

September 22, 2011

Ms Meridith Timony

EPA Region 1

Office of Ecosystem Protection

5 Post Office Square, Suite 100

Mail Code ; OEP06-1

Boston MA 02109-3912

Subject ; NOI Request

Dear Ms Timony

I am requesting authorization to discharge under the NHG580000 general permit for the Newington WWTP permit NHG580041.

A NOI was submitted on February 24.2010 and accepted as complete. Note attachment # 1

The influent to the plant has had no drastic changes.

The Newington WWTP personnel and Engineering firm have started and almost completed a Influent and Effluent Nitrogen study. Note attachment # 2

I have enclosed a copy of NOI submitted o 02/24/2010

Sincerely



Denis Messier, Plant Manager

Newington WWTP

Sincerely



George Fletcher, Chair

Newington Sewer Commission.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

5 Post Office Square, Suite 100  
BOSTON, MA 02109-3912

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

March 19, 2010

George T. Fletcher, Chairman  
Newington Sewer Commission  
115 Gosling Road  
Newington, New Hampshire 03801

Re: Publicly Owned Treatment Works General NPDES Permit No. NHG581141 –  
Newington Wastewater Treatment Facility

Dear Mr. Fletcher

This letter acknowledges your submittal of a Notice of Intent (NOI), dated February 24, 2010, for coverage under the Publicly Owned Treatment Works General NPDES Permit (POTW GP) No. NHG581141. Your NOI has been received and reviewed by this office. The information submitted appears to be complete and will be kept at our offices until such a time as the POTW GP is reissued. Since you submitted a timely and complete NOI, coverage of the discharge from your facility under the current POTW GP is administratively continued until a new permit is issued, in accordance with the Administrative Procedure Act (5 U.S.C. 558(c)) and 40 CFR §122.6. Please be advised that upon reissuance of the POTW GP, an NOI for coverage will need to be submitted in accordance with the notification requirements of that permit.

Please note that should you make any change to your processes that you believe may affect your coverage under the final permit, please contact Meridith Timony of my staff at (617) 918-1533 to discuss those changes.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Pitt".

Brian Pitt, Acting Chief  
NPDES Municipal Permits Branch  
Office of Ecosystem Protection



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Region 1  
5 Post Office Square, Suite 100  
BOSTON, MA 02109-3912

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Brian Pitt, Acting Chief  
NPDES Municipal Permits Branch  
Office of Ecosystem Protection



## NEW HAMPSHIRE DIVISION OF HISTORICAL RESOURCES

State of New Hampshire, Department of Cultural Resources  
19 Pillsbury Street, Concord, NH 03301-3570  
TDD Access: Relay NH 1-800-735-2964  
[www.nh.gov/nhdhr](http://www.nh.gov/nhdhr)

603-271-3483  
603-271-3558  
FAX 603-271-3433  
[preservation@nhdhr.state.nh.us](mailto:preservation@nhdhr.state.nh.us)

### STATE OF NEW HAMPSHIRE Inter-Department Communication

**DATE:** November 28, 2005

**FROM:** Edna Feighner, Review and Compliance Coordinator  
Division of Historical Resources

**SUBJECT:** Multiple Municipal Wastewater Treatment Facilities  
NPDES General Permit Review-Newington

**TO:** Susan A. Willoughby  
Wasterwater Engineering Bureau

**CC:** J. McConaha, SHPO

This is a response to your request with regard to comments concerning cultural resources potentially affected by the activities proposed by these facilities.

After reviewing our sites files and records, it has been determined that this area does appear to be archaeologically or historically sensitive and that sites have been identified in close proximity to the facility identified. The DHR does have concerns with regard to future project implementation if there are proposed improvements that would include ground disturbing activities.

At this time, because there will be no construction as a result of the NPDES General Permit, the Division has no objections to the permit coverage to continue an existing discharge.





