Aluminum (ug/l)	<u>N/A</u>	<u>N/A</u>
Total Residual Chlorine (ug/l)	<u>50</u>	<u>240</u>

(continued on next page)

8. Continued

Characteristic (report if measured)

Whole Effluent Toxicity (%) LC50 N/A and/or C-NOEC N/A

9. If the discharge contains aluminum and/or residual chlorine, please provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water, the dilution factor, and attach any calculations used to support stream flow and dilution calculations (See Appendix VII for dilution calculations and additional information):

7Q10 0 cfs Dilution Factor 0 cfs

**D. Endangered Species Act Eligibility**

1. Using the instructions in Appendix I of the PWTF GP, under which criterion listed in Part II are you eligible for coverage under this general permit?

A  B  C  D  E  F

2. If you selected criteria D or F, has consultation with the federal services been completed? Yes  No

3. 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? Yes  No

4. Attach documentation of ESA eligibility as described below and required at Part 3.4.1 and Appendix I, Part III, Step 4, of the General Permit.

*Criterion A - No federally-listed threatened or endangered species or federally-designated critical habitat are present:* A copy of the most current county species list pages for the county(ies) where your site or facility and discharges are located. You must also include a statement on how you determined that no listed species or critical habitat are in proximity to your site or facility or discharge locations.

*Criterion B - Section 7 consultation completed with the Service(s) on a prior project:* A copy of the USFWS's and/or NMFS's, as appropriate, biological opinion or concurrence on a finding of "unlikely to adversely effect" regarding the ESA Section 7 consultation.

*Criterion C - Activities are covered by a Section 10 Permit:* A copy of the USFWS's and/or the NMFS's, as appropriate, letter transmitting the ESA Section 10 authorization.

*Criterion D - Concurrence from the Service(s) that the discharge is "not likely to adversely affect" federally-listed species or federally-designated critical habitat (not including the four species of concern identified in Section I of Appendix I):* A copy of the USFWS's and/or the NMFS's, as appropriate, letter or memorandum concluding that the discharge is consistent with the general permit's "not likely to adversely affect" determination.

*Criterion E - Activities are covered by certification of eligibility:* A copy of the documents originally used by the other operator of your site or facility (or area including your site) to satisfy the documentation requirement of Criteria A, B, C or D.

*Criterion F - Concurrence from the Service(s) that the discharge is "not likely to adversely affect" species of concern, as identified in Section I of Appendix I:* A copy of the USFWS and/or the NMFS, as appropriate, concurrence with the applicant's determination that the discharge is "not likely to adversely affect" listed species.

**E. National Historic Properties Act Eligibility**

1. Using the instructions in Appendix III of the PWTF GP, under which criterion listed in Part III are you eligible for coverage under this general permit?

1  2 \_\_\_ 3 \_\_\_

2. Have any State or Tribal historic preservation officers been consulted in this determination? Yes \_\_\_ No   
If yes, attach the results of the consultation(s).

**F. Certification**

I certify that the discharge for which I am seeking coverage under the general permit consists solely of a surface water discharge from a potable water treatment facility. 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 inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature *Richard Clark* Date 3/26/10  
Printed Name and Title Richard Clark, Water Superintendent

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.

Note: Permits No. MAG640000 and NHG640000 may be found at [www.epa.gov/region1/npdes/pwtfgp.html](http://www.epa.gov/region1/npdes/pwtfgp.html)

**Attachment A**  
**Treatment Methods and Discharge Activities**  
**NPDES General Permit Notice of Intent**  
**Richmond Park Water Treatment Facility**  
**Halifax, Massachusetts**

As required on Pages 2-3, Section B., Item 4. - Discharge Information, of the NPDES Potable Water Treatment Facility General Permit Notice of Intent, please note the following description:

- The Richmond Park WTF treats groundwater from two gravel packed municipal wells (Richmond Park Well Nos. 1 and 2). The water is treated with potassium permanganate and sodium hypochlorite for oxidation of iron and manganese and sodium hydroxide for pH adjustment. Iron and manganese are removed via three greensand filters. The backwash cycle, which cleans the greensand filters occurs once per day and takes approximately 15 minutes to complete. Backwash water from the greensand filters is transmitted to two sludge drying beds. Each sludge drying bed measures 37' x 72' at the top curb. The beds slope downward on all four sides from an elevation of 65.00 to 57.00. The width of the slope on each side is 8 feet. The entry pipe into the beds is 6-inch diameter ductile iron at an invert elevation of 60.00. Discharge from the sludge drying beds travels through a collector box and stop log guide to a single 12-inch diameter reinforced concrete pipe that terminates at the outfall located at Turkey Swamp. A treatment process schematic of this facility is provided on the attached Figure No. 4.

