



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI

GOVERNOR

DAVID P. LITTELL

COMMISSIONER

October 13, 2006

Mr. Steve Moore
Superintendent
Farmington Water Pollution Control Facility
153 Farmington Falls Road
Farmington, ME. 04930

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0101249
Maine Waste Discharge License (WDL) #W002670-5L-E-R
Final Permit/License

Dear Mr. Moore:

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: Beth DeHaas, 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

TOWN OF FARMINGTON)	MAINE POLLUTANT DISCHARGE
FARMINGTON, FRANKLIN COUNTY, MAINE)	ELIMINATION SYSTEM PERMIT
PUBLICLY OWNED TREATMENT WORKS)	AND
ME0101249)	WASTE DISCHARGE LICENSE
W002670-5L-E-R)	RENEWAL
		APPROVAL

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 TOWN OF FARMINGTON (Town hereinafter), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

The Town has submitted a timely and complete application to the Department to renew combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0101249/ Maine Waste Discharge License (WDL) #W002670-5L-D-R, (permit hereinafter) which was issued on November 27, 2001, and is due to expire on November 27, 2006. The permit approved the discharge of up to a monthly average flow of 0.90 million gallons per day (MGD) of secondary treated waste water from a municipal waste water treatment facility to the Sandy River, Class B, in Farmington, Maine.

PERMIT SUMMARY

This permitting action is carrying forward the following limitations and monitoring requirements from the 11/27/01 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 copper and silver.
3. Requiring the submission of a toxicity reduction evaluation (TRE) for copper.
4. Establishing acute no observed effect level (A-NOEL) and chronic no observed effect level (C-NOEL) water quality based limits for the water flea (*Ceriodaphnia dubia*) and the brook trout (*Salvelinus fontinalis*).
5. Establishing a requirement to maintain an up-to-date Operations and Maintenance (O&M) plan.
6. Establishing a requirement to maintain an up-to-date Wet Weather Flow Management Plan.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated September 8, 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 will be subject to effluent limitations that require application of best practicable treatment.

ACTION

THEREFORE, the Department APPROVES the above noted application of the TOWN OF FARMINGTON, to discharge up to a monthly average flow of 0.90 MGD of secondary treated waste waters from a publicly owned treatment works facility to the Sandy River, Class B, 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 16TH DAY OF OCTOBER, 2006.

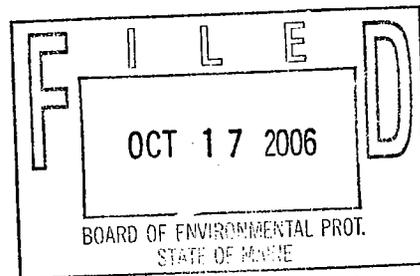
DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: 
DAVID P. LITTELL, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: September 7, 2006

Date of application acceptance: September 7, 2006



Date filed with Board of Environmental Protection _____

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

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

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

Effluent Characteristic	Discharge Limitations						Minimum Monitoring 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
Flow <i>[50050]</i>	0.90 MGD <i>[03]</i>	---	Report MGD <i>[03]</i>	---	---	---	Continuous <i>[99/99]</i>	Recorder <i>[RC]</i>
Biochemical Oxygen Demand (BOD ₅) <i>(June 1 – September 30)</i>	150 lbs/day	225 lbs/day	250 lbs/day	20 mg/L	30 mg/L	33 mg/L	2/Week	Composite
<i>(October 1 – May 31)</i>	225 lbs/day <i>[26]</i>	338 lbs/day <i>[26]</i>	375 lbs/day <i>[26]</i>	30 mg/L <i>[19]</i>	45 mg/L <i>[19]</i>	50 mg/L <i>[19]</i>	2/Week <i>[02/07]</i>	Composite <i>[24]</i>
BOD ₅ % Removal ⁽¹⁾ <i>[81010]</i>	---	---	---	85% <i>[23]</i>	---	---	1/Month <i>[01/30]</i>	Calculate <i>[CA]</i>
Total Suspended Solids (TSS) <i>(June 1 – September 30)</i>	150 lbs/day	225 lbs/day	250 lbs/day	20 mg/L	30 mg/L	33 mg/L	2/Week	Composite
<i>(October 1 – May 31)</i>	225 lbs/day <i>[26]</i>	338 lbs/day <i>[26]</i>	375 lbs/day <i>[26]</i>	30 mg/L <i>[19]</i>	45 mg/L <i>[19]</i>	50 mg/L <i>[19]</i>	2/Week <i>[02/07]</i>	Composite <i>[24]</i>
TSS % Removal ⁽¹⁾ <i>[81011]</i>	---	---	---	85% <i>[23]</i>	---	---	1/Month <i>[01/30]</i>	Calculate <i>[CA]</i>
Settleable Solids <i>[00545]</i>	---	---	---	---	---	0.3 ml/L <i>[25]</i>	5/Week <i>[05/07]</i>	Grab <i>[GR]</i>
<i>E. coli</i> Bacteria ⁽²⁾ <i>[31616]</i> <i>(May 15 – September 30)</i>	---	---	---	64/100 ml ⁽³⁾ <i>[13]</i>	---	427/100 ml <i>[13]</i>	2/Week <i>[02/07]</i>	Grab <i>[GR]</i>
Total Residual Chlorine ⁽⁴⁾ <i>[50060]</i>	---	---	---	0.1 mg/L <i>[19]</i>	---	0.3 mg/L <i>[19]</i>	1/Day <i>[01/01]</i>	Grab <i>[GR]</i>
pH <i>[00400]</i>	---	---	---	---	---	6.0-9.0 SU <i>[12]</i>	1/Day <i>[01/01]</i>	Grab <i>[GR]</i>

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)

Outfall #001

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly <u>Average</u> as specified	Weekly <u>Average</u> as specified	Daily <u>Maximum</u> as specified	Monthly <u>Average</u> as specified	Weekly <u>Average</u> as specified	Daily <u>Maximum</u> as specified	Measurement <u>Frequency</u> as specified	Sample <u>Type</u> as specified
Total phosphorus ⁽⁵⁾ [00665] (June 1 – September 30)	Report lbs/day [26]	Report lbs/day [26]	Report lbs/day [26]	Report ug/L [28]	Report ug/L [28]	Report ug/L [28]	1/Week [01/07]	Composite [24]
Copper (Total) [01042]	0.27 lbs/day [26]	---	0.32 lbs/day [26]	55 ug/L [28]	---	65 ug/L [28]	1/Month [01/30]	Composite [24]
Silver (Total) [01077]	---	---	0.024 lbs/day [26]	---	---	4.8 ug/L [28]	2/Year [02/YR]	Composite [24]

SPECIAL CONDITIONS

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

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

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity⁽⁶⁾						
<u>Acute – NOEL</u>						
<i>Ceriodaphnia dubia</i> (Water flea) [TDA3B]	---	---	---	4.9 % [23]	2/Year [02/YR]	Composite [24]
<i>Salvelinus fontinalis</i> (Brook trout) [TDA6F]	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
<u>Chronic – NOEL</u>						
<i>Ceriodaphnia dubia</i> (Water flea) [TDA3B]	---	---	---	5.4 % [23]	2/Year [02/YR]	Composite [24]
<i>Salvelinus fontinalis</i> (Brook trout) [TDA6F]	---	---	---	5.4 % [23]	1/Year [01/YR]	Composite [24]
Analytical chemistry ⁽⁷⁾ [511688]	---	---	---	Report ug/L [28]	1/2 Years [01/2Y]	Composite/Grab [24]

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
Whole Effluent Toxicity⁽⁶⁾						
<u>Acute – NOEL</u>						
<i>Ceriodaphnia dubia</i> (Water flea) [TDA3B]	---	---	---	4.9 % [23]	2/Year [02/YR]	Composite [24]
<i>Salvelinus fontinalis</i> (Brook trout) [TDA6F]	---	---	---		2/Year [02/YR]	Composite [24]
<u>Chronic – NOEL</u>						
<i>Ceriodaphnia dubia</i> (Water flea) [TDA3B]	---	---	---	5.4% [23]	2/Year [02/YR]	Composite [24]
<i>Salvelinus fontinalis</i> (Brook trout) [TDA6F]	---	---	---	5.4 % [23]	2/Year [02/YR]	Composite [24]
Analytical chemistry ⁽⁷⁾ [511688]	---	---	---	Report ug/L [28]	1/Quarter [01/90]	Composite/Grab [24]
Priority Pollutant ⁽⁸⁾ [50008]	---	---	---	Report ug/L [28]	1/Year [01/YR]	Composite/Grab [24]

SPECIAL CONDITIONS

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

Footnotes:

Sampling Locations:

Influent sampling for BOD₅ and TSS shall be sampled at the influent structure.

