



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I

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ENVIR. APPEALS BOARD

May 3, 2006

Eurika Durr  
Clerk of the Board  
U.S. Environmental Protection Agency  
Environmental Appeals Board  
Ariel Rios Building,  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

Re: City of Newburyport Wastewater Treatment Facility  
NPDES Appeal No. 04-05

Dear Ms. Durr:

Enclosed please find an original and five copies of a Settlement Agreement Regarding Petition for Review signed by the City of Newburyport (City) and the Regional Office of the Environmental Protection Agency (EPA).

Please feel free to contact me at 617-918-1734, or by fax at 617-918-1809, if you need to discuss this filing. My e-mail address is [bandrowicz.toni@epa.gov](mailto:bandrowicz.toni@epa.gov).

Sincerely,

A handwritten signature in black ink that reads "Tonia Bandrowicz".

Tonia Bandrowicz  
Senior Enforcement Counsel

cc: Barry P. Fogel, Esq.,  
Maria Eigerman  
David McFarlane  
John A. Pike, Esq.  
Michele Barden, EPA

In the Matter of:  
City of Newburyport Wastewater Treatment Facility  
NPDES Appeal No. 04-05

CERTIFICATE OF SERVICE

I, Tonia Bandrowicz, hereby certify that one original and five copies of the foregoing Settlement Agreement Regarding Petition for Review were mailed by First Class Mail on this 3rd day of May, 2006 to the Environmental Appeals Board 1103B, Ariel Rios Building, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, and that a copy of the foregoing was sent by First Class Mail, postage prepaid, to the following persons:

Barry P. Fogel, Esq.  
Keegan, Werlin & Pabian, LLP  
265 Franklin Street  
Boston, MA 02110-3113

Maria R. Eigerman, President  
David McFarlane  
Islands Future Group, Inc.  
P.O. Box 1392  
Newburyport, MA 01950

John A. Pike, Esq.  
Conservation Law Foundation  
62 Summer Street  
Boston, MA 02110-1016

Dated: May 3, 2006

BEFORE THE ENVIRONMENTAL APPEALS BOARD ~~BOARD~~ -4 PM 3: 19  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. ENVIR. APPEALS BOARD

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In the Matter of: )  
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)  
City of Newburyport, Wastewater )  
Treatment Facility ) NPDES Appeal No. 04-05  
)  
Permit Number: MA0101427 )  
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**SETTLEMENT AGREEMENT REGARDING PETITION FOR REVIEW**

1. The parties (the "Parties") to this *Settlement Agreement Regarding Petition for Review* (the "Settlement Agreement") are Region I of the United States Environmental Protection Agency ("EPA") and the City of Newburyport, Massachusetts ("Newburyport" or the "City").

2. On May 3, 2004, EPA reissued to the City a National Pollutant Discharge Elimination System ("NPDES") Permit, No. MA 0101427 (the "Permit"), for discharges to the Merrimack River from the City's wastewater treatment facility located on Water Street, Newburyport, Massachusetts.

3. On June 3, 2004, the City filed a Petition for Review (the "City's Petition") on several conditions in the Permit. The City's Petition was docketed as NPDES Appeal No. 04-05.

4. On June 9, 2004, M.R. Eigerman, on behalf of the Island Futures Group, Inc. ("IFG") also filed a Petition for Review of several conditions in the Permit ("IFG's Petition"). IFG's Petition was docketed as NPDES Appeal No. 04-06.

5. The Parties to this Settlement Agreement have entered negotiations to reach a settlement of, and have agreed to settle the issues raised in, the City's Petition.

6. The parties to IFG's Petition (EPA, IFG, and the City) did not reach any settlement agreement regarding IFG's Petition, and an *Order Denying Review in Part and Remanding in Part* ("IFG Order") was issued on December 8, 2005, by the Environmental Appeals Board ("the Board").

7. The Parties hereby agree that upon the satisfaction of the conditions set forth in paragraphs 9 and 10 of this Settlement Agreement, the City's Petition shall, through operation of this document, be fully and completely withdrawn, with the Parties hereto waiving all rights to administrative and judicial review of the Permit, except that, as set forth in Paragraph 12 below, the City reserves its rights to seek review of any other modifications to the Permit, including without limitation any changes that might arise out of the permit modification process and remand proceedings, or any administrative appeal of the Region's determination regarding the permit modification.

8. The Parties hereby agree that this Settlement Agreement is expressly contingent upon the issuance of a final modified permit in the form attached as Exhibit A hereto.

9. EPA shall move, pursuant to 40 C.F.R. Part 124, to modify the Permit as set forth in Exhibit "A" attached hereto. Within sixty (60) days of the execution of this Settlement Agreement, EPA shall publish public notice of a draft modified permit, in accordance with the procedures set forth in 40 C.F.R. §124.6.

10. EPA shall use reasonable efforts to issue a final modified permit within four (4) months after the close of the public comment period prescribed by 40 C.F.R. §124.10.

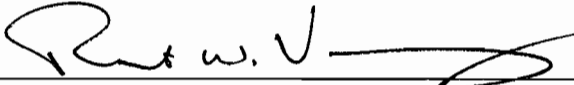
11. If EPA does not move to modify the Permit within sixty (60) days of execution of this Settlement Agreement, then either Party can withdraw from and rescind this Settlement Agreement. If either Party withdraws from this Settlement Agreement, the terms and conditions of the Permit that are the subject of the City's Petition for Review shall continue to be stayed in accordance with the provisions of 40 C.F.R. § 124.60.

12. If EPA moves to modify the Permit within sixty (60) days of execution of this Settlement Agreement, but the terms and conditions of such draft modified permit are different from those terms and conditions in the proposed modified permit attached as Exhibit A hereto, or if the terms and conditions of the final permit issued by EPA are different from those terms and conditions in the proposed modified permit attached as Exhibit A hereto as a result of the permit modification process, remand proceedings or any administrative appeal of the Region's determination regarding the permit modification, then the City reserves and shall have the right to appeal those terms and conditions that are different from the terms and conditions in the proposed modified permit attached as Exhibit A.