**Attachment B**  
**Statement on Endangered Species Act Eligibility**  
**NPDES General Permit Notice of Intent**  
**Richmond Park Water Treatment Facility**  
**Halifax, Massachusetts**

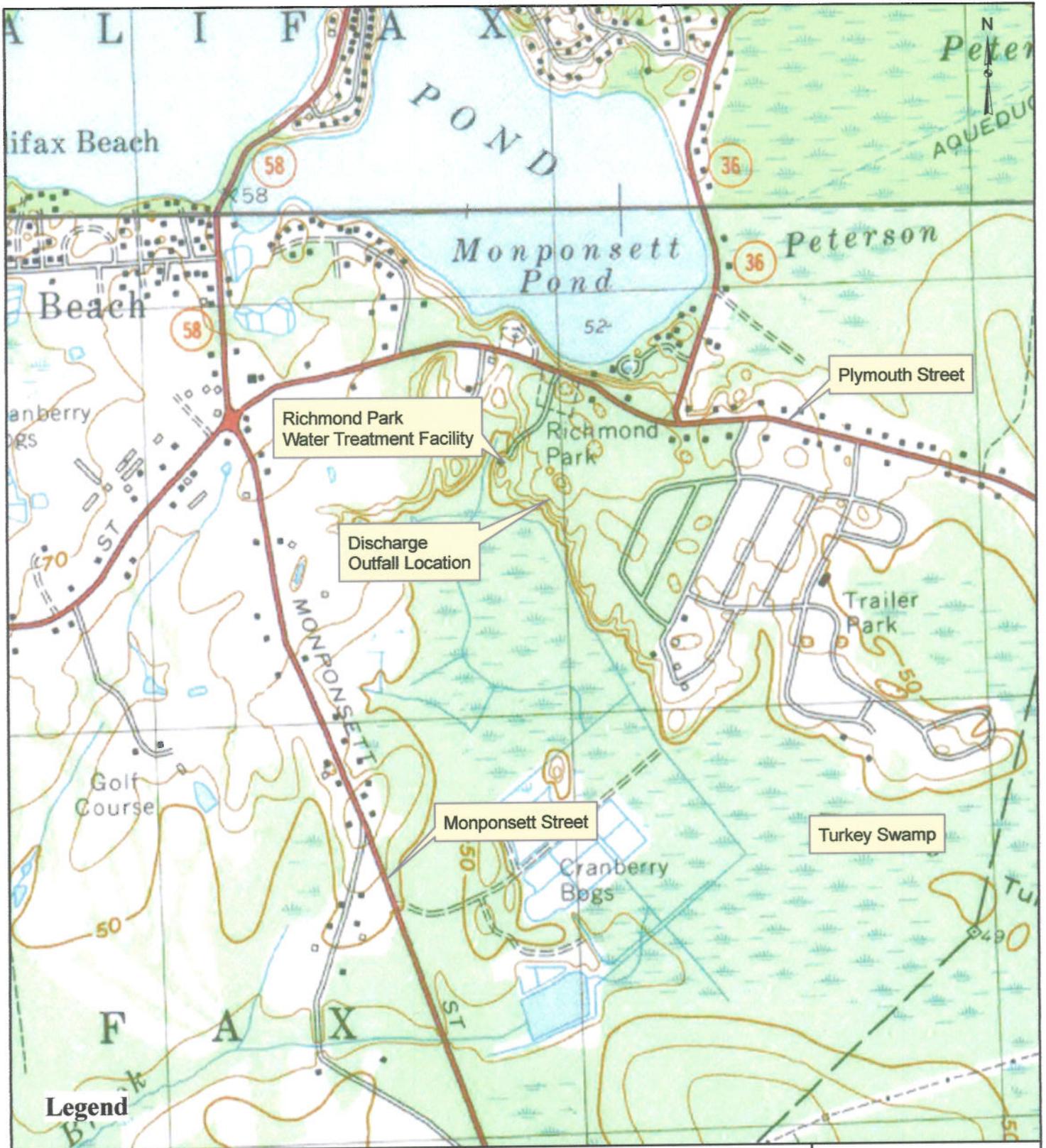
As required on Page 4, Section D. Endangered Species Act Eligibility, of the NPDES Potable Water Treatment Facility General Permit Notice of Intent, please note the following:

- Criterion A – The determination that the outfall discharge is not located within an area of Priority or Estimated Habitat was made based on review of the most recent Massachusetts Division of Fisheries and Wildlife - Natural Heritage and Endangered Species Program Priority and Estimated Habitat Area maps in GIS format. A map of the area in the vicinity of the facility is included as Figure No. 2 of this submittal.

