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April 20, 2018

Ms. Olga Vergara
US EPA, Region 1
Office of Ecosystem Protection
PWTF GP Applications Coordinator (OEP06-4)
5 Post Office Square, Suite 100
Boston, MA 02109-3912

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

Dear Ms. Vergara:

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 continued 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).

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Other Offices
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Please note that aluminum-containing coagulants are not used at this facility and aluminum monitoring is not required in the Town's sampling protocol.

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.

Patrick S. O'Neale

Patrick S. O'Neale, P.E.
Senior Vice President

Enclosures

cc: Keith Swanson, Superintendent
Halifax Water Department

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APPENDIX IV

Notice of Intent Instructions and Suggested Notice of Intent Format

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY NEW ENGLAND - REGION I
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

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

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

A. Facility Information

l. *Indicate applicable General Permit for discharge* (MAG640000)

NHG640000

2. Facility Data

Facility Name Richmond Park Water Treatment Facility

Street/PO Box 172 Plymouth Street City Halifax

State MA Zip Code 02338

Latitude 41° 59' 41.06" Longitude -70° 50' 10.90"

SIC Code(s) 4941

Type of Business Water supply- Water Treatment Facility

3. *Facility Mailing Address (if different from Location Address, above)*

Facility Name Town of Halifax Water Department

Street/PO Box 500 Plymouth Street City Halifax

State MA Zip Code 02338

4. *Facility Owner:*
Legal Name Town of Halifax Water Department

Email Keith.Swanson@halifax-ma.org

Street/PO Box 500 Plymouth Street City Halifax

State MA Zip Code 02338

Contact Person Keith Swanson Tel # (781)293-1733

Owner is (check one): Federal_____ State_____ Tribal_____ Private _____

Other (describe)
Municipal

5. *Facility Operator (if different from above):*
Legal Name

Email

Street/PO Box City

State Zip Code

Contact Person Tel #

6. *Currently (Administratively) Covered Under the Expired PWTF General Permit? (Please check yes or no):*

(Yes) No

a) Has a prior NPDES permit (either individual or general permit coverage) been granted for the discharge that is listed on the NOI? **(Yes)** No If Yes, Permit Number MAG640008

b) Is the discharge a "new discharger" as defined by 40 CFR Section 122.22? Yes **(No)**

c) Is the facility covered by an individual NPDES permit for *other* discharges? Yes **(No)**

If yes, Permit Number: _____

d) Is there a pending NPDES application (either individual or general permit) on file with EPA for this discharge? Yes **(No)**

If yes, date of submittal: and Permit Number, if available

7. *Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water.* **See Figure No. 1**

B. Discharge Information (Attach additional sheets as needed):

1. *Name of receiving water into which discharge will occur*: Turkey Swamp to Palmer Mill Brook

Check Appropriate Box: (Freshwater) Marine Water

State Water Quality Classification Class B

Type of Receiving Water Body (e.g., stream, river, lake, reservoir, estuary, etc.) Stream

2. *Indicate the frequency of the discharge:*

Emergency Only Infrequent (Once/Twice a Year) Intermittent*** (Continuous)

Other***

***If Intermittent (i.e., occurs sometimes but not regularly as in batch discharge), provide # of days per year the discharge occurs _____
***If Other, explain _____

3. 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 waters; and the length of backwash cycle for any combination of filters.)

See Attachment A for description.

4. Attach a line drawing or flow schematic showing water flow through the facility including sources of intake water, operations contributing to flow, treatment units, outfalls, and receiving water(s).

See Figure 4.

5. Identify the source of the water being discharged:

Surface water (Groundwater) Other (describe)

6. Number of Outfalls 1 Latitude and Longitude to the nearest second for each Outfall. Attach additional pages if necessary.

