



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI  
GOVERNOR

DAVID P. LITTELL  
COMMISSIONER

December 22, 2006

Mr. Paul Francoeur  
Portland Water District  
225 Douglass Street, P.O. Box 3553  
Portland, ME 04104

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0100846  
Maine Waste Discharge License (WDL) #W001510-5L-D-R  
**Final Permit/License**  
**Westbrook Facility**

Dear Mr. Francoeur:

Enclosed please find a copy of your **final** combination MEPDES permit/Maine WDL which was approved by the Department of Environmental Protection. Please read the permit/license and its attached conditions carefully. You must follow the conditions in the order to satisfy the requirements of law. Any discharge not receiving adequate treatment is in violation of State Law and is subject to enforcement action.

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled "*Appealing a Commissioner's Licensing Decision.*"

If you have any questions regarding this matter, please feel free to call me at 287-7693.

Sincerely,

Gregg Wood  
Division of Water Quality Management  
Bureau of Land and Water Quality

Enc.

cc: Stuart Rose, DEP/SMRO  
John True, DEP/CMRO  
James Crowley, DEP/CMRO  
Sandy Lao, USEPA

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STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
STATE HOUSE STATION 17      AUGUSTA, MAINE 04333

DEPARTMENT ORDER

**IN THE MATTER OF**

PORTLAND WATER DISTRICT	)	MAINE POLLUTANT DISCHARGE
WESTBROOK, CUMBERLAND COUNTY, MAINE	)	ELIMINATION SYSTEM PERMIT
PUBLICLY OWNED TREATMENT WORKS	)	AND
ME0100846	)	WASTE DISCHARGE LICENSE
W001510-5L-D-R	)	<b>RENEWAL</b>
		<b>APPROVAL</b>

Pursuant to the provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251, et seq. and Maine Law 38 M.R.S.A. Section 414-A, et seq., and applicable regulations, the Department of Environmental Protection (Department hereinafter) has considered the application of the PORTLAND WATER DISTRICT (PWD hereinafter), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

**APPLICATION SUMMARY**

The PWD has submitted a timely and complete application to the Department to renew combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0100846/ Maine Waste Discharge License (WDL) #W001510-5L-C-R, (permit hereinafter) which was issued on December 21, 2001, and will expire on December 21, 2006. The permit approved the discharge of up to a monthly average of 4.54 million gallons per day (MGD) of secondary treated waste water from a municipal waste water treatment facility and an unspecified quantity of untreated storm water and sanitary waste water from five (5) combined sewer overflow (CSO) outfalls to the Presumpscot River, Class C, in Westbrook, Maine.

**PERMIT SUMMARY**

This permitting action is carrying forward the following limitations and monitoring requirements from the 12/21/01 permit. In addition this permit is;

1. Incorporating the requirements of Department Rules Chapter 530, *Surface Water Toxics Control Program*, and Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*.
2. Establishing monthly average and/or daily maximum water quality based mass and concentration limits for cadmium and lead and revising (more stringent) the monthly average water quality based mass and concentrations for arsenic.
3. Requiring the submission of a toxicity reduction evaluation (TRE) for arsenic and cadmium.
4. Establishing a chronic no observed effect level (C-NOEL) of 2.7 % for the water flea.
5. Establishing a milestone for the submission of an updated CSO Master Plan.

## CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated May 29, 2006, (revised December 22, 2006) and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.
3. The provisions of the State's antidegradation policy, 38 M.R.S.A., Section 464(4)(F), will be met, in that:
  - a. Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;
  - b. Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;
  - c. The standards of classification of the receiving water body are met or, where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet standards of classification;
  - d. Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification, that higher quality will be maintained and protected; and
  - e. Where a discharge will result in lowering the existing quality of any water body, the Department has made the finding, following the opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.
4. The discharge(s) (including the CSO's) will be subject to effluent limitations that require application of best practicable treatment.

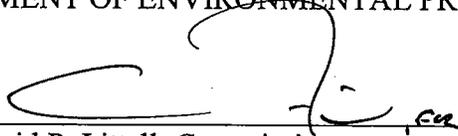
**ACTION**

THEREFORE, the Department APPROVES the above noted application of the PORTLAND WATER DISTRICT, to discharge up to a monthly average of 4.54 MGD of secondary treated waste waters from a municipally owned treatment works facility and an unspecified quantity of untreated storm water and sanitary waste waters from five combined sewer overflow (CSO) outfalls to the Presumpscot River, Class C, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations, including:

1. "Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits," revised July 1, 2002, copy attached.
2. The attached Special Conditions, including any effluent limitations and monitoring requirements.
3. This permit expires five (5) years from the date of signature below.

DONE AND DATED AT AUGUSTA, MAINE, THIS 22<sup>nd</sup> DAY OF December, 2006.

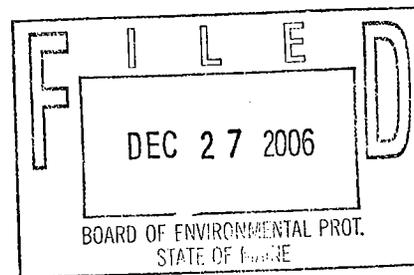
DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:   
David P. Littell, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 10, 2006

Date of application acceptance: May 15, 2006



Date filed with Board of Environmental Protection \_\_\_\_\_

This order prepared by Gregg Wood, BUREAU OF LAND AND WATER QUALITY

W15105LD            12/22/06

**SPECIAL CONDITIONS**

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

1. The permittee is authorized to discharge secondary treated waste waters from **Outfall #001** to the Presumpscot River. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations						Minimum Requirements		
	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified	Recorder
Flow [500507]	4.54 MGD [037]	---	Report MGD [037]	---	---	---	Continuous [99/997]	Recorder [RC1]	
Biochemical Oxygen Demand (BOD <sub>5</sub> ) [003101]	1,137 #/day [267]	1,705 #/day [267]	Report #/day [267]	30 mg/L [197]	45 mg/L [197]	50 mg/L [197]	3/Week [03/077]	Composite [247]	
BOD <sub>5</sub> % Removal <sup>(1)</sup> [810101]	---	---	---	85% [237]	---	---	1/Month [01/307]	Calculate [CA7]	
Total Suspended Solids (TSS) [005307]	1,137 #/day [267]	1,705 #/day [267]	Report #/day [267]	30 mg/L [197]	45 mg/L [197]	50 mg/L [197]	3/Week [03/077]	Composite [247]	
TSS % Removal <sup>(1)</sup> [810111]	---	---	---	85% [237]	---	---	1/Month [01/307]	Calculate [CA7]	
Settleable Solids [005457]	---	---	---	---	---	0.3 ml/L [237]	1/Day [01/017]	Grab [GR7]	
<i>E. coli</i> . Bacteria <sup>(2)</sup> [316167]	---	---	---	142/100 ml <sup>(3)</sup> [137]	---	949/100 ml [137]	3/Week [03/077]	Grab [GR7]	
Total Residual Chlorine <sup>(4)</sup> [500607]	---	---	---	0.1 mg/L [197]	---	0.3 mg/L [197]	1/Day [01/017]	Grab [GR7]	
pH (Std. Units) [004007]	---	---	---	---	---	6.0-9.0 [127]	1/Day [01/017]	Grab [GR7]	
Arsenic (Inorganic) [012527]	0.025 #/day [267]	---	---	1.0 ug/L <sup>(5)</sup> [197]	---	---	2/Year [02/077]	Composite [247]	
Cadmium (Total) [010277]	0.084 #/day [267]	---	0.44 #/day [267]	3.3 ug/L [197]	---	17 ug/L [197]	2/Year [02/077]	Composite [247]	
Lead (Total) [010517]	0.43 #/day [267]	---	---	17 ug/L [197]	---	---	2/Year [02/077]	Composite [247]	

**SPECIAL CONDITIONS**

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd) – OUTFALL #001**

**SURVEILLANCE LEVEL** - Beginning upon issuance of this permit and lasting until 12 months prior to permit expiration.

Effluent Characteristic	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity <sup>(6)</sup> <u>Acute – NOEL</u> <i>Ceriodaphnia dubia</i> [TDA3B] ( <i>Water flea</i> )	---	---	---	Report % [23]	1/Year [01/YY]	Composite [24]
<i>Salvelinus fontinalis</i> [TDA6F] ( <i>Brook trout</i> )	---	---	---	Report % [23]	1/2 Years [01/2Y]	Composite [24]
<u>Chronic – NOEL</u> <i>Ceriodaphnia dubia</i> [TDA3B] ( <i>Water flea</i> )	---	---	---	2.7 % [23]	1/Year [01/YY]	Composite [24]
<i>Salvelinus fontinalis</i> [TDA6F] ( <i>Brook trout</i> )	---	---	---	Report % [23]	1/2 Years [01/2Y]	Composite [24]
Analytical chemistry (7) [30008]	---	---	---	Report ug/L [28]	1/2 Years [01/2Y]	Composite/Grab [24]

**SPECIAL CONDITIONS**

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd) – OUTFALL #001**

**SCREENING LEVEL** - Beginning 12 months prior to permit expiration and lasting through permit expiration and every five years thereafter.

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
<b>Whole Effluent Toxicity</b> <sup>(6)</sup> <b>Acute – NOEL</b> <i>Ceriodaphnia dubia</i> [PDA3B] ( <i>Water flea</i> )	---	---	---	Report % [23]	2/Year [02NR]	Composite [24]
<i>Salvelinus fontinalis</i> [PDA6F] ( <i>Brook trout</i> )	---	---	---	Report % [23]	2/Year [02NR]	Composite [24]
<b>Chronic – NOEL</b> <i>Ceriodaphnia dubia</i> [PDA3B] ( <i>Water flea</i> )	---	---	---	2.7 % [23]	2/Year [02NR]	Composite [24]
<i>Salvelinus fontinalis</i> [PDA6F] ( <i>Brook trout</i> )	---	---	---	Report % [23]	2/Year [01NR]	Composite [24]
Analytical chemistry <sup>(7)</sup> [50008]	---	---	---	Report ug/L [28]	1/Quarter [0190]	Composite/Grab [24]
Priority Pollutant <sup>(8)</sup> [51168]	---	---	---	Report ug/L [28]	1/Year [01NR]	Composite/Grab [24]

The italicized numeric values in brackets in the table above and the tables that follow are not limitations but are code numbers used by Department personnel to code Discharge Monitoring Reports (DMR's).

## SPECIAL CONDITIONS

### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

#### Sampling Locations:

**Effluent sampling** for all parameters shall be sampled after the last treatment process on a year-round basis.

Any change in sampling location(s) must be reviewed and approved by the Department in writing.

**Sampling** – Sampling and analysis must be conducted in accordance with; a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services.

All detectable analytical test results shall be reported to the Department including results which are detected below the respective reporting limits (RLs) specified by the Department or as specified by other approved test methods. If a non-detect analytical test result is below the respective RL, the concentration result shall be reported as <Y where Y is the detection limit achieved by the laboratory for each respective parameter. Reporting a value of <Y that is greater than an established RL is not acceptable and will be rejected by the Department. For mass, if the analytical result is reported as <Y or if a detectable result is less than a RL, report a <X lbs/day, where X is the parameter specific limitation established in the permit.

1. **Percent removal** - The treatment facility shall maintain a minimum of 85 percent removal of both BOD<sub>5</sub> and TSS. The percent removal shall be based on a monthly average calculation using influent and effluent concentrations. The percent removal shall be waived when the monthly average influent concentration is less than 200 mg/L. For instances when this occurs, the facility shall report "NODI-9" on the monthly Discharge Monitoring Report.
2. ***E. coli* bacteria** – Limits and monitoring requirements are in effect on a year-round basis.
3. ***E. coli* bacteria** – The monthly average limitation is a geometric mean limitation and shall be calculated and reported as such.

## SPECIAL CONDITIONS

### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

4. **Total Residual Chlorine** – Limitations and monitoring requirements are applicable whenever elemental chlorine or chlorine based compounds are being used to disinfect the discharge. TRC shall be tested using Amperometric Titration or the DPD Spectrophotometric Method. The EPA approved methods are found in Standard Methods for the Examination of Water and Waste Water, (most current approved edition), Method 4500-CL-E and Method 4500-CL-G or U.S.E.P.A. Manual of Methods of Analysis of Water and Wastes.
  
5. a. **Arsenic (Inorganic)** The monthly average limitation for arsenic refers to the inorganic form only. Forms of organic arsenic present in a wastewater sample do not contribute toward the water quality-based limit. The permittee shall analyze samples collected for compliance demonstration purposes with this limit as Inorganic Arsenic (*Permit Compliance System Code #01252*). Alternately, the permittee may analyze samples as Total Arsenic (*PCS Code 01002*), but shall specify on the monthly Discharge Monitoring Report (DMR) that the results reported are total arsenic.

Compliance with the monthly average limitation will be based on the Department's current reporting level (RL) of detection of 5 ug/L for total arsenic. It is noted the Department has not established a RL for inorganic arsenic as of the date of this permitting action. The monthly Discharge Monitoring Report (DMR) forms will be coded with a monthly average concentration of 5 ug/L so that detectable concentrations reported between the permit limit of 1.0 ug/L and the RL of 5 ug/L will not be construed as being violations of AWQC. Once the Department establishes a RL for inorganic arsenic, this footnote will be modified accordingly.

- b. Detectable results: All detectable analytical test results shall be reported to the Department including results which are detected below the most current RL. If the concentration result is at or above the most current RL, the concentration shall be reported at that level and the mass shall be calculated based on the detected concentration and the flow discharged for the day in which the sample was taken. If the detectable concentration is below the most current RL, the mass shall be report as less than the applicable permit mass limit.

Non-detectable results: If the analytical test result is below the most current RL, the concentration result shall be reported as <X where X is the detection level achieved by the laboratory for that test. Because a mass cannot be calculated with a less than value, report less than the applicable permit mass limit.

## SPECIAL CONDITIONS

### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

#### Footnotes:

6. **Whole effluent toxicity (WET) testing** - Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions bracketing the critical acute and chronic threshold of 2.7%), which provides a point estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOEC. A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level with survival, reproduction and growth as the end points. The critical acute and chronic threshold was derived as the mathematical inverse of the applicable acute and chronic dilution factors of 36.6:1.
  - a. **Surveillance level testing** - Beginning upon permit issuance and last until 12 months prior to permit expiration, the permittee shall conduct surveillance level WET testing. Acute and chronic tests shall be conducted on the water flea (*Ceriodaphnia dubia*) at a frequency of 1/Year and the brook trout (*Salvelinus fontinalis*) at a frequency of once every other year (1/2 Years). Tests shall be conducted in a different calendar quarter each year. There shall be at least six (6) months between sampling events.
  - b. **Screening level testing** - Beginning 12 months prior to permit expiration and lasting through permit expiration and every five years thereafter, the permittee shall conduct screening level WET testing at a minimum frequency of twice per year (2/Year). Acute and chronic tests shall be conducted on the water flea (*Ceriodaphnia dubia*) and the brook trout (*Salvelinus fontinalis*). There shall be at least six (6) months between sampling events.

WET test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit, provided, however, that the permittee may review the toxicity reports for up to 10 business days of their availability before submitting them. The permittee shall evaluate test results being submitted and identify to the Department possible exceedences of the critical acute and chronic water quality threshold of 2.7%.

