

May 30, 2008

Mr. Brent Dickey  
Superintendent  
Skowhegan Water Pollution Control Facility  
90 Water Street  
Skowhegan, Maine 04976

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0100625  
Maine Waste Discharge License (WDL) Application #W002645-5L-F-R  
**Final Permit/License**

Dear Brent:

Enclosed please find a copy of your **final** MEPDES permit and 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 permit/license 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 the 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

**IN THE MATTER OF**

TOWN OF SKOWHEGAN ) MAINE POLLUTANT DISCHARGE  
PUBLICLY OWNED TREATMENT WORKS ) ELIMINATION SYSTEM PERMIT  
SKOWHEGAN, SOMERSET COUNTY, MAINE ) AND  
ME0100625 ) WASTE DISCHARGE LICENSE  
W002645-5L-F-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 SKOWHEGAN (Town hereinafter), with its supportive data, agency review comments, and other related material on file and finds the following facts:

**APPLICATION SUMMARY**

The Town has submitted a timely and complete application to the Department for renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0100625/Waste Discharge License (WDL) #W002645-5L-E-R (permit hereinafter) which was issued on April 25, 2003 and expired on April 25, 2008. The 4/25/03 permit authorized the discharge of up to a monthly average flow of 1.65 million gallons per day (MGD) of secondary treated sanitary waste waters from a municipal waste water treatment facility to the Kennebec River, Class B, in Skowhegan, Maine. The 4/25/03 permit also authorized the discharge of primary treated waste waters when the instantaneous flow rate through the primary clarifiers exceeds 5.0 MGD and authorized the discharge of an unspecified quantity of untreated combined sanitary and storm water from nine (9) combined sewer overflow (CSO) outfalls to the Kennebec River, Class B in Skowhegan, Maine.

**PERMIT SUMMARY**

**This permitting action is carrying forward all the terms and conditions of the 4/25/03 permitting action except that this permit;**

1. Reducing the seasonal (June – September) monitoring frequency for total phosphorus from 1/Week to 1/Month.
2. Increasing the quantity of septage the facility is authorized to receive from 7,500 gpd to 10,000 gpd.
3. CSO-Related Bypasses of Secondary Treatment- For the purposes of this permitting action, this term refers to structures and or processes at the waster water treatment facility that provide equivalent to primary treatment and disinfection of waste waters that bypass the biological treatment portion of the facility in an effort to mitigate the discharge of untreated combined sanitary waste waters and storm water from the nine CSOs listed in Special Condition K of this permit.

## CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated April 29, 2008 and subject to the Conditions listed below, the Department makes the following CONCLUSION:

### Secondary Treated Waste Waters and CSO-Related Bypasses of Secondary Treatment:

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 MRS 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 discharges (including the nine CSO's and the CSO related Bypasses of Secondary Treatment) will be subject to effluent limitations that require application of best practicable treatment.

**ACTION**

THEREFORE, the Department APPROVES the application of the TOWN OF SKOWHEGAN, to discharge up to a monthly average flow of 1.65 million gallons per day (MGD) of secondary treated sanitary waste waters and an unspecified quantity of excess combined sanitary and storm water receiving primary treatment only from a municipal waste water treatment facility and untreated combined sanitary and storm water from nine (9) combined sewer overflow (CSO) outfalls to the Kennebec River, Class B, in Skowhegan. The discharges shall be 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 2<sup>nd</sup> DAY OF JUNE, 2008.

COMMISSIONER OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
David P. Littell, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application March 28, 2008.

Date of application acceptance March 28, 2008.

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

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

**SPECIAL CONDITIONS**

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

- Beginning the effective date of the permit, the permittee is authorized to discharge secondary treated waste waters to the Kennebec River. Such treated waste water discharges shall be limited and monitored by the permittee as specified below.