Outfall #1 Latitude 41° 59' 37.64" Longitude -70° 50' 07.06"

Outfall # Latitude _____ Longitude _____

Outfall # Latitude _____ Longitude _____

7. For each outfall, indicate the proposed sampling location(s) for both effluent and ambient water (when applicable) and proposed consistent times of the month for collecting samples:

Outfall #1
Monthly samples are collected from the outfall. Samples are collected on the 2nd Tuesday of the month

Outfall #
N/A

Outfall #
N/A

C. Effluent Characteristics

l. List here and attach additional information (on separate sheet) on any water additives used at the facility. This includes chemicals (including aluminum, iron, or phosphorus-containing chemicals) for pH adjustment, dechlorination, control of biological growth, and control of corrosion and scale in water pipes.

12.5 %Sodium hypochlorite, 25% sodium hydroxide, 40% sodium bisulfite

2. Report any known remediation activities or water quality issues in the vicinity of the discharge

N/A

3. Are aluminum compounds or polymers used as coagulants at this facility?*

Yes_ (No)

*If answer is "Yes" and the facility was *not* covered under the PWTF GP that expired on

l0/2/l4, additional monitoring data and information is required. **Please complete Item III.C.12.**

4. Does the facility use any alum-based products for algae control?*

Yes_ **No**

*If answer is "Yes" and the facility was *not* covered under the PWTF GP that expired on l0/2/l4, additional monitoring data and information is required. **Please complete Item III.C.12.**

5. Are iron-containing coagulants used at this facility? Yes_ **No**

6. Does the facility's discharge contain residual chlorine? Yes **No**

[If Yes, EPA will calculate a Total Residual Chlorine effluent limit for your facility]

7. Does the facility provide treatment to remove arsenic from the raw water source? Yes **No**

8. a. Are phosphorus-containing chemicals added to the treated water at this facility? **Yes** No

b. If answer to 8.a. is Yes, does the facility discharge to Phosphorus-Impaired waters? Yes No

c. If answer to 8.b. is Yes, provide name of P-Impaired waterbody: _____

9. Does the facility remove radium or other radioactive substances from raw water sources to comply with drinking water standards? Yes **No**

l0. Provide the reported or calculated seven day- ten year low flow (7Ql0) of the receiving water 7Ql0:_____0 cfs Confirmed by Xiaodan Ruan with the MassDEP

NOTE: For facilities that discharge in New Hampshire, the state permitting authority **must** be contacted at the address listed in Appendix VI of the PWTF GP to determine and/or confirm the 7Ql0 and/or dilution factor. For facilities that discharge in Massachusetts, it is highly recommended to contact the relevant state authority (MassDEP) to determine and/or confirm the 7Ql0 and/or dilution factor. Attach any calculation sheets used to support the stream flow and dilution factors. See Appendix VII for equations and additional information.

ll. For *each* outfall, provide the following discharge information:

Outfall # 1

a) *Design Flow of Facility (in million gallons per day, MGD): 1 MGD*
This value will determine the facility's daily maximum flow limit, up to a maximum of 1.0 MGD.

b) Discharge Flow (in gallons per day, GPD):

Maximum Daily Flow 14,000 GPD Average Monthly Flow 14,000 GPD

c) TSS (mg/l): Number of samples: 10 (Minimum of l0 samples)

Maximum Daily 6.5 mg/l Average Monthly 4.45 mg/l

d) pH (s.u.) : Number of samples: 10 (Minimum of l0 samples)
Minimum 6.5 s.u. Maximum 8 s.u.

e) Total Residual Chlorine (ug/l): Number of samples: 10 (Minimum of l0 samples)
Maximum Daily 850 ug/l
NOTE: TRC is only required for discharges which have been previously chlorinated or contain residual chlorine

l2. The following section must be completed for any facility that answered "Yes" to Question III.C.3 or III.C.4 (e.g. adds an aluminum-containing chemical to the water being treated and/or discharged) **AND** was not covered under the previous PWTF GP (which expired on l0/2/l4).

