

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

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DES-WEB

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 Goffstown Village Precinct e-mail _____
Street/PO Box PO Box 689 City Goffstown
State NH Zip Code 03045
Contact Person Allen D. Carnans Telephone Number 603 497-3621

2. Facility Operator (if different from above):

Name _____ e-mail (optional) _____
Street/PO Box _____ City _____
State _____ Zip Code _____
Contact Person Lee Minnich Telephone Number (603) 486-8621

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

Name Water Treatment Facility e-mail (optional) _____
Street/PO Box PO Box 689 City Goffstown
State NH Zip Code 03045
Contact Person Lee Minnich Telephone Number 603 497-3621
Facility Latitude 42.99731 Facility Longitude -71.596304

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: NHG640000)
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 Whittle Brook
2. Type of Receiving Waterbody (e.g. stream, lake, reservoir, estuary etc) Brook
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):

Over the course of 24 hr period, the calcium carbonate pre-filters and the Macrolite media filters backwash once and rinse three times, producing a maximum daily effluent of 50,000 gallons. This effluent will flow to two holding tanks (33,000gal) where the solids are settled out and the supernatant overflow from the two tanks are sent to a 90,000 gallon lagoon. The lagoon is open to the atmosphere and the supernatant evaporates or infiltrates into the ground. When the lagoon overflows the effluent is directed to Whittle Brook downstream of the GWPF's lower reservoir.

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

See Attachment

6. Number of outfalls: 1 Latitude and Longitude for each outfall (attach additional pages if necessary)
 OUTFALL # Latitude 42.99731 Longitude -71.596304
 OUTFALL # Latitude _____ Longitude _____

For each outfall:

7. What is the proposed sampling location(s) and proposed consistent times of the month for collecting samples:
Sample location is at the outfall of the lagoon. The sample will be taken once per week while discharging

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):
Our treatment process uses Calcium Carbonate to adjust pH and Chlorine to disinfect.

2. Please report here any known remediation activities or water-quality issues in the vicinity of the discharge.
None

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. See Attached

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

Characteristic (report if measured)	Average Monthly	Maximum Daily
Discharge Flow (gpd)	<u>25,000</u>	<u>50,000</u>
TSS (mg/l)	<u><5</u>	<u>10</u>
pH (s.u.)	(min) <u>6.5</u>	(max) <u>8.2</u>
Total Recoverable Aluminum (ug/l)	<u>110</u>	<u>170</u>
Total Residual Chlorine (ug/l)	<u>20</u>	<u>240</u>

(continued on next page)

8. Continued

Characteristic (report if measured)

N/A

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

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 0041 cfs Dilution Factor 1 cfs

D. Endangered Species Act Eligibility

1. Using the instructions in Appendix I of the PWTG 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 affect" 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 P WTF 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 Allen D. Gorman Date 12/1/09
Printed Name and Title ALLEN D. GORMAN, ENVIRONMENTAL

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



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80313

Client: **Goffstown Village Water Precinct**

Client Designation: **None**

Sample ID: Lagoon Sample

Lab Sample ID: 80313.01

Matrix: aqueous

Date Sampled: 6/24/09

Date Received: 6/25/09

Aluminum 0.11

Analytical Matrix	Units	Date of Analysis	Method	Analyst
AqTot	mg/L	6/30/09	200.7	DS



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 81397

Client: Goffstown Village Water Precinct

Client Designation: None

Sample ID: Lagoon Sample

Lab Sample ID: 81397.01

Matrix: aqueous

Date Sampled: 7/30/09

Date Received: 7/30/09

Aluminum 0.13

Analytical Matrix	Units	Date of Analysis	Method	Analyst
AqTot	mg/L	8/3/09	200.7	DS



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 81622

Client: Goffstown Village Water Precinct

Client Designation: None

Sample ID: Lagoon Sample

Lab Sample ID: 81622.01

Matrix: aqueous

Date Sampled: 8/5/09

Date Received: 8/6/09

Aluminum 0.17

Analytical Matrix	Units	Date of Analysis	Method	Anal
AqTot	mg/L	8/12/09	200.7	D

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 82433

Client: Goffstown Village Water Precinct

Client Designation: None

Sample ID: Lagoon Sample

Lab Sample ID: 82433.01

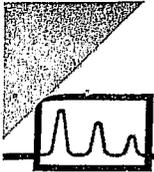
Matrix: aqueous

Date Sampled: 9/2/09

Date Received: 9/3/09

Aluminum 0.11

Analytical Matrix	Units	Date of Analysis	Method	Analyst
AqTot	mg/L	9/9/09	200.7	DS



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 83397

Client: Goffstown Village Water Precinct

Client Designation: None

Sample ID: Lagoon Sample

Lab Sample ID: 83397.01

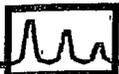
Matrix: aqueous

Date Sampled: 10/7/09

Date Received: 10/8/09

Concentration: 0.08

Analytical Matrix	Units	Date of Analysis	Method	Analyst
AqTot	mg/L	10/14/09	200.7	DS



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 84256

Client: Goffstown Village Water Precinct

Client Designation: None

Sample ID: Lagoon Sample

Lab Sample ID: 84256.01

Matrix: aqueous

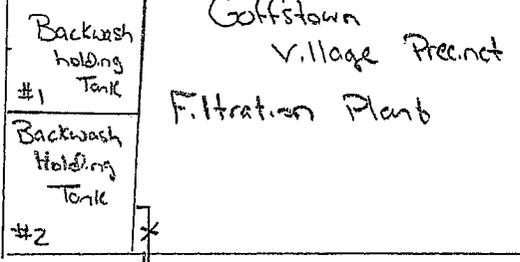
Date Sampled: 11/3/09

Date Received: 11/5/09

Aluminum 0.06

Analytical Matrix	Units	Date of Analysis	Method	Analyst
AqTot	mg/L	11/10/09	200.7	DS

± 33,000 gal



6" Pipe To Lagoon

Driveway Gravel

Grass area

Stone sides and base

Approx 90,000 gal Lagoon

12" Discharge Pipe

White Road

50' ±

Sample Location

Grass / Brush Area



Goffstown Water Plant Dilution Factor Calculations

APPENDIX VII - DILUTION FACTOR CALCULATIONS FOR MASSACHUSETTS AND NEW HAMPSHIRE

For New Hampshire:

Method 1: When the water supply is from outside the drainage basin.

Equation used to calculate the dilution factor at the outfall

$$\text{Dilution Factor} = \frac{QR + (QP \times 1.55) \times 0.9}{QP \times 1.55}$$

where:

QR = Estimated 7Q10 low flow for the receiving water at the outfall, in cubic feet per second (cfs).

QP = Discharge rate, in million gallons per day (mgd).

1.55 = Factor to convert mgd to cfs.

0.9 = Factor to reserve of 10 percent of river's assimilative capacity.

Estimated 7Q10 low flow (QR): 0.00411 cfs

Max 30-day average flow (QP): 0.025 mgd 0.0388 cfs

Max Daily Flow (QP): 0.06 mgd 0.0930 cfs

10/2/2009

90

12/31/2009

Avg Monthly Dilution Factor: 0.995458 (round up to 1)

Max Day Dilution Factor: 0.939774 (round up to 1)