13. Both Parties maintain their respective positions on the issues raised in the City's Petition. Nevertheless, in an effort to resolve this permit challenge and avoid protracted litigation, both Parties agree that the City's Petition should be resolved by the issuance of a permit modification as set forth in Exhibit A. The City reserves its rights to challenge any future modification of the Permit or any subsequent permits.

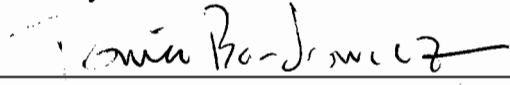
14. The Parties agree that nothing in this Settlement Agreement is intended to foreclose future negotiation of an administrative order for compliance in the event that, despite its best efforts, the City fails to achieve any of the final limits in the Permit.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

By:   
Robert W. Varney, Regional Administrator


Dated: 5/2/06

By its Attorney:

  
Tonia Bandrowicz,  
Senior Enforcement Counsel

Dated: 4/27/06

**CITY OF NEWBURYPORT, MASSACHUSETTS**

By: 

Dated: 4/13/06

**MODIFICATION OF AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 et seq.; the "CWA"), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

**City of Newburyport**

is authorized to discharge from a facility located at

**Newburyport Wastewater Treatment Plant  
157 Water Street  
Newburyport, MA 01950**

to receiving waters named

**Merrimack River (Merrimack River Watershed - 84)**

in accordance with effluent limitations monitoring requirements and other conditions set forth in the permit issued on May 3, 2004, except as set forth herein in italics and summarized as follows:

- Page 2** Removed total residual chlorine average monthly and average weekly mass limits.
- Page 2** Removed four (4) month compliance schedule for meeting the new, more stringent fecal coliform bacteria limits. The more stringent fecal coliform bacteria limits will go into effect on the effective date of this modification.
- Page 2** Changed the test method for fecal coliform bacteria from Multiple Tube Fermentation (MPN) to Membrane Filtration (CFU), set a limit of 400 cfu/100 ml to not be exceeded at any time and added a requirement that no more than 10% of samples exceed 260 cfu/100 ml (also see footnote 9 on page 5).
- Page 2** Added dissolved oxygen monitoring requirement.
- Page 3** Footnote 3 - Reduced the frequency of flow meter calibration.
- Page 4** Footnote 8 - Modified the frequency and monitoring requirements for total residual chlorine.
- Page 4** Eliminated Footnote 9 regarding four (4) month schedule for meeting the new, more stringent fecal coliform bacteria limits. Subsequent footnotes are re-numbered.
- Page 5** Added Footnote 10 - Described the monitoring requirement for dissolved oxygen. Subsequent footnotes are re-numbered.
- Page 8** Section C.5. - Clarified the effective date for the outfall inspection and report.
- Page 9** Section C.6 - Clarified the effective date and the requirements for an immediate warning system with the Massachusetts Division of Marine Fisheries.

This modification shall become effective 60 days from the date of signature.

This permit modification and the authorization to discharge expires five years from the effective date of this modification

Signed this            day of

\_\_\_\_\_  
Director  
Office of Ecosystem Protection  
Environmental Protection Agency  
Boston, MA

\_\_\_\_\_  
Director  
Division of Watershed Management  
Department Environmental Protection  
Commonwealth of Massachusetts  
Boston, MA

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

EFFLUENT CHARACTERISTIC		EFFLUENT LIMITS						MONITORING REQUIREMENTS	
PARAMETER	AVERAGE MONTHLY	AVERAGE WEEKLY	AVERAGE MONTHLY	AVERAGE WEEKLY	MAXIMUM DAILY	MEASUREMENT FREQUENCY	SAMPLE TYPE		
1. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge from outfall serial number 001, treated effluent to Merrimack River. Such discharges shall be limited and monitored as specified below.									
FLOW <sup>3</sup>	***	***	3.4 MGD <sup>2</sup>	***	REPORT MGD	CONTINUOUS	RECORDER		
BOD <sub>5</sub> <sup>5</sup>	851 lbs/Day 387 kgs/Day	1276 lbs/Day 580 kgs/Day	30 mg/l	45 mg/l	REPORT	3/WEEK	24-HOUR COMPOSITE <sup>6</sup>		
TSS <sup>5</sup>	851 lbs/Day 387 kgs/Day	1276 lbs/Day 580 kgs/Day	30 mg/l	45 mg/l	REPORT	3/WEEK	24-HOUR COMPOSITE <sup>6</sup>		
pH <sup>1</sup>	6.5 - 8.5 SU SEE PERMIT PAGE 5 PARAGRAPH I.A.1.b.								
TOTAL RESIDUAL CHLORINE <sup>1,7,8</sup>	***	***	0.23 mg/l	***	0.39 mg/l	1/DAY	GRAB		
FECAL COLIFORM BACTERIA <sup>1,8,9</sup>	***	***	88 CFU/100 ml	***	400 CFU/100 ml	1/DAY	GRAB		
AMMONIA NITROGEN	***	***	***	***	REPORT	1/MONTH	24-HOUR COMPOSITE <sup>6</sup>		
TOTAL KJELDAHL NITROGEN	***	***	***	***	REPORT	1/MONTH	24-HOUR COMPOSITE <sup>6</sup>		
NITRITE & NITRATE NITROGEN	***	***	***	***	REPORT	1/MONTH	24-HOUR COMPOSITE <sup>6</sup>		
DISSOLVED OXYGEN <sup>10</sup>	***	***	REPORT	REPORT	REPORT (minimum daily)	5/WEEK	GRAB		
WHOLE EFFLUENT TOXICITY <sup>11,12</sup>	Acute LC <sub>50</sub> ≥ 100%								
						4/YEAR	24-HOUR COMPOSITE <sup>6</sup>		



