March 28, 2003

Michael Hanson
Sanford Sewerage District
P. O. Box 338, River Street
Springvale, ME 04083-0338

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0100617
Maine Waste Discharge License #W000870-5L-D-R
Final Permit/License

Dear Mr. Hanson:

Enclosed please find a copy of your **final** MEPDES permit and Maine WDL which was approved by the Department of Environmental Protection. This permit/license replaces the National Pollutant Discharge Elimination System (NPDES) permit #ME0100617, last issued by the Environmental Protection Agency (EPA) on September 29, 1993. 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*."

We would like to make you aware of the fact that your monthly Discharge Monitoring Reports (DMR) may not reflect the revisions in this permitting action for several months however, you are required to report applicable test results for parameters required by this permitting action that do not appear on the DMR.

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

Sincerely,

Gregg Wood
Division of Water Resource Regulation
Bureau of Land and Water Quality

Enc.

cc: Matt Hight, DEP/SMRO
John True, DEP/CMRO
Ben Viola, DEP/SMRO
James Rogers, DEP/CMRO
Ted Lavery, USEPA
Joan Serra, USEPA

IN THE MATTER OF

SANFORD SEWERAGE DISTRICT	)	MAINE POLLUTANT DISCHARGE
SANFORD, YORK COUNTY, MAINE	)	ELIMINATION SYSTEM PERMIT
PUBLICLY OWNED TREATMENT WORKS	)	AND
ME0100617	)	WASTE DISCHARGE LICENSE
W000870-5L-D-R **APPROVAL**	)	**RENEWAL**

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) has considered the application of the SANFORD SEWERAGE DISTRICT (SSD), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

The applicant has applied for renewal of Department Waste Discharge License (WDL) #W000870-46-C-R which was issued on June 13, 1994 and expired on June 13, 1999. The WDL authorized the discharge of up to a monthly average flow of 5.5 million gallons per day (MGD) of advanced treated sanitary waste waters from a publicly owned treatment works (POTW) facility to the Mousam River, Class C, in Sanford, Maine.

On January 12, 2001, the Department received authorization from the U.S. Environmental Protection Agency (EPA) to administer the National Pollutant Discharge Elimination System (NPDES) permitting program in Maine. From this point forward, the program will be referenced as the Maine Pollutant Discharge Elimination System (MEPDES) permitting program that will utilize a permit number of #ME0100617 (same as NPDES permit) as the primary reference number for the SSD's MEPDES permit.

PERMIT SUMMARY:

Major components of this permitting action include;

1. Establishing three tiers of seasonal discharge limitations. Tier I limits are being carried forward from the previous license and are in effect until May 31, 2005. Tier II and Tier III limits become effective June 1, 2005. Beginning calendar year 2006, Tier III limits provide a higher level of discharge between February 15 and April 15 of each year when the flow in the Mousam River is greater than 100 cubic feet per second (cfs).

PERMIT SUMMARY (cont'd)

2. Establishing year-round monthly average and or daily maximum water quality based mass and concentrations limits for aluminum, bis (2ethylhexyl) phthalate, cadmium, copper, silver and zinc for Tier I and requiring the submission of a toxicity reduction evaluation (TRE) for aluminum, ammonia, cadmium, copper, silver and the water flea.

3. Establishing seasonal monthly average and daily maximum mass limits for ammonia and phosphorus for Tier I, Tier II and Tier III.

4. Establishing critical flow thresholds of the Mousam River whereby discharges are prohibited. Tier I is 10 cfs, Tier II is 20 cfs and Tier III is 100 cfs.

5. Establishing chronic no observed effect level (C-NOEL) whole effluent toxicity (WET) limits for the water flea and brook trout for Tier I and Tier II and requiring the submission of a TRE for the water flea.

6. Establishing a minimum dissolved oxygen content of 7.5 ppm in the discharged effluent for Tier II.

7. Establishing year-round monthly average and or daily maximum water quality based mass and concentrations limit for arsenic and lead for Tier II.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated July 2, 2002, revised on September 17, 2002, November 4, 2002 and March 26, 2003, 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 MRSA 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 the 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 water 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 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 SANFORD SEWERAGE DISTRICT to discharge advanced treated sanitary waste waters to the Mousam River, Class C, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

1. "Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits," revised January 16, 2001, 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 ____ DAY OF _____, 2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
Dawn Gallagher, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application February 22, 2002.

Date of application acceptance February 22, 2002.

Date filed with Board of Environmental Protection _____

This Order prepared by GREGG WOOD, BUREAU OF LAND & WATER QUALITY

W08705ldr 3/26/03

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge advanced treated sanitary waste waters from **Outfall 001A, except that there shall be no discharge when the Mousam River is below 10 cfs**. Such discharges shall be limited and monitored by the permittee as specified below:

TIER I - Beginning the effective date of the permit and lasting through May 31, 2005.

Effluent Characteristic	Discharge Limitations						Monitoring Requirements	
	Monthly Average lbs/day	**Weekly Average** lbs/day	**Daily Maximum** Lbs/day	**Monthly Average** as specified	**Weekly Average** as specified	**Daily Maximum** as specified	**Measurement Frequency** as specified	**Sample Type** as specified
Flow *[50050]* *(November 1 – May 31)* *(June 1 – October 31)*	5.5 MGD 3.48 MGD *[03]*	--- ---	Report Report (MGD) *[03]*	--- ---	--- ---	--- ---	Continuous Continuous *[CN]*	Recorder Recorder *[RC]*
BOD_5 *[00310]* *(November 1 – May 31)* *(June 1 – October 31)*	459 290 lbs/day *[26]*	688 435 lbs/day *[26]*	917 580 lbs/day *[26]*	10 mg/L 10 mg/L *[19]*	15 mg/L 15 mg/L *[19]*	20 mg/L 20 mg/L *[19]*	3/Week 3/Week *[03/07]*	Composite Composite *[24]*
BOD% Removal(1) *[81010]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
TSS *[00530]* *(November 1 – May 31)* *(June 1 – October 31)*	459 290 lbs/day *[26]*	688 435 lbs/day *[26]*	917 580 lbs/day *[26]*	10 mg/L 10 mg/L *[19]*	15 mg/L 15 mg/L *[19]*	20 mg/L 20 mg/L *[19]*	3/Week 3/Week *[03/07]*	Composite Composite *[24]*
TSS% Removal(1) *[81011]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Settleable Solids *[00545]*	---	---	---	---	---	0.3 ml/L *[25]*	5/Week *[05/07]*	Grab *[GR]*
E. coli. Bacteria(2) *[31616]* *(May 15 – September 30)*	---	---	---	142/100 ml(3) *[13]*	---	949/100 ml *[13]*	2/Week *[02/07]*	Grab *[GR]*
pH (Std. Units) *[00400]*	---	---	---	---	---	6.0-9.0 *[12]*	1/Day *[01/01]*	Grab *[GR]*

SPECIAL CONDITIONS

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

1. The permittee is authorized to discharge advanced treated sanitary waste waters from **Outfall 001A, except that there shall be no discharge when the Mousam River is below 10 cfs**.