Effluent sampling for all parameters shall be sampled for all parameters at the end of the chlorine contact chamber 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 BOD₅ and TSS. The percent removal shall be based on a monthly average calculation using influent and effluent concentrations. The percent removal limit 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 seasonal (May 15 – September 30). The Department reserves the right to impose year-round disinfection to protect the health and welfare of the public.
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. **Total phosphorus** – Seasonal monitoring requirement (June 1 – September 30). See Attachment B of this permit for the protocol associated with sampling and testing.
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 thresholds of 5.4% and 4.9% respectively), 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 thresholds were derived as the mathematical inverse of the applicable acute and chronic dilution factors of 18.5:1 and 20.4:1 respectively.
 - a. **Surveillance level testing** - Beginning upon permit issuance and lasting through 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 twice per year (2/Year) and the brook trout (*Salvelinus fontinalis*) at a frequency of once every year (1/Year). Tests shall be conducted in a different calendar quarter 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 screening level WET testing at a minimum frequency of twice per year (2/Year) for both species. There shall be at least six (6) months between testing events. Acute and chronic tests shall be conducted on the water flea (*Ceriodaphnia dubia*) and the brook trout (*Salvelinus fontinalis*).

SPECIAL CONDITIONS

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

Footnotes:

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 thresholds of 5.4% and 4.9% respectively.

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.

The permittee is also required to analyze the effluent for the parameters specified in the analytical chemistry 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. It is noted the testing frequency for total copper is once per month (1/Month) and the frequency for total silver is twice per year (2/Year).
 - b. **Screening level testing** – Beginning 12 months prior to 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.

SPECIAL CONDITIONS

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

Footnotes:

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 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 Chapter 530 does not establish routine surveillance level testing priority pollutant testing.

Priority pollutant and analytical chemistry testing shall be conducted on samples collected at the same time as those collected for whole effluent toxicity tests when applicable. Priority pollutant and analytical chemistry 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 A of this permit for a list of the Department's reporting levels (RLs) 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 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 (1/quarter) 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.

SPECIAL CONDITIONS

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 fecal coliform bacteria levels to or below those specified in Special Condition A, *Effluent Limitation and Monitoring Requirements*, of this permit.

D. TREATMENT PLANT OPERATOR

The waste water treatment facility must be operated under the direction of a person holding a minimum of a **Grade III** 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.

SPECIAL CONDITIONS

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 outfall(s) 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.

H. WET WEATHER FLOW MANAGEMENT PLAN

The treatment facility staff shall maintain a current Wet Weather Flow Management Plan to direct the staff on how to operate the facility effectively during periods of high flow. 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.

SPECIAL CONDITIONS

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 **4,000 gallons per day and 20,000 gallons per month** 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.
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.

SPECIAL CONDITIONS

J. DISPOSAL OF SEPTAGE WASTE IN WASTE WATER TREATMENT FACILITY

6. Holding tank waste water shall not be recorded as septage and should be reported in the treatment facility's influent flow.

K. 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 copper.

L. 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, analytical chemistry 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.

M. PUMP STATION OVERFLOWS

Overflow pipes at the St. Lukes pump station and the West Farmington pump station must be block tested for the term of this permit. The permittee shall check the blocks monthly and determine what storm event (2 yr, 5yr, 10 yr etc) triggers a discharge. By **December 31st** of each calendar year [PCS Codes. 30099, 30199, 30299, 30399, 30499] the permittee shall submit to the Department, a summary of the results of the block testing program.

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 (13th) 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 (15th) 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
Central Maine Regional Office
Bureau of Land & Water Quality
Division of Water Quality Management
State House Station #17
Augusta, Maine 04333

O. 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; (3) change monitoring requirements or limitations based on new information or 4) new information from ambient water quality studies of the receiving waters.

P. 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.

ATTACHMENT A

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)

Acute dilution factor

Chronic dilution factor

Human health dilution factor

Criteria type: M(arine) or F(resh)

Flow for Day (MGD)⁽¹⁾ Flow Avg. for Month (MGD)⁽²⁾

Date Sample Collected Date Sample Analyzed

Laboratory _____ Telephone _____
 Address _____
 Lab Contact _____ Lab ID # _____

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

WHOLE EFFLUENT TOXICITY		Receiving Water or Ambient	Effluent Concentration (ug/L or as noted)			WET Result, % Do not enter % sign	Reporting Limit Check	Possible Exceedence ⁽⁷⁾		
			Effluent Limits, %							
		Acute		Chronic						
	Trout - Acute									
	Trout - Chronic									
	Water Flea - Acute									
	Water Flea - Chronic									
WET CHEMISTRY										
	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)									
ANALYTICAL CHEMISTRY ⁽³⁾										
		Effluent Limits, ug/L								
		Reporting Limit	Acute ⁽⁶⁾	Chronic ⁽⁶⁾	Health ⁽⁶⁾					
	TOTAL RESIDUAL CHLORINE (mg/L)	0.05								
	AMMONIA	NA								
M	ALUMINUM	NA								
M	ARSENIC	5								
M	CADMIUM	1								
M	CHROMIUM	10								
M	COPPER	3								
M	CYANIDE	5								
M	LEAD	5								
M	NICKEL	3								
M	SILVER	5								
M	ZINC	1								
		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 ⁽⁴⁾	Effluent Limits			Reporting Limit Check	Possible Exceedence ⁽⁷⁾			
		Reporting Limit	Acute ⁽⁶⁾	Chronic ⁽⁶⁾		Health ⁽⁶⁾	Acute	Chronic	Health
M	ANTIMONY	5							
M	BERYLLIUM	2							
M	MERCURY ⁽⁵⁾	0.2							
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							

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.

V	ACROLEIN	NA										
V	ACRYLONITRILE	NA										
V	BENZENE	5										
V	BROMOFORM	5										
V	CARBON TETRACHLORIDE	5										
V	CHLOROBENZENE	6										
V	CHLORODIBROMOMETHANE	3										
V	CHLOROETHANE	5										
V	CHLOROFORM	5										
V	DICHLOROBROMOMETHANE	3										
V	ETHYLBENZENE	10										
V	METHYL BROMIDE (Bromomethane)	5										
V	METHYL CHLORIDE (Chloromethane)	5										
V	METHYLENE CHLORIDE	5										
V	TETRACHLOROETHYLENE (Perchloroethylene or Tetrachloroethene)	5										
V	TOLUENE	5										
V	TRICHLOROETHYLENE (Trichloroethene)	3										
V	VINYL CHLORIDE	5										

Notes:

- (1) Flow average for day pertains to WET/PP composite sample day.
- (2) Flow average for month is for month in which WET/PP sample was taken.
- (3) Analytical chemistry parameters must be done as part of the WET test chemistry.
- (4) Priority Pollutants should be reported in micrograms per liter (ug/L).
- (5) Mercury is often reported in nanograms per liter (ng/L) by the contract laboratory, so be sure to convert to micrograms per liter on this spreadsheet.
- (6) Effluent Limits are calculated based on dilution factor, background allocation (10%) and water quality reserves (15% - to allow for new or changed discharges or non-point sources).
- (7) Possible Exceedence determinations are done for a single sample only on a mass basis using the actual pounds discharged. This analysis does not consider watershed wide allocations for fresh water discharges.

ATTACHMENT B

Protocol for Total P Sample Collection and Analysis for Waste Water and Receiving Water Monitoring Required by Permits

Approved Analytical Methods: EPA 365.2, SM 4500-P B.5 E

Sample Collection: The Maine DEP is requesting that total phosphorus analysis be conducted on composite effluent samples, unless a facility's Permit specifically designates grab sampling for this parameter. Facilities can use individual collection bottles or a single jug made out of glass or polyethylene. Bottles and/or jugs should be cleaned prior to each use with dilute HCL. This cleaning should be followed by several rinses with distilled water. The sampler hoses should be cleaned, as needed.

Sample Preservation: During compositing the sample must be at 0-4 degrees C. If the sample is being sent to a commercial laboratory or analysis cannot be performed the day of collection then the sample must be preserved by the addition of 2 mls of concentrated H₂SO₄ per liter and refrigerated at 0-4 degrees C. The holding time for a preserved sample is 28 days.

Note: Ideally, Total P samples are preserved as described above. However, if a facility is using a commercial laboratory then that laboratory may choose to add acid to the sample once it arrives at the laboratory. The Maine DEP will accept results that use either of these preservation methods.

QA/QC: Run a distilled water blank and at least 2 standards with each series of samples. If standards do not agree within 2% of the true value then prepare a new calibration curve.

Every month run a blank on the composite jug and sample line. Automatically, draw distilled water into the sample jug using the sample collection line. Let this water set in the jug for 24 hours and then analyze for total phosphorus. Preserve this sample as described above.