**SECONDARY TREATED WASTE WATERS - OUTFALL #001A**

Effluent Characteristic	Discharge Limitations						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 [50050]	1.65 MGD <sub>[03]</sub>	---	Report (MGD)	---	---	---	Continuous <sub>[99/99]</sub>	Recorder <sub>[RC]</sub>
Biochemical Oxygen Demand (BOD <sub>5</sub> ) [00310]	413 lbs/Day <sub>[26]</sub>	619 lbs/Day <sub>[26]</sub>	Report lbs/Day <sub>[26]</sub>	30 mg/L <sub>[19]</sub>	45 mg/L <sub>[19]</sub>	50 mg/L <sub>[19]</sub>	2/Week <sub>[02/07]</sub>	Composite <sub>[24]</sub>
BOD <sub>5</sub> % Removal <sup>(1)</sup> [81010]	---	---	---	85% <sub>[23]</sub>	---	---	1/Month <sub>[01/30]</sub>	Calculate <sub>[CA]</sub>
Total Suspended Solids (TSS) [00530]	413 lbs/Day <sub>[26]</sub>	619 lbs/Day <sub>[26]</sub>	Report lbs/Day <sub>[26]</sub>	30 mg/L <sub>[19]</sub>	45 mg/L <sub>[19]</sub>	50 mg/L <sub>[19]</sub>	2/Week <sub>[02/07]</sub>	Composite <sub>[24]</sub>
TSS % Removal <sup>(1)</sup> [81011]	---	---	---	85% <sub>[23]</sub>	---	---	1/Month <sub>[01/30]</sub>	Calculate <sub>[CA]</sub>
Settleable Solids [00545]	---	---	---	---	---	0.3 ml/L <sub>[25]</sub>	1/Day <sub>[01/01]</sub>	Grab <sub>[GR]</sub>
<i>E. coli</i> Bacteria <sup>(2)</sup> [31633] (May 15 – September 30)	---	---	---	64/100 ml <sup>(3)</sup> <sub>[13]</sub>	---	427/100 ml <sub>[13]</sub>	2/Week <sub>[02/07]</sub>	Grab <sub>[GR]</sub>
Total Residual Chlorine [50060]	---	---	---	---	---	1.0 mg/L <sub>[19]</sub>	1/Day <sub>[01/01]</sub>	Grab <sub>[GR]</sub>
Total Phosphorus [00665] (June 1 – September 30)	Report lbs/Day <sub>[26]</sub>	---	Report lbs/Day <sub>[26]</sub>	Report mg/L <sub>[19]</sub>	---	Report mg/L <sub>[19]</sub>	1/Month <sub>[01/030]</sub>	Composite <sub>[24]</sub>
pH (Std. Units) [00400]	---	---	---	---	---	6.0-9.0 <sub>[12]</sub>	1/Day <sub>[01/01]</sub>	Grab <sub>[GR]</sub>

**SPECIAL CONDITIONS**

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

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

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
<b>Whole Effluent Toxicity<sup>(4)</sup></b>						
<b>Acute – NOEL</b>						
<i>Ceriodaphnia dubia</i> (Water flea) [TDA3B]	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
<i>Salvelinus fontinalis</i> (Brook trout) [TDA6F]	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
<b>Chronic – NOEL</b>						
<i>Ceriodaphnia dubia</i> (Water flea) [TBP3B]	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
<i>Salvelinus fontinalis</i> (Brook trout) [TBQ6F]	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
Analytical chemistry <sup>(5)</sup> [51168]	---	---	---	Report ug/L [28]	1/Quarter [01/90]	Composite/Grab [24]
Priority Pollutant <sup>(6)</sup> [50008]	---	---	---	Report ug/L [28]	1/Year [01/YR]	Composite/Grab [24]

**SPECIAL CONDITIONS**

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

2. Beginning the effective date of the permit, the permittee is authorized to bypass secondary treatment. Such CSO-related bypasses of secondary treatment may only occur in response to wet weather events when the flow exiting the primary clarifiers exceeds an instantaneous flow rate of 3,472 gallons per minute (5.0 MGD), or in accordance with the most current approved Wet Weather Flow Management Plan and shall be monitored and reported as specified below. Approval of said bypass will be reviewed and may be modified or terminated pursuant to Special Condition O, *Reopening of Permit For Modification*, if there is a substantial change in the volume or character of pollutants in the collection/treatment system.