TIER I - Beginning the effective date of the permit and lasting through May 31, 2005.

Effluent Characteristic	Discharge Limitations						Monitoring Requirements	
	Monthly Average lbs/day	**Weekly Average** lbs/day	**Daily Maximum** lbs/day	**Monthly Average** as specified	**Weekly Average** as specified	**Daily Maximum** as specified	**Measurement Frequency** as specified	**Sample Type** as specified
River Flow[4] *[00056]*	---	---	---	---	---	≥10 cfs[9] *[08]*	2/Week *[02/07]*	Measure *[MS]*
Ammonia-Nitrogen[5]								
(May 15 – September 30)	103 lbs/day *[26]*	---	114 lbs/day *[26]*	---	---	---	3/Week *[03/07]*	Grab *[GR]*
(October 1 – May 14) *[00610]*	257 lbs/day *[26]*	---	257 lbs/day *[26]*	---	---	---	3/Week *[03/07]*	Grab *[GR]*
Aluminum (Total) *[01105]*	7.3 lbs/day *[26]*	---	63 lbs/day *[26]*	378 ug/L *[28]*	---	3,300 ug/L *[28]*	1/Quarter *[01/901*	Composite *[24]*
Bis(2Etyhlhexyl) Phthlate *[39100]*	0.36 lbs/day *[26]*	---	---	12 ug/L *[28]*	---	---	1/Year *[01/YR1*	Composite *[24]*
Cadmium (Total) *[01027]*	0.027 lbs/day *[26]*	---	0.053 lbs/day *[26]*	1.4 ug/L *[28]*	---	2.7 ug/L *[28]*	1/Year *[01/YR1*	Composite *[24]*
Copper (Total) *[01042]*	0.25 lbs/day *[26]*	---	0.33 lbs/day *[26]*	13 ug/L *[28]*	---	16 ug/L *[28]*	1/Year *[01/YR1*	Composite *[24]*
Silver (Total) *[01077]*	---	---	0.021 lbs/day *[26]*	---	---	1.1 ug/L *[28]*	1/Year *[01/YR1*	Composite *[24]*
Zinc (Total) *[01092]*	2.3 lbs/day *[26]*	---	---	114 ug/L *[28]*	---	---	1/Year *[01/YR1*	Composite *[24]*
Total Phosphorus								
(May 1 – September 30)	5 lbs/day *[26]*	---	---	---	---	---	3/Week *[03/07]*	Grab *[GR]*
(October 1 – April 30) *[00665]*	23 lbs/day *[26]*	---	46 lbs/day *[26]*	---	---	---	1/Week *[01/07]*	Grab *[GR]*

SPECIAL CONDITIONS

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

1. The permittee is authorized to discharge advanced treated sanitary waste waters from **Outfall 001A, except that there shall be no discharge when the Mousam River is below 10 cfs**.

TIER I - Beginning the effective date of the permit and lasting through May 31, 2005.

SURVEILLANCE LEVEL TESTING

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity (WET)[10]						
A-NOEL						
Ceriodaphnia dubia [TDA3B]	---	---	---	Report % [23]	1/Quarter [01/90]	Composite [24]
Salvelinus fontinalis [TDA6F]	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
C-NOEL						
Ceriodaphnia dubia [TBP3B]	---	---	---	45% [23]	1/Quarter [01/90]	Composite [24]
Salvelinus fontinalis [TBQ6F]	---	---	---	45% [23]	1/Year [01/YR]	Composite [24]
Chemical Specific[11] [50008]	---	---	---	Report ug/L [28]	1/Year [01/YR]	Composite/ Grab [24/GR]

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. The permittee is authorized to discharge advanced treated sanitary waste waters from **Outfall 001A, except that there shall be no discharge when the Mousam River is below 20 cfs**. Such discharges shall be limited and monitored by the permittee as specified below:

TIER #II - Beginning June 1, 2005.

Effluent Characteristic	Discharge Limitations						Monitoring Requirements	
	Monthly Average lbs/day	Weekly Average lbs/day	Daily Maximum lbs/day	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Flow *[50050]* *(October 1 – April 30)* *(May 1 – September 30)*	4.4 MGD 3.48 MGD *[03]*	--- ---	Report Report (MGD)	--- ---	--- ---	--- ---	Continuous Continuous *[CN]*	Recorder Recorder *[RC]*
BOD_5 *[00310]* *(October 1 – April 30)* *(May 1 – September 30)*	1,101 261 lbs/day *[26]*	1,651 392 lbs/day *[26]*	1,835 522 lbs/day *[26]*	30 mg/L 10 mg/L *[19]*	45 mg/L 15 mg/L *[19]*	50 mg/L 20 mg/L *[19]*	3/Week 3/Week *[03/07]*	Composite Composite *[24]*
BOD% Removal(1) *[81010]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
TSS *[00530]* *(October 1 – April 30)* *(May 1 – September 30)*	1,101 290 lbs/day *[26]*	1,651 435 lbs/day *[26]*	1,835 580 lbs/day *[26]*	30 mg/L 10 mg/L *[19]*	45 mg/L 15 mg/L *[19]*	50 mg/L 20 mg/L *[19]*	3/Week 3/Week *[03/07]*	Composite Composite *[24]*
TSS% Removal(1) *[81011]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Settleable Solids *[00545]*	---	---	---	---	---	0.3 ml/L *[25]*	5/Week *[05/07]*	Grab *[GR]*
E. coli. Bacteria(2) *[31616]* *(May 15 – September 30)*	---	---	---	142/100 ml(3) *[13]*	---	949/100 ml *[13]*	2/Week *[02/07]*	Grab *[GR]*
pH (Std. Units) *[00400]*	---	---	---	---	---	6.0-9.0 *[12]*	1/Day *[01/01]*	Grab *[GR]*

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

Outfall #001A

TIER II - Beginning June 1, 2005.

