

12/18/09
Received

December 16, 2009

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

RE: Town of Hanover - Pond Street Water Treatment Plant
Potable Water Treatment Facility General Permit
NPDES General Permit No. MAG640043 Notice of Intent
Transmittal Number W068174

To Whom It May Concern:

On behalf of the Town of Hanover, please find enclosed a complete Notice of Intent (NOI) for coverage of the Pond Street Water Treatment Plant (WTP) under the National Pollutant Discharge Elimination System (NPDES) General Permit for discharges from Potable Water Treatment Facilities (PWTF). The Pond Street WTP is located at 40 Pond Street in Hanover, Massachusetts (refer to Figure 1 - Site Locus). This NOI details the re-application of the WTP's existing NPDES PWTF General Permit (MAG640043), which was administratively continued in November 2005.

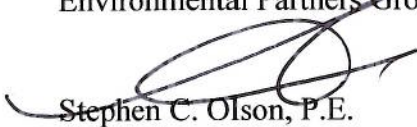
This complete NOI package consists of the following:

- Environmental Protection Agency (EPA) PWTF NPDES General Permit NOI form and dilution factor calculations;
- Site figures including a site locus, site plan identifying WTP's discharge location, and the WTP's process flow diagram; and
- A summary of the NPDES discharge monitoring data from May 2009 until November 2009.

The NOI form provides an overview of the Pond Street WTP physical and chemical treatment processes. The Pond Street WTP currently has one registered NPDES discharges: the residuals lagoon discharge (001A).

Thank you for your cooperation and assistance. Please feel free to contact me at (617) 657-0255 (sco@envpartners.com) or the Water Supervisor, Douglas Billings at (781) 826-3189 (Billings@HanoverDPW.org) if you have any questions or require additional information.

Very Truly Yours,
Environmental Partners Group, Inc.


Stephen C. Olson, P.E.
Senior Project Manager

Encl: PWTF NPDES General Permit NOI
Figures
NPDES Discharge monitoring data

CC: MA DEP, Division of Watershed Management
Vic Diniak, Superintendent of Public Works
Douglas Billings, Water Supervisor
Steve Cronin, Chief Operator

**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 (P WTF)
NPDES General Permit No. MAG640000 and NHG640000**

A. Facility Information

1. Facility Owner:

Name	Town of Hanover Department of Public Works	e-mail	Diniak@HanoverDPW.org
Street/PO Box	40 Pond Street	City	Hanover
State	MA	Zip Code	02339
Contact Person	Victor Diniak - Superintendent	Telephone Number	(781) 826-3189

2. Facility Operator (if different from above):

Name	Town of Hanover Water Department	e-mail (optional)	Billings@HanoverDPW.org
Street/PO Box	40 Pond Street	City	Hanover
State	MA	Zip Code	02339
Contact Person	Douglas Billings - Water Supervisor	Telephone Number	(781) 826-3189

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

Name	Pond Street Water Treatment Plant	e-mail (optional)	Cronin@hanoverdpw.org
Street/PO Box	40 Pond Street	City	Hanover
State	MA	Zip Code	02339
Contact Person	Stephen Cronin	Telephone Number	(781) 826-3189
Facility Latitude	42° 7' 51.80"	Facility Longitude	-70° 49' 59.94"

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

SIC Code(s) _____
Description(s) _____

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

1. Has a prior NPDES permit been granted for the discharge? Yes ☒ (Permit Number: MAG640043)
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 Old Pond Meadow to Third Herring Brook
2. Type of Receiving Waterbody (e.g. stream, lake, reservoir, estuary etc) stream
3. State Water Quality Classification: B Freshwater: _____ Marine Water: _____
4. Describe the discharge activities for which the owner/applicant is seeking coverage, including process discharges not specifically authorized in the P WTF GP which need to be authorized for discharge (and which attain the

The Pond Street WTP treats groundwater from several wells in the Old Pond Meadow aquifer. The groundwater is treated with lime (Ca(OH)_2) for pH adjustment and potassium permanganate (KMnO_4) and chlorine for oxidation of iron and manganese. Treated water flows by gravity to a rapid mixer where alum is added for coagulation. The treated water is flocculated and solids are settled out in the sedimentation basin. Solids are removed from the bottom of the sedimentation basin using a chain and flight scraper where it is collected in a sump and pumped to the concrete lined sludge lagoons adjacent to the WTP. The settled water is then filtered to remove solids and organics. The filters are backwashed with filtered water from the filter clearwell. Chlorine is added to the clearwell for disinfection. Filter backwash water and solids are pumped to the lagoons. The lagoons are operated in series with one lagoon decanting into the other. The sludge is settled within the lagoons and the supernatant is discharged to Old Pond Meadow swamp and then into Third Herring Brook.

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 <u>42° 7' 53.68"</u> | Longitude <u>-70° 49' 58.43"</u> |
| OUTFALL # | Latitude _____ | Longitude _____ |

7. What is the proposed sampling location(s) and proposed consistent times of the month for collecting samples:
 Samples are collected from the lagoon discharge slide gate on a weekly basis.

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): Lime (Ca(OH)₂)
Potassium Permanganate (KMnO₄), Alum, and Chlorine gas

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>90,000</u>	<u>121,000</u>
TSS (mg/l)	<u>5.5</u>	<u>22.8</u>
pH (s.u.)	(min) <u>7.52</u>	(max) <u>7.92</u>
Total Recoverable Aluminum (ug/l)	<u>0.30</u>	<u>0.97</u>
Total Residual Chlorine (ug/l)	<u>0.05</u>	<u>0.10</u>

Appendix IV – NPDES Potable Water Treatment Facility General Permit

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 0.07 cfs Dilution Factor 1.5 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  Date 12-16-09
Printed Name and Title Victor J. Diniaik, DAW Supt.

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

Town of Hanover
Pond Street Water Treatment Plant
PWTF GP NPDES MAG640043

Section C Part 9: 7Q10 flow and Dilution Factor Calculations

7Q10 Flow for Third Herring Brook:	0.07 cfs	Provided by MA DEP Watershed
WTP NPDES Discharge Rate:	0.09 MGD	Monthly Average

$$\text{Dilution Factor} = \frac{Q_r + (Q_p \times 1.55)}{Q_p \times 1.55}$$

Q_r: 7Q10 Flow in cfs
Q_p: Discharge Rate in MGD
1.55: Conversion Factor for MGD to cfs

$$\text{Dilution Factor} = \frac{(0.07 \text{ cfs}) + (0.09 \text{ MGD} \times 1.55)}{(0.09 \text{ MGD} \times 1.55)} = 1.5$$

Attachment I

Figures