Toxicity tests must be conducted by an experienced laboratory approved by the Department. The laboratory must follow procedures as described in the following U.S.E.P.A. methods manuals.

- a. Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Water to Freshwater Organisms, Fourth Edition, October 2002, EPA-821-R-02-013.
- b. Methods for Measuring the Acute Toxicity of Effluent and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, October 2002, EPA-821-R-02-012.

## SPECIAL CONDITIONS

### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

**The permittee is also required to analyze the effluent for the parameters specified in the analytical chemistry on the form in Attachment C of this permit each time a WET test is performed.**

7. **Analytical chemistry** – Refers to a suite of chemical tests that include ammonia nitrogen (as N), total aluminum, total arsenic, total cadmium, total chromium, total copper, total cyanide, total lead, total nickel, total silver, total zinc and total residual chlorine.
  - a. **Surveillance level testing** – Beginning upon permit issuance and lasting through 12 months prior to permit expiration, the permittee shall conduct analytical chemistry testing at a minimum frequency of once every other year (1/2 Years). Tests are to be conducted in a different calendar quarter of each year.
  - b. **Screening level testing** – Beginning 12 months prior to permit expiration and lasting through permit expiration and every five years thereafter, the permittee shall conduct analytical chemistry testing at a minimum frequency of once per calendar quarter (1/Quarter) for four consecutive calendar quarters.
8. **Priority pollutant testing** – Priority pollutants are those parameters listed by Department rule, Chapter 525, Section 4(IV).
  - a. **Screening level testing** - Beginning 12 months prior to permit expiration and lasting through permit expiration and every five years thereafter, the permittee shall conduct screening level priority pollutant testing at a minimum frequency of once per year (1/Year). It is noted Department rule Chapter 530 does not establish routine surveillance level testing priority pollutant testing.

Analytical chemistry and priority pollutant testing shall be conducted on samples collected at the same time as those collected for whole effluent toxicity tests, when applicable. Analytical chemistry and priority pollutant testing shall be conducted using methods that permit detection of a pollutant at existing levels in the effluent or that achieve minimum reporting levels of detection as specified by the Department. See Attachment C of this permit for a list of the Department's reporting levels of detection. Test results must be submitted to the Department not later than the next DMR required by the permit, provided, however, that the permittee may review the toxicity reports for up to 10 business days of their availability before submitting them. The permittee shall evaluate test results being

## SPECIAL CONDITIONS

### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

#### Footnotes:

submitted and identify to the Department, possible exceedences of the acute, chronic or human health AWQC as established in Department rule Chapter 584. For the purposes of Discharge Monitoring Report (DMR) reporting, enter a "1" for yes, testing done this monitoring period or "NODI-9" monitoring not required this period.

All mercury sampling required by this permit or required to determine compliance with interim limitations established pursuant to Department rule Chapter 519, shall be conducted in accordance with EPA's "clean sampling techniques" found in EPA Method 1669, Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels. All mercury analysis shall be conducted in accordance with EPA Method 1631, Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry.

### B. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent shall not contain a visible oil sheen, foam or floating solids at any time or which would impair the usages designated by the classification of the receiving waters.
2. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usages designated by the classification of the receiving waters.
3. The discharge shall not cause visible discoloration or turbidity in the receiving waters which would impair the usages designated by the classification of the receiving waters.
4. Notwithstanding specific conditions of this permit the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

### C. DISINFECTION

If chlorination is used as the means of disinfection, an approved chlorine contact tank providing the proper detention time consistent with good engineering practice must be utilized followed by a dechlorination system if the imposed total residual chlorine (TRC) limit cannot be achieved by dissipation in the detention tank. The total residual chlorine in the effluent shall at no time cause any demonstrable harm to aquatic life in the receiving waters. The dose of chlorine applied shall provide a TRC concentration that will effectively reduce *E. coli* bacteria levels to or below those specified in Special Condition A, *Effluent Limitation and Monitoring Requirements*, of this permit.

## **SPECIAL CONDITIONS**

### **D. TREATMENT PLANT OPERATOR**

The waste water treatment facility must be operated under the direction of a person holding a minimum of a **Grade IV** certificate [or Maine Professional Engineer (PE) certificate] pursuant to Title 32 M.R.S.A., Section 4171 et seq. All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

### **E. LIMITATIONS FOR INDUSTRIAL USERS**

Pollutants introduced into the waste water collection and treatment system by a non-domestic source (user) shall not pass through or interfere with the operation of the treatment system.

### **F. NOTIFICATION REQUIREMENT**

In accordance with Standard Condition D, the permittee shall notify the Department of the following:

1. Any introduction of pollutants into the waste water collection and treatment system from an indirect discharger in a primary industrial category discharging process waste water.
2. Any substantial change in the volume or character of pollutants being introduced into the waste water collection and treatment system.
3. For the purposes of this section, adequate notice shall include information on:
  - a. The quality and quantity of waste water introduced to the waste water collection and treatment system; and
  - b. Any anticipated impact of the change in the quality or quantity of the waste water to be discharged from the treatment system.

### **G. UNAUTHORIZED DISCHARGES**

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from the outfalls cited in this permit. Discharges of waste water from any other point source are not authorized under this permit, but shall be reported in accordance with Standard Condition B(5) (*Bypass*) of this permit.

## SPECIAL CONDITIONS

### H. WET WEATHER FLOW MANAGEMENT PLAN

The treatment facility staff shall maintain a current written Wet Weather Flow Management Plan to direct the staff on how to operate the facility effectively during periods of high flow and maximize the volume of waste water receiving secondary treatment under all operating conditions. The Department acknowledges that the existing collection system may deliver flows in excess of the monthly average design capacity of the treatment plant during periods of high infiltration and rainfall. The plan shall include operating procedures for a range of intensities, address solids handling procedures (including septic waste and other high strength wastes if applicable) and provide written operating and maintenance procedures to be adhered to during the events.

**The permittee shall review their plan annually** and record any necessary changes to keep the plan up-to-date.

### I. OPERATION & MAINTENANCE (O&M) PLAN

The permittee shall maintain a current written comprehensive Operation & Maintenance (O&M) Plan. The plan shall provide a systematic approach by which the permittee shall at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.

**By December 31 of each year, or within 90 days of any process changes or minor equipment upgrades**, the permittee shall evaluate and modify the O&M Plan including site plan(s) and schematic(s) for the wastewater treatment facility to ensure that it is up-to-date. The O&M Plan shall be kept on-site at all times and made available to Department and other regulatory personnel upon request.

**Within 90 days of completion of new and or substantial upgrades of the wastewater treatment facility**, the permittee shall submit the updated O&M Plan to their Department inspector for review and comment.

### J. DISPOSAL OF SEPTAGE WASTE IN WASTE WATER TREATMENT FACILITY

During the effective period of this permit, the permittee is authorized to add up to **10,000 gallons per day** of septage into its waste water treatment process, subject to the following terms and conditions.

1. This approval is limited to methods and plans described in the application and supporting documents. Any variations are subject to review and approval prior to implementation.

**SPECIAL CONDITIONS**

**J. DISPOSAL OF SEPTAGE WASTE IN WASTE WATER TREATMENT FACILITY**

2. At no time shall addition of septage cause or contribute to effluent violations. If such conditions do exist, receipt of septage shall be suspended until effluent quality can be maintained.
3. The permittee shall maintain records which shall include, as a minimum, the following by date: volume of septage received, source of the septage (name of municipality), the hauler transporting the septage, the dates and volume of septage added to the waste treatment influent and test results.
4. Addition of septage shall not cause the treatment facilities design capacity to be exceeded. If, for any reason, the treatment facility becomes overloaded, receipt of septage shall be reduced or terminated in order to eliminate the overload condition.
5. Septage known to be harmful to the treatment processes shall not be accepted. Wastes which contain heavy metals, toxic chemicals, extreme pH, flammable or corrosive materials in concentrations harmful to the treatment operation shall be refused.
6. Holding tank waste water shall not be recorded as septage and should be reported in the treatment facility's influent flow.
7. During wet weather flows (as defined in Special Condition K §10(c) of this permit) no septage or high strength waste, shall be added to the waste water treatment system.

**K. CONDITIONS FOR COMBINED SEWER OVERFLOW**

Pursuant to Chapter 570 of Department Rules (*Combined Sewer Overflow Abatement*), the permittee is authorized to discharge from the following locations of CSO's (stormwater and sanitary wastewater) subject to the conditions and requirements herein.

1. CSO Locations

Outfall No.	Description	Location	Receiving Water / Class
002	Untreated sanitary/storm water	Warren Parking Lot Regulator	Presumpscot River / C
003	Untreated sanitary/storm water	Siphon Inlet Structure	Presumpscot River / C
004	Untreated sanitary/storm water	Dunn Street Regulator	Presumpscot River / C
007	Untreated sanitary/storm water	Brown Street Regulator	Presumpscot River / C
008	Untreated sanitary/storm water	King Street Regulator	Presumpscot River / C

## SPECIAL CONDITIONS

### K. CONDITIONS FOR COMBINED SEWER OVERFLOW (cont'd)

#### 2. Prohibited Discharges

- a) The discharge of dry weather flows is prohibited. All such discharges shall be reported to the Department in accordance with Standard Condition D (1) of this permit.
- b) No discharge shall occur as a result of mechanical failure, improper design or inadequate operation or maintenance.
- c) No discharges shall occur at flow rates below the maximum design capacities of the wastewater treatment facility, pumping stations or sewerage system.

#### 3. Narrative Effluent Limitations

- a) The effluent shall not contain a visible oil sheen, settled substances, foam, or floating solids at any time that impair the characteristics and designated uses ascribed to the classification of the receiving waters.
- b) The effluent shall not contain materials in concentrations or combinations that are hazardous or toxic to aquatic life; or which would impair the usage designated by the classification of the receiving waters.
- c) The discharge shall not impart color, turbidity, toxicity, radioactivity or other properties that cause the receiving waters to be unsuitable for the designated uses and other characteristics ascribed to their class.
- d) Notwithstanding specific conditions of this permit, the effluent by itself or in combination with other discharges shall not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

#### 4. CSO Master Plan (see Sections 2 & 3 of Chapter 570 Department Rules)

The permittee shall implement CSO control projects in accordance with an approved CSO Master Plan and abatement schedule. The CSO Master Plan, entitled *Sewer System Master Plan for Westbrook, Maine, December 1993*, prepared by Portland Water District and the City of Westbrook, and a supplemental document entitled *CSO Master Plan for Westbrook, Maine, Volume II, December 1996*, were approved by the Department on March 26, 1997. A revised abatement schedule dated October 8, 1999 was approved by the Department on October 27, 1999.

**SPECIAL CONDITIONS**

**K. CONDITIONS FOR COMBINED SEWER OVERFLOW (cont'd)**

**On or before December 31, 2008, [PCS Code 06699]** the permittee shall submit a CSO Master Plan Update and abatement schedule to the Department for review and approval.

To modify the date specified above, the permittee must file an application with the Department to formally modify this permit. The remaining work items identified in the abatement schedule may be amended from time to time based on mutual agreements between the permittee and the Department. The permittee must notify the Department in writing prior to any proposed changes to the implementation schedule.

5. Nine Minimum Controls (NMC) (see Section 5 Chapter 570 of Department Rules)  
The permittee shall implement and follow the Nine Minimum Control documentation as approved by EPA on August 12, 1997. Work performed on the Nine Minimum Controls during the year shall be included in the annual *CSO Progress Report* (see below).
6. CSO Compliance Monitoring Program (see Section 6 Chapter 570 of Department Rules)

The permittee shall conduct block testing or flow monitoring according to an approved *Compliance Monitoring Program* on all CSO points, as part of the CSO Master Plan. Annual flow volumes for all CSO locations shall be determined by actual flow monitoring, or by estimation using a model such as EPA's Storm Water Management Model (SWMM).

Results shall be submitted annually as part of the annual *CSO Progress Report* (see below), and shall include annual precipitation, CSO volumes (actual or estimated) and any block test data required. Any abnormalities during CSO monitoring shall also be reported. The results shall be reported on the Department form "*CSO Activity and Volumes*" (Attachment D of this permit) or similar format and submitted to the Department on diskette.

CSO control projects that have been completed shall be monitored for volume and frequency of overflow to determine the effectiveness of the project toward CSO abatement. This requirement shall not apply to those areas where complete separation has been completed and CSO outfalls have been eliminated.

**SPECIAL CONDITIONS**

**K. CONDITIONS FOR COMBINED SEWER OVERFLOW (cont'd)**

7. Additions of New Wastewater (see Section 8 Chapter 570 of Department Rules)

Chapter 570 Section 8 lists requirements relating to any proposed addition of wastewater to the combined sewer system. Documentation of the new wastewater additions to the system and associated mitigating measures shall be included in the annual *CSO Progress Report* (see below). Reports must contain the volumes and characteristics of the wastewater added or authorized for addition and descriptions of the sewer system improvements and estimated effectiveness. Any sewer extensions upstream of a CSO must be reviewed and approved by the Department prior to their connection to the collection system. A Sewer Extension/Addition Reporting Form (which can be supplied by the Department) shall be completed and submitted to the Department along with plans and specifications of the proposed extension/addition.

8. Annual CSO Progress Reports (see Section 7 of Chapter 570 of Department Rules)

**By March 1 of each year (PCS Code 11099)**, the permittee shall submit a *CSO Progress Reports* covering the previous calendar year (January 1 to December 31). The CSO Progress Report shall include, but is not necessarily limited to, the following topics as further described in Chapter 570: CSO abatement projects, schedule comparison, progress on inflow sources, costs, flow monitoring results, CSO activity and volumes, nine minimum controls update, sewer extensions, and new commercial or industrial flows.

The CSO Progress Reports shall be completed on a standard form entitled "*Annual CSO Progress Report*", furnished by the Department, and submitted in electronic form, if possible, to the Department's CSO Coordinator at the address in Special Condition N, *Monitoring and Reporting*, of this permit.

9. Signs

If not already installed, the permittee shall install and maintain an identification sign at each CSO location as notification to the public that intermittent discharges of untreated sanitary wastewater occur. The sign must be located at or near the outfall and be easily readable by the public. The sign shall be a minimum of 12" x 18" in size with white lettering against a green background and shall contain the following information:

**PORTLAND WATER DISTRICT  
WET WEATHER SEWAGE DISCHARGE  
CSO# AND NAME**

## SPECIAL CONDITIONS

### K. CONDITIONS FOR COMBINED SEWER OVERFLOW (cont'd)

#### 10. Definitions

For the purposes of this permitting action, the following terms are defined as follows:

- a. *Combined Sewer Overflow* - a discharge of excess waste water from a municipal or quasi-municipal sewerage system that conveys both sanitary wastes and storm water in a single pipe system and that is in direct response to a storm event or snowmelt.
- b. *Dry Weather Flows* - flow in a sewerage system that occurs as a result of non-storm events or are caused solely by ground water infiltration.
- c. *Wet Weather Flows* - flow in a sewerage system that occurs as a direct result of a storm event, or snowmelt in combination with dry weather flows.

