

Underwood Engineers, Inc.

Civil-Environmental

25 Vaughan Mall, Unit 1, Portsmouth, New Hampshire 03801-4012

Tel: 603-436-6192 Fax: 603-431-4733

1613.04

June 4, 2010

Olga Vergara
Environmental Protection Agency
Office of Ecosystem Protection
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Re: *Potable Water Treatment Facility General Permit
Notice of Intent (NOI)*
Newmarket, New Hampshire

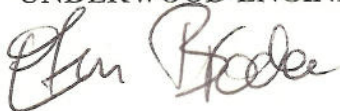
Dear Ms. Vergara:

Enclosed please find the Notice of Intent for the Potable Water Treatment Facility General Permit for the Town of Newmarket New Hampshire. By copy of this letter we are also sending this NOI to the Permits Compliance Section of the New Hampshire Department of Environmental Services.

Please call with any questions.

Very truly yours,

UNDERWOOD ENGINEERS, INC



Ethan Brooke, E.I.T.
Project Engineer

JUN - 8 2010

Encl.

cc. Sean Greig, Water & Wastewater Superintendent and Assistant Director (with encl.)
Sam Heffron, Town of Newmarket (with encl.)
Permits Compliance Section, NHDES (with encl.)

**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 Newmarket e-mail _____
Street/PO Box 186 main st City Newmarket
State NH Zip Code 03857
Contact Person Sean Greig Telephone Number 603/659-3073

2. Facility Operator (if different from above):

Name Sean Greig e-mail (optional) sgreig@newmarketh.gov
Street/PO Box 4 Young Ln. City Newmarket
State NH Zip Code 03857
Contact Person Sean Greig Telephone Number 603/659-8810

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

Name Newmarket Drinking Water Treatment Plant e-mail (optional) _____
Street/PO Box 54 Packers Falls Rd. City Newmarket
State NH Zip Code 03857
Contact Person Sean Greig Telephone Number 603/659-8810
Facility Latitude 70 56' 52.05" Facility Longitude 43 4' 58.31"

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

SIC Code(s) 4941
Description(s) Drinking water treatment plant

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

1. Has a prior NPDES permit been granted for the discharge? Yes ☒ (Permit Number: NHG640007 001A)
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 Lower Piscassic River
2. Type of Receiving Waterbody (e.g. stream, lake, reservoir, estuary etc) River
3. State Water Quality Classification: _____ Freshwater: B 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 Attached.

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 70 56' 52.05" Longitude 43 4' 58.31"
 OUTFALL # Latitude _____ Longitude _____

For each outfall:

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

Because the plant will only discharge in the event of plant restarts, there will not be a monthly opportunity to sample effluent.

A sample will be collected from a sampling port in the outfall when ever the plant is 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):
 Alum, NaOCl, NaOH, powdered activated carbon, chlorine, potassium permanganate

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

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:

Characteristic (report if measured)	Average Monthly	Maximum Daily
Discharge Flow (gpd)	_____	_____
TSS (mg/l)	_____	_____
pH (s.u.)	(min) _____	(max) _____
Total Recoverable Aluminum (ug/l)	_____	_____
Total Residual Chlorine (ug/l)	_____	_____

(continued on next page)

8. Continued

Characteristic (report if measured)

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 .61 cfs _____ cfs Dilution Factor No Data _____ 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

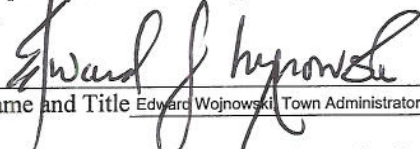
1. Using the instructions in Appendix III of the PWTF GP, under which criterion listed in Part III are you eligible for coverage under this general permit?

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 05/26/10
Printed Name and Title Edward Wojnowski, Town Administrator

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

1. 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):

B4

The Town of Newmarket New Hampshire is seeking a permit to discharge finished drinking water from their water treatment plant located at 54 Packers Falls Rd., Newmarket, NH into the lower Piscassic River. The plant needs to discharge finished drinking water into the river only after the plant has shut down for maintenance and is coming back on line.

The facility is currently not in operation, and there is no current plan for the plant to resume operation. This permit is being sought in order to maintain permitting in case of a future need for the plant to resume operation.

Because the plant is not currently operating, there is no current effluent data. The most recent Data was submitted with the last discharge permit application (#NHG640007 001A). Because the plant has been offline for several years, there is no record of effluent quality that the Town currently has in its records.