**Footnotes:**

1. Required for State Certification.
2. For flow, report maximum and minimum daily rates and total flow for each operating date. This is an annual average, which shall be reported as a rolling average. The first value will be calculated using the monthly average flow for the first full month ending after the effective date of the permit and the eleven previous monthly average flows. Each subsequent month's DMR will report the annual average flow that is calculated from that month and the previous 11 months.
3. *The permittee must develop a plan for conducting calibration of the influent and effluent flow meters to assure representative flows are reported. During the first year of the permit, the permittee must conduct quarterly (4/year) instrument calibrations and conduct an annual (1/year) volumetric calibration test.*

*After one year of performing calibrations according to the above schedule, the permittee may request a reduction of calibration frequency to not less than semi-annual (2/year) instrument calibration and not less than annual volumetric calibration. Any requested reduction must be submitted to EPA and MassDEP in writing and must demonstrate that the previous calibrations support such a reduction. Any reduction in calibration frequency must be approved by EPA in a certified letter to the City before the reduction becomes effective.*

*After two years of performing calibrations according to the required schedule, the permittee may request a reduction of calibration frequency to not less than annual instrument and volumetric calibration. Any requested reduction must be submitted to EPA and MassDEP in writing and must demonstrate that the previous calibrations support such a reduction. Any reduction in calibration frequency must be approved by EPA in a certified letter to the City before the reduction becomes effective.*

*A copy of the calibration plan must be submitted to EPA and MassDEP within 60 days of the effective date of the permit. The plan methodology shall be followed within 30 days of submittal, if there is no comment from EPA or MassDEP. If comments are received from either EPA or MassDEP, the plan shall become effective within 30 days of approval by EPA and MassDEP. Annually, by July 1 of each year, the permittee shall submit a report documenting the equipment calibrations and the annual volumetric calibration of the influent and effluent meters. All reported flows must be certified as consistent with the Part II - General Conditions attached to the permit. This requirement will be reconsidered should the facility install new flow meters.*

4. Samples taken in compliance with monitoring requirements specified in this permit shall be taken at a representative point prior to mixing with the receiving water. Any change in sampling location must be reviewed and approved in writing by EPA and MassDEP. All samples shall be tested using analytical methods found in 40 CFR § 136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR § 136. All samples shall be 24-hour composites unless specified as a grab sample in 40 CFR § 136.
5. Sampling required for influent and effluent.

6. A 24-hour composite sample will consist of at least twenty-four (24) grab samples taken during one working day.
7. The minimum level (ML) for total residual chlorine is defined as 20 ug/l. This value is the minimum level for chlorine using EPA approved methods found in the most currently approved version of Standard Methods for the Examination of Water and Wastewater, Method 4500 CL-E and G or USEPA Manual of Methods of Analysis of Water and Wastes, Method 330.5. One of these methods must be used to determine total residual chlorine. For effluent limitations less than 20 ug/l, compliance/non-compliance will be determined based on the ML. Sample results of 20 ug/l or less shall be reported as zero on the discharge monitoring report.
8. *Total Residual Chlorine (TRC) shall be monitored continuously both before and after dechlorination of the effluent, however, the permittee shall continue to report the results of grab samples on its DMRs for compliance determination. The permittee must collect two (2) TRC grab samples daily, one (1) before dechlorination and one (1) after dechlorination before mixing with other waters. The TRC samples must be collected concurrent with the daily Fecal Coliform Bacteria sample.*

*Results of the grab samples shall be compared with data from the continuous analyzers. The date and time each grab sample is taken shall also be recorded. The permittee shall also submit four (4) continuous recording charts or their equivalent, one chart per week showing weekly data from the post-dechlorination continuous chlorine analyzer. All of this required information shall be attached to the monthly Discharge Monitoring Reports (DMRs).*

*The permittee shall install a low TRC level alarm on the pre-dechlorination TRC analyzer. The alarm shall be set at a level that ensures an adequate kill of fecal coliform bacteria. The alarm will be connected to the Wastewater Treatment Facility (WWTF) alarm pager system. Once notified of low TRC levels, the WWTF staff shall visit the plant to investigate the cause of the alarm. All alarms must be recorded in the operator's log book including the time of alarm, time of system investigation, duration and magnitude of the event, the cause for the alarm and how the event was resolved.*

*If the alarm-triggering event resulted in the discharge of un-disinfected effluent, the permittee must immediately sample the effluent for TRC and fecal coliform bacteria. The permittee must also notify the Massachusetts Division of Marine Fisheries (MADMF) within 4 hours (See Section C.6, Page 8 of 13 for description of the related immediate warning system to be developed with MA DMF).*

*After one year of reporting the results of its continuous chlorine monitoring, the permittee may request reduction or elimination of the continuous chlorine reporting requirements. Any requested reduction must be submitted to EPA and MassDEP in writing and must demonstrate that the previously reported data support such a reduction. Any reduction in reporting frequency must be approved by EPA in a certified letter to the City before the reduction becomes effective. The City may only request a reduction or elimination of the continuous chlorine monitoring reporting frequency; reductions of monitoring frequency will not be allowed. If a reporting frequency reduction is allowed, the permittee must maintain the continuous chlorine monitoring records on site.*

*The permittee shall install the second post-dechlorination continuous chlorine analyzer and chart recorder, and the low-level alarm on the pre-dechlorination continuous chlorine analyzer within four (4) months after the effective date of this modification.*