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1  
1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

RECEIVED

DEC 6 2004

DES-WEB

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

November 18, 2004

Mr. Denis Messier  
Plant Manager  
Newington WWTP  
115 Gosling Road  
Newington, NH 03801

RE: NPDES Reapplication No. NH0101141 - Newington WWTP

Dear Mr. Messier:

Your reapplication for a National Pollutant Discharge Elimination System (NPDES) permit has been reviewed and appears to be complete. You may be contacted for additional information as the permit is developed, should it be necessary to clarify, modify or supplement any previously submitted information. By copy of this letter, your State Water Pollution Control Agency is being furnished a copy of your complete application for certification pursuant to Section 401(a)(1) of the Clean Water Act, as amended, 33 U.S.C. §1341(a)(1).

A draft permit and statement of basis or fact sheet will be prepared by this office and forwarded to you for comment prior to the opening of the public comment period. The draft permit will then be publicly noticed and forwarded for state certification if certification has not previously been received on the application. If it is deemed necessary, a public hearing will be held, in which case, the comment period will be extended until the close of the hearing. After the close of the public comment period, your final permit will be issued providing no new substantial questions are raised. If new questions develop during the comment period, it may be necessary to draft a new permit, revise the statement of basis or fact sheet and/or reopen the public comment period.

The conditions of your present permit will continue in force until your new permit is issued and becomes effective since you have filed a timely and complete application. 40 C.F.R. §122.6, 48 Fed. Reg. 14158 (April 1, 1983). The continuation of the present permit is contingent upon a timely submission of a CZM constituency statement, if required, and any additional information that may be needed to complete the permit reissuance process. 40 C.F.R. §122.49(d).

Toll Free • 1-888-372-7341

Internet Address (URL) • <http://www.epa.gov/region1>

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on Recycled Paper (minimum 30% Postconsumer)

Should you have any questions concerning the permit issuance process, please do not hesitate to contact me at 617/918-1545.

Sincerely,



Shelley Puleo  
Environmental Protection Specialist  
Municipal Assistance Unit

cc: NH DES

**NOTICE OF INTENT  
FOR  
N.H. GENERAL PERMIT #NHG580000**



**For Coverage Under the NPDES General Permit  
for Publicly Owned Treatment Works (POTWs) and  
Other Treatment Works Treating Domestic Sewage  
With Dilution Factors Greater than Fifty**

**Instructions**

**Important:**  
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Submission of this Notice of Intent (NOI) constitutes notice that the entity named at item A1. of this form intends to be covered by the NPDES General Permit for POTWs and Other Treatment Works Treating Domestic Sewage (TWTDS) issued by EPA, in the location identified at item A1. of this form. Submission of the Notice of Intent also constitutes notice that the party identified at item A1. has read, understands and meets the eligibility conditions of Part III.K. of the NPDES General Permit for POTWs and Other TWTDS, agrees to comply with all applicable terms and conditions of the permit, and understands that continued authorization to discharge is contingent on maintaining eligibility for coverage. In order to be granted coverage, all information required on this Notice of Intent form must be completed. A facility that fails to submit an NOI and/or receive written notification of permit coverage from EPA-New England is not authorized to discharge under this general permit. Please read the permit and make sure you comply with all requirements, including the requirement to contact the NH Department of Environmental Services (DES) prior to filling out this NOI. (Please contact Dan Dudley, (603) 271-0671, or Susan Willoughby (603) 271-3307 at DES.) The NOI instructions applicable to New Hampshire facilities begin on page 40 of the general permit.