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 _____

Chlorinated? _____ Dechlorinated? _____ mm/dd/yy mm/dd/yy

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

Date 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 toxicants	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	Method
	Units	Results	Results	Level	
Analytes Required for Analytical Chemistry	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
Additional Analytes Required For WET Chemistry	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 POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

AND

MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: **September 8, 2006**

PERMIT NUMBER: **ME0101249**
LICENSE NUMBER: **W002670-5L-E-R**

NAME AND ADDRESS OF APPLICANT:

TOWN OF FARMINGTON
Farmington Water Pollution Control Facility
153 Farmington Falls Road
Farmington, ME. 04930

COUNTY: **Franklin County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

153 Farmington Falls Road
Farmington, ME.

RECEIVING WATER/CLASSIFICATION: **Sandy River/Class B**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Stephen Moore (Supt.)**
(207) 778-4712
E-mail: fartrefac@peoplepc.com

1. APPLICATION SUMMARY

- a. Application. The Town of Farmington (Town hereinafter) has submitted a timely and complete application to the Department to renew combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0101249/ Maine Waste Discharge License (WDL) #W002670-5L-D-R, (permit hereinafter) which was issued on November 27, 2001, and is due to expire on November 27, 2006. The permit approved the discharge of up to a monthly average of 0.90 million gallons per day (MGD) of secondary treated waste water from a municipal waste water treatment facility to the Sandy River, Class B, in Farmington, Maine.

See Attachment A of this Fact Sheet for a location map for the facility.

1. APPLICATION SUMMARY (cont'd)

- b. Source Description – The Town of Farmington's waste water treatment facility services residential and commercial customers in the Town of Farmington. There are 1,000 connections in Farmington which services about 3,500-4,000 people. However, due to the University of Maine's Farmington campus, the population has the potential to increase to about 7,500 people seasonally. 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 the facility receives wastewater from the Franklin Memorial Hospital and several commercial entities including two print shops. The average flow at the plant is 0.45 MGD, well within the permitted flow of 0.9 MGD. Modest growth is anticipated in the next five years.

The collection system is approximately 30 miles long with twelve (12) pump stations. Much of the system was installed in and around 1972. All 12 pump stations have emergency generator receptacles and manual transfer switches such that back-up power via a portable generator can be supplied to the stations or are served by pumper trucks in the event of a power failure. There are no known combined sewer overflow points on the system, but the Town does have some inflow/infiltration (I/I) in the collection system. The Town has an up-to-date Wet Weather Flow Management Plan to direct the operators of the waste water treatment on how to operate the facility effectively during periods of high flow.

The facility is currently limited to introduce into the treatment process or solids handling stream a maximum of 4,000 gallons per day and up to 20,000 gallons per month of septage. The Town has submitted an updated Septage Management Plan (reviewed and approved by the Department) as part of its 2006 application for permit 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.

- c. Waste Water Treatment: The treatment process consists of dual bar racks (coarse and fine), a comminutor, an aerated grit chamber, two primary clarifiers, two aeration ditches, two secondary clarifiers, a gravity sludge filter and press, chlorination/dechlorination contact chambers and a sand filter system (functional but currently not in use). ISCO samplers sample both influent and effluent.

Two 30-foot high "screw" pumps at the headworks lift the influent so that much of the subsequent treatment can be achieved by gravity. The Town has installed an alternate back-up influent pipe to the headworks, which can be operated by a portable pump if the screw system fails. The effluent discharges to the Sandy River through an 18-inch diameter bank outfall that was relocated during the summer of 2006 to a place in the river to enhance the dilution of the effluent with the receiving water. See Attachment B of this Fact Sheet for an aerial photograph of the facility as well as a schematic of the waste water treatment process.

2. PERMIT SUMMARY

- a. Terms and conditions: - This permitting action is carrying forward the following limitations and monitoring requirements from the 11/27/01 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 copper and silver.
 3. Requiring the submission of a toxicity reduction evaluation (TRE) for copper.
 4. Establishing acute no observed effect level (A-NOEL) and chronic no observed effect level (C-NOEL) water quality based limits for the water flea (*Ceriodaphnia dubia*) and the brook trout (*Salvelinus fontinalis*).
 5. Establishing a requirement to maintain an up-to-date Operations and Maintenance (O&M) plan.
 6. Establishing a requirement to maintain an up-to-date Wet Weather Flow Management Plan.
- b. History: The most recent relevant regulatory actions include the following:

August 28, 1996 – The Department issued WDL #W002670-46-C-R for a five-year term.

September 30, 1998 – The U.S. Environmental Protection Agency (EPA) issued National Pollutant Discharge Elimination System (NPDES) permit #ME0101249 for a five-year term.

May 30, 2000 – The Department issued an administrative modification of WDL W002670-46-C-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.

November 27, 2001 – The Department issued combination MEPDES permit #ME0101249/ WDL #W002670-5L-D-R, for a five-year term. Issuance of the MEPDES permit resulted in the NPDES permit last issued by the EPA on 9/30/98 being superseded which nullified the terms and conditions contained therein.

2. PERMIT SUMMARY (cont'd)

April 15, 2004 - The Department issued an administrative modification of the 11/27/01 permit by suspending the numeric water quality based mass limitation for phosphorus that was to go into effect on June 1, 2005.

April 10, 1996 – The Department administratively modified the 11/27/01 permit by establishing applicable monitoring requirement pursuant to a revised Department rule found at Chapter 530, *Surface Water Toxics Control Program*, promulgated on October 12, 2005.

September 7, 2006 – The Town of Farmington submitted a timely and complete application to the Department to renew the MEPDES permit for its 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 § 467 § (4) (G) (1b) classifies the Sandy River as a Class B waterway at and below the point of discharge. Maine law, 38 M.R.S.A., §465-B (3) establishes the classification standards for Class B waters.

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 30-mile Class B segment of the Sandy River main stem [Assessment Unit (HUC) #ME0103000305, segment ID #319R] in a table entitled *Category 5A: Rivers and Streams Impaired By Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)*. The report indicates macro-invertebrate sampling conducted by the Department in this segment off the Sandy River in calendar years 1997 and 2000 indicates the resident biological community is impaired. The report indicates the potential source of the impairment is the discharge from the Town of Farmington's waste water treatment facility.

5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

In addition to the impairment of the aquatic life standard, Section 6(h) of this Fact Sheet indicates the discharge of total phosphorus and orthophosphorus from the waste water treatment facility may be causing or contributing to the proliferation of algal growth which in turn through its degradation may be causing dissolved oxygen deficits below Class B water quality standards (7.0 mg/L and 70% saturation) in the river.

In June 2002, the Department prepared a document entitled, Sandy River Basin Work Plan that outlined an ambient water quality monitoring program for a 17-mile stretch of the Sandy River from the Route 4 bridge in Farmington down to an abandon railroad bridge in New Sharon. In addition, major tributaries of the Sandy River include Wilson Stream, Temple Stream, McGurdy Stream and Muddy Brook. The purpose of the ambient water quality monitoring program was to gather additional water quality information under low flow conditions to better quantify the extent of the water quality issues and utilize the data to develop a model for the 17-mile segment of the Sandy River as well as Wilson Stream to which the Town of Wilton discharges to. Once the modeling is completed and the source(s) causing or contributing to the problem(s) have been identified, the Department will develop a long term scope of work and schedule for corrective actions to bring the receiving water into attainment with its ascribed water quality standards. This is the process taken in developing a total maximum daily load (TMDL).

The Department implemented the June 2002 Sandy River Work Plan by conducting the first of two, three-day intensive sampling events during the summer of 2003. The second three-day sampling event has not been conducted as of the date of this permitting action due to high river and stream flows in the summer of 2004, 2005 and 2006. The Department anticipates completing the sampling during the summer of 2007 and completing the TMDL in early 2008. If the TMDL identifies the discharge from the Farmington waste water treatment facility is causing or contributing to any impairment, this permit will be reopened pursuant to Special Condition O, *Reopening of Permit For Modification*, to incorporate more stringent limitations and or monitoring to mitigate the impairment.

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

- a. Flow – The previous permitting action established a monthly average flow limitation of 0.90 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 0.29 MGD to 0.73 MGD with an arithmetic mean of 0.45 MGD. For the daily maximum, a review of the DMR data for said period indicates the daily maximum flow has ranged from 0.34 MGD to 2.1 MGD with an arithmetic mean of 0.75 MGD.