Effluent Characteristic	Discharge Limitations						Monitoring Requirements	
	Monthly Average lbs/day	Weekly Average lbs/day	Daily Maximum lbs/day	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
River Flow(4) *[00056]*	---	---	---	---	---	≥20 cfs(9) *[08]*	2/Week *[02/07]*	Measure *[MS]*
Dissolved Oxygen *[00300]* *(May 1 – September 30)*	---	---	---	---	---	≥7.5 ppm(6) *[26]*	1/Day *[01/01]*	Measure *[MS]*
Phosphorus (Total) ***[00665]*** *(May 1 – September 30)* *(October 1 – April 30)*	3.0 lbs/day 23 lbs/day *[26]*	--- ---	--- 46 lbs/day *[26]*	--- ---	--- ---	--- ---	3/Week *[03/07]* 1/Week *[01/07]*	Grab *[GR]*
Ammonia-Nitrogen ***[00610]*** *(May 15 – September 30)* *(October 1 – May 14)*	--- 276 lbs/day *[26]*	14.5 lbs/day *[26]*	--- ---	--- 11.3 mg/L *[19]*	--- ---	--- ---	3/Week *[03/07]* 1/Week *[01/07]*	Grab *[GR]* Grab *[GR]*
Arsenic (Total) *[01002]*	0.02 lbs/day *[26]*	---	---	0.8 ug/L(7) *[28]*	---	---	1/Month *[01/301*	Composite *[24]*
Lead (Total) *[01051]*	0.015 lbs/day *[26]*	---	---	0.6 ug/L(8) *[28]*	---	---	1/Month *[01/301*	Composite *[24]*

SPECIAL CONDITIONS

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

TIER II - ***SURVEILLANCE LEVEL TESTING*** **–** Beginning June 1, 2005.

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity (WET)[10]						
A-NOEL						
Ceriodaphnia dubia [TDA3B]	---	---	---	Report % [23]	1/Quarter [01/90]	Composite [24]
Salvelinus fontinalis [TDA6F]	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
C-NOEL						
Ceriodaphnia dubia [TBP3B]	---	---	---	26% [23]	1/Quarter [01/90]	Composite [24]
Salvelinus fontinalis [TBQ6F]	---	---	---	26% [23]	1/Year [01/YR]	Composite [24]
Chemical Specific[11] [50008]	---	---	---	Report ug/L [28]	1/Year [01/YR]	Composite/ Grab [24/GR]

SCREENING LEVEL TESTING **–** Beginning twelve months prior to the expiration date of the permit.

	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity (WET) [10]						
A-NOEL						
Ceriodaphnia dubia [TDA3B]	---	---	---	Report % [23]	1/Quarter [01/90]	Composite [24]
Salvelinus fontinalis [TDA6F]	---	---	---	Report % [23]	2/Year [02/YR]	Composite [24]
Pimephales promelas [TDA6C]	---	---	---	Report % [23]	2/Year [02/YR]	Composite [24]
C-NOEL						
Ceriodaphnia dubia [TBP3B]	---	---	---	26 % [23]	1/Quarter [01/90]	Composite [24]
Salvelinus fontinalis [TBQ6F]	---	---	---	26 % [23]	2/Year [02/YR]	Composite [24]
Pimephales promelas [TBP6C]	---	---	---	Report % [23]	2/Year [02/YR]	Composite [24]
Chemical Specific[11] [50008]	---	---	---	Report ug/L [28]	1/Quarter [01/90]	Composite/ Grab [24/GR]

SPECIAL CONDITIONS

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

Outfall #001B

TIER III - HIGH FLOW **-** Between February 15 – April 15 of each year beginning calendar year 2006; and when the receiving water flow is ≥100 cfs as measured at the Route #4 bridge in Sanford.

Effluent Characteristic	Discharge Limitations						Monitoring Requirements	
	Monthly Average lbs/day	Weekly Average lbs/day	Daily Maximum lbs/day	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
River Flow[4] *[00056]*	---	---	---	---	---	≥100 cfs[9] *[12]*	2/Week *[02/07]*	Measure *[MS]*
Flow *[50050]*	8.8 MGD *[03]*	Report MGD *[03]*	Report MGD *[03]*	---	---	---	Continuous *[CN]*	Recorder *[RC]*
BOD_5 *[00310]*	2,202 lbs/day *[26]*	3,303 lbs/day *[26]*	3,670 lbs/day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Week *[01/07]*	Composite *[24]*
TSS *[00530]*	2,202 lbs/day *[26]*	3,303 lbs/day *[26]*	3,670 lbs/day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Week *[01/07]*	Composite *[24]*
Phosphorus (Total) *[00665]*	23 lbs/day *[26]*	---	46 lbs/day *[26]*	---	---	---	1/Week *[01/07]*	Grab *[GR]*
Ammonia-Nitrogen *[00610]*	612 lbs/day *[26]*	---	---	12.5 mg/L *[19]*	---	---	1/Week *[01/07]*	Grab *[GR]*
Arsenic (Total) *[01002]*	0.04 lbs/day *[26]*	---	---	0.8 ug/L[7] *[28]*	---	---	1/Month *[01/301*	Composite *[24]*
Lead (Total) *[01051]*	0.03 lbs/day *[26]*	---	---	0.6 ug/L[8] *[28]*	---	---	1/Month *[01/301*	Composite *[24]*

SPECIAL CONDITIONS

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

Footnotes:

Sampling Locations:

Beginning the effective date of the permit and lasting through May 31, 2005, effluent receiving secondary or advanced treatment (Outfall #001) shall be sampled for BOD_5, TSS, WET testing, chemical specific testing, total residual chlorine, pH, settleable solids and *E. coli* bacteria at the end of the existing defunct ultraviolet disinfection apparatus. Influent sampling for BOD_5 and TSS shall be sampled at the headworks degritting. Influent and effluent sampling beginning June 1, 2005**,** will be determined at a later date. Any change in sampling location(s) must be reviewed and approved by the Department in writing.