**Part A. Basic Application Information**

A1. Facility Information:

Newington Wastewater Treatment Plant NHG581141  
 Facility Name NPDES Permit Number  
115 Gosling Road Newington NH 03801  
 Mailing Address  
Denis Messier Plant Manager 603-431-4111 Denis.Messier@UnitedWater.com  
 Contact and Title Telephone E-mail (if available)  
115 Gosling Rd Newington NH 03801  
 Facility Address

A2. Applicant Information (if different than above)

Applicant Name \_\_\_\_\_  
 Mailing Address \_\_\_\_\_  
 Contact and Title \_\_\_\_\_ Telephone \_\_\_\_\_ E-mail (if available) \_\_\_\_\_

Is the applicant the owner or operator (or both) of the POTW?  Owner  Operator  Both

A3. Facility Status:  Major  Minor

A4. Flow Information:

Permitted Design Flow .290 mgd Any planned increase?  Yes  No

Average Daily Flow based on the most recent 24 months:

Actual Time Period Jan 2008 to Dec 2009 Average Daily Flow .146 mgd

**NOTICE OF INTENT  
FOR  
N.H. GENERAL PERMIT #NHG580000**



**A5. Collection System Information:**

Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each other.

- Separate sanitary sewer 100 %
- Combined storm and sanitary sewer \_\_\_\_\_ %

**A6. Outfall Information:**

Provide the latitude and longitude coordinates for each outfall.

Outfall Number	Latitude	Longitude
<u>.005</u>	<u>43°-06'-07.2"</u>	<u>70°-47'-30'</u>
_____	_____	_____
_____	_____	_____

Does this outfall have a periodic discharge?  Yes  No

If yes, time period during which discharge occurs: \_\_\_\_\_ days/year

**A7. Receiving Water Information:**

Piscataqua River - (Hydrologic Unit Code 01060003)  
Name

**A8. Treatment Facility Information:**

Type of Wastewater Treatment Facility (Check only one)

- Sand Filter  Lagoon  Others

Type of Disinfection: Chlorination  Ultraviolet Light

Current sludge use and disposal practice:

- Land Application  Incineration\*  Surface Disposal

Other  Describe: Compost (Hawkrigde Unity MAINE)

(\*Note: Facilities incinerating their sludge are ineligible to receive coverage under this General Permit.)

**A9. Topographic Map (For facilities with a design flow greater than or equal to 0.1 MGD)**

Attach to this application a topographic map of the area showing the location of the treatment plant and all of the outfalls.

**A10. Process Flow Diagram (For facilities with a design flow greater than or equal to 0.1 MGD)**

Provide a diagram or schematic showing the processes of the treatment plant from the headworks to the outfall(s) and including any bypass piping.

**NOTICE OF INTENT  
FOR  
N.H. GENERAL PERMIT #NHG580000**



**Part B. Applicable Limits Information**

B1. Type of Receiving Water (Check One):

- Freshwater – Permit Part II.A. is applicable.
- Marine Waters – Permit Part II.B. is applicable.

**Dischargers to freshwater must answer "N/A" to questions B4 through B6 below**

**Dischargers to marine waters must answer "N/A" to questions B7 through B8 below**

B2. 7Q10 (freshwater only) N/A cfs (Contact DES for this information) MARINE

B3. Dilution Factor: 100 (Contact DES for this information)

B4. Do you discharge to marine waters used for swimming purposes? (Contact DES for this information)

- Yes Limits for Enterococci are found in Part II.B. of the general permit
- No Reporting for Enterococci are found in Part II.B. of the general permit
- N/A

B5. Choose one set of bacteria limits for the protection of the shellfishing use:

- Total Coliform - Limits for Total Coliform are found in Part II.B. of the general permit
- Fecal Coliform - Limits for Fecal Coliform are found in Part II.B. of the general permit
- N/A

B6. Chlorine limits for discharges to marine waters (From Table C in Part II.B. of the permit)

Monthly Average Limit from Table C for dilution factor of 100 (Question B3) = .25 mg/l

Maximum Daily Limit from Table C for dilution factor of 100 (Question B3) = 1.0 mg/l

N/A

B7. Chlorine limits for discharges to freshwaters (From Table C in Part II.A. of the permit)

Monthly Average Limit from Table C for dilution factor of 100 (Question B3) = .25 mg/l

Maximum Daily Limit from Table C for dilution factor of 100 (Question B3) = 1.0 mg/l

N/A

**NOTICE OF INTENT  
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B8. Do you discharge upstream of a freshwater designated beach? (Contact DES for this information)

- Yes Escherichia coli limits for bathing beach waters are found in Part II.A. of the general permit.  
 No Escherichia coli limits for non-bathing beach waters are found in Part II.A. of the general permit.  
 N/A

B9. Choose one set of biochemical oxygen demand limits.