### L. TOXICITY REDUCTION EVALUATION (TRE)

**Within forty-five (45) days of the effective date of this permit, [PCS code 02199] the permittee shall submit to the Department for review and approval, a TRE plan which outlines a strategy to identify the source(s) and action items to be implemented to mitigate or eliminate exceedences of ambient water quality criteria associated with arsenic and cadmium.**

### M. CHAPTER 530(2)(D)(4) CERTIFICATION

**On or before December 31 of each year [PCS code 95799] the permittee is required to file a statement with the Department describing the following.**

1. Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge;
2. Changes in the operation of the treatment works that may increase the toxicity of the discharge; and
3. Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge.

Further, the Department may require that annual WET or priority pollutant testing be re-instituted if it determines that there have been changes in the character of the discharge or if annual certifications described above are not submitted.

## SPECIAL CONDITIONS

### N. MONITORING AND REPORTING

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report (DMR) forms provided by the Department and **postmarked on or before the thirteenth (13<sup>th</sup>) day of the month or hand-delivered to a Department Regional Office such that the DMR's are received by the Department on or before the fifteenth (15<sup>th</sup>) day of the month** following the completed reporting period. A signed copy of the DMR and all other reports required herein shall be submitted to the Department assigned compliance inspector (unless otherwise specified) at the following address:

Maine Department of Environmental Protection  
Southern Maine Regional Office  
Bureau of Land & Water Quality  
Division of Water Quality Management  
312 Canco Road  
Portland, Maine 04103

### O. MONITORING AND REPORTING (cont'd)

An electronic version of "*CSO Activity and Volumes*" (Attachment D of this permit) or similar format shall be submitted to the Department inspector at the address on the previous page and to the CSO Coordinator at the address below:

CSO Coordinator  
Department of Environmental Protection  
Central Maine Regional Office  
Bureau of Land & Water Quality  
Division of Water Quality Management  
17 State House Station  
Augusta, Maine 04333  
e-mail: [CSOCoordinator@maine.gov](mailto:CSOCoordinator@maine.gov)

### P. REOPENING OF PERMIT FOR MODIFICATIONS

Upon evaluation of the tests results or monitoring requirements specified in Special Conditions of this permitting action, new site specific information, or any other pertinent test results or information obtained during the term of this permit, the Department may, at any time, and with notice to the permittee, modify this permit to: (1) include effluent limits necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded; (2) require additional effluent or ambient water quality monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

## SPECIAL CONDITIONS

### Q. SEVERABILITY

In the event that any provision, or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit shall remain in full force and effect, and shall be construed and enforced in all aspects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

### R. INDUSTRIAL PRETREATMENT PROGRAM

1. Pollutants introduced into POTW's by a non-domestic source (user) shall not pass-through the publicly owned treatment works (POTW) or interfere with the operation or performance of the works.
  - a. 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 facilities or operation, are necessary to ensure continued compliance with the POTW's MEPDES 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 180 days of the effective date of this permit, [PCS code 08799] the permittee shall prepare and submit a written technical evaluation to the Department 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 preparing this evaluation, the permittee shall complete the attached form (Attachment A of this permit) 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. Should the evaluation reveal the need to revise local limits, the permittee shall complete the revisions within 120 days of notification by the Department and submit the revisions to the Department for approval. The permittee shall carry out the local limits revisions in accordance with EPA's document entitled, Local Limits Development Guidance (July 2004).**

## SPECIAL CONDITIONS

2. 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, found at Department rule Chapter 528. 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 an industrial user with any pretreatment standard and/or requirement.
  - d. Maintain an adequate revenue structure for continued implementation of the Pretreatment Program.
  - e. The permittee shall provide the Department with an annual report describing the permittee's pretreatment program activities for the twelve-month period ending 60 days prior to the due date in accordance with Department rule Chapter 528(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 October 15 of each calendar year.**
  - f. The permittee must obtain approval from the Department prior to making any significant changes to the industrial pretreatment program in accordance with Department rule Chapter 528, §18.
  - g. 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 found at 40 CFR 405 et. seq.
  - h. The permittee must modify its pretreatment program to conform to all changes in the federal regulations and State rules that pertain to the implementation and enforcement of the industrial pretreatment program. **Within 180 days of this permit's effective date, [PCS code 53199]** the permittee must provide the Department in writing, proposed changes to the permittee's pretreatment program deemed necessary to assure conformity with current federal regulations and State rules. At a minimum, the permittee must address in its written submission the following areas: (1)

**SPECIAL CONDITIONS**

**R. INDUSTRIAL PRETREATMENT PROGRAM**

Enforcement response plan; (2) revised sewer use ordinances; and (3) slug control evaluations. The permittee will implement these proposed changes pending the Department's approval pursuant to Department rule Chapter 528, §18. This submission is separate and distinct from any local limits analysis submission described in section 1(a) above.

## ATTACHMENT A

### RE-ASSESSMENT OF TECHNICALLY BASED INDUSTRIAL DISCHARGE LIMITS

Pursuant to Department rule Chapter 528, all Publicly Owned Treatment Works (POTWs) with approved Industrial Pretreatment Programs (IPPs) shall provide the Department with a written evaluation of the need to revise local industrial discharge limits pursuant to Department rule Chapter 528, §6.

Below is a form designed by the U.S. Environmental Protection Agency (EPA - New England) to assist POTWs with approved IPPs in evaluating whether their existing Technically Based Local Limits (TBLLs) need to be recalculated. The form allows the permittee and Department to evaluate and compare pertinent information used in previous TBLLs calculations against present conditions at the POTW. **Please read the directions below before filling out the attached form.**

#### ITEM I.

- \* In Column (1), list what your POTW's influent flow rate was when your existing TBLLs were calculated. In Column (2), list your POTW's present influent flow rate. Your current flow rate should be calculated using the POTW's average daily flow rate from the previous 12 months.
- \* In Column (1) list what your POTW's SIU flow rate was when your existing TBLLs were calculated. In Column (2), list your POTW's present SIU flow rate.
- \* In Column (1), list what dilution ratio and/or 7Q10 value was used in your previous MEPDES permit. In Column (2), list what dilution ration and/or 7Q10 value is presently being used in your reissued MEPDES permit.

The 7Q10 value is the lowest seven day average flow rate, in the river, over a ten-year period. The 7Q10 value and/or dilution ratio used by the Department in your MEPDES permit can be found in your MEPDES permit "Fact Sheet."

- \* In Column (1), list the safety factor, if any, that was used when your existing TBLLs were calculated.
- \* In Column (1), note how your bio-solids were managed when your existing TBLLs were calculated. In Column (2), note how your POTW is presently disposing of its biosolids and how your POTW will be disposing of its biosolids in the future.

#### ITEM II.

- \* List what your existing TBLLs are - as they appear in your current Sewer Use Ordinance (SUO).

## RE-ASSESSMENT OF TECHNICALLY BASED INDUSTRIAL DISCHARGE LIMITS

### ITEM III.

- \* Identify how your existing TBLLs are allocated out to your industrial community. Some pollutants may be allocated differently than others, if so please explain.

### ITEM IV.

- \* Since your existing TBLLs were calculated, identify the following in detail:
  - (1) if your POTW has experienced any upsets, inhibition, interference or pass-through as a result of an industrial discharge.
  - (2) if your POTW is presently violating any of its current MEPDES permit limitations - include toxicity.

### ITEM V.

- \* Using current sampling data, list in Column (1) the average and maximum amount of pollutants (in pounds per day) received in the POTW's influent. Current sampling data is defined as data obtained over the last 24 month period.

All influent data collected and analyzed must be in accordance with federal regulation 40 CFR §136. Sampling data collected should be analyzed using the lowest possible detection method(s), e.g. graphite furnace.

Based on your existing TBLLs, as presented in Item II., list in Column (2) each Maximum Allowable Industrial Headworks Loading (MAIHL) value corresponding to each of the local limits derived from an applicable environmental criteria or standard, e.g. water quality, sludge, MEPDES permit, inhibition, etc. For each pollutant, the MAIHL equals the calculated Maximum Allowable Headwork Loading (MAHL) minus the POTW's domestic loading source(s). For more information, please see , *Local Limits Development Guidance (July 2004)*.

### ITEM VI.

- \* Using current sampling data, list in Column (1) the average and maximum amount of pollutants (in micrograms per liter) present your POTW's effluent. Current sampling data is defined as data obtained during the last 24 month period.

All effluent data collected and analyzed must be in accordance with federal regulation 40 CFR §136. Sampling data collected should be analyzed using the lowest possible detection method(s), e.g. graphite furnace.

## RE-ASSESSMENT OF TECHNICALLY BASED INDUSTRIAL DISCHARGE LIMITS

- \* List in Column (2A) what the Ambient Water Quality Criteria (AWQC) (found in Department Rule Chapter 584 –*Surface Water Quality Criteria For Toxic Pollutants, Appendix A*, October 2005) were (in micrograms per liter) when your TBLs were calculated. Please note what hardness value was used at that time. Hardness should be expressed in milligram per liter of Calcium Carbonate.

List in Column (2B) the current AWQC values for each pollutant multiplied by the dilution ratio used in your reissued MEPDES permit. For example, with a dilution ratio of 25:1 at a hardness of 20 mg/l - Calcium Carbonate (copper's chronic freshwater AWQC equals 2.36 ug/l) the chronic MEPDES permit limit for copper would equal 45 ug/l. Example calculation:

$$\begin{aligned} \text{EOP concentration} &= [\text{Dilution factor} \times 0.75 \times \text{AWQC}] + [0.25 \times \text{AWQC}] \\ \text{Chronic AWQC} &= 2.36 \text{ ug/L} \end{aligned}$$

$$\text{Chronic EOP} = [25 \times 0.75^{(1)} \times 2.36 \text{ ug/L}] + [0.25 \times 2.36 \text{ ug/L}] = 45 \text{ ug/L}$$

- (1) Department rule Chapter 530, *Surface Water Toxics Control Program*, October 2005) requires that 10% of the AWQC be set aside for background that may be present in the receiving water and 15% of the AWQC be set aside as a reserve capacity for new dischargers or expansion of existing discharges.

### ITEM VII.

- \* In Column (1), list all pollutants (in micrograms per liter) limited in your reissued MEPDES permit. In Column (2), list all pollutants limited in your previous MEPDES permit.

### ITEM VIII.

- \* Using current sampling data, list in Column (1) the average and maximum amount of pollutants in your POTW's biosolids. Current data is defined as data obtained during the last 24-month period. Results are to be expressed as total dry weight.

All biosolids data collected and analyzed must be in accordance with federal 40 CFR §136.

In Column (2A), list current State and/or Federal sludge standards that your facility's biosolids must comply with. Also note how your POTW currently manages the disposal of its biosolids. If your POTW is planning on managing its biosolids differently, list in Column (2B) what your new biosolids criteria will be and method of disposal.

If you have any questions, please contact your pretreatment representative at the Maine Department of Environmental Protection, Bureau of Land & Water Quality, Division of Water Quality Management, State House Station #17, Augusta, ME. 04333. The telephone number is (207) 287-3901.

**REASSESSMENT OF TECHNICALLY BASED LOCAL LIMITS  
(TBLLs)**

POTW Name & Address : \_\_\_\_\_

MEPDES Permit # : \_\_\_\_\_

Date EPA approved current TBLLs : \_\_\_\_\_

Date EPA approved current Sewer Use Ordinance : \_\_\_\_\_

**ITEM I.**

In Column (1) list the conditions that existed when your current TBLLs were calculated. In Column (2), list current conditions or expected conditions at your POTW.

	<b>Column (1)</b>	<b>Column (2)</b>
	<u>EXISTING TBLLs</u>	<u>PRESENT CONDITIONS</u>
POTW Flow (MGD)	_____	_____
SIU Flow (MGD)	_____	_____
Dilution Ratio or 7Q10 from the MEPDES Permit)	_____	_____
Safety Factor	_____	N/A
Biosolids Disposal Method(s)	_____	_____

**REASSESSMENT OF TECHNICALLY BASED LOCAL LIMITS  
(TBLLs)**

**ITEM II.**

EXISTING TBLLs

<u>POLLUTANT</u>	<u>NUMERICAL LIMIT</u> (mg/l) or (lb/day)	<u>POLLUTANT</u>	<u>NUMERICAL LIMIT</u> (mg/l) or (lb/day)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**ITEM III.**

Note how your existing TBLLs, listed in Item II., are allocated to your Significant Industrial Users (SIUs), i.e. uniform concentration, contributory flow, mass proportioning, other. Please specify by circling.

**ITEM IV.**

Has your POTW experienced any upsets, inhibition, interference or pass-through from industrial sources since your existing TBLLs were calculated?

If yes, explain. \_\_\_\_\_  
\_\_\_\_\_

Has your POTW violated any of its MEPDES permit limits and/or toxicity test requirements?

If yes, explain. \_\_\_\_\_  
\_\_\_\_\_

**REASSESSMENT OF TECHNICALLY BASED LOCAL LIMITS  
(TBLLs)**

**ITEM V.**

Using current POTW influent sampling data fill in Column (1). In Column (2), list your Maximum Allowable Industrial Headwork Loading (MAIHL) values used to derive your TBLLs listed in Item II. In addition, please note the environmental criteria for which each MAIHL value was established, i.e. water quality, sludge, MEPDES etc.

<u>Pollutant</u>	<u>Column (1)</u> <u>Influent Data Analyses</u>		<u>Column (2)</u> <u>MAIHL Values</u>	<u>Criteria</u>
	<u>Maximum</u> (lb/day)	<u>Average</u> (lb/day)	(lb/day)	
Arsenic	_____	_____	_____	_____
Cadmium	_____	_____	_____	_____
Chromium	_____	_____	_____	_____
Copper	_____	_____	_____	_____
Cyanide	_____	_____	_____	_____
Lead	_____	_____	_____	_____
Mercury	_____	_____	_____	_____
Nickel	_____	_____	_____	_____
Silver	_____	_____	_____	_____
Zinc	_____	_____	_____	_____
Other (List)	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

**REASSESSMENT OF TECHNICALLY BASED LOCAL LIMITS  
(TBLLs)**

**ITEM VI.**

Using current POTW effluent sampling data, fill in Column (1). In Column (2A) list what the Ambient Water Quality Criteria (AWQC) were at the time your existing TBLLs were developed. List in Column (2B) current AWQC values multiplied by the dilution ratio used in your reissued MEPDES permit.

<b>Pollutant</b>	<b>Column (1)</b>		<b>Columns</b>	
	<b>Effluent Data Analyses</b>		<b>(2A)</b>	<b>(2B)</b>
	<u>Maximum</u> (ug/l)	<u>Average</u> (ug/l)	<u>From TBLLs</u> (ug/l)	<u>Today</u> (ug/l)
Arsenic	_____	_____	_____	_____
Cadmium*	_____	_____	_____	_____
Chromium*	_____	_____	_____	_____
Copper*	_____	_____	_____	_____
Cyanide	_____	_____	_____	_____
Lead*	_____	_____	_____	_____
Mercury	_____	_____	_____	_____
Nickel*	_____	_____	_____	_____
Silver	_____	_____	_____	_____
Zinc*	_____	_____	_____	_____
Other (List)	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

\*Hardness Dependent (mg/l - CaCO3)

**REASSESSMENT OF TECHNICALLY BASED LOCAL LIMITS  
(TBLLs)**

**ITEM VII.**

In Column (1), identify all pollutants limited in your reissued MEPDES permit. In Column (2), identify all pollutants that were limited in your previous MEPDES permit.