- 9. *A monthly geometric mean limit of 88 cfu per 100 ml and a maximum daily limit of 400 cfu per 100 ml shall apply. No more than 10% of samples shall exceed 260 cfu per 100 ml. Monitoring of this parameter shall be conducted concurrently with the TRC sampling.*
- 10. *Dissolved oxygen of the effluent shall be monitored immediately following the effluent weir, just prior to the outfall pipe. The monitoring frequency is five days per week.*

*If, after one year of monitoring, the data clearly establishes that the effluent DO is greater than 5.0 mg/l, thereby demonstrating that there is no reasonable potential for the discharge to cause a violation of the water quality standard for DO, the permittee may submit a written request to EPA seeking a reduction in frequency or elimination of the monitoring requirement. The permittee is required to continue monitoring as required in the permit until the permittee is notified by certified mail from the EPA that the requirement has been reduced in frequency or eliminated..*

- 11. The permittee shall perform modified acute toxicity tests four times per year. The tests must be performed in accordance with test procedures and protocols specified in **Attachment A** of this permit.

<b>Test Dates</b>	<b>Submit Results By:</b>	<b>Test Species</b>	<b>Acute Limit LC<sub>50</sub></b>
Second Week in:			
February	March 31 <sup>st</sup>	Mysid Shrimp	≥ 100%
May	June 30 <sup>th</sup>	Inland Silverside	
August	September 30 <sup>th</sup>		
November	December 31 <sup>st</sup>		

After submitting four consecutive sets of WET test results, all of which demonstrate compliance with the WET permit limits, the permittee may request a reduction in the frequency of required WET testing. The permittee is required to continue testing at the frequency specified in the permit until notice is received by certified mail from the EPA that the WET testing requirement has been changed.

- 12. The LC50 is the concentration of effluent which causes mortality to 50% if the test organisms. Therefore a 100% limit means that a sample of 100% effluent (no dilution) shall cause no more than a 50% mortality rate.

**Part I.A.1.**

- a. The discharge shall not cause a violation of the water quality standards of the receiving waters.
- b. The pH of the effluent shall not be less than 6.5 nor greater than 8.5 at any time

and not more than 0.2 units outside the normally occurring range, unless these values are exceeded due to natural causes.

- c. The discharge shall not cause objectionable discoloration of the receiving waters.
- d. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.
- e. The permittee's treatment facility shall maintain a minimum of 85 percent removal of both total suspended solids and biochemical oxygen demand. The percent removal shall be based on monthly average values.
- f. When the effluent discharged for a period of 90 consecutive days exceeds 80 percent of the designed flow, the permittee shall submit to the permitting authorities a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.
- g. The permittee shall minimize the use of chlorine while maintaining adequate bacterial control.
- h. The results of sampling for any parameter above its required frequency must also be reported.

2. POTWs must provide adequate notice to the Director of the following:

- a. Any new introduction of pollutants into that POTW from an indirect discharger in a primary industry category discharging process water; and
- b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
- c. For purposes of this paragraph, adequate notice shall include information on:
  - (1) the quantity and quality of effluent introduced into the POTW; and
  - (2) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

3. Prohibitions Concerning Interference and Pass-Through:

- a. Pollutants introduced into POTW's by a non-domestic source (user) shall not pass through the POTW or interfere with the operation or performance of the works.
- b. If, within 30 days after notice of an interference or pass through violation has been sent by EPA to the POTW, and to persons or groups who have requested such notice, the POTW fails to commence appropriate enforcement action to correct the

violation, EPA may take appropriate enforcement action.

#### 4. Toxics Control

- a. The permittee shall not discharge any pollutant or combination of pollutants in toxic amounts.
- b. Any toxic components of the effluent shall not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.

#### 5. Numerical Effluent Limitations for Toxicants

- a. EPA or MassDEP may use the results of the toxicity tests and chemical analyses conducted pursuant to this permit, as well as national water quality criteria developed pursuant to Section 304(a)(1) of the Clean Water Act (CWA), state water quality criteria, and any other appropriate information or data, to develop numerical effluent limitations for any pollutants, including but not limited to those pollutants listed in Appendix D of 40 CFR Part 122.

### **B. UNAUTHORIZED DISCHARGES**

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from the outfall listed in Part 1.A.1 of this permit. Discharges of wastewater from any other point sources, including sanitary sewer overflows (SSOs) are not authorized by this permit and shall be reported in accordance with Section D.1.e.(1) of the General Requirements of this permit (Twenty-four hour reporting).

### **C. OPERATION AND MAINTENANCE OF THE SEWER SYSTEM**

Operation and maintenance of the sewer system shall be in compliance with the General Requirements of Part II and the following terms and conditions:

#### 1. Maintenance Staff

The permittee shall provide an adequate staff to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this permit.

#### 2. Preventative Maintenance Program

The permittee shall maintain an ongoing preventative maintenance program to prevent overflows and bypasses caused by malfunctions or failures of the sewer system infrastructure. The program shall include an inspection program designed to identify all potential and actual unauthorized discharges.

#### 3. Infiltration/Inflow Control Plan:

The permittee shall develop and implement a plan to control infiltration and inflow (I/I) to the separate sewer system. The plan shall be submitted to EPA and MassDEP **within six (6) months of the effective date of this permit** (see page 1 of this permit for the effective date) and shall describe the permittee's program for preventing infiltration/inflow related effluent limit violations, and all unauthorized discharges of wastewater, including overflows and by-passes due to excessive infiltration/inflow.

The plan shall include:

- An ongoing program to identify and remove sources of infiltration and inflow. The program shall include the necessary funding level and the source(s) of funding.
- An inflow identification and control program that focuses on the disconnection and redirection of illegal sump pumps and roof down spouts. Priority should be given to removal of public and private inflow sources that are upstream from, and potentially contribute to, known areas of sewer system backups and/or overflows.
- Identification and prioritization of areas that will provide increased aquifer recharge as the result of reduction/elimination of infiltration and inflow to the system.
- An educational public outreach program for all aspects of I/I control, particularly private inflow.