**CSO-RELATED BYPASSES OF SECONDARY TREATMENT - OUTFALL #001B (Internal Waste Stream)**

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	<u>Monthly Average</u> as specified	<u>Daily Maximum</u> as specified	<u>Monthly Average</u> as specified	<u>Daily Maximum</u> as specified	<u>Measurement Frequency</u> as specified	<u>Sample Type</u> as specified
Flow, MGD <small>[50050]</small>	Report (Total MGD) <small>[03]</small>	Report (MGD) <small>[03]</small>	---	---	Continuous <sup>[99/99]</sup>	Recorder <sub>[RC]</sub>
Surface Loading Rate <sup>(7)</sup> <small>[50997]</small>	---	Report (gpd/sf) <small>[07]</small>	---	---	1/Discharge Day <sup>(8)</sup> <small>[01/DD]</small>	Calculate <sub>[CA]</sub>
Overflow Use, Occurrences <sup>(9)</sup> <small>[74062]</small>	---	---	Report (# of days) <small>[93]</small>	---	1/Discharge Day <sup>(8)</sup> <small>[01/DD]</small>	Record Total <sub>[RT]</sub>
BOD5 <sup>(9)</sup> <small>[00310]</small>	---	Report mg/L <small>[19]</small>	---	Report mg/L <small>[19]</small>	1/Discharge Day <sup>(8)</sup> <small>[01/DD]</small>	Composite <sub>[24]</sub>
BOD5 % Removal <sup>(10)</sup> <small>[81010]</small>	---	---	Report (%) <sub>[23]</sub>	---	1/Discharge Day <sup>(8)</sup> <small>[01/DD]</small>	Calculate <sub>[CA]</sub>
TSS <sup>(9)</sup> <small>[00530]</small>	---	Report mg/L <small>[19]</small>	---	Report mg/L <small>[19]</small>	1/Discharge Day <sup>(8)</sup> <small>[01/DD]</small>	Composite <sub>[24]</sub>
TSS % Removal <sup>(10)</sup> <small>[81011]</small>	---	---	Report (%) <sub>[23]</sub>	---	1/Discharge Day <sup>(8)</sup> <small>[01/DD]</small>	Calculate <sub>[CA]</sub>
<i>E. coli</i> Bacteria <sup>(2,9)</sup> <small>[31633]</small> (May 15 – September 30)	---	---	---	427/100 ml <small>[13]</small>	1/Discharge Day <sup>(8)</sup> <small>[01/DD]</small>	Grab <sub>[GR]</sub>
Total Residual Chlorine <sup>(9)</sup> <small>[50060]</small>	---	---	--	1.0 mg/L <small>[19]</small>	1/Discharge Day <sup>(8)</sup> <small>[01/DD]</small>	Grab <sub>[GR]</sub>

## SPECIAL CONDITIONS

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

Footnotes:

**Sampling Locations:**

**Influent sampling** for flow, BOD<sub>5</sub> and TSS shall be sampled just downstream of the bar rack but before grit removal.

**Effluent receiving secondary treatment** (Outfall #001A) shall be sampled for all parameters after the chlorine contact chamber on a year-round basis.

**Effluent receiving primary treatment** (Outfall #001B) shall be sampled for flow, BOD<sub>5</sub>, TSS, *E. coli* bacteria and total residual chlorine after the storm flow chlorine contact chamber and prior to combining with the secondary treated effluent being discharged via Outfall #001A.

Any change in sampling location(s) other than those specified above must be reviewed and approved by the Department in writing.

**Sampling** – Sampling and analysis must be conducted in accordance with; a) methods approved in 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. Samples that are sent to another POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S.A. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (last amended February 13, 2000).

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.

## SPECIAL CONDITIONS

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

#### Footnotes:

1. **Percent removal** - The treatment facility shall maintain a minimum of 85 percent removal of both BOD<sub>5</sub> and TSS for all waste waters receiving a secondary level of treatment. The percent removal shall be based on a monthly average calculation using influent and effluent concentrations. The percent removal shall be waived when the monthly average influent concentration is less than 200 mg/L. For instances when this occurs, the facility may report "NODI-A" on the monthly Discharge Monitoring Report.
2. ***E. coli* bacteria** - Limits are seasonal and apply between May 15 and September 30 of each calendar year. The Department reserves the right to require disinfection on a year-round basis 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.
4. **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 dilution of 0.5% and 0.1% 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.