**Attachment C**  
**Statement on National Historic Properties Act Eligibility**  
**NPDES General Permit Notice of Intent**  
**Richmond Park Water Treatment Facility**  
**Halifax, Massachusetts**

As required on Page 5, Section E. National Historic Properties Act Eligibility, of the NPDES Potable Water Treatment Facility General Permit Notice of Intent, please note the following:

- Criterion 1 – The determination that the outfall discharge is not located within a property registered as a historical place was made based on review of the most recent map of Registered Historical Places in GIS format. A map of the area in the vicinity of the facility is included as Figure No. 3 of this submittal.



**TATA & HOWARD**  
  
**INCORPORATED**

Date: March 2010

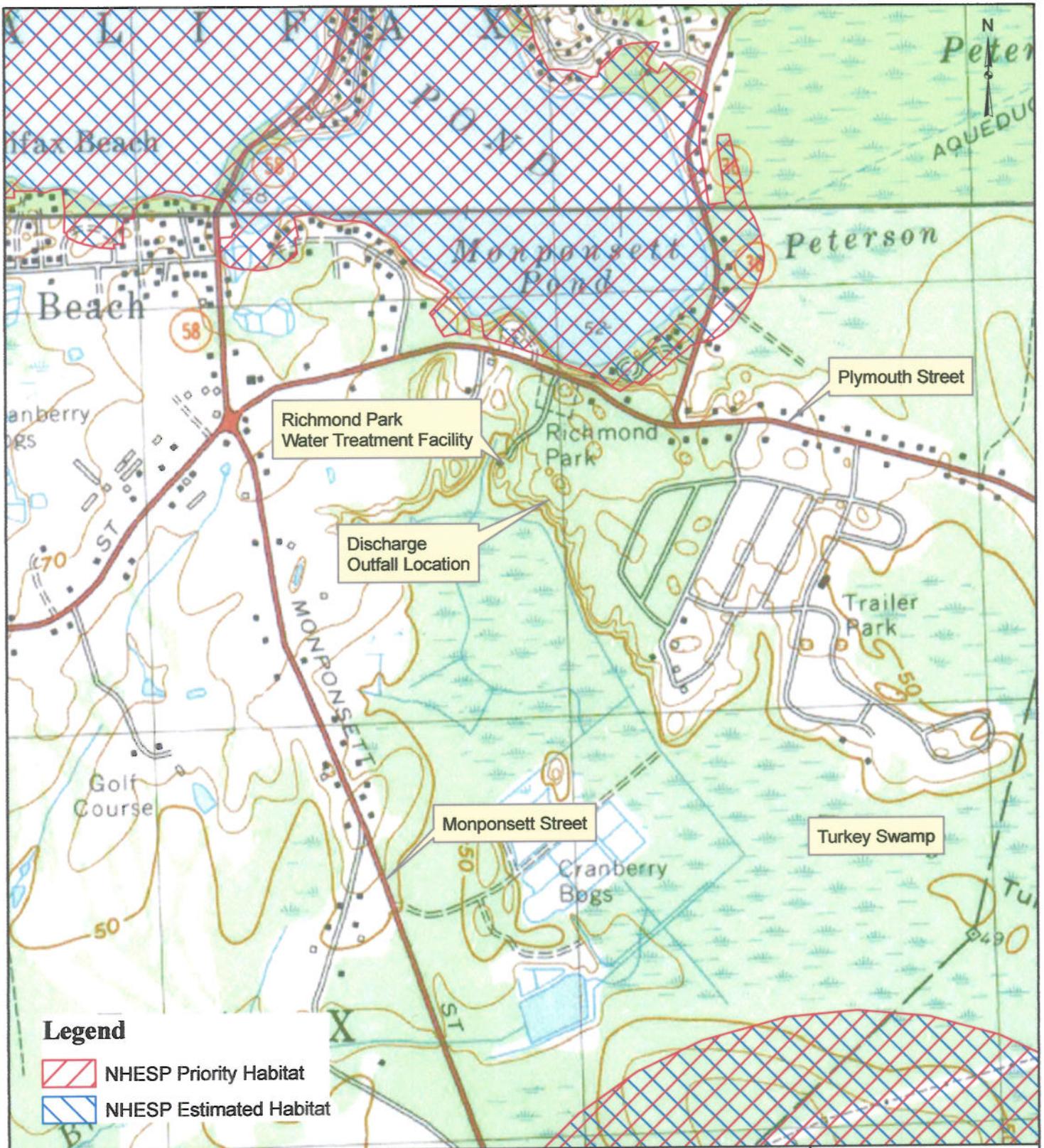
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Locus Map

NPDES General Permit Notice of Intent  
 Richmond Park Water Treatment Facility  
 Halifax, Massachusetts

Figure No.