a) Collect, analyze and submit **12 effluent samples and 10 ambient surface water samples** from a location upstream of and not affected by the discharge. For facilities in New Hampshire and Massachusetts, each sample should be analyzed for total recoverable Al in micrograms per liter. All laboratory results shall be submitted on a separate sheet.
   - **a.** The samples shall be composite samples consisting of four grab samples taken at approximately equal intervals on a flow weighted basis during the time at which the discharge is entering the receiving water after the start of the backwash cycle.
   - **b.** For each sampling event, the effluent and surface water samples shall be collected on the same day and during a representative discharge event. The samples shall be no more frequent than weekly and, if time allows in completing the NOI, at monthly intervals and at different flow conditions. If taking the ambient water quality sample from lakes/reservoirs, the l0 samples should be composited vertically.
   - **c.** Discharge flow at the time of effluent sampling should be recorded. Flow conditions at the time of ambient water sampling should be recorded (or estimated from nearest gaging station).
   - **d.** Do not include dilution when recording the results.
   - **e.** See Section 2.l.2.3 and Footnote l2 of Section 2.l.l for MA facilities (or Section 3.l.2.3 and Footnote l0 of 3.l.l for NH facilities) for key information on minimum level for analysis and sufficiently sensitive test procedures.
   - **f.** Sampling data that was collected within one year of the effective date of this general permit AND that adheres to all of the requirements above may be submitted in lieu of new samples. This must be denoted with the submitted data.

b) Provide a description of control measures, chemical substitutions, waste handling methods, and operational changes evaluated and/or used by the facility to minimize the discharge of aluminum to surface waters. (Include additional sheet(s), if necessary)

_____

_____

_____

_____

_____

D. Endangered Species Act Eligibility Information

Using the instructions in Appendix III of the PWTF GP, which of the following criteria apply to your facility?

U.S. Fish and Wildlife Service (USFWS) Criteria: (A) B C

l. If you selected USFWS criteria B, has consultation with the U.S. Fish and Wildlife Service been completed?

Yes No

2. If consultation with US Fish & Wildlife 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

3. Attach documentation of ESA eligibility for USFWS as required at Part l.4 and Appendix III of the General Permit. **See Attachment B and Figure 2.**

4. For facilities seeking coverage under the Potable Water Treatment Facility General Permit for the *first* time, respond to the following questions to assist in ESA eligibility for NMFS:

a) Indicate if the facility discharges into any of the stretches of the following rivers which can support or provide habitat to either Shortnose or Atlantic Sturgeon:

N/A

Merrimack River (from Essex Dam in Lawrence, Downstream (including Haverhill) to mouth of River)	Yes	No
Connecticut River (from Turner's Falls, downstream through Holyoke (including Holyoke Dam region)	Yes	No
Taunton River	Yes	No
Piscataqua River (in NH)	Yes	No

b) Has the facility had any previous formal or informal consultation with NMFS?

Yes No

If yes, attach the results of the consultation(s). **Documentation attached? _____**

E. National Historic Properties Act Eligibility

1. 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) **See Attachment C and Figure 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). **Documentation attached? _____**

3. Which of the three National Historic Preservation Act scenarios listed in Appendix II, Section III have you met?

(1) 2 3

F. Supplemental Information

Please provide any supplemental information, including antidegradation review information applicable to new or increased discharges. Attach any analytical data used to support the application. Attach any certification(s) required by the General Permit.

G. Signature Requirements

The NOI must be signed by the operator in accordance with the signatory requirements of 40 CFR § 122.22 (see below) including the following certification:

I certify under penalty of law that (1) 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; (2) any chemicals used to treat the discharge have been identified in this NOI; and (3) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act.

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 gathered and evaluated 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, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than 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 Keith Swanson Date 4/23/18

Printed Name and Title Keith Swanson, Superintendent

Federal regulations require this application to be signed as follows:

1. For a corporation, by a responsible corporate party;
2. For a 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 http://www3.epa.gov/regionl/npdes/pwtfgp.html

H. "Opt-Out Request" from NetDMR Requirement

1. Check the box if you **are** applying for an "opt-out request." ☐

2. Provide a detailed explanation of the technical or administrative factors that support your request to "opt-out" from the requirement to submit DMRs and reports electronically. (Add additional lines, if necessary.)