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

- b. Dilution Factors - The Department has made the determination that the dilution factors associated with 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 0.90 MGD, relocation of the outfall pipe and the 7Q10 and 1Q10 low flow values for the Sandy River, the dilution factors are:

$$\text{Acute: } 1\text{Q10} = 24.4 \text{ cfs} \Rightarrow \frac{(24.4 \text{ cfs})(0.6464) + (0.90 \text{ MGD})}{(0.90 \text{ MGD})} = 18.5:1$$

$$\text{Chronic: } 7\text{Q10} = 27 \text{ cfs}^{(1)} \Rightarrow \frac{(27 \text{ cfs})(0.6464) + (0.90 \text{ MGD})}{(0.90 \text{ MGD})} = 20.4:1$$

$$\text{Harmonic Mean: } = 81 \text{ cfs}^{(2)} \Rightarrow \frac{(80.9 \text{ cfs})(0.6464) + (0.90 \text{ MGD})}{(0.90 \text{ MGD})} = 59.1:1$$

Footnotes:

- (1) With the relocation of the outfall in the summer of 2006, the drainage area calculation to estimate the 7Q10 low flow includes the Temple Stream drainage area.
- (2) The harmonic mean dilution factor is approximated by multiplying the 7Q10 flow value by three (3). This multiplying factor is based on guidelines for estimation of human health dilution presented in the USEPA publication Technical Support Document for Water Quality-Based Toxics Control (Office of Water; EPA/505/2-90-001, page 88), and represents an estimation of harmonic mean flow.
- c. Biochemical Oxygen Demand (BOD) – The previous permitting action established seasonal monthly average, weekly average and daily maximum concentration and mass limits. The limits were established as follows:

<u>BOD & TSS Concentration Limits</u>			
	<u>Month Avg.</u>	<u>Weekly Avg.</u>	<u>Daily Max.</u>
June 1 – Sept. 30	20 mg/L	30 mg/L	33 mg/L
Oct. 1 – May 31	30 mg/L	45 mg/L	50 mg/L

<u>BOD & TSS Mass Limits</u>			
	<u>Month Avg.</u>	<u>Weekly Avg.</u>	<u>Daily Max.</u>
June 1 – Sept. 30	150 lbs/day	225 lbs/day	250 lbs/day
Oct. 1 – May 31	225 lbs/day	338 lbs/day	375 lbs/day

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

The non-summer (October – May) monthly average and weekly average concentration limits of 30 mg/L and 45 mg/L respectively, 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) requirements common to all permits for publicly owned treatment works permitted by the Department. The non-summer monthly average, weekly average and daily maximum technology based mass limits in the previous permitting action are being carried forward in this permitting action and are based on a flow limitation of 0.90 MGD and the applicable concentration limits.

Monthly average: $(0.90 \text{ MGD})(8.34)(30 \text{ mg/L}) = 225 \text{ lbs/day}$
Weekly average: $(0.90 \text{ MGD})(8.34)(45 \text{ mg/L}) = 338 \text{ lbs/day}$
Daily maximum: $(0.90 \text{ MGD})(8.34)(50 \text{ mg/L}) = 375 \text{ lbs/day}$

For the summer months (June 1 – September 30), the previous permit Fact Sheet contained the following text;

The facility underwent an up-grade as a result of a June 5, 1990 EPA administrative order. The June 2, 1994 license amendment (W002670-46-B-A) granted an increase in discharge from 0.6 MGD to 0.9 MGD, but only allowed an increase in the BOD and TSS mass loading limits during the period from October 1st to May 9th of each year. These same BOD and TSS limits were carried forward in the August 28, 1996 (W002670-46-C-R) Department re-licensing and again in this permitting action. Note: In this permitting action, the start date of the first effluent monitoring period was changed from May 10th to June 1st to coincide with the beginning of the monthly reporting period while still staying within the critical flow period.

Mass based limit calculations for BOD and TSS (apply June 1st through September 30th):

Concentration Limit (mg/L) X Flow (MGD) X 8.34 (lbs/gallon) = Mass Limit (lbs/day)

Monthly Average = (20 mg/L) (0.9 MGD) (8.34 lbs/gallon) = 150 lbs/day
Weekly Average = (30 mg/L) (0.9 MGD) (8.34 lbs/gallon) = 225 lbs/day
Daily Maximum = (33 mg/L) (0.9 MGD) (8.34 lbs/gallon) = 250 lbs/day

As noted above, the June 2, 1994 license amendment did not allow an increase in BOD and TSS loading from the 0.6 MGD discharge level. The BOD and TSS concentration limits of 20/30/33 mg/L were back calculated from previous loading requirements of 150/225/250 lbs/day for a 0.6 MGD discharge. It is noted the increased mass limits were not granted for the summer period (June 1 – September 30) due to the uncertainty as to impact of the increased pollutant loading to the river and maintaining Class B dissolved oxygen standards.

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

This permitting action is carrying forward the concentration and mass limits for the summer months in this permitting action due to the uncertainty surrounding the attainment of water quality standards in the Sandy River. A review of the DMR data for the period January 2003 – December 2005 indicates the facility has discharged BOD and TSS as follows:

	<u>BOD Concentration</u>		
	<u>Month Avg.</u>	<u>Weekly Avg.</u>	<u>Daily Max.</u>
<u>Range</u>			
<i>(summer)</i>	4-11 mg/L	6-26 mg/L	6-26 mg/L
<i>(non-summer)</i>	5-23 mg/L	6-51 mg/L	8-54 mg/L
<u>Arithmetic mean</u>			
<i>(summer)</i>	6 mg/L	11 mg/L	12 mg/L
<i>(non-summer)</i>	11 mg/L	16 mg/L	18 mg/L
<u>Annual Average</u>	9.3 mg/L	14 mg/L	16 mg/L
	<u>BOD Mass</u>		
	<u>Month Avg.</u>	<u>Weekly Avg.</u>	<u>Daily Max.</u>
<u>Range</u>			
<i>(summer)</i>	12-37 lbs/day	---	15-82 lbs/day
<i>(non-summer)</i>	16-195 lbs/day	---	22-409 lbs/day
<u>Arithmetic mean</u>			
<i>(summer)</i>	21 lbs/day	---	45 lbs/day
<i>(non-summer)</i>	59 lbs/day	---	95 lbs/day
<u>Annual Average</u>	39 lbs/day	---	78 lbs/day
	<u>TSS Concentration</u>		
	<u>Month Avg.</u>	<u>Weekly Avg.</u>	<u>Daily Max.</u>
<u>Range</u>			
<i>(summer)</i>	1-9 mg/L	1-26 mg/L	1-34 mg/L
<i>(non-summer)</i>	2-23 mg/L	4-30 mg/L	4-36 mg/L
<u>Arithmetic mean</u>			
<i>(summer)</i>	4 mg/L	10 mg/L	12 mg/L
<i>(non-summer)</i>	7 mg/L	13 mg/L	16 mg/L
<u>Annual Average</u>	6 mg/L	12 mg/L	15 mg/L

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

	TSS Mass		
	<u>Month Avg.</u>	<u>Weekly Avg.</u>	<u>Daily Max.</u>
<u>Range</u>			
<i>(summer)</i>	3-31 lbs/day	---	3-141 lbs/day
<i>(non-summer)</i>	6-129 lbs/day	---	15-384 lbs/day
<u>Arithmetic mean</u>			
<i>(summer)</i>	15 lbs/day	---	42 lbs/day
<i>(non-summer)</i>	32 lbs/day	---	78 lbs/day
<u>Annual Average</u>	26 lbs/day	---	66 lbs/day

This permitting action is carrying forward a requirement of 85% removal for BOD and TSS pursuant to Department rule Chapter 525(3)(III)(a&b)(3) except in the circumstances where the monthly average influent concentration is less than 200 mg/L.

Monitoring frequencies for BOD and TSS of 2/Week are being carried forward from the previous permitting action and are based on a long standing Department guidance for facilities with a monthly average flow limitation greater than 0.50 MGD but less than 1.0 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 is being carried forward in this permitting action but the monitoring frequency is being reduced to 5/Week as 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.
- e. E. coli bacteria – The previous permitting action established seasonal (May 15 – September 30) monthly average and daily maximum limits of 64 colonies/100 ml and 427 colonies/100 ml respectively, that are being carried forward in this permitting action and requires the application of BPT.

A review of the monthly DMR data for the period May 2003 to September 2005 indicates the monthly average (geometric mean) bacteria levels have ranged from 2 colonies/100 ml to 52 colonies/100 ml with an arithmetic mean of 18 colonies/100 ml. As for the daily maximum, the DMR data indicates the bacteria levels range from 4 colonies/100 ml to 1,240 colonies/100 ml with an arithmetic mean of 182 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 94% of the months evaluated in said timeframe. Non-compliance with the daily maximum limit occurred in August of 2003 with two results as high as 1,240 colonies/100 ml.

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

The monitoring frequency of 2/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 0.5 MGD and 1.0 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 technology based limit of 0.1 mg/L for the discharge. Water quality based end-of-pipe thresholds were calculated based on dilution factors that have since changed due to the relocation of the outfall pipe. TRC thresholds in the previous permitting action were calculated based on an acute dilution of 4.9:1 (modified acute based on ¼ 1Q10) and a chronic dilution of 18.2:1 as follows:

Parameter	Acute Criteria	Chronic Criteria	Acute Dilution	Chronic Dilution	Acute Limit	Chronic Limit
Chlorine	19 ug/L	11 ug/L	4.9:1	18.2:1	0.093 mg/L	0.20 mg/L

Example calculation: Acute – 0.019 mg/L (4.9) = 0.093 mg/L

Given the new acute and chronic dilution factors of 18.5:1 and 20.4:1 respectively, new end-of-pipe water quality based thresholds 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	18.5:1	20.4:1	0.35 mg/L	0.22 mg/L

Example calculation: Acute – 0.019 mg/L (18.5) = 0.35 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 Farmington 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.