Influent enters the facility from the upper Piscassic River. The flow is monitored by a flow meter, and then is mixed with alum, sodium hypochlorite, sodium hydroxide and powdered activated carbon. The water then goes through coagulation and flocculation, followed by mixed media filters. Next the water is chlorinated using sodium hypochlorite and enters a chlorine contact chamber. Afterwards the water is dechlorinated using sodium hydroxide. Finally the water exits the plant through the outflow back into the Piscassic River.

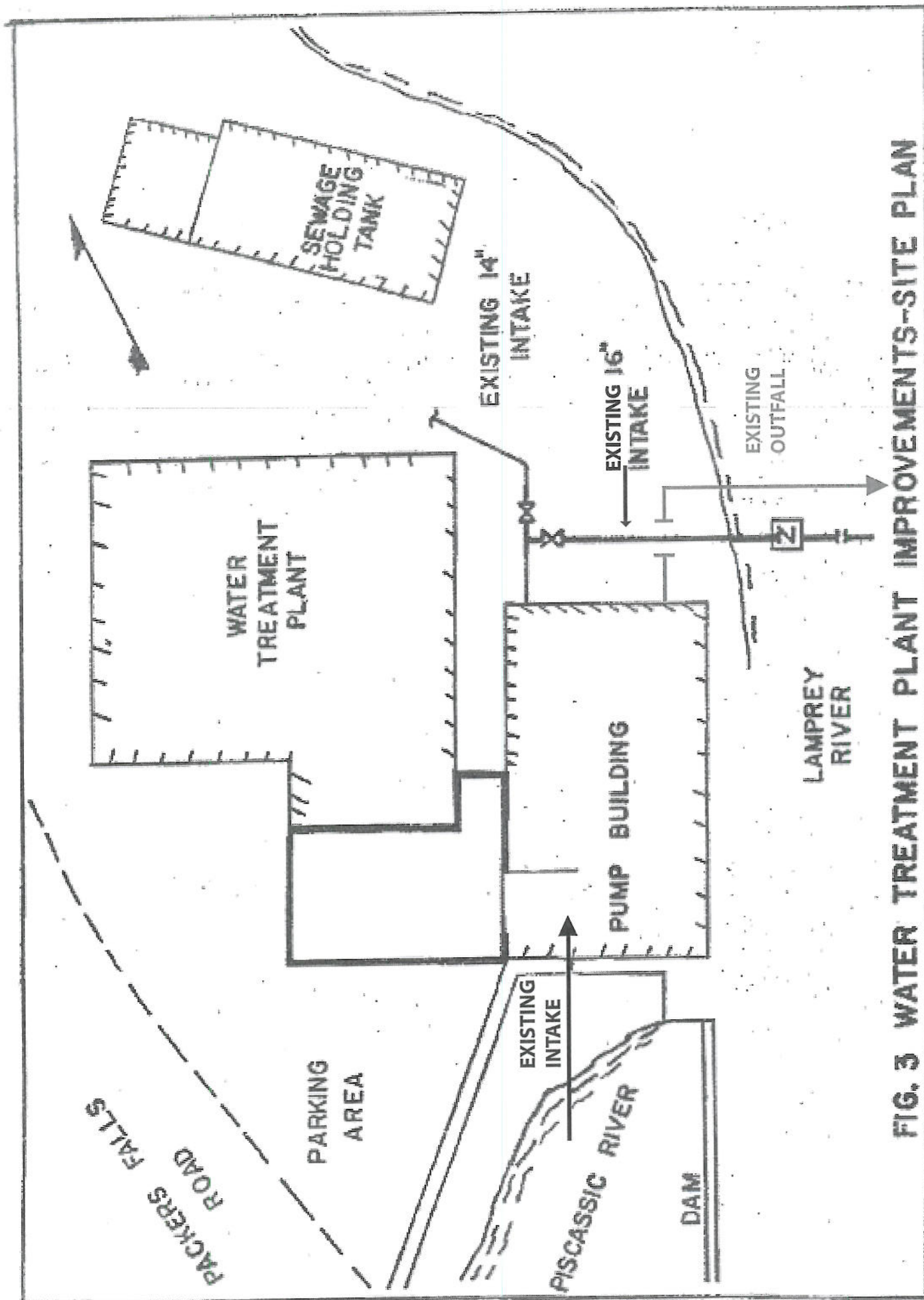
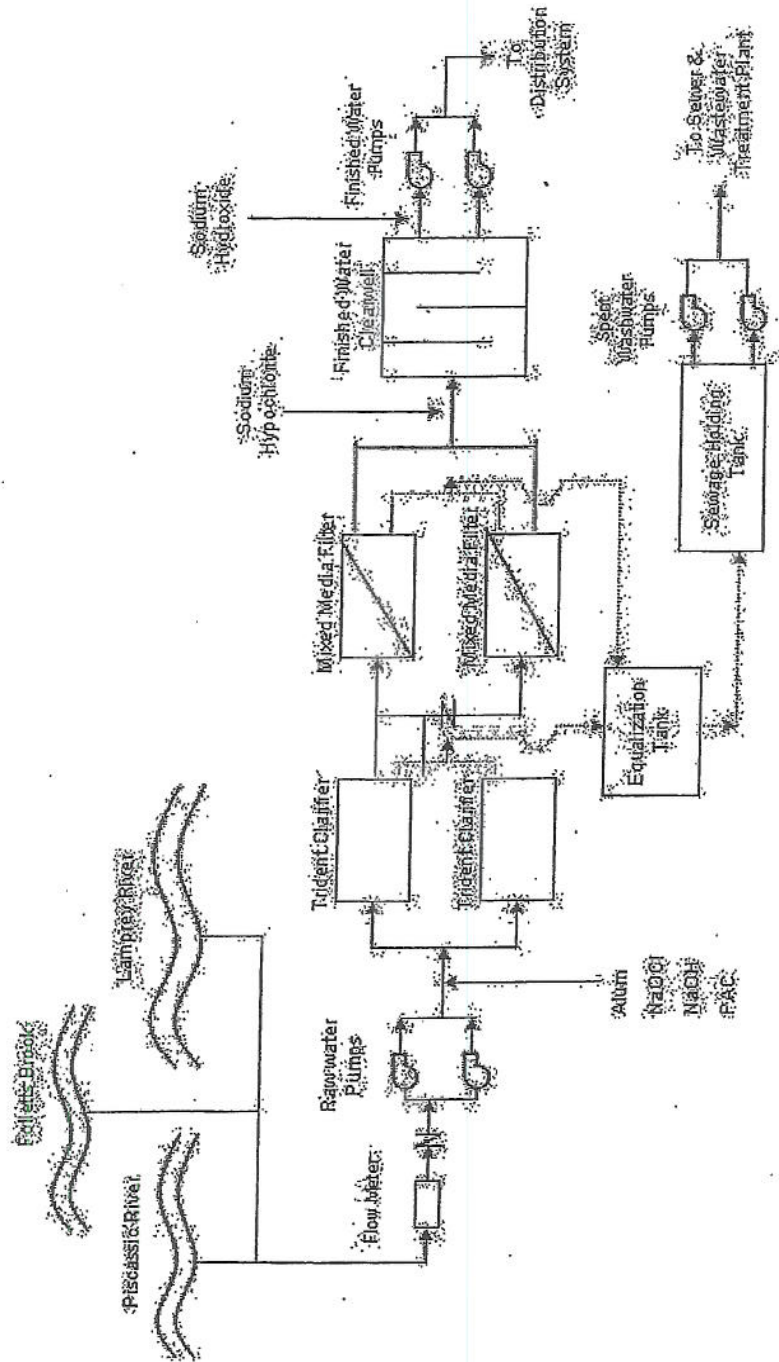