_____

_____

_____

_____

_____

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

As required in Section B., Item 3. - 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 sodium hypochlorite for oxidation of iron and manganese and disinfection 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. Sodium bisulfite is added for dichlorination of the backwash water. 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 is filtered through a sod layer in the bottom of the lagoons and into a perforated underdrain system. It then 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. The estimated time of travel from the lagoon to the discharge point is 5 minutes. 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

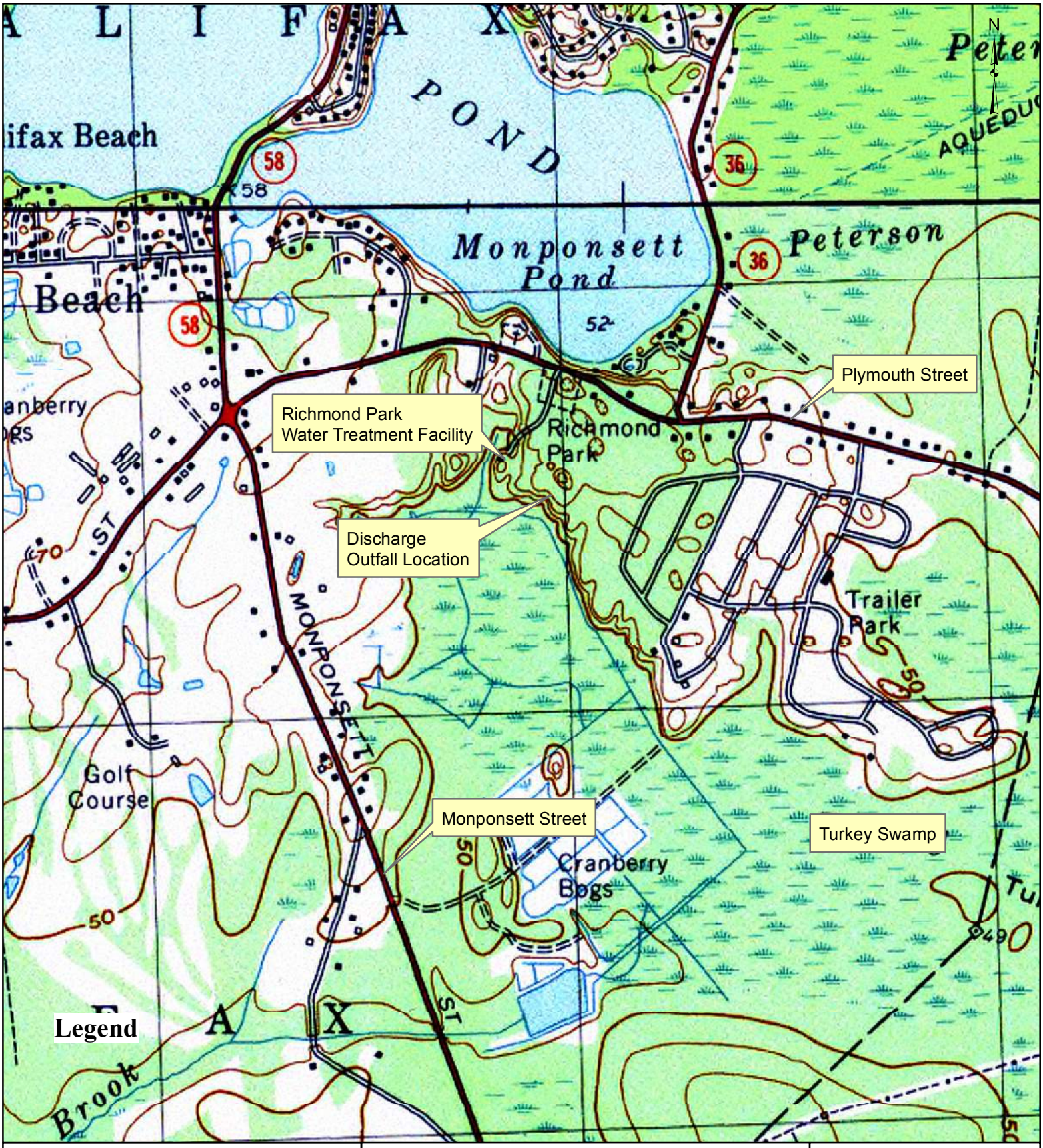
As required in Section D. Endangered Species Act Eligibility, of the NPDES Potable Water Treatment Facility General Permit Notice of Intent, please note the following:

- 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 in 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.