<b>Column (1)</b> REISSUED PERMIT		<b>Column (2)</b> PREVIOUS PERMIT	
<u>Pollutants</u>	<u>Limitations</u> (ug/l)	<u>Pollutants</u>	<u>Limitations</u> (ug/l)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**ITEM VIII.**

Using current POTW biosolids data, fill in Column (1). In Column (2A), list the biosolids criteria that was used at the time your existing TBLLs were calculated. If your POTW is planing on managing its biosolids differently, list in Column (2B) what your new biosolids criteria would be and method of disposal.

	<b>Column (1)</b> Biosolids Data Analyses <u>Average</u> (mg/kg)	<b>Columns</b> <b>(2A)</b> Biosolids Criteria From TBLLs (mg/kg)	<b>(2B)</b> New (mg/kg)
<b>Pollutant</b>			
Arsenic	_____	_____	_____
Cadmium	_____	_____	_____
Chromium	_____	_____	_____
Copper	_____	_____	_____
Cyanide	_____	_____	_____
Lead	_____	_____	_____
Mercury	_____	_____	_____
Nickel	_____	_____	_____
Silver	_____	_____	_____
Zinc	_____	_____	_____
Molybdenum	_____	_____	_____
Selenium	_____	_____	_____
Other (List)	_____	_____	_____

## **ATTACHMENT B**

### **MEPDES PERMIT REQUIREMENT FOR INDUSTRIAL PRETREATMENT ANNUAL REPORT**

The information described below shall be included in the pretreatment program annual reports:

1. An updated list of all industrial users by category, as set forth in Department rule Chapter 528, §9 indicating compliance or noncompliance with the following:
  - baseline monitoring reporting requirements for newly promulgated industries
  - compliance status reporting requirements for newly promulgated industries
  - periodic (semi-annual) monitoring reporting requirements,
  - categorical standards, and
  - local limits;
2. A summary of compliance and enforcement activities during the preceding year, including the number of:
  - significant industrial users inspected by POTW (include inspection dates for each industrial user),
  - significant industrial users sampled by POTW (include sampling dates for each industrial user),
  - compliance schedules issued (include list of subject users),
  - written notices of violations issued (include list of subject users),
  - administrative orders issued (include list of subject users),
  - criminal or civil suits filed (include list of subject users) and,
  - penalties obtained (include list of subject users and penalty amounts);
3. A list of significantly violating industries required to be published in a local newspaper in accordance with Department rule Chapter 528, § f(2)(vii).
4. A narrative description of program effectiveness including present and proposed changes to the program, such as funding, staffing, ordinances, regulations, rules and/or statutory authority;

**MEPDES PERMIT REQUIREMENT  
FOR  
INDUSTRIAL PRETREATMENT ANNUAL REPORT**

5. A summary of all pollutant analytical results for influent, effluent, sludge and any toxicity or bioassay data from the wastewater treatment facility. The summary shall include a comparison of influent sampling results versus threshold inhibitory concentrations for the POTW and effluent sampling results versus water quality standards. Such a comparison shall be based on the sampling program described in the paragraph below or any similar sampling program described in this permit.

At a minimum, annual sampling and analysis of the influent and effluent of the POTW shall be conducted for the following pollutants:

- |                    |                   |
|--------------------|-------------------|
| a.) Total Cadmium  | f.) Total Nickel  |
| b.) Total Chromium | g.) Total Silver  |
| c.) Total Copper   | h.) Total Zinc    |
| d.) Total Lead     | i.) Total Cyanide |
| e.) Total Mercury  | j.) Total Arsenic |

The sampling program shall consist of one 24-hour flow-proportioned composite and at least one grab sample that is representative of the flows received by the POTW. The composite shall consist of hourly flow-proportioned grab samples taken over a 24-hour period if the sample is collected manually or shall consist of a minimum of 48 samples collected at 30 minute intervals if an automated sampler is used. Cyanide shall be taken as a grab sample during the same period as the composite sample. Sampling and preservation shall be consistent with federal regulation 40 CFR Part 136.

6. A detailed description of all interference and pass-through that occurred during the past year;
7. A thorough description of all investigations into interference and pass-through during the past year;
8. A description of monitoring, sewer inspections and evaluations which were done during the past year to detect interference and pass-through, specifying parameters and frequencies;
9. A description of actions being taken to reduce the incidence of significant violations by significant industrial users; and,
10. The date of the latest adoption of local limits and an indication as to whether or not the Town is under a State or Federal compliance schedule that includes steps to be taken to revise local limits.

# **ATTACHMENT C**

**MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION  
WHOLE EFFLUENT TOXICITY REPORT  
FRESH WATERS**

Facility Name \_\_\_\_\_ MEPDES Permit # \_\_\_\_\_

Facility Representative \_\_\_\_\_ Signature \_\_\_\_\_

By signing this form, I attest that to the best of my knowledge that the information provided is true, accurate, and complete.

Facility Telephone # \_\_\_\_\_ Date Collected \_\_\_\_\_ Date Tested \_\_\_\_\_

mm/dd/yy mm/dd/yy

Chlorinated? \_\_\_\_\_ Dechlorinated? \_\_\_\_\_

Results	% effluent		Effluent Limitations	
	water flea	trout	A-NOEL	C-NOEL
A-NOEL				
C-NOEL				

Data summary	water flea			trout		
	% survival		no. young	% survival		final weight (mg)
	A>90	C>80	>15/female	A>90	C>80	> 2% increase
QC standard						
lab control						
receiving water control						
conc. 1 ( %)						
conc. 2 ( %)						
conc. 3 ( %)						
conc. 4 ( %)						
conc. 5 ( %)						
conc. 6 ( %)						
stat test used						

place \* next to values statistically different from controls for trout show final wt and % incr for both controls

Reference toxicant	water flea		trout	
	A-NOEL	C-NOEL	A-NOEL	C-NOEL
toxicant / date				
limits (mg/L)				
results (mg/L)				

Comments \_\_\_\_\_

**Laboratory conducting test**

Company Name \_\_\_\_\_ Company Rep. Name (Printed) \_\_\_\_\_

Mailing Address \_\_\_\_\_ Company Rep. Signature \_\_\_\_\_

City, State, ZIP \_\_\_\_\_ Company Telephone # \_\_\_\_\_

Report WET chemistry on DEP Form "WET and Analytical Chemistry Results - Fresh Waters, December 2005."

# MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION WET AND ANALYTICAL CHEMISTRY RESULTS FRESH WATERS

Facility Name \_\_\_\_\_ MEPDES Permit # \_\_\_\_\_

Facility Representative \_\_\_\_\_ Signature \_\_\_\_\_

By signing this form, I attest that to the best of my knowledge that the information provided is true, accurate and complete.

Date Collected \_\_\_\_\_  
mm/dd/yy

Date Analyzed \_\_\_\_\_  
mm/dd/yy

Lab ID No. \_\_\_\_\_

Actual Daily Flow \_\_\_\_\_ MGD  
Actual Monthly Average Flow \_\_\_\_\_ MGD

Analyte	Report	Receiving Water	Effluent	Reporting
	Units	Results	Results	Level
<b>Analytes Required for Analytical Chemistry</b>				Method
Ammonia nitrogen	µg/L	*		µg/L
Total aluminum	µg/L	*		µg/L
Total arsenic	µg/L	*		µg/L
Total cadmium	µg/L	*		µg/L
Total chromium	µg/L	*		µg/L
Total copper	µg/L	*		µg/L
Total cyanide	µg/L	*		µg/L
Total lead	µg/L	*		µg/L
Total nickel	µg/L	*		µg/L
Total silver	µg/L	*		µg/L
Total zinc	µg/L	*		µg/L
Total hardness	mg/L	*		mg/L
Total residual chlorine **	mg/L			mg/L
<b>Additional Analytes Required For WET Chemistry</b>				
Alkalinity	mg/L	*		mg/L
Total magnesium	mg/L	*		mg/L
Total Calcium	mg/L	*		mg/L
Total organic carbon	mg/L	*		mg/L
Total solids	mg/L			mg/L
Total suspended solids	mg/L			mg/L
Specific conductivity	µmhos			µmhos
pH **	S.U.	*		S.U.

\* Except for Total Suspended Solids, Total Solids and Conductivity, the receiving water chemistry tests are optional. However, samples of the receiving water should be preserved and saved for the duration of the WET test. In the event of questions about the receiving water's possible effect on the WET results, chemistry tests should then be conducted.  
\*\* WET laboratories may conduct these tests on composite samples as part of their procedures.

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Laboratory conducting test**  
Company Name \_\_\_\_\_ Company Rep. Name (Printed) \_\_\_\_\_  
Mailing Address \_\_\_\_\_ Company Rep. Signature \_\_\_\_\_  
City, State, ZIP \_\_\_\_\_ Company Telephone # \_\_\_\_\_

Maine Department of Environmental Protection  
WET and Chemical Specific Data Report Form

This form is for reporting laboratory data and facility information. Official compliance reviews will be done by DEP.

Facility Name \_\_\_\_\_ MEPDES # \_\_\_\_\_ Facility Representative Signature \_\_\_\_\_  
 Pipe # \_\_\_\_\_ To the best of my knowledge this information is true, accurate and complete.

Licensed Flow (MGD) \_\_\_\_\_ Flow for Day (MGD)<sup>(1)</sup> \_\_\_\_\_ Flow Avg. for Month (MGD)<sup>(2)</sup> \_\_\_\_\_  
 Acute dilution factor \_\_\_\_\_ Date Sample Collected \_\_\_\_\_ Date Sample Analyzed \_\_\_\_\_  
 Chronic dilution factor \_\_\_\_\_  
 Human health dilution factor \_\_\_\_\_  
 Criteria type: M(marine) or F(fresh)

Laboratory Address \_\_\_\_\_ Telephone \_\_\_\_\_  
 Lab Contact \_\_\_\_\_ Lab ID # \_\_\_\_\_

ERROR WARNING ! Essential facility information is missing. Please check required entries in bold above.

Parameter	Effluent Limits, %		Reporting Limit	Effluent Limits, ug/L		Health <sup>(6)</sup>	Possible Exceedence <sup>(7)</sup>
	Acute	Chronic		Acute <sup>(6)</sup>	Chronic		
<b>WHOLE EFFLUENT TOXICITY</b>							
Trout - Acute							
Trout - Chronic							
Water Flea - Acute							
Water Flea - Chronic							
<b>WET CHEMISTRY</b>							
pH (S.U.)							
Specific Conductance (umhos)							
Total Organic Carbon (mg/L)							
Total Solids (mg/L)							
Total Suspended Solids (mg/L)							
Alkalinity (mg/L)							
Total Hardness (mg/L)							
Total Magnesium (mg/L)							
Total Calcium (mg/L)							
<b>ANALYTICAL CHEMISTRY<sup>(3)</sup></b>							
TOTAL RESIDUAL CHLORINE (mg/L)			0.05			Health <sup>(6)</sup>	
AMMONIA			NA				
ALUMINUM			NA				
ARSENIC			5				
CADMIUM			1				
CHROMIUM			10				
COPPER			3				
CYANIDE			5				
LEAD			3				
NICKEL			5				
SILVER			1				
ZINC			5				

Maine Department of Environmental Protection  
WET and Chemical Specific Data Report Form

This form is for reporting laboratory data and facility information. Official compliance reviews will be done by DEP.

PRIORITY POLLUTANTS <sup>(4)</sup>	Reporting Limit	Effluent Limits		Possible Exceedance <sup>(7)</sup>
		Acute <sup>(6)</sup>	Chronic <sup>(6)</sup> Health <sup>(6)</sup>	
M ANTIMONY	5			Acute
M BERYLLIUM	2			Chronic
M MERCURY <sup>(5)</sup>	0.2			Health
M SELENIUM	5			
M THALLIUM	4			
A 2,4,6-TRICHLOROPHENOL	3			
A 2,4-DICHLOROPHENOL	5			
A 2,4-DIMETHYLPHENOL	5			
A 2,4-DINITROPHENOL	45			
A 2-CHLOROPHENOL	5			
A 2-NITROPHENOL	5			
A 4,6-DINITRO-O-CRESOL (2-Methyl-4,6-dinitrophenol)	25			
A 4-NITROPHENOL	20			
A P-CHLORO-M-CRESOL (3-methyl-4-chlorophenol)+B80	5			
A PENTACHLOROPHENOL	20			
A PHENOL	5			
BN 1,2,4-TRICHLOROBENZENE	5			
BN 1,2-(O)DICHLOROBENZENE	5			
BN 1,2-DIPHENYLHYDRAZINE	10			
BN 1,3-(M)DICHLOROBENZENE	5			
BN 1,4-(P)DICHLOROBENZENE	5			
BN 2,4-DINITROTOLUENE	6			
BN 2,6-DINITROTOLUENE	5			
BN 2-CHLORONAPHTHALENE	5			
BN 3,3'-DICHLOROBENZIDINE	16.5			
BN 3,4-BENZO(B)FLUORANTHENE	5			
BN 4-BROMOPHENYLPHENYL ETHER	2			
BN 4-CHLOROPHENYL PHENYL ETHER	5			
BN ACENAPHTHENE	5			
BN ACENAPHTHYLENE	5			
BN ANTHRACENE	5			
BN BENZIDINE	45			
BN BENZO(A)ANTHRACENE	8			
BN BENZO(A)PYRENE	3			
BN BENZO(G,H,I)PERYLENE	5			
BN BENZO(K)FLUORANTHENE	3			
BN BIS(2-CHLOROETHOXY)METHANE	5			
BN BIS(2-CHLOROETHYL)ETHER	6			
BN BIS(2-CHLOROISOPROPYL)ETHER	6			
BN BIS(2-ETHYLHEXYL)PHTHALATE	3			
BN BUTYLBENZYL PHTHALATE	5			
BN CHRYSENE	3			
BN DI-N-BUTYL PHTHALATE	5			
BN DI-N-OCTYL PHTHALATE	5			
BN DIBENZO(A,H)ANTHRACENE	5			
BN DIETHYL PHTHALATE	5			
BN DIMETHYL PHTHALATE	5			





# **ATTACHMENT D**

# MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION CSO ACTIVITY AND VOLUMES

MUNICIPALITY OR DISTRICT		PRECIP. DATA		FLOW DATA (GALLONS PER DAY) OR BLOCK ACTIVITY ("1")												MEPDES / NPDES PERMIT NO.	
REPORTING YEAR		START DATE OF STORM	TOTAL INCHES	MAX. HR. INCHES	LOCATION:		EVENT OVERFLOW GALLONS	EVENT DURATION HRS	SIGNED BY:								
YEARLY TOTAL PRECIPITATION INCHES					NUMBER:	NUMBER:											
CSO EVENT NO.																	
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
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14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	
25																	
<b>TOTALS</b>																	

Note 1: Flow data should be listed as gallons per day. Storms lasting more than one day should show total flow for each day.  
 Note 2: Block activity should be shown as a "1" if the block floated away.

**MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT**

**AND**

**MAINE WASTE DISCHARGE LICENSE**

**FACT SHEET**

Date: **May 29, 2006**

Revised: **December 22, 2006**

PERMIT NUMBER: **ME0100846**  
LICENSE NUMBER: **W001510-5L-D-R**

NAME AND ADDRESS OF APPLICANT:

**PORTLAND WATER DISTRICT  
225 Douglass Street, P.O. Box 3553  
Portland, Maine 04104**

COUNTY: **Cumberland County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

**Park Road  
Westbrook, Maine 04102**

RECEIVING WATER/CLASSIFICATION: **Presumpscot River/Class C**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Paul Francoeur  
(207) 856-6832  
E-mail: [pfrancoeur@pwd.org](mailto:pfrancoeur@pwd.org)**

**1. APPLICATION SUMMARY**

- a. Application: The PWD has submitted a timely and complete application to the Department to renew combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0100846/ Maine Waste Discharge License (WDL) #W001510-5L-C-R, (permit hereinafter) which was issued on December 21, 2001, and will expire on December 21, 2006. The permit approved the discharge of up to a monthly average of 4.54 million gallons per day (MGD) of secondary treated waste water from a municipal waste water treatment facility and an unspecified quantity of untreated storm water and sanitary waste water from five (5) combined sewer overflow (CSO) outfalls to the Presumpscot River, Class C, in Westbrook, Maine.

**1. APPLICATION SUMMARY (cont'd)**

- b. Source Description – The PWD's Westbrook waste water treatment facility treats domestic and commercial sanitary waste waters generated by approximately 31,000 customers from the City of Westbrook and Town of Gorham. The PWD is currently in the design stages of a project to construct another interceptor sewer from the Town of Gorham to the City of Westbrook where waste water was once treated at a small waste water treatment facility (referred to as the Little Falls facility and permitted by the Department via MEPDES permit # ME0100242) owned and operated by the PWD. In addition to the Little Falls treatment facility being eliminated, the new interceptor pipeline will convey the waste waters from the Maine Correctional facility in the Town of Windham (permitted by the Department via MEPDES # ME0101729) to Westbrook thus eliminating an overboard discharge. The PWD has determined that the Westbrook waste water treatment facility has sufficient capacity to receive and treat the flows from the new interceptor pipeline without major modifications.

No significant industrial users (contributing more than 10% of the volume of wastewater received by the treatment facility) are currently contributing to the waste stream, but there are several industries for which pretreatment of their waste waters is required by state and federal regulations and monitored by the District. In Westbrook, the District maintains five CSOs, approximately 25,000 feet of interceptor lines, and 17,500 feet of force main from three pump stations, all with on-site back-up power. In Gorham, there is approximately 48,700 feet of collection system, approximately 34,550 feet of interceptor line and 9,900 feet of force main from nine pump stations. Only one pump station (University) has on-site back-up power while the remaining eight stations are set up to accept power from portable generators owned and operated by the District. There are no CSOs located in the Town of Gorham.

The PWD prepared a CSO Master Plan back in 1993, revised the plan and abatement schedule in 1996 and 1999. See Special Condition K of this permit. The collector sewers in Westbrook are owned and maintained by the City. The facility is authorized to treat up to 10,000 gallons per day from local septage haulers. The PWD has submitted an updated Septage Management Plan (reviewed and approved by the Department) as part of their 2006 application for renewal that is consistent with the requirements in Department Rule Chapter 555, *Regulations Relating To The Addition of Septage To Waste Water Treatment Facilities*. Also see Special Condition J, *Disposal of Septage Waste In Waste Water Treatment Facility*, of this permit. See Attachment A of this Fact Sheet for a location map of the facility.

## 1. APPLICATION SUMMARY (cont'd)

- c. Waste Water Treatment: PWD maintains a facility that provides a secondary level of treatment via an aerated grit chamber, two separate aeration basins followed by two clarifiers that measure 90 feet in diameter. Sludge dewatering is accomplished by means of a sludge thickener and belt filter press. Screenings and grit are removed at the headworks by means of an automatic climbing rake and grit screw apparatus respectively. Dewatered sludge is composted or landfilled by a third party. Secondary effluent is chlorinated in detention tanks and dechlorinated prior to being discharged to the Presumpscot River through a reinforced concrete outfall pipe measuring 42 inches in diameter with a diffuser. The diffuser consists of 14 equally spaced risers with ports measuring 6 inches in diameter to enhance rapid and complete mixing of the discharged effluent with the receiving waters. The PWD has indicated in their 2006 application for permit renewal that it has a current Operations and Maintenance (O&M) plan and Wet Weather Flow Management Plan both of which are required by Special Conditions H and I respectively, of this permitting action. See Attachment B of this Fact Sheet for a schematic of the waste water treatment facility.

## 2. PERMIT SUMMARY

- a. Terms and conditions: - This permitting action is carrying forward the following limitations and monitoring requirements from the 12/21/01 permit and establishing the following:
1. Incorporating the requirements of Department Rules Chapter 530, *Surface Water Toxics Control Program*, and Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*,
  2. Establishing monthly average and/or daily maximum water quality based mass and concentration limits for cadmium and lead and revising (more stringent) the monthly average water quality based mass and concentrations for arsenic.
  3. Requiring the submission of a toxicity reduction evaluation (TRE) for arsenic and cadmium.
  4. Establishing a chronic no observed effect level (C-NOEL) of 2.7 % for the water flea.
  5. Establishing a milestone for the submission of an updated CSO Master Plan.

## 2. PERMIT SUMMARY (cont'd)

b. History: The most recent relevant regulatory actions include the following:

*September 28, 1993* – The U.S. Environmental Protection Agency (EPA) issued National Pollutant Discharge Elimination System (NPDES) permit #ME0100846 for a five-year term.

*May 28, 1996* – The Department issued WDL #W001510-46-B-R for a five-year term.

*November 30, 1998* – The EPA approved a Total Maximum Daily Load (TMDL) report prepared by the Department for the lower Presumpscot River.

*January 24, 2000* – The Department administratively modified WDL #W001510-46-B-R by issuing a letter to the PWD requiring year-round disinfection beginning September 30, 2000. This action was necessary in that the State's Department of Marine Resources (DMR) had water quality information that indicated that the City of Westbrook's and Town of Falmouth's waste water treatment facilities were likely causing elevated bacteria levels in Mackworth Cove. As a result, the shellfish growing and winter harvesting area in Mackworth Cove were closed. Year-round disinfection resulted in DMR re-opening the growing and harvesting area.

*May 23, 2000* – The Department administratively modified WDL #W001510-46-B-R by establishing interim average and maximum concentration limits for mercury.

*January 12, 2001* - The State of Maine received authorization from the EPA to administer the NPDES permitting program in Maine. From that date forward, the program has been referred to as the MEPDES permitting program.

*December 21, 2001* – The Department issued combination MEPDES permit #ME0100846/WDL #W001510-5L-C-R, for a five-year term. Issuance of the MEPDES permit resulted in the NPDES permit last issued by the EPA on 9/28/93 being superseded which nullified the terms and conditions contained therein.

*May 10, 2006* – The PWD submitted a timely and complete application to the Department to renew the MEPDES permit for its Westbrook waste water treatment facility.

### 3. CONDITIONS OF PERMITS

Maine law, 38 M.R.S.A. Section 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, 38 M.R.S.A., Section 420 and Department rule 06-096 CMR Chapter 530, *Surface Water Toxics Control Program*, require the regulation of toxic substances not to exceed levels set forth in Department rule 06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

### 4. RECEIVING WATER QUALITY STANDARDS

Maine law, 38 M.R.S.A., Section 465-(4) classifies the Presumpscot River at the point of discharge as a Class C waterway. The Class C classification extends downstream to the head of tide where it then classified as Class SC. Maine law, 38 M.R.S.A., §465(4) contains the classification standards for Class C waterways and 38 M.R.S.A., §465-B(3) contains the classification standards for Class SC waterways

### 5. RECEIVING WATER QUALITY CONDITIONS

A document entitled 2004 Integrated Water Quality Monitoring and Assessment Report prepared by the Department pursuant to Section 305(b) of the Federal Water Pollution Control lists a 6.9 mile Class C segment of the Presumpscot River main stem below the Sacarappa Dam [Assessment Unit (HUC) #ME0106000103, segment ID #609R] in a table entitled *Category 4-A: Rivers and Streams with Impaired Use, TMDL Completed*, as having the aquatic life being impaired. The table indicates the final assessment is not complete but given the pulp mill at the SD Warren mill has been shutdown for almost four years, attainment is probable. It is also noted the Smelt Hill dam, approximately 6.5 miles downstream of the S.D. Warren mill was removed in calendar year 2002. The Department collected some additional instream water quality monitoring data and hydraulic data on the Presumpscot River in the summer of 2003 subsequent to the removal of the Smelt Hill Dam. It is the Department's best professional judgment the assimilative capacity and ambient water quality conditions have improved in the free flowing segment of the river, however no interpretation of the data collected or final report drawing conclusions regarding the status of the current ambient water quality conditions has been issued as of the date of this permitting action. The Department intends to collect said information in the next two to three years to confirm the improved conditions.

## 5. RECEIVING WATER QUALITY CONDITIONS

The 2004 Integrated Water Quality Monitoring and Assessment Report also lists the same segment of the Presumpscot River [Assessment Unit (HUC) #ME0106000103, segment ID #609R] in a table entitled *Category 4-B-2: Rivers and Streams Impaired by Bacteria from Combined Sewer Overflows (TMDL Required only if Control Plans are Insufficient)* due to the five CSOs associated with the Westbrook facility. See Section 8, *Combined Sewer Overflows*, of this Fact Sheet for a summary of the actions the PWD has taken to mitigate CSO activities and improve the water quality in the Presumpscot River.

It is noted that all fresh water bodies in Maine carry a fish advisory for mercury due to atmospheric transport and deposition. Maine law 38 M.R.S.A., §420 and Department Rule, Chapter 519, *Interim Effluent Limitations and Controls For the Discharge of Mercury*, establishes controls of mercury to surface waters of the State and United States through interim effluent limitations and implementation of pollution prevention plans. On May 23, 2000, the Department administratively modified the PWD's WDL by establishing an average concentration limit of 15.5 ng/L and a maximum concentration limit of 23.2 ng/L with a monitoring frequency of 1/Quarter based on a statistical evaluation of four mercury test results submitted between August of 1998 and September of 1999.

## 6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- a. Flow – The previous permitting action established a monthly average flow limitation of 4.54 MGD based on the design capacity of the facility. This permitting action is carrying the limitation forward as it remains representative of the design capacity of the treatment facility. A review of the DMR data for the period January 2003 through December 2005 indicates the monthly average flow has ranged from 1.75 MGD to 5.23 MGD with an arithmetic mean of 2.88 MGD. For the daily maximum, a review of the DMR data for said period indicates the daily maximum flow has ranged from 2.08 MGD to 12.3 MGD with an arithmetic mean of 5.5 MGD.

**6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

- b. Dilution Factors - The Department has made the determination that the dilution factors for the discharge shall be calculated in accordance with freshwater protocols established in Department Regulation Chapter 530, Surface Water Toxics Control Program, October 2005. With a permit flow limit of 4.54 MGD and 250 cfs<sup>(1)</sup> being both the 7Q10 and 1Q10 low flow values for the Presumpscot River, the dilution factors are:

$$\text{Acute: } 1\text{Q}10 = 250 \text{ cfs} \quad \Rightarrow \frac{(250 \text{ cfs})(0.6464) + (4.54 \text{ MGD})}{(4.54 \text{ MGD})} = 36.6:1$$

$$\text{Chronic: } 7\text{Q}10 = 250 \text{ cfs} \quad \Rightarrow \frac{(250 \text{ cfs})(0.6464) + (4.54 \text{ MGD})}{(4.54 \text{ MGD})} = 36.6:1$$

$$\text{Harmonic Mean: } = 511 \text{ cfs} \quad \Rightarrow \frac{(511 \text{ cfs})(0.6464) + (4.54 \text{ MGD})}{(4.54 \text{ MGD})} = 73.8:1$$

Footnotes:

- (1) Under a minimum flow agreement with the Department, S. D. Warren (owner and operator of the Eel Weir Dam that controls flows out of Sebago Lake) is now providing a minimum flow release of 250 cfs from Sebago Lake. Based on this agreement and the water withdrawals and water input/discharges between Sebago Lake and the Westbrook waste water treatment facility, the Department has determined that after initial mixing at the point of discharge, the chronic and acute effluent dilution ratios for the Westbrook discharge at the 7Q10 and 1Q10 receiving water flows of 250 cfs are both 36.6 to 1.

- b. Biochemical Oxygen Demand (BOD) – The previous permitting action established monthly average and weekly average technology based concentration limits of 30 mg/L and 45 mg/L respectively. These limits were based on secondary treatment requirements in Department rule Chapter 525 (3)(III). The previous permit also established a daily maximum concentration limit of 50 mg/L and is based on a Department best practicable treatment (BPT) requirement common to all permits for publicly owned treatment works permitted by the Department. The monthly average and weekly average mass limits in the previous permitting action are being carried forward in this permitting action and are based on a flow limitation of 4.54 MGD and the applicable concentration limits.

$$\text{Monthly average: } (4.54 \text{ MGD})(8.34)(30 \text{ mg/L}) = 1,137 \text{ lbs/day}$$

$$\text{Weekly average: } (4.54 \text{ MGD})(8.34)(45 \text{ mg/L}) = 1,705 \text{ lbs/day}$$

Daily maximum: Report Only

It is noted that no daily maximum mass limits for BOD and TSS have been established in this permit (or the previous permit) due to the presence of CSO's in the collection system. Establishing such a limit would likely discourage the PWD from treating as much waste

## 6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

water as the plant can physically treat during wet weather events. However, pursuant to Standard Condition B(2) of this permit, the PWD shall maximize its capacity to treat as much waste water to a secondary level of treatment during wet weather events.

This permitting action also carries forward a requirement of 85% removal for BOD and TSS pursuant to Department rule Chapter 525(3)(III)(a&b)(3).

For BOD, a review of the monthly DMR data for the period January 2003 to December 2005 indicates the monthly average mass discharged has ranged from 112 lbs/day to 781 lbs/day with an arithmetic mean of 304 lbs/day. For the daily maximum, the DMR data indicates BOD mass has ranged from 217 lbs/day to 8,309 lbs/day with an arithmetic mean of 938 lbs/day. As for concentration, the DMR data indicates the monthly average concentration of BOD discharged has ranged from 2.7 mg/L to 16.3 mg/L with an arithmetic mean of 12 mg/L. For the daily maximum, the DMR data indicates the BOD concentration has ranged from 9.1 mg/L to 104 mg/L with an arithmetic mean of 26 mg/L. The DMR indicates BOD limits have never been exceeded in said timeframe.

For TSS, a review of the monthly DMR data for the period January 2003 to December 2005 indicates the monthly average mass discharged has ranged from 77 lbs/day to 577 lbs/day with an arithmetic mean of 255 lbs/day. For the daily maximum, the DMR data indicates TSS mass has ranged from 181 lbs/day to 9,207 lbs/day with an arithmetic mean of 997 lbs/day. As for concentration, the DMR data indicates the monthly average concentration of TSS discharged has ranged from 6.8 mg/L to 55 mg/L with an arithmetic mean of 15 mg/L. For the daily maximum, the DMR data indicates TSS concentration has ranged from 11 mg/L to 150 mg/L with an arithmetic mean of 26 mg/L. The DMR indicates TSS limits have never been exceeded in said timeframe.

The monitoring frequency of 3/Week in the previous permitting action is being carried forward in the permitting action and is based on long standing Department guidance for facilities permitted to discharge between 1.5 MGD and 5.0 MGD.