FIG. 3 WATER TREATMENT PLANT IMPROVEMENTS-SITE PLAN

Figure 2-1

Process Flow Schematic
Rackers Falls Water Treatment Facility

Not to Scale



TOWN OF NEW MARKET, NH

11:45:35 PM

Log On

Spare

Current Alarms

PROCESS OVERVIEW PLANT CONTROL

1 PSI

BLOWER

Carbon
Aluminum
Polymer

Alum
Pot Perm

Chlorine 1

Chlorine 2

Caustic

No.1

3 GPM

No.1
0.000 NTU

0.00 NTU

~1000

No.1
0.000 NTU

CLARK WELLS

0.00 MCL
0.000 NTU
0.00 FT

No.1

No.2

0 GPM

0.00 pH

60 PSI

No.2

3 GPM

No.2
0.000 NTU

No.2
0.000 NTU

EXWELL WELLS

48.9 FT
250 GPM
8.44 pH

RUN

0 GPM

23.5 FT
210 GPM
8.50 pH

0 GPM

BENNETT VALVE

RECYCLE TANK

0.0 FT

Sludge Valve

0 GPM

0.0 FT

Sludge Holding Tank

0 GPM

0 GPM

0 GPM

OPERATOR

PASSWORD

Please mail the completed form and required material to:

New Hampshire Division of Historical Resources
State Historic Preservation Office
Attention: Review & Compliance
19 Pillsbury Street, Concord, NH 03301-3570

RECEIVED

MAY 06 2010

BY UNDERWOOD ENGINEERS, INC.