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, 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

1. **Percent Removal -** The treatment facility shall maintain a minimum of 85 percent removal of both total suspended solids and biochemical oxygen demand. The percent removal shall be based on a twelve (12) month rolling average value. Months when the monthly average influent concentration is less than 200 mg/L shall not be included in the yearly rolling average calculation. For the purposes of this licensing action, the twelve-month rolling average calculation is based on the most recent twelve months of data when the influent concentrations are greater than or equal to 200 mg/L.

2. ***E. coli.* bacteria** - Limits and monitoring requirements are seasonal and apply between May 15th and September 30th of each year. The Department reserves the right to require disinfection on a year-round basis to protect the health, safety and welfare of the public.

3. ***E. coli.* bacteria** – The monthly average limitation is a geometric mean value and shall be calculated and reported as such.

4. **River flow** – Shall be measured at the Route #4 bridge staff gauge in Sanford.

5. **Ammonia** – See Special Condition L of this permit for a schedule of compliance.

6. **Dissolved oxygen** - Daily minimum dissolved oxygen limitation between May 1 and September 30 of each calendar year, not a daily maximum limit.

SPECIAL CONDITIONS

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

Footnotes:

7. **Arsenic – Beginning June 1, 2005**, the monthly average mass and concentrations become effective. The level at which compliance/non-compliance determinations of this permit will be made shall be the Department's current reporting limit (RL) of 5 ug/L. This RL may be reduced in the future as more sensitive test methods are approved by the USEPA or the State of Maine. For the purposes of reporting test results for arsenic on the monthly DMR, all analytical test results shall be reported to the Department including results which are detected below the RL of 5 ug/L. If a detected concentration result is below the RL of 5 ug/L, the permittee shall enter <0.02 lbs/day or <0.04 lbs/day (whichever is applicable) in the column for mass.

8. **Lead – Beginning June 1, 2005**, the monthly average mass and concentrations become effective. The level at which compliance/non-compliance determinations of this permit will be made shall be the Department's current reporting limit (RL) of 3 ug/L. This RL may be reduced in the future as more sensitive test methods are approved by the USEPA or the State of Maine. For the purposes of reporting test results for lead on the monthly DMR, all analytical test results shall be reported to the Department including results which are detected below the RL of 3 ug/L. If the detected concentration result is below the RL of 3 ug/L, the permittee shall enter <0.015 lbs/day or <0.03 lbs/day (whichever is applicable) in the column for mass.

9. **River Flow** – These flow thresholds are daily minimum flows in the Mousam River as measured at the Route #4 bridge staff gauge in Sanford, not a daily maximum threshold.

10. **Whole effluent toxicity (WET) testing** - Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions set at levels to bracket the critical acute and chronic thresholds based on the applicable dilution factors) 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. Beginning upon issuance of the permit and lasting through May 31, 2005 the critical acute and chronic threshold is 45% and beginning June 1, 2005, the critical acute and chronic threshold is 26%.

SPECIAL CONDITIONS

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

Footnotes:

Beginning upon issuance of the permit and lasting through twelve months prior to the expiration date of the permit, the permittee shall initiate surveillance level WET testing at a frequency of 1/Quarter on the water flea (*Ceriodaphnia dubia*) and once per year (any calendar quarter) on the brook trout (*Salvelinus fontinalis*). Results shall be reported to the Department within thirty (30) days of the permittee receiving the data report from the laboratory conducting the testing.

Beginning twelve months prior to the expiration date of the permit, the permittee shall initiate screening level WET tests at a frequency of four per year (four consecutive calendar quarters). Testing shall be conducted on the water flea (*Ceriodaphnia dubia*) and the fathead minnow (*Pimephales promelas*) in two of the four calendar quarters and conducted on the water flea (*Ceriodaphnia dubia*) and the brook trout (*Salvelinus fontinalis*) in the remaining two of the four calendar quarters). Results shall be reported to the Department within thirty (30) days of the permittee receiving the data report from the laboratory conducting the testing.

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. Lewis, P.A. et al., 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. Weber, C.I. et al., 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 analytic chemistry on the form in Attachment A of this permit each and every time a WET test is performed.

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

Footnotes:

11. **Chemical Specific Testing** - Priority Pollutants (chemical specific testing under Chapter 530.5) are those listed by the USEPA pursuant to Section 307(a) of the Clean Water Act and published a 40 CFR Part 122, Appendix D, Tables II and III. **Beginning upon issuance of the permit and lasting through twelve months prior to the expiration date of the permit**, surveillance level chemical specific testing shall be conducted at a frequency of once per year (any calendar quarter). **Beginning twelve months prior to the expiration date of the permit,** screening level chemical specific testing shall be conducted at a frequency of four per year (four consecutive calendar quarters). Chemical specific testing shall be conducted on samples collected at the same time as those collected for whole effluent toxicity tests, where applicable. Chemical specific 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. Results shall be reported to the Department within thirty (30) days of the permittee receiving the data report from the laboratory conducting the testing**. For the purposes of DMR reporting, enter a *"NODI-9"* for no testing done this monitoring period or *"1"* for yes, testing done this monitoring period.**

    All mercury sampling shall be conducted in accordance with EPA's "clean sampling techniques" found in EPA Method 1669, Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels. All mercury analysis shall be conducted in accordance with EPA Method 1631, Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry.

B. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent shall not contain a visible oil sheen, foam or floating solids at any time 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.

SPECIAL CONDITIONS

C. DISINFECTION

If elemental chlorine or chlorine based compounds are utilized for disinfection, total residual chlorine in the effluent shall at no time cause any demonstrable harm to aquatic life in the receiving waters. The final effluent concentration of total residual chlorine, prior to dechlorination if present, must at all times be maintained at a concentration greater than method detection limits in order to provide effective reduction of bacteria to levels below those specified in Special Condition A*, "Effluent Limitations and Monitoring Requirements,"* of this permit.