The DMR data for the period January 2003 to December 2005 indicates the daily maximum concentration levels of TRC ranged from 0.02 mg/L to 0.1 mg/L with an arithmetic mean of 0.08 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.

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

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 0.5 MGD and 1.0 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 limitation range is being carried forward in this permitting action. 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. Total phosphorus – The previous permitting action established a monthly average water quality based total phosphorus limit of 2.3 lbs/day with a reporting requirement for monthly average concentration. In addition, the previous permitting action established daily maximum mass and concentration reporting requirements. The permit established a schedule of compliance with a deadline of January 1, 2005 for compliance with the monthly average mass limit.

The Fact Sheet for the previous permitting action contained the following text:

Phosphorus discharged along with BOD during the summer months, has the potential to increase the algae growth and ultimately reduce dissolved oxygen (DO) levels in the river. Based on recent in-stream water quality studies conducted by the Department, the Department has made a Best Professional Judgement that in-stream phosphorus concentrations should not exceed 30 to 50 ug/L (ppb) in order to prevent significant growth of attached algae. Assuming an effluent concentration of 5,000 ug/L from the Farmington plant and using 18.2:1 chronic dilution factor, the Farmington effluent would potentially increase the ambient Phosphorus of the river to 275 ug/L.

A modeling analysis was undertaken by the Department, which determined that the Farmington discharge should not exceed 30 ug/L in order to meet Class B dissolved oxygen (DO) criteria. At the permitted flow of 0.9 MGD, this requires a total phosphorus mass limit of 2.3 lbs/day as a monthly average (June 1st to September 30th).

This permitting action establishes a three-year schedule of compliance whereby the total phosphorus limit of 2.3 lbs/day is not being imposed until January 1, 2005, to allow for additional ambient water quality monitoring to be performed by the Town of Farmington and the Department. The Department will review the monitoring data along with the actual phosphorus levels within the Farmington discharge and, if necessary, modify the permit using the re-opener clause.

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

The additional ambient water quality monitoring referenced in Section 5 of this Fact Sheet that is necessary to determine the appropriate mass limit for phosphorus has not been completed to date. Therefore, this permitting action is establishing monthly average, weekly average and daily maximum mass and concentration reporting requirements along with a seasonal (June 1 – September 30) monitoring requirement of 1/Week for total phosphorus. The data collected will be taken into consideration in future modeling exercises to determine the appropriate water quality based limits for total phosphorus and/or orthophosphate. Once the Department makes this best professional judgment, this permit will be reopened pursuant to Special Condition O, *Reopening of Permit For Modification*, of this permit to establish applicable limitations and monitoring requirements.

- i. 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 # W002670-46-C-R by establishing interim monthly average and daily maximum effluent concentration limits of 27.4 parts per trillion (ppt) and 41.0 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.
- j. Whole Effluent Toxicity (WET) & Chemical-Specific 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.

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

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

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 Farmington 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 screening and surveillance level testing requirements are as follows:

Screening level testing – Beginning 12 months prior to permit expiration and lasting through 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 and lasting through 12 months prior to permit expiration.

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 Farmington facility indicates that to date, Farmington 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.

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

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.”

WET Evaluation

On September 5, 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 Farmington waste water treatment facility has one (1) test result for the water flea that have a reasonable potential to exceed the critical acute water quality threshold of 5.4% (mathematical inverse of the acute dilution factor of 18.4:1), has three (3) test results for the water flea and one (1) test result for the brook trout that have a reasonable potential to exceed the critical chronic water quality threshold of 4.9% (mathematical inverse of the chronic dilution factor of 20.4:1). The test results of concern are as follows:

<u>Date</u>	<u>Species</u>	<u>Test result</u>	<u>RP Factor</u>	<u>Acute RP Threshold</u>	<u>Chronic RP Threshold</u>
3/28/04	Water flea	10.0%	2.1	---	10.3%
3/20/05	Water flea	10.0%	1.9	10.2%	---
7/24/05	Water flea	10.0%	2.1	---	10.3%
3/19/05	Water flea	10.0%	2.1	---	10.3%
3/10/05	Brook trout	10.0%	3.8	---	18.6%

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

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." Based on the results of the 9/5/06 statistical evaluation, the permittee does not qualify for the testing reduction. The monitoring frequency for the water flea is being established at the Chapter 530 screening level testing frequency of 2/Year given the recent decline in test results in calendar year 2005 and 1/Year (surveillance level testing frequency) due to a limited number of test results. As a result, this permitting action is establishing surveillance level testing as follows:

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

Species	WET Testing
Water flea	2/Year
Brook trout	1/Year

Surveillance level tests are to be conducted in a different calendar quarter of each year.

Special Condition L, 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.

Chemical specific testing evaluation

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.

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 does not have sufficient information on the background levels of metals in the water column of the Sandy 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. It is noted the Town of Farmington is the only discharger to the Sandy River. Statistical evaluations conducted by the Department based on a single source, with consideration of reserve and background, are adequate to meet the intent of Chapter 530 and protect water quality standards.

As with WET test results, on September 5, 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 ten (10) test results for copper that exceed or have a reasonable potential to exceed the acute and or chronic AWQC and one (1) test result for silver that has a reasonable potential to exceed the acute AWQC. All other parameters evaluated do not exceed or have a reasonable potential to exceed acute, chronic or human health AWQC. Based on the 9/5/06 statistical evaluation, the following AWQC and critical acute and chronic reasonable potential to exceed AWQC thresholds are as follows:

<u>Parameter</u>	<u>AWQC</u>	<u>RP threshold</u>
Copper	Acute-3.07 ug/L	22.9 ug/L
Copper	Chronic – 2.35 ug/L	19.3 ug/L
Silver	Acute – 0.23 ug/L	1.2 ug/L

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

Based on the criteria above, the following test results in the most recent 60-months either exceed or have a reasonable potential to exceed AWQC.

<u>Date</u>	<u>Parameter</u>	<u>Test result</u>
2/2/03	Copper	76.9 ug/L
12/03	Copper	44 ug/L
3/04	Copper	65 ug/L
3/28/04	Copper	33.9 ug/L
9/04	Copper	450 ug/L
12/04	Copper	74 ug/L
3/05	Copper	41 ug/L
3/20/05	Copper	30.3 ug/L
9/05	Copper	134 ug/L
12/05	Copper	24 ug/L
2/2/03	Silver	1.6 ug/L

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 copper and daily maximum (acute) EOP mass and concentration limits for copper and silver. The derivation for these limits is as follows:

Copper

$$\text{EOP concentration} = [\text{Dilution factor} \times 0.75 \times \text{AWQC}] + [0.25 \times \text{AWQC}]$$

Acute AWQC = 3.07 ug/L	Chronic AWQC = 2.35 ug/L
Acute dilution factor = 18.5:1	Chronic dilution factor = 20.4:1

$$\text{Acute EOP} = [18.5 \times 0.75 \times 3.07 \text{ ug/L}] + [0.25 \times 3.07 \text{ ug/L}] = 43.4 \text{ ug/L}$$

$$\text{Chronic EOP} = [20.4 \times 0.75 \times 2.35 \text{ ug/L}] + [0.25 \times 2.35 \text{ ug/L}] = 36.5 \text{ ug/L}$$

Based on a permitted flow of 0.90 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>
Copper	43.4 ug/L	N/A	0.32 lbs/day
Copper	36.5 ug/L	0.27 lbs/day	N/A

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

$$\text{Calculation: Acute} - \frac{(43.4 \text{ ug/L})(8.34)(0.90 \text{ MGD})}{1000 \text{ ug/mg}} = 0.32 \text{ lbs/day}$$

$$\text{Chronic} - \frac{(36.5 \text{ ug/L})(8.34)(0.90 \text{ MGD})}{1000 \text{ ug/mg}} = 0.27 \text{ lbs/day}$$

Silver

Acute AWQC = 0.23 ug/L
Acute dilution factor = 18.5:1

$$\text{EOP concentration} = [\text{Dilution factor} \times 0.75 \times \text{AWQC}] + [0.25 \times \text{AWQC}]$$

$$\text{EOP} = [18.5 \times 0.75 \times 0.23 \text{ ug/L}] + [0.25 \times 0.23 \text{ ug/L}] = 3.2 \text{ ug/L}$$

Based on a permitted flow of 0.90 MGD, EOP mass limits are as follows:

<u>Parameter</u>	<u>Calculated EOP Concentrations</u>	<u>Monthly Avg. Mass Limit</u>
Silver	3.2 ug/L	0.024 lbs/day

$$\text{Calculation: Silver} - \frac{(3.2 \text{ ug/L})(8.34)(0.90 \text{ MGD})}{1000 \text{ ug/mg}} = 0.024 \text{ lbs/day}$$

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>
Copper	36.5 ug/L	55 ug/L	---
Copper	43.4 ug/L	---	65 ug/L
Silver	3.2 ug/L	--	4.8 ug/L

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

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 Town of Farmington that the Department has test results on file for copper that exceed AWQC and a TRE is required to be submitted to the Department with 45 days of being notified of the exceedences. See Special Condition K, *Toxicity Reduction Evaluation (TRE)* of this permitting action. It is noted the Town has been conducting a TRE for copper for approximately a year. The TRE required by Special Condition K of this permit should include a summary of the actions taken to date to identify and mitigate the discharge of the elevated copper as well as a scope of work and schedule for actions to be taken during the term of this permit.