- d. Settleable Solids - The previous permit established a daily maximum concentration limit of 0.3 ml/L (considered by the Department to be representative of BPT) with a monitoring frequency of 1/Day. The limitation and monitoring frequency are being carried forward in this permitting action. A review of the DMR data for the period January 2003 through December 2005 indicates the permittee has reported 0.0 mL/L every month for said period with the exception of February 2005 (0.3 ml/L) and October 2005 (0.2 ml/L).

**6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)**

- e. E. coli bacteria – The previous permitting action established monthly average and daily maximum limits of 142 colonies/100 ml and 949 colonies/100 ml respectively, that are being carried forward in this permitting action. The limits are based on the State’s Water Classification Program criteria found at Maine law 38 MRSA, §465(4) for Class C receiving waters and requires application of BPT.

The limits have been and will continue to be in effect on a year-round basis to protect shellfish harvesting areas downstream of the discharge.

A review of the monthly DMR data for the period January 2003 to December 2005 indicates the monthly average (geometric mean) bacteria levels have ranged from 2 colonies/100 ml to 25 colonies/100 ml with an arithmetic mean of 5 colonies/100 ml. As for the daily maximum, the DMR data indicates the bacteria levels range from 2 colonies/100 ml to 1,200 colonies/100 ml with an arithmetic mean of 139 colonies/100 mL. The DMR data indicates the permittee has been in compliance with the monthly average limit 100% of the time and in compliance with the daily maximum limit 91% of the months evaluated in said timeframe. Non-compliance with the daily maximum limit in March and April 2005 with both results at 1,200 colonies/100 ml.

The monitoring frequency of 3/Week in the previous permitting action is being carried forward in the permitting action and is based on long standing Department guidance for facilities permitted to discharge between 1.5 MGD and 5.0 MGD.

- f. Total Residual Chlorine - Limits on total residual chlorine (TRC) are specified to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. The previous permitting action established a daily maximum and monthly average technology based limits of 0.3 mg/L and 0.1 mg/L respectively, for the discharge. Water quality based thresholds for TRC can be calculated as follows:

Parameter	Acute Criteria	Chronic Criteria	Acute Dilution	Chronic Dilution	Acute Limit	Chronic Limit
Chlorine	19 ug/L	11 ug/L	36.6:1	36.6:1	0.7 mg/L	0.4 mg/L

Example calculation: Acute –  $0.019 \text{ mg/L} (36.6) = 0.7 \text{ mg/L}$

To meet the chronic and acute water quality based thresholds calculated on the previous page, the permittee must dechlorinate the effluent prior to discharge. In April of 1999, the Department established new daily maximum and monthly average BPT limitations of 0.3 mg/L and 0.1 mg/L respectively, for facilities that need to dechlorinate their effluent unless calculated water quality based thresholds are lower than the BPT limits. In the case of the PWD’s Westbrook facility, the calculated acute and chronic water quality based thresholds are higher than the BPT limits of 0.3 mg/L and 0.1 mg/L. Thus the daily maximum and monthly average BPT limits of 0.3 mg/L and 0.1 mg/L respectively are being imposed in this permit.

## 6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

The DMR data for the period January 2003 to December 2005 indicates the monthly average concentration levels of TRC range from 0.0 mg/L to 0.06 mg/L with an arithmetic mean of 0.03 mg/L. The daily maximum concentration levels of TRC ranged from 0.05 mg/L to 0.3 mg/L with an arithmetic mean of 0.14 mg/L. The DMR data indicates the permittee has been in compliance with the both the monthly average and daily maximum limits 100% of the months in said timeframe.

The monitoring frequency of 1/Day in the previous permitting action is being carried forward in the permitting action and is based on a long standing Department guidance for facilities permitted to discharge between 1.5 MGD and 5.0 MGD.

- g. pH – The previous permitting action established a BPT pH range limitation of 6.0 –9.0 standard units pursuant to Department rule found at Chapter 525(3)(III)(c). The DMR data for the period January 2003 to December 2005 indicates the permittee has been in compliance with the pH range limitation 100% of the time in said period.
- h. Mercury: Pursuant to Maine law, 38 M.R.S.A. §420 and Department rule, 06-096 CMR Chapter 519, *Interim Effluent Limitations and Controls for the Discharge of Mercury*, the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL # W001510-46-B-R by establishing interim average and maximum effluent concentration limits of 15.5 parts per trillion (ppt) and 23.2 ppt, respectively, and a minimum monitoring frequency requirement of four tests per year for mercury. The interim mercury limits were scheduled to expire on October 1, 2001. However, effective June 15, 2001, the Maine Legislature enacted Maine law, 38 M.R.S.A. §413, sub-§11 specifying that interim mercury limits and monitoring requirements remain in effect. It is noted that the mercury effluent limitations have not been incorporated into Special Condition A, *Effluent Limitations And Monitoring Requirements*, of this permit as the limits and monitoring frequencies are regulated separately through Maine law, 38 M.R.S.A. §413 and Department rule Chapter 519. The interim mercury limits remain in effect and enforceable and modifications to the limits and/or monitoring frequencies will be formalized outside of this permitting document pursuant to Maine law, 38 M.R.S.A. §413 and Department rule Chapter 519.

## 6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

- i. Whole Effluent Toxicity (WET), Analytical Chemistry & Priority Pollutant Testing: Maine law, 38 M.R.S.A., Sections 414-A and 420, prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. Department Rules, 06-096 CMR Chapter 530, *Surface Water Toxics Control Program*, and Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants* set forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

WET, priority pollutant and analytical chemistry testing, as required by Chapter 530, is included in this permit in order to fully characterize the effluent. This permit also provides for reconsideration of effluent limits and monitoring schedules after evaluation of toxicity testing results. The monitoring schedule includes consideration of results currently on file, the nature of the wastewater, existing treatment and receiving water characteristics.

WET monitoring is required to assess and protect against impacts upon water quality and designated uses caused by the aggregate effect of the discharge on specific aquatic organisms. Acute and chronic WET tests are performed on invertebrate and vertebrate species. Priority pollutant and analytical chemistry testing is required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health AWQC as established in Chapter 584.

Chapter 530 establishes four categories of testing requirements based predominately on the chronic dilution factor. The categories are as follows:

- 1) Level I – chronic dilution factor of  $<20:1$ .
- 2) Level II – chronic dilution factor of  $\geq 20:1$  but  $<100:1$ .
- 3) Level III – chronic dilution factor  $\geq 100:1$  but  $<500:1$  or  $>500:1$  and  $Q \geq 1.0$  MGD
- 4) Level IV – chronic dilution  $>500:1$  and  $Q \leq 1.0$  MGD

**6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)**

Department rule Chapter 530 (1)(D) specifies the criteria to be used in determining the minimum monitoring frequency requirements for WET, priority pollutant and analytical chemistry testing. Based on the Chapter 530 criteria, the PWD Westbrook facility falls into the Level II frequency category as the facility has a chronic dilution factor  $\geq 20:1$  but  $< 100:1$ . Chapter 530(1)(D)(1) specifies that surveillance and screening level testing requirements are as follows:

Screening level testing – Beginning 12 months prior to permit expiration and every five years thereafter.

Level	WET Testing	Priority pollutant testing	Analytical chemistry
II	2 per year	1 per year	4 per year

Surveillance level testing – Beginning upon issuance of the permit

Level	WET Testing	Priority pollutant testing	Analytical chemistry
II	1 per year	None required	2 per year

A review of the data on file with the Department for the PWD Westbrook facility indicates that to date, the PWD has fulfilled the WET and chemical-specific testing requirements of the former Chapter 530.5. See Attachment C of this Fact Sheet for a summary of the WET test results and Attachment D of this Fact Sheet for a summary of the chemical-specific test dates.

Department rule Chapter 530(D)(3)(c) states “...dischargers in Levels II may be reduce surveillance testing for individual WET species or chemicals to once every other year (1/2 Years) provided testing in the preceding 60 months does not indicate any reasonable potential for exceedences.”

Chapter 530 §(3)(E) states “For effluent monitoring data and the variability of the pollutant in the effluent, the Department shall apply the statistical approach in Section 3.3.2 and Table 3-2 of USEPA's "Technical Support Document for Water Quality-Based Toxics Control" (USEPA Publication 505/2-90-001, March, 1991, EPA, Office of Water, Washington, D.C.) to data to determine whether water-quality based effluent limits must be included in a waste discharge license. Where it is determined through this approach that a discharge contains pollutants or WET at levels that have a reasonable potential to cause or contribute to an exceedence of water quality criteria, appropriate water quality-based limits must be established in any licensing action.”

Chapter 530 §3 states, “In determining if effluent limits are required, the Department shall consider all information on file and effluent testing conducted during the preceding 60 months. However, testing done in the performance of a Toxicity Reduction Evaluation (TRE) approved by the Department may be excluded from such evaluations.”

## 6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

Chapter 530 §4(C), states *“The background concentration of specific chemicals must be included in all calculations using the following procedures. The Department may publish and periodically update a list of default background concentrations for specific pollutants on a regional, watershed or statewide basis. In doing so, the Department shall use data collected from reference sites that are measured at points not significantly affected by point and non-point discharges and best calculated to accurately represent ambient water quality conditions.”* The Department shall use the same general methods as those in section 4(D) to determine background concentrations. For pollutants not listed by the Department, an assumed concentration of 10% of the applicable water quality criteria must be used in calculations. The Department has no information on the background levels of metals in the water column in the Presumpscot River. Therefore, a default background concentration of 10% of applicable water quality criteria is being used in the calculations of this permitting action.

Chapter 530 §4(E), states *“In allocating assimilative capacity for toxic pollutants, the Department shall hold a portion of the total capacity in an unallocated reserve to allow for new or changed discharges and non-point source contributions. The unallocated reserve must be reviewed and restored as necessary at intervals of not more than five years. The water quality reserve must be not less than 15% of the total assimilative quantity”*. Therefore, the Department is reserving 15% of applicable water quality criteria used in the calculations of this permitting action.

One complexity of the new Chapter 530 rule found in Section 4(F) is evaluating toxic pollutant impacts on a watershed basis. It is noted the SD Warren paper mill discharges to the Presumption River approximately 500 feet downstream of the permittee's outfall. Section 4(F) states, *“Where there is more than one discharge into the same fresh or estuarine receiving water or watershed, the Department shall consider the cumulative effects of those discharges when determining the need for and establishment of the level of effluent limits. The Department shall calculate the total allowable discharge quantity for specific pollutants, less the water quality reserve and background concentration, necessary to achieve or maintain water quality criteria at all points of discharge, and in the entire watershed.”* The Department is currently working to construct a computer program model to conduct this analysis. Until such time the model is complete and a multi-discharger statistical evaluation can be conducted, the Department is evaluating the impact of the permittee's discharge assuming it is the only discharger to the river. Should the multi-discharger evaluation indicate there are other parameters that exceed or have a reasonable potential to exceed applicable AWQC, this permit may be reopened pursuant to Special Condition P, *Reopening of Permit For Modifications*, to incorporate additional limitations and or revise monitoring requirements.

**6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)**

WET Evaluation

On November 27, 2006, the Department conducted a statistical evaluation on the most recent 60 months of WET tests results on file at the Department. The statistical evaluation indicates the discharge from the PWD waste water treatment facility has one chronic no observed effect level (C-NOEL) test result of 2.7% for the water flea on 11/29/05 that has a reasonable potential to exceed the critical C-NOEL water quality threshold of 2.7% (mathematical inverse of the chronic dilution factor of 36.6:1). As for the brook trout, the evaluation does not exceed or have a reasonable potential to exceed the critical acute or chronic water quality threshold of 2.7%.

Pursuant to Chapter 530 §(3)(E), this permitting action is establishing a C-NOEL water quality based limitation of 2.7% for the water flea. No numeric limitations are being established for the brook trout.

As for testing frequencies, Chapter 530 §(2)(D)(3)(c) states in part that for Level II facilities "...may reduce WET and chemical testing to once every other year provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedences." Therefore, based on the results of the 11/27/06 statistical evaluation, the permittee qualifies for the testing reduction for the brook trout but not the water flea. This permitting action is establishing surveillance level testing as follows:

Beginning upon issuance of this permit and lasting until 12 months prior to permit expiration.

Species	WET testing
Water flea	1/Year
Brook trout	1/2 Years

The test frequency of 1/Year for the water flea is consistent with the monitoring frequency establishing in the 4/10/06 permit modification and the test frequency of 1/2 Years is based on the reduced testing requirements in Chapter 530. Surveillance level tests are to be conducted in a different calendar quarter of each year.

Chapter 530 §(2)(D) states:

- (4) *All dischargers having waived or reduced testing must file statements with the Department on or before December 31 of each year describing the following.*
  - (a) *Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge;*

**6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)**

- (b) *Changes in the operation of the treatment works that may increase the toxicity of the discharge; and*
- (c) *Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge.*

Special Condition M, *Chapter 530 §(2)(D)(4) Certification*, of this permitting action requires the permittee to file an annual certification with the Department.

Beginning 12 months prior to the expiration date of the permit and lasting through permit expiration and every five years thereafter, the permittee shall conduct screening level WET testing as follows:

Level	WET Testing
II	2/Year

There shall be at least six months between testing events.

Analytical chemistry & Priority pollutant testing evaluation

As with WET test results, on November 27, 2006, the Department conducted a statistical evaluation on the most recent 60 months of chemical specific test results on file with the Department in accordance with the statistical approach outlined in Chapter 530. The statistical evaluation indicates the discharge has one arsenic test result that exceeds the human health (water & organisms) AWQC, has one test result for cadmium that exceeds the chronic AWQC (this test also has a reasonable potential to exceed the acute AWQC for cadmium) and two test results for lead that have a reasonable potential to exceed the chronic AWQC. All other parameters evaluated do not exceed or have a reasonable potential to exceed acute, chronic or human health AWQC.

The test results of concern are as follows:

<u>Date</u>	<u>Parameter</u>	<u>Test result</u>	<u>AWQC</u>	<u>RP threshold<sup>(1)</sup></u>
9/26/04	Arsenic	6.3 ug/L	HH-0.012 ug/L	N/A
6/13/04	Cadmium	7.0 ug/L	Chronic-0.08 ug/L	N/A
6/13/04	Cadmium	7.0 ug/L	Acute-0.42 ug/L	4.5 ug/L
9/21/03	Lead	12 ug/L	Chronic-0.41 ug/L	6.0 ug/L
6/13/04	Lead	17 ug/L	Chronic-0.41 ug/L	6.0 ug/L

Footnotes:

- (1) RP factor of 2.6 for cadmium was based on a n=14 test results.  
RP factor of 1.9 for lead based on a n=17 test results.

## 6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

Chapter 530 §3 states, *"In determining if effluent limits are required, the Department shall consider all information on file and effluent testing conducted during the preceding 60 months. However, testing done in the performance of a Toxicity Reduction Evaluation (TRE) approved by the Department may be excluded from such evaluations."*

Chapter 530 §(3)(E) states *"... that a discharge contains pollutants or WET at levels that have a reasonable potential to cause or contribute to an exceedence of water quality criteria, appropriate water quality-based limits must be established in any licensing action."*

Chapter 530 §4(C), states *"The background concentration of specific chemicals must be included in all calculations using the following procedures. The Department may publish and periodically update a list of default background concentrations for specific pollutants on a regional, watershed or statewide basis. In doing so, the Department shall use data collected from reference sites that are measured at points not significantly affected by point and non-point discharges and best calculated to accurately represent ambient water quality conditions."* The Department shall use the same general methods as those in section 4(D) to determine background concentrations. For pollutants not listed by the Department, an assumed concentration of 10% of the applicable water quality criteria must be used in calculations. The Department has no information on the background levels of metals in the water column of the Presumpscot River. Therefore, a default background concentration of 10% of applicable water quality criteria is being used in the calculations of this permitting action.