Reporting Requirements:

A summary report of all actions taken to minimize I/I during the previous calendar year shall be submitted to EPA and the MassDEP annually, **by the anniversary date of the effective date of this permit**. The summary report shall, at a minimum, include:

- A map and a description of inspection and maintenance activities conducted and corrective actions taken during the previous year.
- Expenditures for any infiltration/inflow related maintenance activities and corrective actions taken during the previous year.
- A map with areas identified for I/I-related investigation/action in the coming year.
- A calculation of the annual average I/I, the maximum month I/I for the reporting year.
- A report of any infiltration/inflow related corrective actions taken as a result of unauthorized discharges reported pursuant to 314 CMR 3.19(20) and reported pursuant to the Unauthorized Discharges section of this permit.

#### 4. Alternate Power Source

In order to maintain compliance with the terms and conditions of this permit, the permittee shall continue to provide an alternative power source with which to sufficiently operate its treatment

works (as defined at 40 CFR §122.2).

#### 5. Outfall Inspection and Report

**Within eighteen (18) months of the effective date of the permit** (*the uncontested elements of the permit became effective on March 11, 2006, 30 days after the permittee was notified by letter of the Uncontested and Severable Conditions, dated February 9, 2006*), the permittee shall conduct an inspection of the diffuser. The inspection is necessary to achieve several objectives: confirm the diffuser was installed as designed, gather important details of the diffuser design, including the diameter of jets in the orifice plate, and evaluate the current condition of the diffuser.

The inspection report will detail the information gathered during the inspection including rectifying the installation details and conditions with the design plans. The report shall also address the current condition of the outfall and prioritize maintenance activities so the design dilution can be achieved.

#### 6. Immediate Warning System

**Within twelve (12) months of the effective date of the permit modification**, the permittee shall submit a report to EPA and MassDEP detailing the design and operation of an immediate warning system developed with input from MADMF.

*At a minimum, the immediate warning system shall incorporate all of the total residual chlorine monitoring and alarm systems required in footnote 8, and shall include procedures for immediate (within 4 hours) notification of MADMF if un-disinfected effluent is discharged from the facility. The City shall work cooperatively with MADMF to develop and implement the system.*

### D. SLUDGE CONDITIONS

1. The permittee shall comply with all existing federal and state laws and regulations that apply to sewage sludge use and disposal practices and with the CWA Section 405(d) technical standards.
2. The permittee shall comply with the more stringent of either the state or federal (40 CFR part 503), requirements.
3. The requirements and technical standards of 40 CFR part 503 apply to facilities which perform one or more of the following use or disposal practices:
  - a. Land application - the use of sewage sludge to condition or fertilize the soil
  - b. Surface disposal - the placement of sewage sludge in a sludge only landfill
  - c. Sewage sludge incineration in a sludge only incinerator
4. The 40 CFR part 503 conditions do not apply to facilities which place sludge within a municipal solid waste landfill. These conditions also do not apply to facilities which do not dispose of sewage sludge during the life of the permit but rather treat the sludge (e.g. lagoons-reed beds), or are otherwise excluded under 40 CFR 503.6.

5. The permittee shall use and comply with the attached compliance guidance document to determine appropriate conditions. Appropriate conditions contain the following elements.

- General requirements
- Pollutant limitations
- Operational Standards (pathogen reduction requirements and vector attraction reduction requirements)
- Management practices
- Record keeping
- Monitoring
- Reporting

Depending upon the quality of material produced by a facility, all conditions may not apply to the facility.

6. The permittee shall monitor the pollutant concentrations, pathogen reduction and vector attraction reduction at the following frequency. This frequency is based upon the volume of sewage sludge generated at the facility in dry metric tons per year

less than 290	1/ year
290 to less than 1500	1 /quarter
1500 to less than 15000	6 /year
15000 +	1 /month

7. The permittee shall sample the sewage sludge using the procedures detailed in 40 CFR 503.8.

8. The permittee shall submit an annual report containing the information specified in the guidance by **February 19**. Reports shall be submitted to the address contained in the reporting section of the permit. Sludge monitoring is not required by the permittee when the permittee is not responsible for the ultimate sludge disposal. The permittee must be assured that any third party contractor is in compliance with appropriate regulatory requirements. In such case, the permittee is required only to submit an annual report by **February 19** containing the following information:

- Name and address of contractor responsible for sludge disposal
- Quantity of sludge in dry metric tons removed from the facility by the sludge contractor

**E. INDUSTRIAL PRETREATMENT PROGRAM**

1. Pollutants introduced into POTW's by a non-domestic source (user) shall not pass through the POTW or interfere with the operation or performance of the works.
2. The permittee shall develop and enforce specific effluent limits (local limits) for Industrial User(s), and all other users, as appropriate, which together with appropriate changes in the POTW Treatment Plant's Facilities or operation, are necessary to ensure continued compliance with the POTW's NPDES permit or sludge use or disposal practices. Specific local limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond.



Within **90 days of the effective date of this permit**, the permittee shall prepare and submit a written technical evaluation to the EPA analyzing the need to revise local limits. As part of this evaluation, the permittee shall assess how the POTW performs with respect to influent and effluent of pollutants, water quality concerns, sludge quality, sludge processing concerns/inhibition, biomonitoring results, activated sludge inhibition, worker health and safety and collection system concerns. In order to assist with this evaluation, the permittee shall also complete the attached form (Attachment C) with the technical evaluation to assist in determining whether existing local limits need to be revised. Justifications and conclusions should be based on actual plant data if available and should be included in the report. EPA has received a letter dated 2/5/03 reviewing current local limits, however, the completion of Attachment C will further assist with this re-evaluation. Should the evaluation reveal the need to revise local limits, the permittee shall complete the revisions within 120 days of notification by EPA and submit the revisions to EPA for approval. The Permittee shall carry out the local limits revisions in accordance with EPA Guidance Manual for the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program (December, 1987).