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 copper and silver based on a best professional judgment given the timing, frequency and severity of the exceedences or reasonable potential to exceed AWQC. For copper, due to multiple exceedences and the length of time (5 years) that the exceedences have occurred, the Department is establishing the monitoring frequency at 1/Month. Due to the limited number of test results of concern for silver, 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 copper and silver, 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 9/5/06 statistical evaluation, the permittee qualifies for the reduced testing. Therefore, surveillance level analytical chemistry is being established as follows:

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

Level	Analytical Chemistry
II	1/2 Years

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

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 N, *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 removes the reasonable potential to exceed AWQC, the permittee may request a modification of the permit to remove applicable limitations and or reduce the monitoring frequency.

- k. Septage – The previous permitting action authorized the permittee to accept and treat up to 4,000 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 0.90 MGD, 4,000 gpd only represents 0.4% of said capacity. The permittee has submitted an up-to-date Septage Management Plan as an exhibit to its 2006 application for permit renewal. The Department has reviewed and approved said plan and determined that under normal operating conditions, the addition of 4,000 gpd of septage to the facility will not cause or contribute to upset conditions of the treatment process.

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

Based on information to date and as permitted, the Department has determined the existing water uses will be maintained and protected and the discharge will not cause or contribute to the failure of the waterbody to meet standards for Class B classification. However, if the TMDL identifies the discharge from the Farmington waste water treatment facility as causing or contributing to any impairment, this permit will be reopened pursuant to Special Condition O, *Reopening of Permit For Modification*, to incorporate more stringent limitations and or monitoring to mitigate the impairment.

8. PUBLIC COMMENTS

Public notice of this application was made in the Franklin Journal newspaper on or about September 8, 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.

9. 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

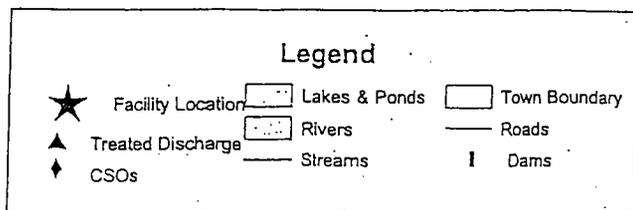
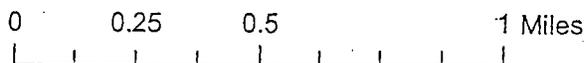
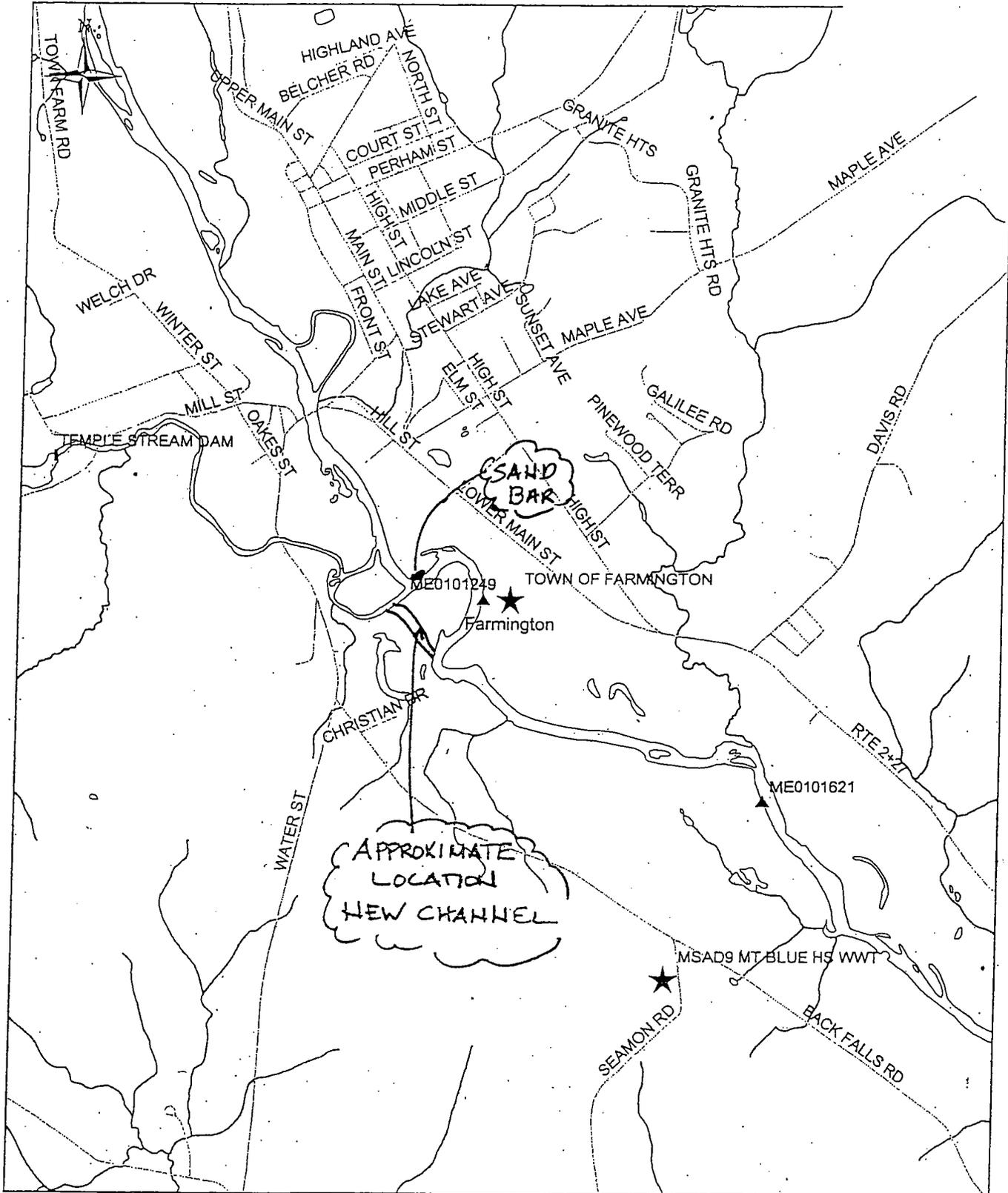
Telephone: (207) 287-3901

10. RESPONSE TO COMMENTS

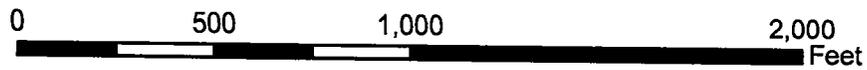
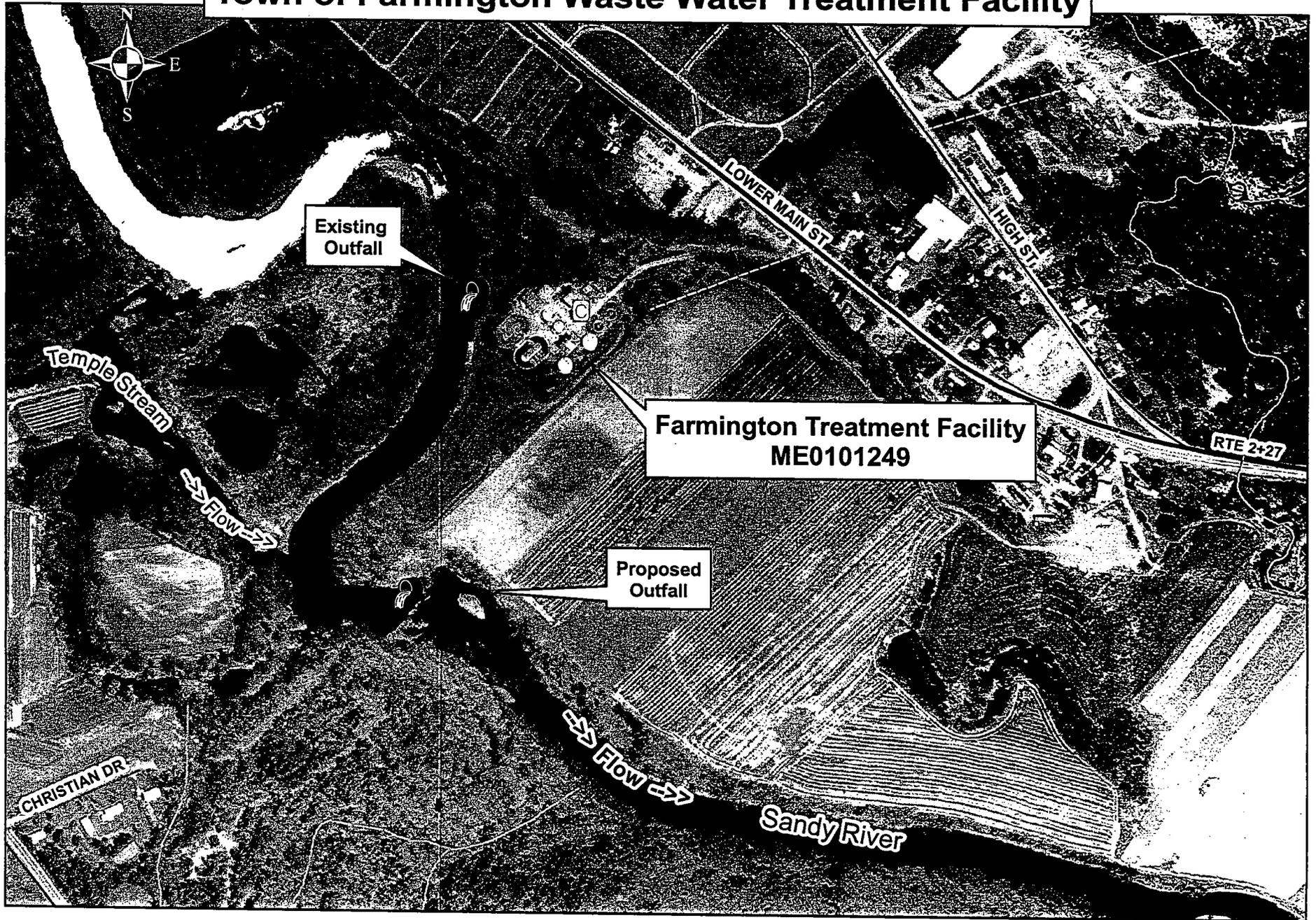
During the period September 9, 2006 through issuance of this permit, the Department solicited comments from state and federal agencies as well as parties that expressed interest in the proposed draft permit for the Town of Farmington's waste water treatment facility. The Department did not receive any comments from the permittee or any other party. Therefore, no Response to Comments has been prepared.