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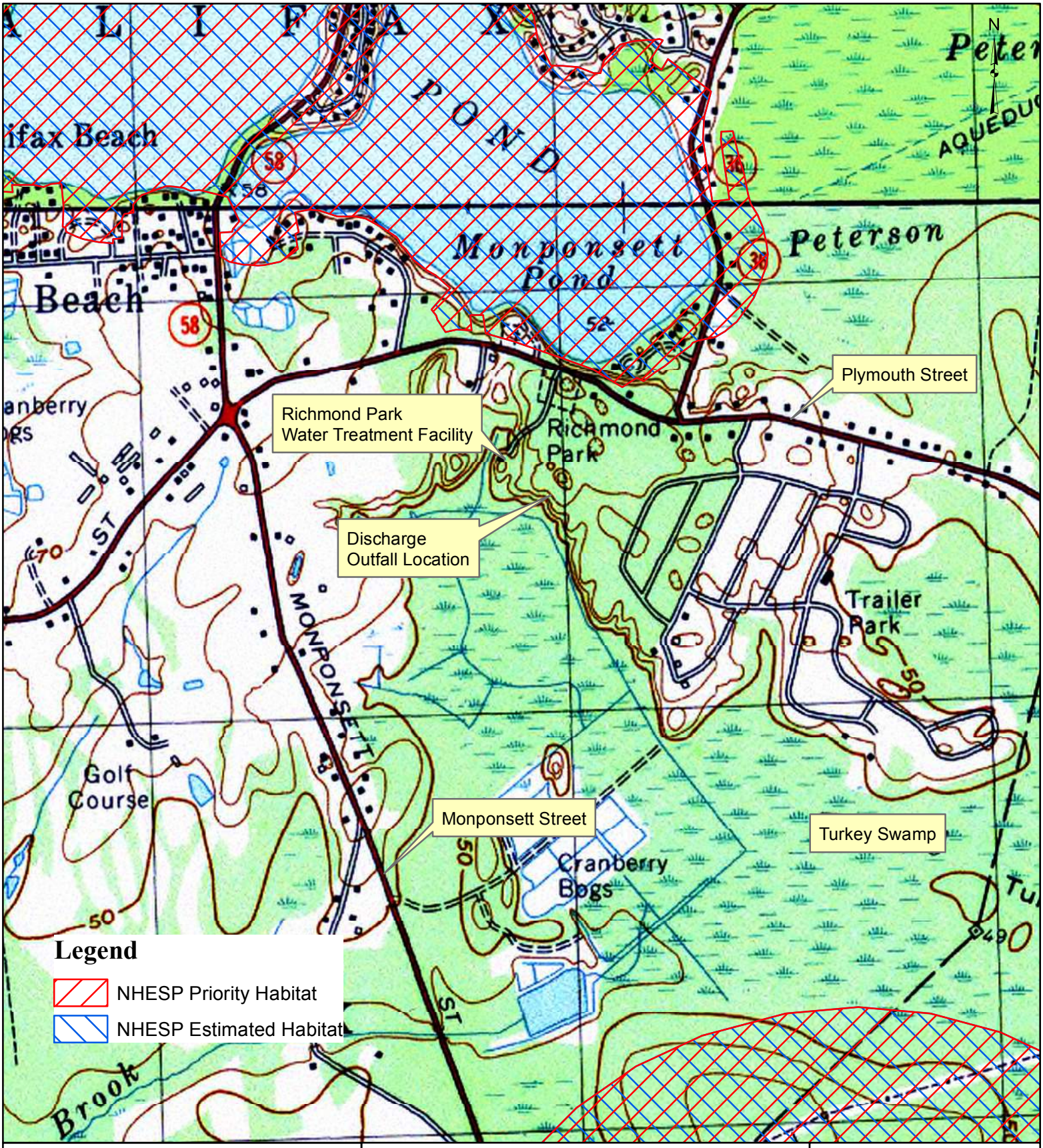
Date: April 2018
Approximate Scale: 1:12,000

Locus Map

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

Figure No.