- BOD<sub>5</sub>  CBOD<sub>5</sub> (Concentration limits are found in Parts II.A. and II.B. of the general permit)

B10. Monthly Average Mass TSS and BOD<sub>5</sub> (or CBOD<sub>5</sub>) limits

Mass TSS limit = 30 mg/l x 8.34 x permitted design flow .29 mgd (Question A4) = 73 lbs/day

AND

Mass BOD<sub>5</sub> limit = 30 mg/l x 8.34 x permitted design flow .29 mgd (Question A4) = 73 lbs/day

OR

Mass CBOD<sub>5</sub> limit = 25 mg/l x 8.34 x permitted design flow N/A mgd (Question A4) = N/A lbs/day

B11. Weekly Average Mass TSS and BOD<sub>5</sub> (or CBOD<sub>5</sub>) limits

Mass TSS limit = 45 mg/l x 8.34 x permitted design flow .29 mgd (Question A4) = 109 lbs/day

AND

Mass BOD<sub>5</sub> limit = 45 mg/l x 8.34 x permitted design flow .29 mgd (Question A4) = 109 lbs/day

OR

Mass CBOD<sub>5</sub> limit = 40 mg/l x 8.34 x permitted design flow \_\_\_\_\_ mgd (Question A4) = N/A lbs/day

B12. Maximum Daily Mass TSS and BOD<sub>5</sub> (or CBOD<sub>5</sub>) limits

Mass TSS limit = 50 mg/l x 8.34 x permitted design flow .29 mgd (Question A4) = 121 lbs/day

AND

Mass BOD<sub>5</sub> limit = 50 mg/l x 8.34 x permitted design flow .29 mgd (Question A4) = 121 lbs/day

OR

Mass CBOD<sub>5</sub> limit = 45 mg/l x 8.34 x permitted design flow N/A mgd (Question A4) = N/A lbs/day

**NOTICE OF INTENT  
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**Part C. Effluent Testing for All Applicants**

All applicants must provide effluent testing data for the following parameters. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least one sample collected within the past two years. All available data collected in accordance with 40 CFR Part 136 within the past year must be included.

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	# of Samples
pH* (Minimum)	6.25	s.u.			
pH* (Maximum)	7.16	s.u.			
Temperature (Winter)	58.3	Deg F	54.3	Deg F	180
Temperature (Summer)	76.3	Deg F	70.2	Deg F	180

\* For pH please report a minimum and a maximum daily value

POLLUTANT	Max. Daily Value Discharge		Average Daily Value			Analytical Method	ML/MDL	
	Conc.	Units	Conc.	Units	# of Samples			
<b>CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS</b>								
BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD5	23	mg/l	12	mg/l	104	5210B	2
	CBOD5	N/A	mg/l	N/A	mg/l	N/A	N/A	N/A
BACTERIA (Report all that are applicable)	Fecal Coliform	10	cts/100ml	6	cts/100ml	365	9222D	<1
	Total Coliform	N/A	cts/100ml	N/A	cts/100ml	N/A	N/A	N/A
	E. Coli	N/A	cts/100ml	N/A	cts/100ml	N/A	N/A	N/A
	Enterococci	19	cts/100ml	13	cts/100ml	52	ENTEROLET D6503-99	<1
TOTAL SUSPENDED SOLIDS (TSS)	22	mg/l	10	mg/l	104	2540D	3	

**NOTICE OF INTENT  
FOR  
N.H. GENERAL PERMIT #NHG580000**



**Part D. Effluent Testing for Applicants with Design Q  $\geq$  0.1 mgd Only**

If the treatment works has a design flow greater than or equal to 0.1 mgd then provide effluent testing data for the following parameters. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least one sample collected within the past two years. All available data collected in accordance with 40 CFR Part 136 within the past two years must be included.