Chapter 530 4(E), states *"In allocating assimilative capacity for toxic pollutants, the Department shall hold a portion of the total capacity in an unallocated reserve to allow for new or changed discharges and non-point source contributions. The unallocated reserve must be reviewed and restored as necessary at intervals of not more than five years. The water quality reserve must be not less than 15% of the total assimilative quantity"*. Therefore, the Department is reserving 15% of the applicable water quality criteria in the calculations of this permitting action.

Chapter 530 §(3)(D) states *"Expression of effluent limits. Where the need for effluent limits has been determined, limits derived from acute water quality criteria must be expressed as daily maximum values. Limits derived from chronic or human health criteria must be expressed as monthly average values."* Therefore, this permit establishes monthly average (chronic) end-of-pipe (EOP) mass and concentrations limits for arsenic, cadmium and lead and daily maximum (acute) EOP mass and concentration limits for cadmium. The derivation for these limits is as follows:

**6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)**

**Arsenic (inorganic)**

EOP concentration = [Dilution factor x 0.75 x AWQC] + [0.25 x AWQC]  
 HH (W&O) AWQC = 0.012 ug/L  
 Harmonic mean dilution factor = 73.8:1  
 EOP = [ 73.8 x 0.75 x 0.012 ug/L] + [0.25 x 0.012 ug/L] = 0.67 ug/L

Based on a permitted flow of 4.54 MGD, EOP mass limits are as follows:

<u>Parameter</u>	<u>Calculated EOP Concentrations</u>	<u>Monthly Avg. Mass Limit</u>
Arsenic	0.67 ug/L	0.025 #/day

Example Calculation: Arsenic -  $\frac{(0.67 \text{ ug/L})(8.34)(4.54 \text{ MGD})}{1000 \text{ ug/mg}} = 0.025 \text{ #/day}$

This permitting action is establishing a minimum monitoring frequency requirement of once per year for inorganic arsenic based on a review of arsenic data on file with the Department. It is noted that Special Condition A, Footnote #5a allows the facility to analyze for total arsenic.

**Cadmium (Total)**

EOP concentration = [Dilution factor x 0.75 x AWQC] + [0.25 x AWQC]  
 Acute AWQC = 0.42 ug/L  
 Chronic AWQC = 0.08 ug/L  
 Acute and chronic dilution factor = 36.6

Acute EOP = [ 36.6 x 0.75 x 0.42 ug/L] + [0.25 x 0.42 ug/L] = 11.6 ug/L or 12 ug/L  
 Chronic EOP = [ 36.6 x 0.75 x 0.08 ug/L] + [0.25 x 0.08 ug/L] = 2.22 ug/L or 2.2 ug/L

Based on a permitted flow of 4.54 MGD, EOP mass limits are as follows:

<u>Parameter</u>	<u>Calculated EOP Concentrations</u>	<u>Month Avg. Mass Limit</u>	<u>Daily Maximum</u>
Cadmium	11.6 ug/L	N/A	0.44 lbs/day
Cadmium	2.22 ug/L	0.084 lbs/day	N/A

Calculation: Acute -  $\frac{(11.6 \text{ ug/L})(8.34)(4.54 \text{ MGD})}{1000 \text{ ug/mg}} = 0.44 \text{ lbs/day}$

Chronic -  $\frac{(2.22 \text{ ug/L})(8.34)(4.54 \text{ MGD})}{1000 \text{ ug/mg}} = 0.084 \text{ lbs/day}$

**6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)**

**Lead (Total)**

EOP concentration = [Dilution factor x 0.75 x AWQC] + [0.25 x AWQC]

Chronic AWQC = 0.41 ug/L

Chronic dilution factor = 36.6:1

EOP = [36.6 x 0.75 x 0.41 ug/L] + [0.25 x 0.41 ug/L] = 11.3 ug/L or 11 ug/L

Based on a permitted flow of 4.54 MGD, EOP mass limits are as follows:

<u>Parameter</u>	<u>Calculated EOP Concentrations</u>	<u>Monthly Avg. Mass Limit</u>
Lead	11.3 ug/L	0.43 lbs/day

Calculation: Lead -  $\frac{(11.3 \text{ ug/L})(8.34)(4.54 \text{ MGD})}{1000 \text{ ug/mg}} = 0.43 \text{ lbs/day}$

Chapter 530 §(3)(D)(1) states “For specific chemicals, effluent limits must be expressed in total quantity that may be discharged and in effluent concentration. In establishing concentration, the Department may increase allowable values to reflect actual flows that are lower than permitted flows and/or provide opportunities for flow reductions and pollution prevention provided water quality criteria are not exceeded. With regard to concentration limits, the Department may review past and projected flows and set limits to reflect proper operation of the treatment facilities that will keep the discharge of pollutants to the minimum level practicable.”

As not to penalize the permittee for operating at flows less than the permitted flow (see Section 6a of this Fact Sheet for historic flow information), the Department is establishing concentration limits based on a factor of 1.5. Therefore, concentration limits for the parameters of concern in this permit are as follows:

<u>Parameter</u>	<u>Calculated EOP Concentration</u>	<u>Monthly Avg. Conc. Limit</u>	<u>Daily Max. Conc. Limit</u>
Arsenic	0.67 ug/L	1.0 ug/L <sup>(1)</sup>	---
Cadmium	11.6 ug/L	---	17.4 ug/L
Cadmium	2.2 ug/L	3.3 ug/L	---
Lead	11.3 ug/L	17.0 ug/L	---

## 6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

### Footnotes:

- (1) Compliance with the monthly average limitation will be based on the Department's current reporting level (RL) of detection of 5 ug/L for total arsenic. It is noted the Department has not established a RL for inorganic arsenic as of the date of this permitting action. The monthly Discharge Monitoring Report (DMR) forms will be coded with a monthly average concentration of 5 ug/L so that detectable concentrations reported between the permit limit of 1.0 ug/L and the RL of 5 ug/L will not be construed as being violations of AWQC. Once the Department establishes a RL for inorganic arsenic, this footnote will be modified accordingly.

Chapter 530 §(3)(C) states in part *"If these data indicate that the discharge is causing an exceedence of applicable water quality criteria, then: (1) the licensee must, within 45 days of becoming aware of an exceedence, submit a TRE plan for review and approval and implement the TRE after Department approval; and (2) the Department must, within 180 days of the Department's written approval of the TRE plan, modify the waste discharge license to specify effluent limits and monitoring requirements necessary to control the level of pollutants and meet receiving water classification standards."*

This permitting action serves as notification to the PWD that the Department has test results on file for arsenic and cadmium that exceed AWQC and a TRE for both parameters is required with 45 days. See Special Condition L, *Toxicity Reduction Evaluation (TRE)* of this permitting action.

Chapter 530 does not establish specific monitoring frequencies for parameters that exceed or have a reasonable to exceed AWQC. This permitting action is establishing the monitoring requirement frequencies for arsenic, cadmium and lead based on a best professional judgment given the timing, frequency and severity of the exceedence or reasonable to exceed AWQC. Due to a limited number of test results that exceed or have a reasonable potential to exceed AWQC for all three parameters, the Department has made a best professional judgment that routine surveillance level monitoring of 2/Year is sufficient to determine on-going compliance with the AWQC.

With the exception of arsenic, cadmium and lead, monitoring frequencies for priority pollutant and analytical testing established in this permitting action are based on the Chapter 530 rule. Chapter 530 §(2)(D)(3)(c) states in part that for Level II facilities *"...may reduce WET and chemical testing to once every other year provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedences."* It is noted Chapter 530 §(2)(D)(1) does not require priority pollutant testing during the surveillance level testing years. Based on the results of the 5/29/06 statistical evaluation, the permittee qualifies for the reduced testing. Therefore, surveillance level analytical chemistry is being established as follows:

**6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)**

Beginning upon issuance of this permit and lasting through 12 months prior to permit expiration.

Level	Analytical Chemistry
II	1/2 Years

For screening level testing, Chapter 530 §(2)(D)(1) requires that beginning 12 months prior to the expiration date of the permit, chemical testing shall be conducted at a frequency of 1/Year for priority pollutant testing and 1/Quarter for analytical chemistry. Therefore, screening level chemical is being established as follows:

Screening level testing – Beginning 12 months prior to permit expiration and lasting through permit expiration and every five years thereafter.

Level	Priority pollutant testing	Analytical chemistry
II	1 per year	4 per year

It is noted however that if future WET or chemical testing indicates the discharge exceeds critical water quality thresholds or AWQC, this permit will be reopened pursuant to Special Condition P, *Reopening of Permit For Modification*, of this permit to establish applicable limitations and monitoring requirements. In addition, if future test results of concern fall outside the 60-month evaluation timeframe or a sufficient number of tests for lead removes the reasonable potential to exceed AWQC, the permittee may request a modification of the permit to remove the limitations and or reduce the monitoring frequency.

- j. Septage – The previous permitting action authorized the permittee to accept and treat up to 10,000 gpd of septage from local septage haulers. Department rule Chapter 555, *Addition of Septage To Waste Water Treatment Facilities*, limits the quantity of septage treated at a facility to 1% of the design capacity of treatment facility. With a design capacity of 4.54 MGD, 10,000 gpd only represents 0.2% of said capacity. The permittee has submitted an up-to-date Septage Management Plan as an exhibit to their 2006 application for permit renewal. The Department has reviewed and approved said plan and determined that under normal operating conditions, the addition of 10,000 gpd of septage to the facility will not cause or contribute to upset conditions of the treatment process.

## 7. PRETREATMENT

The permittee is required to administer a pretreatment program based on the authority granted under Department rule Chapter 528, *Pretreatment Program*. The permittee's pretreatment program received EPA approval on September 30, 1983 and as a result, appropriate pretreatment program requirements were incorporated into the previous National Pollutant Discharge Elimination System (NPDES) permit which were consistent with that approval and federal pretreatment regulations in effect when the permit was issued.

The State of Maine has been authorized by the EPA to administer the federal pretreatment program as part of receiving authorization to administer the NPDES program. Upon issuance of a MEPDES permit, the permittee is obligated to modify (if applicable) its pretreatment program to be consistent with current federal regulations and State rules. Those activities that the permittee must address include, but are not limited to, the following: (1) develop and enforce Department approved specific effluent limits (technically-based local limits); (2) revise the local sewer-use ordinance or regulation, as appropriate, to be consistent with federal regulations and State rules; (3) develop an enforcement response plan; (4) implement a slug control evaluation program; (5) track significant non-compliance for industrial users; and (6) establish a definition of and track significant industrial users.

These requirements are necessary to ensure continued compliance with the POTW's MEPDES permit and its sludge use or disposal practices.

In addition to the requirements described above, this permit requires that within 180 days of the permit's effective date, the permittee shall submit to the Department in writing, a description of proposed changes to permittee's pretreatment program deemed necessary to assure conformity with current federal and State pretreatment regulations and rules respectively. These requirements are included in the permit (Special Condition R) to ensure that the pretreatment program is consistent and up-to-date with all pretreatment requirements in effect. Lastly, by October 15<sup>th</sup> of each calendar year, the permittee must submit a pretreatment report detailing the activities of the program for the twelve month period ending 60 days prior to the due date.

## 8. COMBINED SEWER OVERFLOWS

This permit does not contain effluent limitations on the individual CSO outfalls listed in the table below.

### Outfall

<u>No.</u>	<u>Description</u>	<u>Location</u>	<u>Receiving Water / Class</u>
002	Untreated sanitary/storm water	Warren Parking Lot Regulator	Presumpscot River / C
003	Untreated sanitary/storm water	Siphon Inlet Structure	Presumpscot River / C
004	Untreated sanitary/storm water	Dunn Street Regulator	Presumpscot River / C
007	Untreated sanitary/storm water	Brown Street Regulator	Presumpscot River / C
008	Untreated sanitary/storm water	King Street Regulator	Presumpscot River / C

## 8. COMBINED SEWER OVERFLOWS (cont'd)

Department regulation Chapter 570, "*Combined Sewer Overflow Abatement*," states that for discharges from overflows from combined municipal storm and sanitary sewer systems, the requirement of "best practicable treatment" specified in Maine law, 38 M.R.S.A., Section 414 A-1(D) may be met by agreement with the discharger, as a condition of its permit, through development of a plan within a time period specified by the Department. The PWD submitted to the Department a CSO Master Plan entitled, Sewer System Master Plan For Westbrook, Maine dated December 1993, a supplemental document entitled CSO Master Plan For Westbrook, Maine, Volume II, dated December 1996 and abatement project schedules were approved by the EPA on February 24, 1997 and the Department on March 26, 1997. A revised abatement schedule dated October 8, 1999 was approved by the Department on October 27, 1999.

The PWD has been actively implementing the recommendations of the Master Plan and to date have significantly reduced the volume of untreated combined sewer overflows to the receiving water. Special Condition K, *Conditions For Combined Sewer Overflows*, of this permit contains a schedule of compliance for items in the most current up-to-date abatement plan that must be completed.

## 9. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

The Department acknowledges that the elimination of the five CSOs in the collection system is a costly long term project. As the District's sewer collection system is upgraded and maintained in according to the CSO Master Plan and Nine Minimum Controls, there should be reductions in the frequency and volume of CSO activities and improvement in the quality of the waste water discharge to the receiving waters. As permitted, the Department of Environmental Protection has determined the existing water uses will be maintained and protected.

## 10. PUBLIC COMMENTS

Public notice of this application was made in the Portland Press Herald newspaper on or about May 15, 2006. The Department receives public comments on an application until the date a final agency action is taken on that application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

## 11. DEPARTMENT CONTACTS

Additional information concerning this permitting action may be obtained from and written comments should be sent to:

Gregg Wood  
Division of Water Quality Management  
Bureau of Land and Water Quality  
Department of Environmental Protection  
17 State House Station  
Augusta, Maine 04333-0017  
E-mail: [gregg.wood@maine.gov](mailto:gregg.wood@maine.gov)  
Telephone: (207) 287-3901

## 12. RESPONSE TO COMMENTS

During the period May 29, 2006 through the date of permit issuance, the Department solicited comments from the permittee, state and federal agencies and other interested parties on the draft permit for the discharge from PWDs Westbrook facility. The Department received one comment from the permittee and response to the comment is as follows:

*Comment #1:* The permittee states “Additional flow from the Little Falls WWTF and the Windham Correctional Center will begin flowing to the Westbrook Gorham facility sometime in 2008. With this in mind, the District would like the Department to consider changing the Monthly Average Flow limitation from 4.54 MGD to 4.54 MGD Report Only. Provided this change is acceptable, the Monthly Average and Weekly Average loadings for BOD and TSS should be changed from 1137 #/day and 1705 #/day to Report Only.”

*Response #1* – It is the Department’s understanding that the additional flow to the Westbrook-Gorham facility is within the present design capacity of the facility which was the basis for the 4.54 MGD monthly average flow limitation established in the previous permitting action. Therefore, the flow limitation is appropriate.