ATTACHMENT A

Wastewater Licensing Information



Town of Farmington Waste Water Treatment Facility



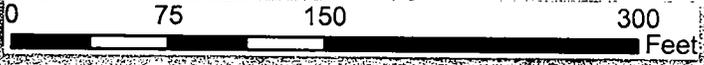
ATTACHMENT B

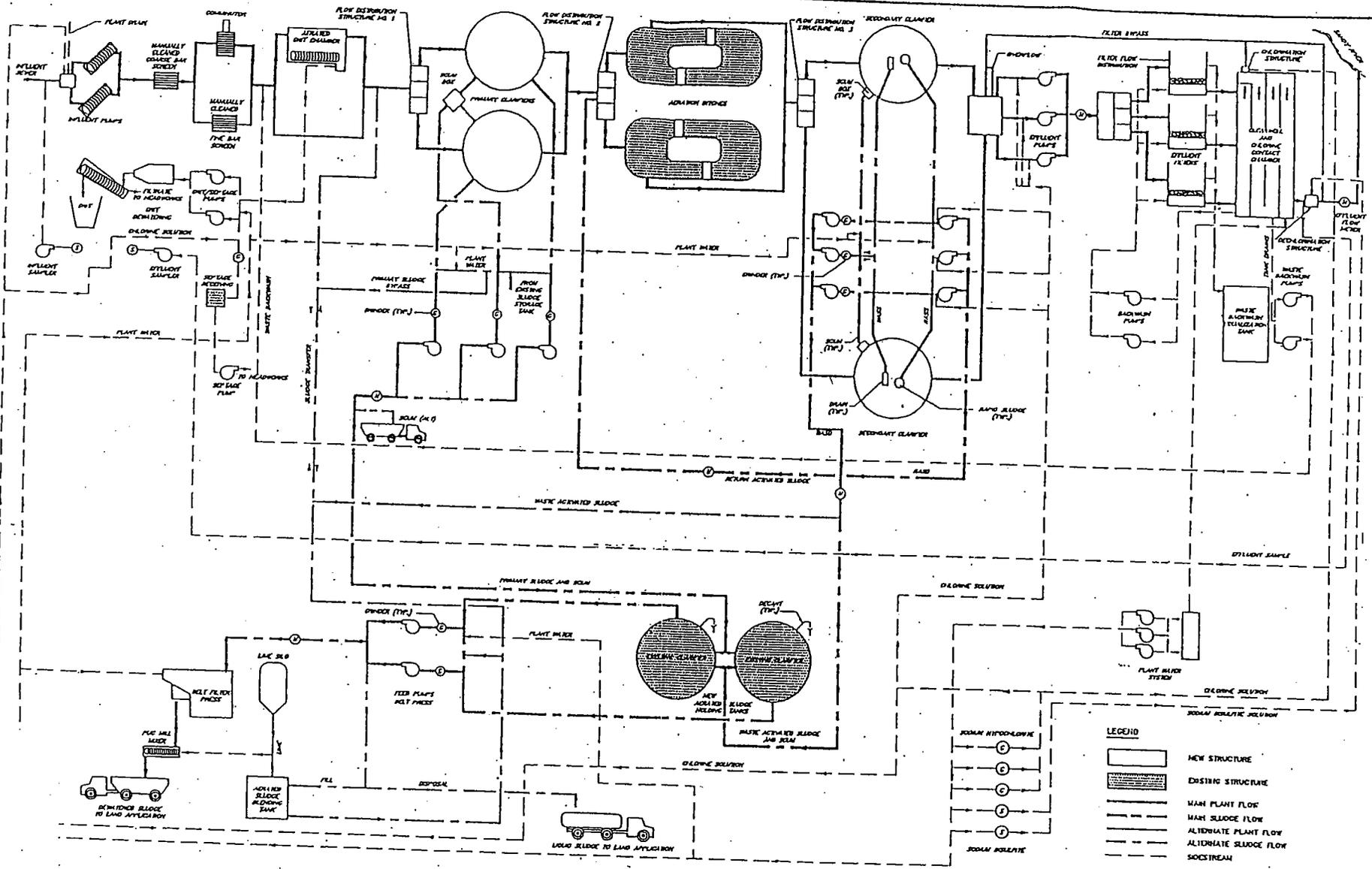
Town of Farmington Waste Water Treatment Facility

ME0101249

Sandy River

Re-Flow





- LEGEND**
- NEW STRUCTURE
 - EXISTING STRUCTURE
 - MAIN PLANT FLOW
 - MAIN SLUDGE FLOW
 - ALTERNATE PLANT FLOW
 - ALTERNATE SLUDGE FLOW
 - SOCLEAN

ATTACHMENT C

Species	Test	Test Result %	Sample Date
FATHEAD	LC50	>100	03/01/1992
FATHEAD	LC50	>100	06/03/1992
FATHEAD	LC50	>100	12/16/1992
WATER FLEA	LC50	>100	12/16/1992
WATER FLEA	LC50	>100	03/01/1993
WATER FLEA	LC50	>100	06/03/1993
FATHEAD	LC50	>100	09/07/1993
WATER FLEA	LC50	>100	09/07/1993
FATHEAD	LC50	>100	11/29/1993
WATER FLEA	LC50	>100	11/29/1993
FATHEAD	LC50	>100	03/07/1994
WATER FLEA	LC50	>100	03/07/1994
FATHEAD	LC50	>100	06/02/1994
WATER FLEA	LC50	>100	06/02/1994
FATHEAD	LC50	>100	12/01/1994
WATER FLEA	LC50	>100	12/01/1994
FATHEAD	A_NOEL	100	03/31/1995
FATHEAD	C_NOEL	100	03/31/1995
FATHEAD	LC50	>100	03/31/1995
WATER FLEA	A_NOEL	100	03/31/1995
WATER FLEA	C_NOEL	100	03/31/1995
WATER FLEA	LC50	>100	03/31/1995
FATHEAD	A_NOEL	45	04/01/1996
FATHEAD	C_NOEL	100	04/01/1996
FATHEAD	LC50	>100	04/01/1996
WATER FLEA	A_NOEL	100	04/01/1996
WATER FLEA	C_NOEL	100	04/01/1996
WATER FLEA	LC50	>100	04/01/1996
FATHEAD	A_NOEL	100	08/17/1997
FATHEAD	C_NOEL	100	08/17/1997
FATHEAD	LC50	>100	08/17/1997
TROUT	A_NOEL	100	08/17/1997
TROUT	C_NOEL	100	08/17/1997
TROUT	LC50	>100	08/17/1997
WATER FLEA	A_NOEL	100	08/17/1997
WATER FLEA	C_NOEL	100	08/17/1997
WATER FLEA	LC50	>100	08/17/1997
FATHEAD	A_NOEL	100	11/08/1998
FATHEAD	C_NOEL	100	11/08/1998
FATHEAD	LC50	>100	11/08/1998
TROUT	A_NOEL	100	11/08/1998
TROUT	C_NOEL	100	11/08/1998