POLLUTANT	Max. Daily Value		Average Daily Value			Analytical Method	ML/MDL
	Conc.	Units	Conc.	Units	# of Samples		
<b>CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS</b>							
AMMONIA (as N)	.13	mg/l	.13	mg/l	1	mes / sm 4500-NH3G	0.1
CHLORINE (TOTAL RESIDUAL, TRC)	.23	mg/l	.15	mg/l	730	4500 CLG	.05
DISSOLVED OXYGEN	N/A	mg/l	N/A	mg/l	N/A	N/A	N/A
TOTAL KJELDAHL NITROGEN (TKN)	1.3	mg/l	1.3	mg/l	1	JEB / sm 4500-NB	0.5
NITRATE PLUS NITRITE	9	mg/l	9	mg/l	1	KAJ / sm 4500-N03F	0.25
OIL and GREASE	N/0	mg/l	N/0	mg/l	1	JEB / EPA 1664	5
TOTAL PHOSPHORUS	6.5	mg/l	6.5	mg/l	1	KAJ / sm 4500-P.E.	0.2
TOTAL DISSOLVED SOLIDS (TDS)	700	mg/l	700	mg/l	1	JQ / sm 2540 C	5
OTHER*							

\*Report any additional parameters requested by EPA or DES here

**NOTICE OF INTENT  
FOR  
N.H. GENERAL PERMIT #NHG580000**



**Part E. Effluent Testing for Applicants with Design Q  $\geq$  1.0 mgd Only**

**E1. Parameters in Table 2 of Appendix J of 40 CFR 122**

If the treatment works has a design flow greater than or equal to 1.0 mgd then provide effluent testing data for the parameters in Table 2 of Appendix J of 40 CFR 122. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least one pollutant scan collected within the past two years. All available data collected in accordance with 40 CFR Part 136 within the last two years must be included.

Attach the results from your contract laboratory to this Notice of Intent and include the following:

POLLUTANT	MAXIMUM DAILY VALUE				AVERAGE DAILY VALUE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	# of Samples		

**E2. Whole Effluent Toxicity Test Results**

If the treatment works has a design flow greater than or equal to 1.0 mgd then provide the results of at least one multiple species (minimum of two species) acute whole effluent toxicity test performed on a sample of the effluent collected within the last two years. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136. If you have already submitted the information requested in this part you do not need to submit it again but you must provide the date it was submitted and a brief summary of the results (LC50 endpoints).

Attach the results from your contract laboratory to this Notice of Intent and include the following:

- a. Description of sample collection procedures (grab or 24-hour composite), site description;
- b. Names of individuals collecting and transporting samples, times and dates of sample collection and analysis on chain of custody; and
- c. General description of tests: age of test organisms, origin, dates and results of standard toxicant tests; light and temperature regime; other information on test conditions if different than procedures recommended. Reference toxicity test data must be included.
- d. Raw data and bench sheets.
- e. All chemical/physical data generated. (Include minimum detection levels and minimum quantification levels).
- f. Provide a description of dechlorination procedures (as applicable).
- g. Any other observations or test conditions affecting test outcome.
- h. Statistical tests used to calculate endpoints.

**NOTICE OF INTENT  
FOR  
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**Part F. Eligibility**

F1. Any facility seeking coverage under this general permit must certify in its NOI that each discharge for which it is seeking coverage meets one or more of the National Historic Preservation Act (NHPA) eligibility criteria in Attachment C to the permit

Does each discharge meet one or more of the NHPA eligibility criteria?  Yes  No

Attach all documentation necessary to support the eligibility demonstration.