The permit to change the monthly average and weekly average numeric mass limitations for BOD and TSS to a “Report Only” requirement is not permissible under state and federal law. Department rule Chapter 525 Section 3, §III(a)(1 & 2) establishes best practicable treatment (BPT) 30-day average and 7-day average concentration limits of 30 mg/L and 45 mg/L respectively for BOD and TSS. Department rule Chapter 523, Section 6(f) states;

(f) Mass limitations.

(1) All pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass [emphasis added] except:

(i) For pH, temperature, radiation, or other pollutants which cannot appropriately be expressed by mass;

**12. RESPONSE TO COMMENTS (cont'd)**

- (ii) When applicable standards and limitations are expressed in terms of other units of measurement; or
  - (iii) If in establishing permit limitations on a case-by-case basis under Chapter 524 Section 2(II), limitations expressed in terms of mass are infeasible because the mass of the pollutant discharged cannot be related to a measure of operation (for example, discharges of TSS from certain mining operations), and permit conditions ensure that dilution will not be used as a substitute for treatment.
- (2) Pollutants limited in terms of mass additionally may be limited terms of other units of measurement, and the permit shall require the permittee to comply with both limitations [emphasis added].

Therefore, the numeric monthly and weekly average mass and concentration limits for BOD and TSS remain in the final permit.

# ATTACHMENT A

# Westbrook Waste Water Treatment Plant (Portland Water District)

Westbrook WWTP (PWD)  
ME0100846 WDL #W001510

SD Warren Treatment Plant & Outfall #1

Westbrook Treated Outfall #1

SD Warren Outfall #2

SD Warren Outfall #3

CSO #2

CSO #3

CSO #4

CSO #8

CSO #7

Previous CSO #5 (Eliminated)

Previous CSO #6 (Eliminated)

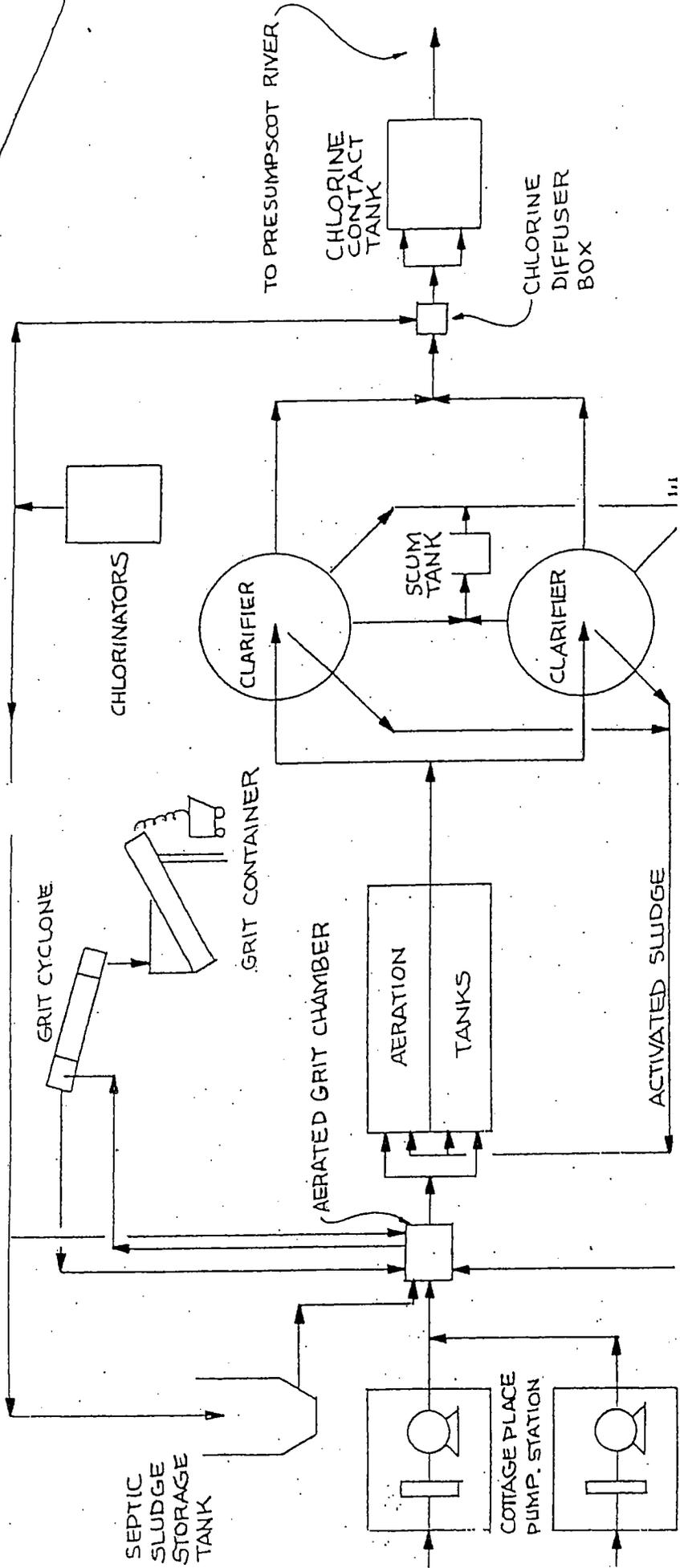


# **ATTACHMENT B**

# Westbrook Waste Water Treatment Plant (Portland Water District)

Westbrook WWTP (PWD)  
ME0100846 WDL #W001510





Question 19

SCHEMATIC FLOW DIAGRAM - FIGURE NO I-1



# ATTACHMENT C

Species	Test	Test Result %	Sample Date
TROUT	C_NOEL	100	03/25/2001
TROUT	LC50	>100	03/25/2001
WATER FLEA	A_NOEL	100	03/25/2001
WATER FLEA	C_NOEL	100	03/25/2001
WATER FLEA	LC50	>100	03/25/2001
FATHEAD	A_NOEL	100.0	06/17/2001
FATHEAD	C_NOEL	100.0	06/17/2001
FATHEAD	LC50	>100.0	06/17/2001
WATER FLEA	A_NOEL	100	06/17/2001
WATER FLEA	C_NOEL	50.00	06/17/2001
WATER FLEA	LC50	>100.0	06/17/2001
TROUT	A_NOEL	100	09/13/2001
TROUT	C_NOEL	100	09/13/2001
TROUT	LC50	>100	09/13/2001
WATER FLEA	A_NOEL	100	09/13/2001
WATER FLEA	C_NOEL	<2.4	09/13/2001
WATER FLEA	LC50	>100	09/13/2001
TROUT	A_NOEL	100	09/25/2001
TROUT	LC50	>100	09/25/2001
WATER FLEA	A_NOEL	100	09/25/2001
WATER FLEA	LC50	>100	09/25/2001
FATHEAD	A_NOEL	100	12/04/2001
FATHEAD	LC50	>100	12/04/2001
WATER FLEA	A_NOEL	100	12/04/2001
WATER FLEA	LC50	>100	12/04/2001
FATHEAD	A_NOEL	>100	06/16/2002
FATHEAD	LC50	>100	06/16/2002
WATER FLEA	A_NOEL	>100	06/16/2002
WATER FLEA	C_NOEL	50	06/16/2002
WATER FLEA	LC50	>100	06/16/2002
WATER FLEA	A_NOEL	>100	12/01/2002
WATER FLEA	C_NOEL	100	12/01/2002
WATER FLEA	LC50	>100	12/01/2002
FATHEAD	A_NOEL	>100	03/16/2003
FATHEAD	C_NOEL	100	03/16/2003
FATHEAD	LC50	>100	03/16/2003
WATER FLEA	A_NOEL	>100	03/16/2003
WATER FLEA	C_NOEL	100	03/16/2003
WATER FLEA	LC50	>100	03/16/2003
WATER FLEA	A_NOEL	89.7	09/21/2003
WATER FLEA	C_NOEL	100	09/21/2003
WATER FLEA	LC50	>100	09/21/2003

BEGIN 60-MONTH  
EVALUATION PERIOD

Species	Test	Test Result %	Sample Date
WATER FLEA	A_NOEL	>100	06/13/2004
WATER FLEA	C_NOEL	100	06/13/2004
WATER FLEA	LC50	>100	06/13/2004
FATHEAD	A_NOEL	>100	09/26/2004
FATHEAD	C_NOEL	100	09/26/2004
FATHEAD	LC50	>100	09/26/2004
WATER FLEA	A_NOEL	>100	09/26/2004
WATER FLEA	C_NOEL	100	09/26/2004
WATER FLEA	LC50	>100	09/26/2004
FATHEAD	A_NOEL	>100	05/15/2005
FATHEAD	LC50	>100	05/15/2005
WATER FLEA	A_NOEL	>100	05/15/2005
WATER FLEA	C_NOEL	100	05/15/2005
WATER FLEA	LC50	>100	05/15/2005
TROUT	A_NOEL	>100	04/25/2006
TROUT	C_NOEL	100	04/25/2006
WATER FLEA	A_NOEL	>100	04/25/2006
WATER FLEA	C_NOEL	100	04/25/2006

# **ATTACHMENT D**

**Sample Date: 03/25/2001**

Plant flows provided

Total Tests: 142  
 Missing Compounds: 1  
 Tests With High DL: 2

mon. (MGD) = 3.800
day (MGD) = 6.760

M = 0      V = 0      A = 0  
 BN = 2      P = 0      other = 0

**Sample Date: 05/15/2005**

Plant flows provided

Total Tests: 140  
 Missing Compounds: 0  
 Tests With High DL: 2

mon. (MGD) = 4.730
day (MGD) = 3.550

M = 0      V = 0      A = 0  
 BN = 2      P = 0      other = 0

**Sample Date: 06/17/2001**

Plant flows provided

Total Tests: 140  
 Missing Compounds: 1  
 Tests With High DL: 2

mon. (MGD) = 2.410
day (MGD) = 2.270

M = 0      V = 0      A = 0  
 BN = 2      P = 0      other = 0

**Sample Date: 03/19/2006**

Plant flows provided

Total Tests: 124  
 Missing Compounds: 0  
 Tests With High DL: 2

mon. (MGD) = 2.388
day (MGD) = 2.260

M = 0      V = 0      A = 0  
 BN = 2      P = 0      other = 0

**Sample Date: 06/16/2002**

Plant flows provided

Total Tests: 140  
 Missing Compounds: 1  
 Tests With High DL: 0

mon. (MGD) = 2.650
day (MGD) = 2.320

M = 0      V = 0      A = 0  
 BN = 0      P = 0      other = 0

**Sample Date: 03/16/2003**

Plant flows provided

Total Tests: 139  
 Missing Compounds: 1  
 Tests With High DL: 3

mon. (MGD) = 4.130
day (MGD) = 4.540

M = 1      V = 0      A = 0  
 BN = 2      P = 0      other = 0

**Sample Date: 09/26/2004**

Plant flows provided

Total Tests: 139  
 Missing Compounds: 0  
 Tests With High DL: 3

mon. (MGD) = 2.410
day (MGD) = 2.040

M = 1      V = 0      A = 0  
 BN = 2      P = 0      other = 0

PP Data for "Hits" Only

ESTBROOK

RESUMPCOT RIVER

SENI

MDL = 5 ug/l

Conc, ug/l	MDL	Sample Date	Date Entered
4.300000	OK	06/12/2006	08/24/2006
6.300000	OK	09/26/2004	11/22/2004
20.000000	OK	06/17/2001	10/29/2001
< 2.200000	OK	03/19/2006	11/06/2006
< 4.000000	OK	06/16/2002	09/23/2002
< 5.000000	OK	03/16/2003	05/20/2003
< 5.000000	OK	10/15/2001	12/13/2001
< 5.000000	OK	03/25/2001	06/05/2001
< 5.000000	OK	05/15/2005	09/12/2005

MDIUM

MDL = 1 ug/l

Conc, ug/l	MDL	Sample Date	Date Entered
1.000000	OK	06/12/2006	08/24/2006
7.000000	OK	06/13/2004	08/20/2004
< 0.130000	OK	03/19/2006	11/06/2006
< 0.600000	OK	06/16/2002	09/23/2002
< 0.900000	OK	12/04/2001	05/17/2002
< 0.900000	OK	03/25/2001	10/15/2001
< 1.000000	OK	09/21/2003	11/17/2003
< 1.000000	OK	12/01/2002	04/07/2003
< 1.000000	OK	03/16/2003	05/20/2003
< 1.000000	OK	06/16/2002	04/07/2003
< 1.000000	OK	09/26/2004	11/18/2004
< 1.000000	OK	07/22/2001	10/29/2001
< 1.000000	OK	09/13/2001	10/25/2001
< 1.000000	OK	04/25/2006	08/08/2006
< 1.000000	OK	06/17/2001	10/17/2001
< 1.000000	OK	03/25/2001	06/05/2001
< 1.000000	OK	05/15/2005	09/12/2005

AD

MDL = 3 ug/l

Conc, ug/l	MDL	Sample Date	Date Entered
2.000000	OK	06/12/2006	08/24/2006
3.700000	OK	06/17/2001	10/17/2001
12.000000	OK	09/21/2003	11/17/2003
17.000000	OK	06/13/2004	08/20/2004
< 1.700000	OK	03/19/2006	11/06/2006
< 2.600000	OK	06/16/2002	04/07/2003
< 2.600000	OK	12/01/2002	04/07/2003
< 2.600000	OK	03/25/2001	10/15/2001
< 2.600000	OK	07/22/2001	10/29/2001
< 2.600000	OK	12/04/2001	05/17/2002
< 3.000000	OK	09/26/2004	11/22/2004
< 3.000000	OK	05/15/2005	09/12/2005
< 3.000000	OK	03/16/2003	05/20/2003
< 3.000000	OK	06/17/2001	10/29/2001
< 3.000000	OK	03/25/2001	06/05/2001
< 3.000000	OK	06/16/2002	09/23/2002
< 5.000000	HI	04/25/2006	08/08/2006
< 5.000000	HI	03/16/2003	06/04/2003
< 5.000000	HI	09/26/2004	11/18/2004
< 5.000000	HI	09/13/2001	10/25/2001

# PP Data for "Hits" Only

ESTBROOK

RESUMPCOT RIVER

INC

DL = 5.0 ug/l

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Conc, ug/l	MDL	Sample Date	Date Entered
46.300000	OK	03/25/2001	10/15/2001
48.300000	OK	03/25/2001	06/05/2001
50.000000	OK	06/16/2002	09/23/2002
61.900000	OK	12/04/2001	05/17/2002
62.000000	OK	06/17/2001	10/29/2001
68.300000	OK	03/16/2003	05/20/2003
70.000000	OK	09/26/2004	11/18/2004
72.400000	OK	12/01/2002	04/07/2003
74.000000	OK	06/12/2006	08/24/2006
77.000000	OK	05/15/2005	09/12/2005
80.000000	OK	05/15/2005	05/16/2006
80.000000	OK	09/13/2001	10/25/2001
86.000000	OK	06/13/2004	08/20/2004
120.000000	OK	09/21/2003	11/17/2003
133.000000	OK	03/19/2006	11/06/2006
148.500000	OK	07/22/2001	10/29/2001
203.500000	OK	06/17/2001	10/17/2001
218.000000	OK	03/16/2003	06/04/2003
120000.000	OK	04/25/2006	08/08/2006

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