D. TREATMENT PLANT OPERATOR

The waste water treatment facility must be operated by a person holding a **Grade V** 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. DISPOSAL OF SEPTAGE WASTE IN WASTE WATER TREATMENT FACILITY

During the effective period of this permit, the permittee is authorized to receive and introduce into the treatment process or solids handling stream **a maximum of 40,000 gallons per day** of septage, 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 quality violations. If such conditions do exist, the introduction of septage into the treatment process or solids handling stream 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 water treatment influent and test results.

4. Addition of septage into the treatment process or solids handling stream shall not cause the treatment facilities design capacity to be exceeded. If, for any reason, the treatment process or solids handling facilities become overloaded, introduction of septage into the treatment process or solids handling stream shall be reduced or terminated in order to eliminate the overload condition.

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

SPECIAL CONDITIONS

E. DISPOSAL OF SEPTAGE WASTE IN WASTE WATER TREATMENT FACILITY

6. 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.

F. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from the treatment plant Outfalls #001A and Outfall #001B and two (2) combined sewer overflow (CSO) outfalls (Outfalls #002 and #003) listed in Special Condition N of 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.

G. REOPENING OF PERMIT FOR MODIFICATIONS

Upon evaluation of the tests results in the 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 anytime 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 monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

H. MONITORING AND REPORTING

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report Forms provide by the Department and **postmarked on or before the thirteenth (13th) day of the month or hand-delivered to the Department's 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 Discharge Monitoring Report and all other reports required herein shall be submitted to the following address:

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

SPECIAL CONDITIONS

I. OPERATION & MAINTENANCE (O&M) PLAN

This facility shall have 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 waste water 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 EPA personnel upon request.

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

J. WET WEATHER FLOW MANAGEMENT PLAN

The treatment facility staff shall develop and maintain a Wet Weather 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.

On or before June 1, 2003, ***(PCS code 06799)*** the permittee shall submit to the Department for review and approval, a new or revised Wet Weather Management Plan which conforms to Department guidelines for such plans. The revised 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 during the events.

Once the Wet Weather Management Plan has been approved, the permittee shall review their plan annually and record any necessary changes to keep the plan up to date.

K. TOXICITY REDUCTION EVALUATION

Within thirty (30) days of the effective date of this permit, 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 and or threshold associated with aluminum, ammonia, cadmium, copper, silver and the water flea.

SPECIAL CONDITIONS

L. SCHEDULE OF COMPLIANCE – AMMONIA, TREATMENT PLANT UPGRADE

Beginning the effective date of this permit and lasting through May 31, 2005, the seasonal monthly average and daily maximum limits for total ammonia established in Special Condition A(1*) Effluent Limitations and Monitoring* Requirements, are not in effect, however the permittee is required to sample and report ammonia results as specified in the Special Condition.

Beginning June 1, 2005, ***(PCS code 05699)*** the seasonal monthly average and daily maximum limits for total ammonia established in Special Condition A(2*) Effluent Limitations and Monitoring Requirements,* become effective.

On or before May 31, 2003, ***(PCS code 03099)*** commence construction of the treatment plant upgrade.

Beginning May 31, 2003, ***(PCS code 03599)*** and each three months therefter, the permittee shall submit progress reports on the construction of the treatment plant upgrade. The report shall include any major changes to the schedule or scope of work of the original construction project.

On or before May 31, 2005, ***(PCS code 04599)*** the permittee shall substantially complete construction of the treatment plant upgrade with the exception of the rehabilitation (if necessary) of the existing sandfilter.

On or before June 1, 2005, ***(PCS code62099)*** the upgraded treatment plant shall be fully operational and begin treating waste waters conveyed to the plant by the collection system.

On or before November 1, 2005, *(PCS code 88899)* the permittee shall submit to the Department for a review, a report of the pilot testing of the effectiveness of the existing sandfilter to meet Tier II limitations. The report shall include, but not limited to, recommendations and conclusions on the effectiveness of the treatment capabilities and if deemed necessary, a scope of work and schedule to rehabilitate the sandfilter.

All submissions shall be directed to the attention of the Department's assigned compliance inspector at the address as shown in Special Condition H, *Monitoring and Reporting* of this permit.

SPECIAL CONDITIONS
M. 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 by a source introducing pollutants into the system at the time of permit issuance. For the purposes of this section, notice regarding substantial change 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 caused by the change in the quantity or quality of the waste water to be discharged from the treatment system.

N. CONDITIONS FOR COMBINED SEWER OVERFLOW (CSO)

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

1. The permittee is authorized to discharge from the following locations of CSO's (storm water/sanitary waste water) subject to the conditions and requirements contained herein:

Outfall #	Location	Receiving Water & Class
002	Jagger Mill Road	Mousam River, Class C
003	Bougie Avenue (Formerly Island Avenue)	Mousam River, Class C

2. Prohibited Discharges

   a) The discharge of dry weather flows is prohibited. All such discharges shall be reported to the Department in accordance with Standard Condition D (1) of this permit.

   b) No discharge shall occur as a result of mechanical failure, improper design or inadequate operation or maintenance.

   c) No discharges shall occur at flow rates below the maximum design capacities of the wastewater treatment facility, pumping stations or sewerage system.

SPECIAL CONDITIONS

N. CONDITIONS FOR COMBINED SEWER OVERFLOW (cont'd)

3. Narrative Effluent Limitations

   a) The effluent shall not contain a visible oil sheen, settled substances, foam, or floating solids at any time that impair the characteristics and designated uses ascribed to the classification of the receiving waters.

   b) The effluent shall not contain materials in concentrations or combinations that are hazardous or toxic to aquatic life; or which would impair the usage designated by the classification of the receiving waters.

   c) The discharge shall not impart color, turbidity, toxicity, radioactivity or other properties that cause the receiving waters to be unsuitable for the designated uses and other characteristics ascribed to their class.

   d) Notwithstanding specific conditions of this permit, the effluent by itself or in combination with other discharges shall not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

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

   The permittee shall implement CSO control projects in accordance with an approved CSO Master Plan and abatement schedule. The CSO Master Plan entitled*, "CSO Master Plan for the Sanford Sewerage District",* dated February 2000, and the abatement project schedule included in the District's letter *entitled "Resolution of Outstanding Issues and Request for Final Approval"* dated February 25, 2002, were approved on March 5, 2002.