1



**TATA & HOWARD**  
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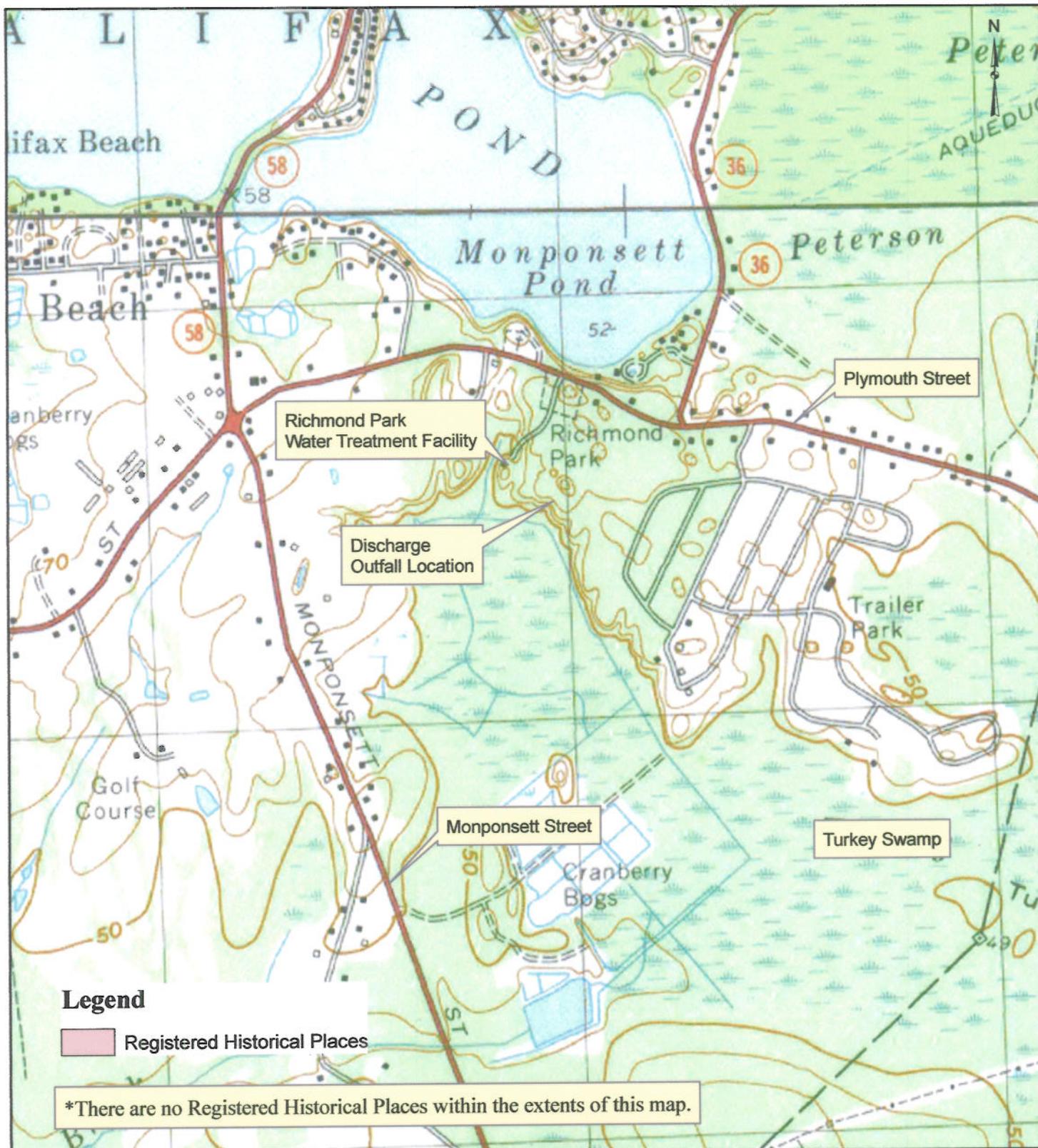
Date: March 2010

Scale: 1:12,000

NHESP Priority & Estimated Habitat Areas  
 NPDES General Permit Notice of Intent  
 Richmond Park Water Treatment Facility  
 Halifax, Massachusetts

Figure No.