Species	Test	Test Result %	Sample Date
TROUT	LC50	>100	11/08/1998
WATER FLEA	A_NOEL	100	11/08/1998
WATER FLEA	C_NOEL	100	11/08/1998
WATER FLEA	LC50	>100	11/08/1998
FATHEAD	A_NOEL	100	03/28/1999
FATHEAD	C_NOEL	100	03/28/1999
FATHEAD	LC50	>100	03/28/1999
TROUT	A_NOEL	100	03/28/1999
TROUT	C_NOEL	100	03/28/1999
TROUT	LC50	>100	03/28/1999
WATER FLEA	A_NOEL	100	03/28/1999
WATER FLEA	C_NOEL	100	03/28/1999
WATER FLEA	LC50	>100	03/28/1999
FATHEAD	A_NOEL	100	04/02/2000
FATHEAD	C_NOEL	100	04/02/2000
FATHEAD	LC50	>100	04/02/2000
TROUT	A_NOEL	100	04/02/2000
TROUT	C_NOEL	100	04/02/2000
TROUT	LC50	>100	04/02/2000
WATER FLEA	A_NOEL	100	04/02/2000
WATER FLEA	C_NOEL	100	04/02/2000
WATER FLEA	LC50	>100	04/02/2000
FATHEAD	A_NOEL	85.7	06/10/2001
FATHEAD	C_NOEL	100	06/10/2001
FATHEAD	LC50	>100	06/10/2001
WATER FLEA	A_NOEL	100	06/10/2001
WATER FLEA	C_NOEL	100	06/10/2001
WATER FLEA	LC50	>100	06/10/2001
TROUT	A_NOEL	56.8	08/05/2001
TROUT	LC50	84.0	08/05/2001
WATER FLEA	A_NOEL	100	08/05/2001
WATER FLEA	C_NOEL	100	08/05/2001
WATER FLEA	LC50	>100	08/05/2001
TROUT	A_NOEL	100	09/03/2001
TROUT	C_NOEL	100	09/03/2001
TROUT	LC50	>100	09/03/2001
FATHEAD	A_NOEL	100	06/16/2002
FATHEAD	C_NOEL	100	06/16/2002
FATHEAD	LC50	>100	06/16/2002
WATER FLEA	A_NOEL	100	06/16/2002
WATER FLEA	LC50	>100	06/16/2002
FATHEAD	A_NOEL	100	02/02/2003

Species	Test	Test Result %	Sample Date
FATHEAD	C_NOEL	100	02/02/2003
FATHEAD	LC50	>100	02/02/2003
WATER FLEA	A_NOEL	100	02/02/2003
WATER FLEA	C_NOEL	100	02/02/2003
WATER FLEA	LC50	>100	02/02/2003
FATHEAD	C_NOEL	100	04/11/2003
FATHEAD	LC50	>100	04/11/2003
WATER FLEA	C_NOEL	100	04/11/2003
WATER FLEA	LC50	>100	04/11/2003
WATER FLEA	A_NOEL	28.3	03/28/2004
WATER FLEA	C_NOEL	10.0	03/28/2004
WATER FLEA	LC50	42.0	03/28/2004
FATHEAD	A_NOEL	28.0	05/23/2004
FATHEAD	C_NOEL	17.0	05/23/2004
FATHEAD	LC50	55.7	05/23/2004
FATHEAD	A_NOEL	22.5	03/20/2005
FATHEAD	C_NOEL	17.0	03/20/2005
FATHEAD	LC50	47.3	03/20/2005
WATER FLEA	A_NOEL	10.7	03/20/2005
WATER FLEA	C_NOEL	10.0	03/20/2005
WATER FLEA	LC50	19.8	03/20/2005
WATER FLEA	A_NOEL	7.3	07/24/2005
WATER FLEA	LC50	21.9	07/24/2005
WATER FLEA	A_NOEL	100	09/08/2005
WATER FLEA	LC50	>100	09/08/2005
TROUT	A_NOEL	>100	12/11/2005
TROUT	C_NOEL	100	12/11/2005
TROUT	LC50	>100	12/11/2005
WATER FLEA	A_NOEL	>100	12/11/2005
WATER FLEA	C_NOEL	17.0	12/11/2005
WATER FLEA	LC50	>100	12/11/2005
TROUT	A_NOEL	>100	03/19/2006
TROUT	C_NOEL	10.0	03/19/2006
WATER FLEA	A_NOEL	>100	03/19/2006
WATER FLEA	C_NOEL	10.0	03/19/2006
TROUT	A_NOEL	>100	06/04/2006
TROUT	C_NOEL	100	06/04/2006
WATER FLEA	A_NOEL	>100	06/04/2006
WATER FLEA	C_NOEL	100	06/04/2006

ATTACHMENT D

Sample Date: 03/24/2006

Plant flows not provided

Sample Date: 06/10/2001

Plant flows provided

Total Tests: 21

Total Tests: 130
 Dissolving Compounds: 7
 Tests With High DL: 0
 M = 0 V = 0 A = 0
 BN = 0 P = 0 other = 0

mon. (MGD) = 0.457
day (MGD) = 0.401

Tests With High DL: 0
 M = 0 V = 0 A = 0
 BN = 0 P = 0 other = 0

Sample Date: 02/02/2003

Plant flows provided

Total Tests: 135
 Dissolving Compounds: 1
 Tests With High DL: 0
 M = 0 V = 0 A = 0
 BN = 0 P = 0 other = 0

mon. (MGD) = 0.305
day (MGD) = 0.312

Sample Date: 03/28/2004

Plant flows provided

Total Tests: 135
 Dissolving Compounds: 1
 Tests With High DL: 0
 M = 0 V = 0 A = 0
 BN = 0 P = 0 other = 0

mon. (MGD) = 0.478
day (MGD) = 0.575

Sample Date: 03/20/2005

Plant flows provided

Total Tests: 137
 Dissolving Compounds: 1
 Tests With High DL: 1
 M = 1 V = 0 A = 0
 BN = 0 P = 0 other = 0

mon. (MGD) = 0.454
day (MGD) = 0.403

Sample Date: 03/19/2006

Plant flows not provided

Total Tests: 21
 Tests With High DL: 0
 M = 0 V = 0 A = 0
 BN = 0 P = 0 other = 0

PP Data for "Hits" Only

ARMINGTON

ANDY RIVER

ARSENIC

MDL = 5 ug/l

	Conc, ug/l	MDL	Sample Date	Date Entered
	1.000000	OK	03/19/2006	06/12/2006
	1.000000	OK	02/02/2003	04/24/2003
	1.000000	OK	03/24/2006	06/01/2006
	1.000000	OK	12/11/2005	03/03/2006
<	1.000000	OK	03/20/2005	06/01/2005
<	1.000000	OK	03/28/2004	06/28/2004
<	1.000000	OK	06/10/2001	09/06/2001

LEAD

MDL = 3 ug/l

	Conc, ug/l	MDL	Sample Date	Date Entered
	5.000000	OK	03/20/2005	06/22/2005
	8.000000	OK	06/17/2002	04/16/2003
	11.500000	OK	06/16/2002	04/07/2003
	16.700000	OK	06/10/2001	09/06/2001
	30.300000	OK	03/20/2005	06/22/2005
	33.900000	OK	03/28/2004	06/28/2004
	42.400000	OK	07/24/2005	06/12/2006
	55.600000	OK	12/11/2005	03/03/2006
	73.600000	OK	03/24/2006	06/01/2006
	73.600000	OK	03/19/2006	06/12/2006
	76.900000	OK	02/02/2003	04/18/2003
	97.200000	OK	08/05/2001	11/16/2001

LEAD

MDL = 1 ug/l

	Conc, ug/l	MDL	Sample Date	Date Entered
	1.600000	OK	02/02/2003	04/24/2003
<	0.500000	OK	03/19/2006	06/12/2006
<	0.500000	OK	12/11/2005	03/03/2006
<	0.500000	OK	03/28/2004	06/28/2004
<	0.500000	OK	03/24/2006	06/01/2006
<	0.500000	OK	06/10/2001	09/06/2001
<	0.500000	OK	03/20/2005	06/01/2005

LEAD

MDL = 5.0 ug/l

	Conc, ug/l	MDL	Sample Date	Date Entered
	25.000000	OK	06/17/2002	04/16/2003
	63.000000	OK	02/02/2003	04/18/2003
	70.000000	OK	06/10/2001	09/06/2001
	81.000000	OK	07/24/2005	06/12/2006
	83.000000	OK	06/16/2002	04/07/2003
	91.000000	OK	03/28/2004	06/28/2004
	97.000000	OK	12/11/2005	04/25/2006
	105.000000	OK	03/24/2006	06/01/2006
	105.000000	OK	03/19/2006	06/12/2006
	111.000000	OK	03/20/2005	06/01/2005
	120.000000	OK	08/05/2001	11/01/2001
<	25.000000	HI	03/20/2005	06/22/2005