   The abatement schedule may be amended from time to time based on mutual agreements between the SSD and the Department. The SSD must notify the department in writing prior to any proposed changes to the implementation schedule.

5. Nine Minimum Controls (NMC) (see Section 5 Chapter 570 of Department Rules)

   The permittee shall implement and follow the Nine Minimum Control documentation as approved by EPA on May 29, 1997. Work preformed on the Nine Minimum Controls during the year shall be included in the annual CSO Progress Report (see below).

SPECIAL CONDITIONS

N. CONDITIONS FOR COMBINED SEWER OVERFLOW (cont'd)

6. CSO Compliance Monitoring Program (see Section 6 Chapter 570 of Department Rules)

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

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

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

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

   Chapter 570 Section 8 lists requirements relating to any proposed addition of wastewater to the combined sewer system. Documentation of the new wastewater additions to the system and associated mitigating measures shall be included in the annual *CSO Progress Report* (see below). Reports must contain the volumes and characteristics of the wastewater added or authorized for addition and descriptions of the sewer system improvements and estimated effectiveness.

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

   By March 1 of each year ***(PCS code 33101)*** the permittee shall submit *CSO Progress Reports* covering the previous calendar year (January 1 to December 31). The CSO Progress Report shall include, but is not necessarily limited to, the following topics as further described in Chapter 570: CSO abatement projects, schedule comparison, progress on inflow sources, costs, flow monitoring results, CSO activity and volumes, nine minimum controls update, sewer extensions, and new commercial or industrial flows.

SPECIAL CONDITIONS

N. CONDITIONS FOR COMBINED SEWER OVERFLOW (cont'd)

The CSO Progress Reports shall be completed on a standard form entitled "Annual CSO Progress Report", furnished by the Department, and submitted in electronic form, if possible, to the following address:

CSO Coordinator
Department of Environmental Protection
Bureau of Land and Water Quality
Division of Engineering, Compliance and Technical Assistance
17 State House Station
Augusta, Maine 04333
e-mail: CSOCoordinator@state.me.us

9. Signs

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

SANFORD SEWERAGE DISTRICT
WET WEATHER SEWAGE DISCHARGE
CSO # AND NAME

10. Definitions

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

a. Combined Sewer Overflow - a discharge of excess waste water from a municipal or quasi-municipal sewerage system that conveys both sanitary wastes and storm water in a single pipe system and that is in direct response to a storm event or snowmelt.

b. Dry Weather Flows - flow in a sewerage system that occurs as a result of non-storm events or are caused solely by ground water infiltration.

c. Wet Weather Flows - flow in a sewerage system that occurs as a direct result of a storm event, or snowmelt in combination with dry weather flows.

SPECIAL CONDITIONS

O. INDUSTRIAL PRETREATMENT PROGRAM

1. Pollutants introduced into POTW's by a non-domestic source (user) shall not pass-through the publicly owned treatment works (POTW) or interfere with the operation or performance of the works.

   a. The permittee shall develop and enforce specific effluent limits (local limits) for Industrial User(s), and all other users, as appropriate, which together with appropriate changes in the POTW facilities or operation, are necessary to ensure continued compliance with the POTW's MEPDES permit or sludge use or disposal practices. Specific local limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond.

      Within 90 days of issuance of this permit, ***(PCS code 08799)*** the permittee shall prepare and submit a written technical evaluation to the Department analyzing the need to revise local limits. As part of this evaluation, the permittee shall assess how the POTW performs with respect to influent and effluent of pollutants, water quality concerns, sludge quality, sludge processing concerns/inhibition, bio-monitoring results, activated sludge inhibition, worker health and safety and collection system concerns. In preparing this evaluation, the permittee shall complete the attached form (Attachment B of this permit) with the technical evaluation to assist in determining whether existing local limits need to be revised. Justifications and conclusions should be based on actual plant data if available and should be included in the report. Should the evaluation reveal the need to revise local limits, the permittee shall complete the revisions within 120 days of notification by the Department and submit the revisions to the Department for approval. The permittee shall carry out the local limits revisions in accordance with EPA's Guidance Manual for the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program (December, 1987).

2. The permittee shall implement the Industrial Pretreatment Program in accordance with the legal authorities, policies, procedures, and financial provisions described in the permittee's approved Pretreatment Program, and the General Pretreatment Regulations, found at 40 CFR 403 and Department rule Chapter 528. At a minimum, the permittee must perform the following duties to properly implement the Industrial Pretreatment Program (IPP):

   a. Carry out inspection, surveillance, and monitoring procedures which will determine, independent of information supplied by the industrial user, whether the industrial user is in compliance with the Pretreatment Standards. At a minimum, all significant industrial users shall be sampled and inspected at the frequency established in the approved IPP but in no case less than once per year and maintain adequate records.

SPECIAL CONDITIONS

O. INDUSTRIAL PRETREATMENT PROGRAM (cont'd)

b. Issue or renew all necessary industrial user control mechanisms within 90 days of their expiration date or within 180 days after the industry has been determined to be a significant industrial user.

c. Obtain appropriate remedies for noncompliance by an industrial user with any pretreatment standard and/or requirement.

d. Maintain an adequate revenue structure for continued implementation of the Pretreatment Program.

e. The permittee shall provide the Department with an annual report describing the permittee's pretreatment program activities for the twelve month period ending 60 days prior to the due date in accordance with federal regulation found at 40 CFR 403.12(i) and Department rule Chapter 528(12)(I). The **annual report** ***(PCS code 61012)*** shall be consistent with the format described in Attachment C of this permit **and shall be submitted no later than December 1 of each calendar year.**

f. The permittee must obtain approval from the Department prior to making any significant changes to the industrial pretreatment program in accordance with federal regulation found at 40 CFR 403.18(c) and Department rule Chapter 528(18).

g. The permittee must assure that applicable National Categorical Pretreatment Standards are met by all categorical industrial users of the POTW. These standards are published in the federal regulations found at 40 CFR 403 et. seq.

h. The permittee must modify its pretreatment program to conform to all changes in the federal regulations and State rules that pertain to the implementation and enforcement of the industrial pretreatment program. **By December 1, 2003**, ***(PCS code 50999)*** the permittee must provide the Department in writing, proposed changes (if applicable) to the permittee's pretreatment program deemed necessary to assure conformity with current federal regulations and State rules. At a minimum, the permittee must address in its written submission the following areas: (1) Enforcement response plan; (2) revised sewer use ordinances; and (3) slug control evaluations. The permittee will implement these proposed changes pending the Department's approval under federal regulation 40 CFR 403.18 and Department rule Chapter 528(18). This submission is separate and distinct from any local limits analysis submission described in section 1(a) above.