1



TATA & HOWARD

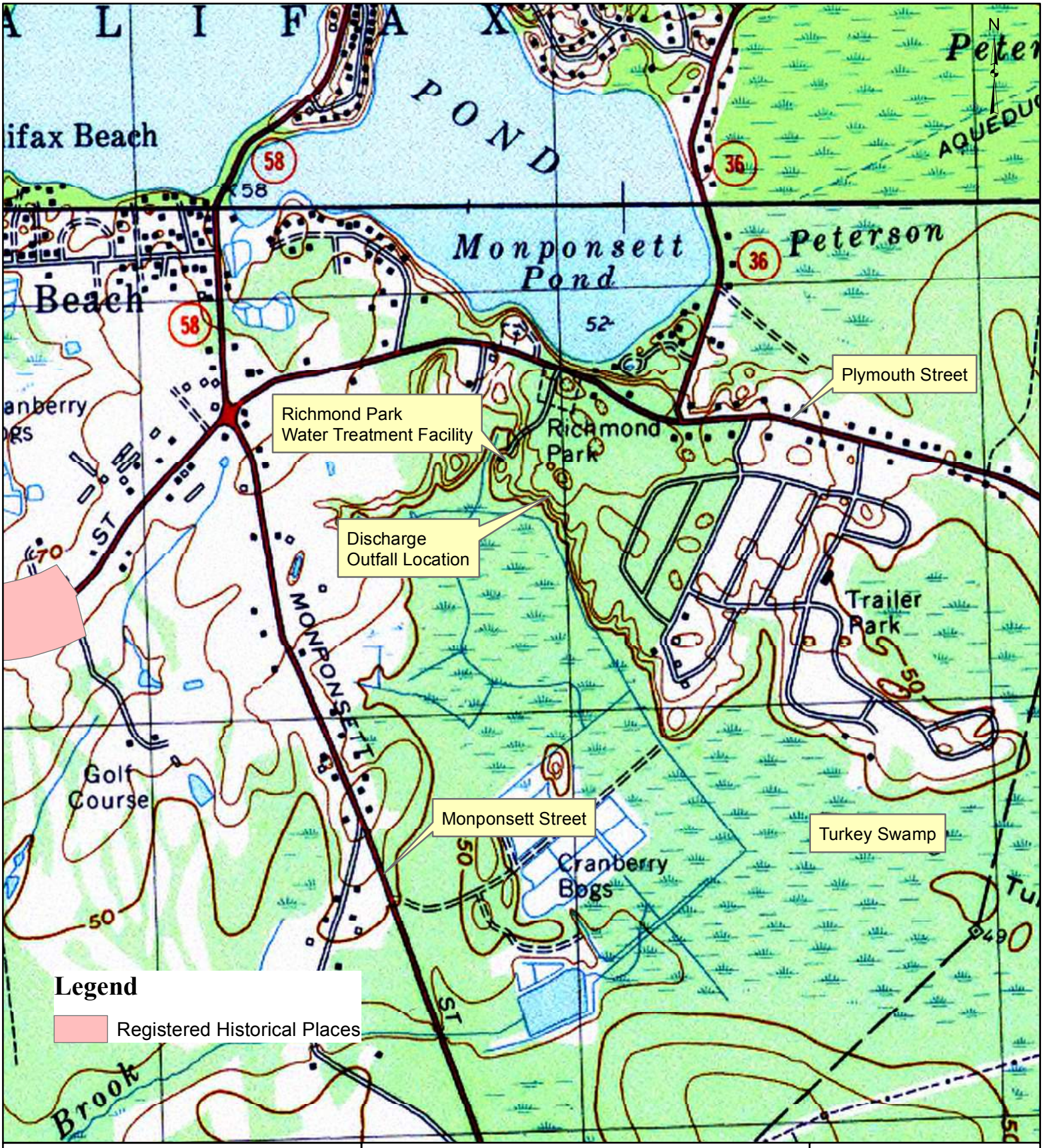
Date: April 2018
Approximate Scale: 1:12,000

NHESP Priority & Estimated Habitat Areas

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

Figure No.