Was the State Historic Preservation Officer or Tribal Historic Preservation Officer involved in the determination of eligibility?  Yes  No

F2. For coverage under this general permit, a facility with a discharge outside the areas identified in Part III.K.4.b and currently covered under an individual NPDES permit can meet the ESA eligibility criteria by providing the individual NPDES permit number and certifying that the discharge is not in proximity to a dwarf wedgemussel or shortnose sturgeon population. Does your facility meet these criteria?  Yes  No

Attach any documentation to support this determination.

Any other facility seeking coverage under this general permit, including facilities discharging or proposing to discharge into the areas identified in Part III.K.4.b, must certify in this NOI that each discharge for which it is seeking coverage meets one or more of the Endangered Species Act eligibility criteria in Attachment D to the permit.

Have the Endangered Species Act eligibility criteria been met?  Yes  No

Attach all documentation necessary to support the eligibility demonstration.

**Part G. Certification**

The Notice of Intent must be signed in accordance with the signatory requirements of 40 CFR§122.22, including the following certification (*Original Signature Required*):

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 my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that 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.

George P. Fletcher  
Printed Name and Official Title  
George P. Fletcher  
Signature  
603-431-7198  
Telephone Number  
2-24-10  
Date Signed

## **H. Federal and State Addresses**

This Notice of Intent must be sent to the U.S. Environmental Protection Agency with a copy to the New Hampshire Department of Environmental Services at the addresses listed below. Applications are due at least 180 days before the expiration date of the existing NPDES permit.

1. U.S. EPA - New England, Region I  
Municipal Assistance Unit (CMU)  
1 Congress Street, Suite 1100  
Boston, Massachusetts 02114-2023
2. N.H. Department of Environmental Services  
Water Division, Wastewater Engineering Bureau  
Permits and Compliance Section  
29 Hazen Drive – PO Box 95  
Concord, New Hampshire 03302-0095

**Total Nitrogen Study**

Test Date	3/21	3/24	3/29	4/1	4/5	4/8	4/10	4/14	4/18
Day of Week	mon	thur	tue	fri	tue	fri	sun	thur	mon
Inf,Flow ( mgd)	0.182	0.175	0.126	0.158	0.162	0.145	0.127	0.17	0.185
Eff,Flow (mgd)	0.164	0.157	0.126	0.153	0.152	0.13	0.119	0.171	0.171
<b>INFLUENT</b>									
TSS	190	130	220	202	190	180	250	97	82
ALK as CaCo3		200	240		220		270		
Ammonia - N	24	29	34	36	31		36	28	21
Volatile Suspended Solids	86	120	207	196	172	170	240	92	78
BOD	260	170	420	360	410	390	550	230	184
COD	410	70	400	280	220	540	390	290	150
TKN	27	33	38	39	38	36	46	34	27
Nitrate		nd	nd		nd		nd		
Nitrite		nd	nd		nd		nd		
Total Phosphorus	4.2	5.2	7.6	7.8	7.3	6.1	8.3	5.5	3.9
Ortho Phosphorus	2.7	3.1	4	4.9	3.9	3.7	5.3	4.3	2.5
COD Dissolved	210			240		300	370		nd
BOD Dissolved	190			110		130	290		99
<b>EFFLUENT</b>									
Ammonia - N	17		18		15			23	
TKN	22		20		22			24	
Nitrate	nd		0.05		0.08			nd	
Nitrite	nd		nd		nd			nd	
Influent TKN	27	33	38	39	38	36	46	34	27
Effluent TKN+Nitrate+Nitrite	39.0		20.1		22.1			24.0	