3. The permittee shall implement the Industrial Pretreatment Program in accordance with the legal authorities, policies, procedures, and financial provisions described in the permittee's approved Pretreatment Program, and the General Pretreatment Regulations, 40 CFR 403. At a minimum, the permittee must perform the following duties to properly implement the Industrial Pretreatment Program (IPP):
  - a. Carry out inspection, surveillance, and monitoring procedures which will determine, independent of information supplied by the industrial user, whether the industrial user is in compliance with the Pretreatment Standards. At a minimum, all significant industrial users shall be sampled and inspected at the frequency established in the approved IPP but in no case less than once per year and maintain adequate records.
  - b. Issue or renew all necessary industrial user control mechanisms within 90 days of their expiration date or within 180 days after the industry has been determined to be a significant industrial user.
  - c. Obtain appropriate remedies for noncompliance by any industrial user with any pretreatment standard and/or requirement.
  - d. Maintain an adequate revenue structure for continued implementation of the Pretreatment Program.
4. The permittee shall provide the EPA and MassDEP with an annual report describing the permittee's pretreatment program activities for the twelve (12) month period ending 60 days prior to the due date in accordance with 403.12(i). The annual report shall be consistent with the format described in Attachment B of this permit and shall be submitted **no later than March 1 of each year**.
5. The permittee must obtain approval from EPA prior to making any significant changes to the industrial pretreatment program in accordance with 40 CFR 403.18(c).
6. The permittee must assure that applicable National Categorical Pretreatment Standards are met by all categorical industrial users of the POTW. These standards are published in the Federal

Regulations at 40 CFR 405 et. seq.

7. The permittee must modify its pretreatment program, if necessary, to conform to all changes in the Federal Regulations that pertain to the implementation and enforcement of the industrial pretreatment program. The permittee must provide EPA, in writing, **within 180 days of this permit's effective date** proposed changes, if applicable, to the permittee's pretreatment program deemed necessary to assure conformity with current Federal Regulations. At a minimum, the permittee must address in its written submission the following areas: (1) Enforcement response plan; (2) revised sewer use ordinances; and (3) slug control evaluations. The permittee will implement these proposed changes pending EPA Region I's approval under 40 CFR 403.18. This submission is separate and distinct from any local limits analysis submission described in Part I.A.3.b.

## F. MONITORING AND REPORTING

### 1. Reporting

Monitoring results obtained during each calendar month shall be summarized and reported on Discharge Monitoring Report Form(s) postmarked **no later than the 15th day of the following month**.

Signed and dated originals of these, and all other reports required herein, shall be submitted to the Director and the State at the following addresses:

Environmental Protection Agency  
Water Technical Unit (SEW)  
P.O. Box 8127  
Boston, Massachusetts 02114

The State Agency is:

Massachusetts Department of Environmental Protection  
Northeast Regional Office- Bureau of Resource Protection  
205A Lowell Street  
Wilmington, MA 01887

Signed and dated Discharge Monitoring Report Forms and toxicity test reports required by this permit shall also be submitted to the State at:

Massachusetts Department of Environmental Protection  
Division of Watershed Management  
Surface Water Discharge Permit Program  
627 Main Street, 2nd Floor  
Worcester, Massachusetts 01608

Reports required in Section E - Industrial Pretreatment Program should be sent to the State at:

Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention  
Industrial Wastewater Section  
1 Winter Street  
Boston, MA 02108

#### **G. STATE PERMIT CONDITIONS**

This Discharge Permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) under Federal and State law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MassDEP pursuant to M.G.L. Chap. 21, §43.

Each Agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this Permit is declared, invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as an NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this Permit is declared invalid, illegal or otherwise issued in violation of Federal law, this Permit shall remain in full force and effect under State law as a Permit issued by the Commonwealth of Massachusetts.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
ONE CONGRESS STREET, SUITE 1100 (CMP)  
BOSTON, MASSACHUSETTS 02114 - 2023

**STATEMENT OF BASIS**

MODIFICATION OF NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

NPDES PERMIT NO.: **MA0101427**

NAME AND ADDRESS OF APPLICANT:

**City of Newburyport  
157 Water Street  
Newburyport, MA 01950**

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

**Newburyport Wastewater Treatment Plant  
157 Water Street  
Newburyport, MA 01950**

**RECEIVING WATER:** Merrimack River

**CLASSIFICATION:** SB

1. **Proposed Action, Type of Facility, and Discharge Location**

This action is a proposed modification of the National Pollutant Discharge Elimination System (NPDES) permit issued to the City of Newburyport ("City") on May 3, 2004 for the Newburyport Wastewater Treatment Facility ("WWTF").

The Newburyport WWTF is a 3.4 MGD secondary treatment facility which discharges to the Merrimack River via a multi-port diffuser. The permit authorizes the discharge of wastewater from the Newburyport WWTF to the Merrimack River subject to effluent limitations and other requirements.

2. **Limitations and Conditions**

This proposed permit modification includes changes to effluent limitations, test methods and reporting requirements, including:

- modifications to effluent limits and monitoring requirements for total residual chlorine;
- a change of the test method for fecal coliform bacteria to Membrane Filtration (CFU);
- the addition of a dissolved oxygen monitoring requirement;
- a reduction in the frequency of flow meter calibration;
- a clarification of the requirements of an immediate warning system for notifying the Massachusetts Division of Marine Fisheries of disinfection system failures.

## **Modification Basis**

On May 3, 2004, the U.S. Environmental Protection Agency ("EPA") and the Massachusetts Department of Environmental Protection ("MassDEP") issued an updated NPDES permit to the City of Newburyport for the Newburyport WWTF. The permit superseded the permit issued on September 17, 1998.