DHR Use Only

R&C#

1992

Log In Date

4/28/10

Response Date

5/5/10

Sent Date

5/6/10

Request for Project Review by the New Hampshire Division of Historical Resources

- ☐ This Project is funded by the American Recovery and Reinvestment Act of 2009
☒ This is a new submittal ☐ This is additional information relating to DHR Review #:

GENERAL PROJECT INFORMATION

Project Title Newmarket Water Treatment Plant Discharge Permit

Project Location Newmarket

Tax Map & Lot # UI-45

NH State Plane - Feet Geographic Coordinates: Easting 1176257
(see RPR Manual and R&C FAQ's for help accessing this data)

Northing 213075

WGS84 datum

Lead Federal Agency EPA
(Agency providing funds, licenses, or permits)

Permit or Job Reference # NHG640007

State Agency and Contact (if applicable)

Permit or Job Reference #

APPLICANT INFORMATION

Applicant Name Sean Greig, Water and Sewer Superintendent

Street Address 186 main st Phone Number 603-659-8810

City Newmarket State NH Zip 03857 Email sheffron@newmarketnh.gov

CONTACT PERSON TO RECEIVE RESPONSE

Name/Company Ethan Brooke, Underwood Engineers, Inc.

Street Address 25 Vaughan Mall, Unit 1 Phone Number 603-436-6192

City Portsmouth State NH Zip 03801 Email ebrooke@underwoodeng.com

Please refer to the Request for Project Review manual for direction on completing this form. Submit one copy of this project review form for each project for which review is requested. Include a self-addressed stamped envelope to expedite review response. Project submissions will not be accepted via facsimile or e-mail. This form is required. Review request form must be complete for review to begin. Incomplete forms will be sent back to the applicant without comment. Please be aware that this form may only initiate consultation. For some projects, the Division of Historical Resources (DHR) may require additional information to complete our review. All items and supporting documentation submitted with a review request, including photographs and publications, must be retained by the DHR as part of its review records. Items to be kept confidential should be clearly identified. For questions regarding the DHR review process, please visit our website at: <http://www.nh.gov/nhdhr/review> or contact the R&C Specialist at 603.271.3558.

PROJECT BOUNDARIES AND DESCRIPTION

PROJECTS CANNOT BE PROCESSED WITHOUT THIS INFORMATION

REQUIRED

- ☒ Attach the relevant portion of a 7.5' USGS Map (photocopied or computer-generated) *indicating the defined project boundary.*
- ☒ Attach a detailed written description of the proposed project. Include: (1) a narrative description of the proposed project; (2) site plan; (3) photos and description of the proposed work if the project involves rehabilitation, demolition, additions, or alterations to existing buildings or structures; and (4) a photocopy of the relevant portion of a soils map (if accessible) for ground-disturbing projects.

Architecture

Are there any buildings or structures within the project area? ☐ Yes ☒ No

If yes, submit all of the following information:

Approximate age(s):

- ☒ Photographs of *each* building located within the project area along with a photo key. Include streetscape images if applicable. (Digital photographs are accepted. All photographs must be clear, crisp and focused)
- ☐ DHR file review conducted on

Please note that as part of the review process, the DHR may request an architectural survey or other additional information.

Archaeology

Does the proposed undertaking involve ground-disturbing activity? ☐ Yes ☒ No

If yes, submit all of the following information:

- ☐ Project specific map and/or preliminary site plan that fully describes the project boundaries and areas of proposed excavation.
- ☐ Description of current and previous land use and disturbances.
- ☐ Any available information concerning known or suspected archaeological resources within the project area.

Please note that as part of the review process, the DHR may request an archaeological survey or other additional information.

DHR COMMENT

This Space for Division of Historical Resources Use Only

- ☐ No Potential to cause Effects ☐ Additional information is needed in order to complete our review
- ☐ No Adverse Effect ☒ No Historic Properties Affected ☐ Adverse Effect

Comments: TO TURN ON WATER DISCHARGE PIPE

If plans change or resources are discovered in the course of this project, you must contact the Division of Historical Resources as required by federal law and regulation.

Authorized Signature: Linda Ray Wilson DSHPO

Date: 5/5/2010



United States Department of the Interior



FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5087
<http://www.fws.gov/newengland>

January 4, 2010

To Whom It May Concern:

This project was reviewed for the presence of federally-listed or proposed, threatened or endangered species or critical habitat per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website:

(<http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm>)

Based on the information currently available, no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service (Service) are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under Section 7 of the Endangered Species Act is not required.

This concludes the review of listed species and critical habitat in the project location(s) and environs referenced above. No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your cooperation. Please contact Mr. Anthony Tur at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office