Inf, Ph	6.92	6.96	7.02	6.83	6.92	6.57	6.72	6.57	6.14
Inf,Temp	11.8	12.3	12.9	12.8	13.1	13.2	13.2	12.8	13.2
Eff,Ph	6.78	6.98	6.97	7	6.95	7.03	6.99	7.05	6.81
Eff,Temp	12.4	12.6	12.5	12.1	14.2	12.4	12.3	12.8	13.1

4/21	4/26	4/29	5/4	5/7	5/8	5/12	5/16	5/20
thur	tue	fri	wed	sat	sun	thur	mon	fri
0.16	0.143	0.148	0.123	0.146	0.128	0.119	0.135	0.175
0.142	0.144	0.141	0.12	0.138	0.119	0.12	0.137	0.167
72	180	230	260	210	180	220	230	160
		280		270	280			230
33	37	35	42	42	46	36	39	31
68	160	220	240	200	170	210	230	47
210	280	410	310	440	480	390	450	340
300	330	320	380	410	480	350	230	610
38	46	42	49	47	54	43	45	39
nd		nd						
nd		nd						
6	7.8	8	8.9	8.8	8.3	7.6	7.5	6.5
3.6	4.3	4.2	5.1	4.9	5.1	4.4	4.8	3.2
	240		160			220	110	
	130		110			160	220	
16		22		11		1.6	0.46	
20		24		15		2.8	2	
0.15		0.21		2.8		16	14	
nd		0.31		4.1		0.25	0.06	
38	46	42	49	47	54	43	45	31
20.2		24.5		21.9		19.1	16.1	

2B

6.3	6.94	6.64	6.86	6.58	6.64	6.8	6.4	7.27
11.3	14.4	16.3	15.5	14.8	14.9	15.4	16	15.2
6.94	6.96	6.93	6.88	6.87	6.91	6.6	6.6	6.6
13.9	15.2	17.7	17.2	16.6	16.6	17.3	18.3	17.3

## Total Nitrogen Study

Test Date	11/1	11/4	11/9	11/12	11/17	11/20	11/22	11/24	11/30
Day of Week	M	TH	T	F	W	S	M	W	T
Inf,Flow ( mgd)	0.126	0.138	0.14	0.158	0.169	0.174	0.128	0.123	0.121
Eff,Flow (mgd)	0.113	0.135	0.134	0.145	0.154	0.153	0.125	0.123	0.121
<b>INFLUENT</b>									
TSS	260	190	220	190	190	230	120	180	170
ALK as CaCo3	260		220	260			240		
Ammonia - N	30	38	24	45	40	38	35	44	46
Volatile Suspended Solids	250	178	212	186	190	220	126	180	168
BOD	470	580	340	430	210	400	310	500	330
COD	390	320	170	530	340	320	380	400	370
TKN	45	57	47	49	46	55	41	48	56
Nitrate	ND		ND		ND		ND		
Nitrite	ND		ND		ND		ND		
Total Phosphorus	9.8	11	7.7	9.6	10	11	9.5	11	9.6
Ortho Phosphorus	2.2	6.5	4.7	6.4	5.9	5.8	4.6	6	6.4
COD Dissolved		260		280		260	280		210
BOD Dissolved		160		190		170	160		140
<b>EFFLUENT</b>									
Ammonia - N	0.26		ND		ND			ND	
TKN	1.3		1.2		0.92			1.3	
Nitrate	3.9		8.1		11			15	
Nitrite	ND		ND		ND			ND	
Influent TKN	45	57	47	49	46	55	41	48	56
Effluent TKN+Nitrate+Nitrite	5.2		9.3		11.9			16.3	

Inf, Ph	6.75	7.36	6.7	6.4	6.79	6.74	6.56	7.1	7.45
Inf,Temp	19	18.1	17.2	17.8	17.8	17.3	16.6	17.1	15.6
Eff,Ph	7.09	6.8	6.75	6.8	6.8	6.86	6.89	6.72	6.71
Eff,Temp	18.7	17.7	17.7	17.6	18.1	16.8	16.6	16.3	14.9