The City of Newburyport and Island Futures Group ("IFG") filed administrative appeals with EPA and MassDEP regarding certain conditions in the permit.

EPA filed briefs with the Environmental Appeals Board ("EAB") on the issues raised in the IFG appeal. On December 8, 2005, the EAB issued an Order Denying Review In Part and Remanding In Part ("the Order"). The Order requires the Region to (1) restore the DO limitation and monitoring requirement in the Permit or publicly notice the removal of these provisions from the final Permit and allow IFG and other interested parties the opportunity to submit comments; (2) publicly notice the Region's proposal to require DO monitoring 5 days per week if a modification along these lines is pursued; (3) remove the Permit's 4-month schedule of compliance for fecal coliform bacteria limitations; and (4) provide adequate response to Mr. McFarlane's comments relating to the Permit's TRC limitations or revise the Permit accordingly. These issues, with the exception of a response to Mr. McFarlane's comments are addressed in the proposed permit modification and detailed below. EPA will provide an adequate response to Mr. McFarlane's comments following the close of public comment on this proposed modification.

On February 9, 2006, EPA notified the EAB, the permittee, IFG, and other interested parties of the uncontested provisions of the permit that would become enforceable obligations on March 11, 2006. Pursuant to this letter, only the contested conditions of the May 3, 2004 permit are now stayed.

On *(date)*, EPA and the City of Newburyport filed a settlement agreement on the conditions the City appealed. As part of that agreement EPA agreed to propose certain modifications to the permit. These items are presented in the permit modification and described below.

As part of the modification procedure, EPA and MADEP are now taking public comment on the proposed modification. Pursuant to 40 CFR Part 122.62, only the conditions subject to the modification are reopened. Comments on any other conditions of the permit will not be accepted. Following the close of the public comment period, EPA will make a final decision regarding the permit modification.

### **A. Detailed Description of Modified Conditions**

The following conditions are included in the draft modification.

#### **Flow**

Footnote 3 of the final permit required the permittee submit a plan to conduct monthly calibration of flow meters and to conduct an annual volumetric calibration. EPA proposes to reduce the frequency of this requirement. The draft permit modification requires quarterly equipment calibration with an annual volumetric calibration for the first year of the permit. Provided there are no significant discrepancies in the year one data, the frequency of testing will be reduced in year two to semi-annual equipment calibration and an annual volumetric calibration. Following the successful completion of year two, with no major discrepancies, the permittee will be allowed to reduce the frequency of calibration to an annual equipment

and volumetric calibration.

### Fecal Coliform Bacteria

EPA proposes to modify the testing procedure required for fecal coliform bacteria. In its comments and in its appeal the City had asked that the required testing method be the Membrane Filtration method rather than the Most Probable Number (MPN) method. Since both methods are approved by EPA pursuant to 40 CFR Section 136, and are acceptable to MassDEP, the draft permit modification allows the use of Standard Methods 9222 D, Membrane Filtration, and changes the reporting units to colony forming units (CFUs) to correspond to this change of test method.

The final permit included monthly average and daily maximum fecal coliform bacteria limitations of 88 MPN per 100 ml and 260 MPN per 100 ml respectively. The monthly average limits are the same as the SB(R) criteria in the Massachusetts Surface Water Quality Standards 314 CMR 4.05 (4)(b). The daily maximum limit is more stringent than the water quality criteria, which require that no more than 10 percent of samples exceed 260 MPN/100 ml. The permit modification removes the maximum daily limit of 260 MPN/100 ml and adds a limit that no more than 10 percent of samples in a month shall exceed 260 CFU/100 ml. The draft permit modification also includes a maximum daily effluent limit of 400 CFU/100 ml. This is the same daily maximum limit that was in the September 17, 1998 permit, and so satisfies antibacksliding and antidegradation requirements.

As allowed under 314 CMR 4.03 (1), the final permit included a four (4) month schedule of compliance for achieving the new more stringent bacteria limits. However, during the intervening time, between the issuance of the permit and the resolution of the permit appeals, the City has met these limits, so the draft permit modification removes the compliance schedule from the permit.

### Total Residual Chlorine

Mass-based limitations - The draft permit modification proposes to remove the mass limit for Total Residual Chlorine ("TRC"). As noted in the Response to Comments, dated May 4, 2004, EPA did not intend to include a mass limit for TRC in the final permit. The inclusion of a mass limit for TRC in effluent limitations table was a typographical error.

Concentration limitation - The concentration based limits for TRC in the final permit of 0.23 mg/l average monthly and 0.39 mg/l maximum daily have not been modified. The City of Newburyport believes that the outfall inspection, which is a requirement of the existing permit, will yield new information, which may significantly effect the dilution factor for this discharge. EPA and MassDEP will review any new information that becomes available as the result of the outfall inspection. If this new information shows that there is more dilution available than that used as the basis for the TRC limits, and that less stringent TRC limits would achieve water quality standards, including antidegradation, EPA would propose a permit modification revising the TRC limits to reflect the new dilution factor. Any permit modification would be done in accordance with appropriate permit modification procedures, including public notice and comment, and until such modified limits went into effect, the existing limits would remain in effect.

Monitoring and Reporting Requirements - EPA proposes to modify the monitoring requirements for TRC. Both the existing permit and the permit modification require the permittee to monitor TRC continuously both before and after dechlorination of the effluent, however, the permittee shall report the results of grab samples on its Discharge Monitoring Reports (DMRs) for compliance determination. In this permit modification, EPA proposes to reduce the frequency of grab samples for TRC. In the existing permit, the permittee is required to collect four (4) grab samples daily, two (2) prior to dechlorination and two (2)

post-dechlorination. EPA proposes that the permittee reduce the frequency of sampling and collect two (2) TRC grab samples daily, one (1) before dechlorination and one (1) after dechlorination prior to mixing with other waters. The TRC samples must be collected concurrent with the daily Fecal Coliform Bacteria sample.