ATTACHMENT A

SALMONID SURVIVAL (ACUTE) AND GROWTH (CHRONIC) TESTS

The salmonid survival and growth tests shall follow the procedures for the fathead minnow larval survival and growth tests detailed in EPA's freshwater acute and chronic methods manuals (see references) with the following modifications:

Species -	Brook trout (*Salvelinus fontinalis*), or other salmonid approved by the Department.
Age and size -	Less than 12 months old, largest not more than 150% that of the smallest.
Loading Rate -	<0.5 g/L/d
Feeding Rate -	5% of body weight 3 times daily (15%/d)
Temperature -	$15^{o} + 1^{o}C$.
Dissolved Oxygen -	>6.5 mg/L (aeration if needed with large bubbles (>1 mm diam) at a rate of <100/min.
Dilution Water -	Receiving water upstream of discharge or other ambient water approved by the Department.
Dilution Series -	A minimum of 5 effluent concentrations (including the instream waste concentration at 7Q10 river flow and monthly average discharge flow limit for chronic test, and 2Q10 river flow and daily maximum discharge flow for acute test); a receiving water control; and control of known suitable water quality.
Exception -	Where permit limits exceed 100% (LC50>100%,NOEC>100%, etc.) an undiluted (100%) effluent concentration may be used instead of the 5 dilutions.
Duration -	Acute = 48 hours; Chronic = 10 days minimum.
Test acceptability -	Acute – minimum of 90% survival in 2 days. Chronic – minimum of 80% survival in 10 days; minimum growth 20 mg/gm/d dry weight in controls, (individual fish weighed, dried at $100^{o}C$ to constant weight and weighed to 3 significant figures).

References:

a. Lewis, P.A. et al., 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. Weber, C.I. et al., 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.

ATTACHMENT B

RE-ASSESSMENT OF TECHNICALLY BASED INDUSTRIAL DISCHARGE LIMITS

Pursuant to federal regulation 40 CFR §122.21(j)(4) and Department rule Chapter 528, all Publicly Owned Treatment Works (POTWs) with approved Industrial Pretreatment Programs (IPPs) shall provide the Department with a written evaluation of the need to revise local industrial discharge limits under federal regulation 40 CFR §403.5(c)(1) and Department rule Chapter 528(6).

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

Please read the directions below before filling out the attached form.

ITEM I.

* In Column (1), list what your POTW's influent flow rate was when your existing TBLLs were calculated. In Column (2), list your POTW's present influent flow rate. Your current flow rate should be calculated using the POTW's average daily flow rate from the previous 12 months.

* In Column (1) list what your POTW's SIU flow rate was when your existing TBLLs were calculated. In Column (2), list your POTW's present SIU flow rate.

* In Column (1), list what dilution ratio and/or 7Q10 value was used in your previous NPDES permit. In Column (2), list what dilution ration and/or 7Q10 value is presently being used in your new/reissued MEPDES permit.

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

* In Column (1), list the safety factor, if any, that was used when your existing TBLLs were calculated.

* In Column (1), note how your bio-solids were managed when your existing TBLLs were calculated. In Column (2), note how your POTW is presently disposing of its biosolids and how your POTW will be disposing of its biosolids in the future.

ITEM II.

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

ITEM III.

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

ITEM IV.

* Since your existing TBLLs were calculated, identify the following in detail:

  (1) if your POTW has experienced any upsets, inhibition, interference or pass-through as a result of an industrial discharge.

  (2) if your POTW is presently violating any of its current MEPDES permit limitations - include toxicity.

ITEM V.

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

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

* Based on your existing TBLLs, as presented in Item II., list in Column (2) each Maximum Allowable Industrial Headworks Loading (MAIHL) value corresponding to each of the local limits derived from an applicable environmental criteria or standard, e.g. water quality, sludge, MEPDES, inhibition, etc. For each pollutant, the MAIHL equals the calculated Maximum Allowable Headwork Loading (MAHL) minus the POTW's domestic loading source(s). For more information, please see p.,3-28 in EPA's *Guidance Manual on the Development and Implementation of Local Limits Under the Pretreatment Program, 12/87*.

ITEM VI.

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

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

* List in Column (2A) what the Water Quality Standards (WQS) were (in micrograms per liter) when your TBLLs were calculated, please note what hardness value was used at that time. Hardness should be expressed in milligram per liter of Calcium Carbonate.

  List in Column (2B) the current WQSs or "Chronic Gold Book" values for each pollutant multiplied by the dilution ratio used in your new/reissued MEPDES permit. For example, with a dilution ratio of 25:1 at a hardness of 20 mg/l - Calcium Carbonate (copper's chronic WQS equals 2.99 ug/l) the chronic MEPDES permit limit for copper would equal 75 ug/l.

ITEM VII.

* In Column (1), list all pollutants (in micrograms per liter) limited in your new/reissued MEPDES permit. In Column (2), list all pollutants limited in your old/expired NPDES permit.

ITEM VIII.

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

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

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

In general, please be sure the units reported are correct and all pertinent information is included in your evaluation. If you have any questions, please contact your pretreatment representative at the Maine Department of Environmental Protection, Bureau of Land & Water Quality, Division of Engineering, Compliance & Technical Assistance, State House Station #17, Augusta, ME. 04333. The telephone number is (207) 287-3901.

REASSESSMENT OF TECHNICALLY BASED LOCAL LIMITS

(TBLLs)

POTW Name & Address : _____

MEPDES Permit # : _____

Date the Department approved current TBLLs : _____

Date the Department approved current Sewer Use Ordinance : _____

ITEM I.

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

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

ITEM II.

EXISTING TBLLs

POLLUTANT	NUMERICAL LIMIT (mg/l) or (lb/day)	POLLUTANT	NUMERICAL LIMIT (mg/l) or (lb/day)

ITEM III.