2



**TATA & HOWARD**  
 INCORPORATED

Date: March 2010

Scale: 1:12,000

Registered Historical Places

NPDES General Permit Notice of Intent  
 Richmond Park Water Treatment Facility  
 Halifax, Massachusetts

Figure No.

3

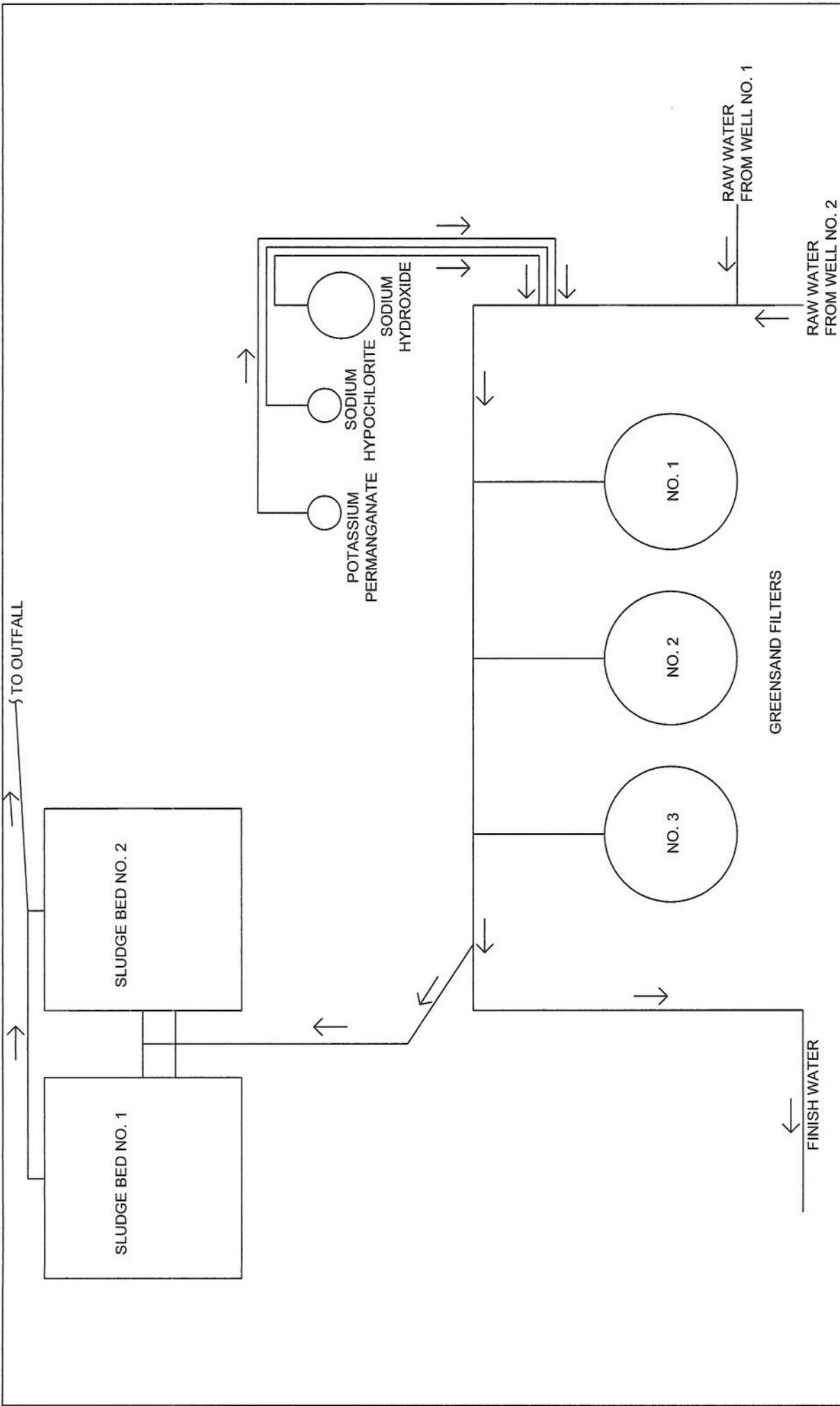


Figure No.

4

Treatment Process Schematic  
 Richmond Park Water Treatment Facility  
 Halifax, Massachusetts

**TATA & HOWARD**  
**INCORPORATED**  
 Consulting Engineers  
 67 Forest Street    Marlborough, MA