Results of the grab samples shall be compared with data from the continuous analyzers. The date and time each grab sample is taken shall also be recorded. The permittee shall also submit four (4) continuous recording charts or their equivalent, one chart per week showing weekly data from the post-dechlorination continuous chlorine analyzer. All of this required information shall be attached to the monthly DMRs

The permittee is also required to install a low TRC level alarm on the pre-dechlorination TRC analyzer. The alarm will be connected to the WWTF alarm pager system. Once notified of low TRC levels, the WWTF staff shall visit the plant to investigate the cause of the alarm. All alarms must be recorded in the operator's log book including the time of alarm, time of system investigation, duration and magnitude of the event, the cause for the alarm and how the event was resolved.

If the alarm-triggering event resulted in the discharge of un-disinfected effluent, the permittee must sample for TRC and Fecal Coliform Bacteria.

After one year of reporting the results of its continuous chlorine monitoring, the permittee may request reduction or elimination of the continuous chlorine reporting requirements. Any requested reduction must be submitted to EPA and MassDEP in writing and must demonstrate that the previously reported data support such a reduction. Any reduction in reporting frequency must be approved by EPA in a certified letter to the City before the reduction becomes effective. The City may only request a reduction or elimination of the continuous chlorine monitoring reporting frequency; reductions of monitoring frequency will not be allowed. If a reporting frequency reduction is allowed, the permittee must maintain the continuous chlorine monitoring records on site.

The permittee shall install the second post-dechlorination continuous chlorine analyzer and chart recorder, and the low-level alarm on the pre-dechlorination continuous chlorine analyzer within four (4) months after the effective date of this modification.

#### Dissolved Oxygen

Analysis of monitoring data submitted by the permittee to EPA for the period of July, 2, 2003 to December 31, 2005 indicates that the effluent DO concentration will be equal or greater than 8.9 mg/l with a confidence level of 95%. Therefore, EPA has concluded that there is no reasonable potential for the discharge to cause or contribute to an exceedance of the minimum water quality criteria of 5 mg/l. It is also noted that the receiving water is not listed on the 303(d) list for an impairment of DO. However, EPA proposes a dissolved oxygen ("DO") monitoring requirement in the permit modification to gather additional data to further confirm that the effluent DO does not have reasonable potential to violate the water quality criteria. The permittee shall monitor the DO of the effluent immediately following the effluent weir and trough, just prior to the outfall pipe. The monitoring frequency shall be five (5) days per week.

The permit modification includes a provision which would allow a reduction of the DO monitoring requirements if certain conditions are met. **If after one year of monitoring, the data clearly establishes that the effluent DO is greater than 5 mg/l**, thereby demonstrating that there is no reasonable potential for the discharge non-compliance, the permittee may submit a written request to EPA seeking a review of DO monitoring results. EPA will review the DO data and pertinent information to make a determination if

the monitoring frequency will be reduced or removed from the permit. Any reduction in frequency or elimination of the monitoring requirement must be approved by EPA in a certified letter to the City before the reduction or elimination becomes effective.

#### **IV. Essential Fish Habitat Determination**

Under the 1996 Amendments (PL 104-267) to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 et seq. (1998)), EPA is required to consult with the National Marine Fisheries Services ("NMFS") if EPA's action or proposed actions that it funds, permits, or undertakes, may adversely impact any essential fish habitat ("EFH") as; waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (16 U.S.C. § 1802 (10)). Adversely impact means any impact which reduces the quality and/or quantity of EFH (50 C.F.R. § 600.910 (a)). Adverse effects may include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey, reduction in species' fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

EFH is only designated for species for which federal fisheries management plans exist (16 U.S.C. § 1855(b) (1) (A)). EFH designations for New England were approved by the U.S. Department of Commerce on March 3, 1999.

EPA and MassDEP have determined that a formal EFH consultation with NMFS is not required because the effluent limits and conditions of the permit and the proposed modification requires attainment of State Water Quality Standards and will not adversely impact EFH.

#### **V. State Certification Requirements**

EPA may not issue a permit modification unless the State Water Pollution Control Agency with jurisdiction over the receiving waters certifies that the effluent limitations contained in the permit modification are stringent enough to assure that the discharge will not cause the receiving water to violate State Water Quality Standards. The staff of the MADEP has reviewed this modification and advised EPA that the limitations are adequate to protect water quality. EPA has requested certification by the state pursuant to 40 C.F.R. 124.53 and expects that the draft permit modification will be certified.

#### **VI. Comment Period and Procedures for Final Decision**

All persons, including applicants, who believe any condition of the draft permit modification is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to the U.S. EPA, Office of Ecosystem Protection (CMP), One Congress Street Boston, Massachusetts 02114 -2023. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit modification to EPA and the State Agency. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty days public notice whenever the Regional Administrator finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit modification the Regional Administrator will respond to all significant comments and make these responses available to the public at EPA's Boston office.

Following the close of the comment period, and after a public hearing, if such hearing is held, the Regional Administrator will issue a final permit modification decision and forward a copy of the final decision to the



applicant and each person who has submitted written comments or requested notice.

**VII. EPA Contact**

Additional information concerning the draft permit modification may be obtained between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays from:

Michele Cobban Barden  
U.S. Environmental Protection Agency  
Office of Ecosystem Protection (CMP)  
1 Congress Street, Suite 1100.  
Boston, MA 02114 -2023  
Telephone: (617) 918-1539

April 6, 2006

Date

Linda M. Murphy, Director  
Office of Ecosystem Protection  
U.S. Environmental Protection Agency