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

ITEM IV.

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

If yes, explain. _____
_____

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

If yes, explain. _____
_____

ITEM V.

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

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

ITEM VI.

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

	Column (1) Effluent Data Analyses		**Columns (2A)** Water Quality Criteria (Gold Book)	**(2B)**
	Maximum	Average	From TBLLs	Today
	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Pollutant				
Arsenic	_____	_____	_____	_____
Cadmium*	_____	_____	_____	_____
Chromium*	_____	_____	_____	_____
Copper*	_____	_____	_____	_____
Cyanide	_____	_____	_____	_____
Lead*	_____	_____	_____	_____
Mercury	_____	_____	_____	_____
Nickel*	_____	_____	_____	_____
Silver	_____	_____	_____	_____
Zinc*	_____	_____	_____	_____
Other (List)				
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

*Hardness Dependent (mg/l - CaCO3)

ITEM VII.

In Column (1), identify all pollutants limited in your new/reissued MEPDES permit. In Column (2), identify all pollutants that were limited in your old/expired NPDES permit.

Column (1) NEW PERMIT		**Column (2)** OLD PERMIT	
Pollutants	Limitations (ug/l)	Pollutants	Limitations (ug/l)

ITEM VIII.

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

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

ATTACHMENT C

MEPDES PERMIT REQUIREMENT

FOR
INDUSTRIAL PRETREATMENT ANNUAL REPORT

1. A narrative description (paragraph) of program effectiveness including the following:

   - present and proposed changes to the program
   - Funding
   - Staffing
   - Ordinances
   - Regulations
   - Statutory authority
   - Other

   Our pretreatment program is very effective as indicated by the SIU compliance rate and the reduction in pollutant loading to the POTW.

   The program is adequately funded and staffed to provide for annual training and completion of our regulatory responsibilities.

   No changes have been made, or are proposed, to Sanford's Sewer Use Ordinance. The SUO provides adequate statutory authority to enforce in Local, State and Federal courts.

2. The date of the latest adoption of Local Limits and a statement as to whether the municipality is under a State or Federal compliance schedule that includes steps to be taken to revise Local Limits.

   If yes, Compliance Schedule; if no, schedule not needed.

   Sanford's Local Limits were last adopted (by local authority) on _____ and _____ is under no State or Federal compliance schedule that includes steps to be taken to revise Local Limits.

3. A description of actions taken to reduce the incidence of violations by SIU's;

   Example: Inspections – Notifications – Information/Education

4. A description of monitoring, sewer inspections and evaluations which were done during the past year to detect Interference and Pass Through, specifying parameters and frequencies;

   Example: Evaluations/investigations as a result of Monitoring, Sewer Inspections, and Evaluations, Influent – Effluent results, Spills, Dumps, Toxicity, or Unusual events.

5. A detailed description of all Interference and Pass Through that occurred during the past year; [statement of:

Event, Parameter, Violation, Cause, IU, POTW action, IU action, Result (see NOV #)].

_____ experienced no events of Interference or Pass- Through in this reporting period. If "Yes" then describe.

6. A thorough description of all investigations into Interference and Pass-Through during the past year;

   A paragraph: Violation, Problem, Steps to resolve, Result.

   (same as #5 or describe investigations.)

7. An updated list of all industrial users by category (40 CFR 403.8(f)(2)(i), indicating compliance or non- compliance with the following:

   - baseline monitoring reporting requirements for newly promulgated industries
   - compliance status reporting requirements for newly promulgated industries
   - periodic (semi-annual) monitoring reporting requirements - categorical standards, and
   - local limits

   Example:

SIU	New Promulgated BMR/Compliance (Y/N) (Y/N)	Cat Limits Compliance (Y/N)	Local Limits Compliance (Y/N)	Semi-annual Reports Compliance (Y/N)

8. A summary of compliance and enforcement activities during the preceding year including a:

   - list of SIU's inspected by the POTW (dates, compliance status),
   - list of SIU's sampled by the POTW (dates, compliance status),

   Example:

SIU	Inspected	Sampled/self Sampled/POTW	Compliance Y/N

   - list of SIU's to which compliance schedules were issued,
   - [SIU] - Violation - Compliance - Schedule

   N/A or schedule plus Progress Reporting Dates]

   - summary list of NOV's written to SIU's by name [statement],
   - summary list of AO's written to SIU's by name [statement],

- list of criminal and/or civil suits filed by SIU, [usually a simple statement]
- list of penalty amounts obtained (by SIU) [a statement].

9. NOTE: Some items in numbers 9 & 10 may be combined in a chart, or charts. Be sure that any charts are logical, not cluttered, and don't contain an unreasonable amount of information.

   Any violations should be shown separately, in summary, for each item.

   List of violating industries required to be published in a local newspaper (40 CFR 403.8(f)(2)(vii). [Statement]

10. A summary of all pollutant analytical results for:

    - Influent [Annual average – show violations]
    - Effluent [Annual average – show violations]
    - Sludge [Annual average– show violations]
    - Toxicity/Bioassay [Annual Average – show violations]

    - comparison of influent sampling results versus threshold inhibitory concentrations for the POTW's wastewater treatment system.

    - comparison of effluent sampling results versus water quality standards, considering the permitted dilution factor of the POTW.

    NOTE: The sampling program shall be as described below OR any similar sampling program described in the NPDES permit.

    - At a minimum, annual sampling and analysis of/ the influent and effluent of the POTW's wastewater treatment plant shall be conducted on the following pollutants:

    Example:

    Influent Inhibition Effluent AWC

Acute Chronic

- Total Cadmium
- Total Chromium
- Total Copper
- Total Lead
- Total Mercury (Methods 1669 & 1631)
- Total Nickel
- Total Silver
- Total Zinc
- Total Cyanide
- Total Arsenic

The sampling program shall consist of one 24-hour flow-proportioned composite that is representative of the flow received by the POTW. The composite shall consist of accurately flow-proportioned grab samples taken over a discharge day if the samples are collected manually, or shall consist of a minimum of 48 accurately flow-proportioned samples if an automatic sampler is used. Sampling and preservation shall be according to 40 CFR part 136.