4A

12/2	12/5	12/10	12/15	12/18	12/21	12/23	12/27	12/29
TH	SU	F	W	S	T	TH	M	W
0.132	0.124	0.144	0.157	0.157	0.144	0.142	0.101	0.14
0.129	0.111	0.137	0.147	0.145	0.138	0.134	0.096	0.121
180	59	180	170	109	120	250	270	220
260		290		350	310			300
39	51	43	36	55	56	55	44	53
176	52	186	168	100	118	242	280	216
260	410	390	380	410	420	510	690	460
380	360	420	280	410	460	440	510	230
50	59	45	43	58	61	64	51	55
ND		0.06						
ND		ND						
9.9	12	9.9	7.3	9.4	10	10	10	11
6.3	8.2	6.2	5.1	7.5	7.2	7.4	8.2	5.5
	230		250				350	
	270		170				260	
ND		0.14		0.49		ND	ND	
1.9		1.4		1.8		1.8	1.8	
21		23		22		21	23	
ND		ND		ND		ND	ND	
50	59	45	43	58	61	64	51	55
22.9		24.4		23.8		22.8	24.8	

4B

6.73	6.47	6.76	6.9	6.87	6.91	6.82	6.5	6.82
15.9	15.4	15.2	14.7	14.5	14.9	15.4	14.2	14.2
6.67	6.74	6.6	6.7	6.69	6.7	6.6	6.67	6.55
15.2	14.9	13.3	14.4	13.6	14.2	13.9	12.6	12.4

5A

**Total Nitrogen Study**

Test Date	8/7	8/10	8/15	8/18	8/23	8/26	8/27	8/31	9/2
Day of Week	SU	W	M	THU	TU	F	SAT	W	T
Inf,Flow ( mgd)	0.105	0.129	0.159	0.124	0.112	0.13	0.124	0.122	0.118
Eff,Flow (mgd)	0.111	0.13	0.164	0.13	0.116	0.131	0.122	0.131	0.12
<b>INFLUENT</b>									
TSS	301	170	200	520	280	120	110		
ALK as CaCo3	340	n/t	260	nt	290	nt	260		
Ammonia - N	56	59	41	45	51	41	40		
Volatile Suspended Solids	290	164	188	460	276	114	114		
BOD	620	370	390	550	460	330	250		
COD	500	420	400	710	360	440	360		
TKN	66	67	49	62	62	49	50		
Nitrate	nd	n/t	nd	nt	nd	nt	nd		
Nitrite	nd	n/t	nd	nt	nd	nt	nd		
Total Phosphorus	9.7	8.8	7.1	6.6	9.9	7.1	7.5		
Ortho Phosphorus	6.1	2.9	4.6		6.1	4.6	4.4		
COD Dissolved	nt	270	nt	270	nt	220	240		
BOD Dissolved	nt	190	nt	160	nt	120	110		
<b>EFFLUENT</b>									
Ammonia - N	0.36		0.34		nd				
TKN	2.7		2		1.7				
Nitrate	17		21		15				
Nitrite	0.05		nd		nd				
Influent TKN	66	67	49	62	62	49	50		
Effluent TKN+Nitrate+Nitrite	19.8		23.0		16.7				

Inf, Ph	6.1	6.55	6.14	6.26	6.48	6.4	6.38	6.56	6.12
Inf,Temp	21.6	21.2	22.9	21.8	21.5	22.9	22.8	20.7	22.1
Eff, Ph	6.6	6.34	6.41	6.3	6.42	6.5	6.49	6.4	6.52
Eff,Temp	24.3	23.9	24.2	23.4	23.9	24.7	24.7	22.9	24.1



6B

6.47	6.43	6.53	6.34	6.62
21	21.7	20.9	20.9	21.2
6.65	6.57	6.6	6.5	6.4
22.3	23.1	23	21.8	23