2



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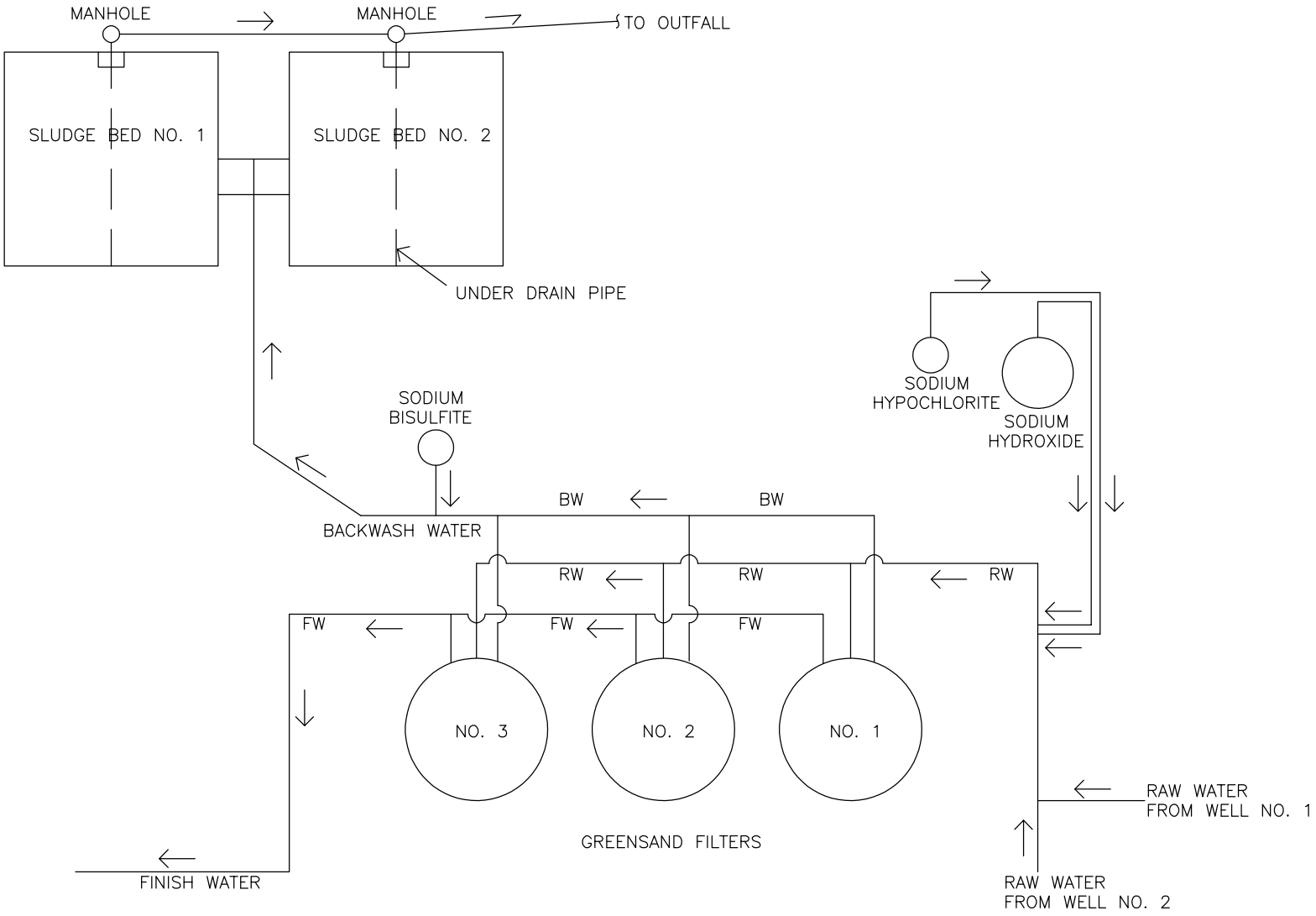
Registered Historic Places

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

Figure No.

3



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PROCESS TREATMENT SCHEMATIC

RICHMOND PARK WATER TREATMENT FACILITY

HALIFAX, MASSACHUSETTS

Figure No.

4