**Screening level testing** - Beginning twelve months prior to the expiration date of the permit and every five years thereafter, the permittee shall initiate screening level WET tests at a frequency of once per year (any calendar quarter). Testing shall be conducted on the water flea (*Ceriodaphnia dubia*) and the brook trout (*Salvelinus fontinalis*). 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, 4th 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, 3<sup>rd</sup> Edition, October 2002, EPA-821-R-02-012.

## 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 after receiving the results from the laboratory 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 0.5% and 0.1%, respectively.

**The permittee is also required to analyze the effluent for the nine (9) parameters specified in the WET chemistry section, and the twelve (12) parameters specified in the analytical chemistry section, of the form in Attachment A of this permit each time a WET test is performed.**

5. **Analytical chemistry** – Refers to a suite of twelve (12) chemical tests that consist of 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.

**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 analytical chemistry testing at a minimum frequency of once per calendar quarter (1/Quarter) for four consecutive calendar quarters.

6. **Priority pollutant testing** – Priority pollutants are those parameters listed by Department rule, Chapter 525, Section 4(IV).

**Screening level testing** - Beginning 12 months prior to permit expiration and lasting through permit expiration and every five years thereafter, the permittee shall conduct screening level priority pollutant testing at a minimum frequency of once per year (1/Year). It is noted Chapter 530 does not require routine surveillance level priority pollutant testing in the first four years of the term of this permit.

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 RLs of detection.

## SPECIAL CONDITIONS

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

#### Footnotes:

Priority pollutant and analytical chemistry 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 after receiving the test results from the laboratory 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 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. See Attachment B of this permit for the Department's report form for mercury results.

7. **Surface Overflow Rate** – For the purposes of this permitting action is the average hourly rate per overflow occurrence in a discharge day. The permittee should provide this information to establish data on the effectiveness of peak flows receiving primary treatment only.
8. **Discharge Day** - A discharge day is defined as a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.
9. **Overflow occurrence** – An overflow occurrence is defined as the period of time between initiation and cessation of flow from the storm flow chlorine contact tank. Overflow occurrences are reported in discharge days.

Multiple intermittent overflow occurrences in one discharge day are reported as one overflow occurrence and are sampled according to the measurement frequency specified. One composite sample for BOD5 and total suspended solids shall be collected per discharge day if a continuous overflow occurrence is greater than 60 minutes in duration or intermittent occurrences totaling 120 minutes during a 24-hour period. Composite samples shall be flow proportioned from all intermittent overflows during that 24-hour period. Samples for BOD and TSS are only required to be collected for events that occur between 7:00 AM Sunday – 7:00 AM Friday. Only one grab sample for *E. coli* bacteria

## SPECIAL CONDITIONS

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

#### Footnotes:

and total residual chlorine is required to be collected per discharge day if a continuous overflow occurrence is greater than 60 minutes in duration or intermittent occurrences totaling 120 minutes during a 24-hour period and are only required if the event(s) occur between 7:00 AM and 4:00 PM (Monday – Friday).

For overflow occurrences exceeding one day in duration, sampling shall be performed each day of the event according to the measurement frequency specified. For example, if an overflow occurs for all or part of three discharge days, the permittee shall take three composite samples for BOD and TSS, initiating samples at the start of the overflow and each subsequent discharge day thereafter and terminating samples at the end of the discharge day or the end of the overflow occurrence. Samples shall be flow proportioned.

- 10. BOD<sub>5</sub> and TSS** - The permittee shall analyze the influent to the primary clarifiers and the effluent from the storm flow chlorine contact tank for BOD and TSS during the discharge of treated excess combined sewer waste waters from Outfall 001B and report the monthly average percent (%) removal on the monthly Discharge Monitoring Report (DMR). As an attachment to the DMR, the permittee shall report the individual BOD and TSS test results used to calculate the percent removal rates reported. For the purpose of calculating BOD<sub>5</sub> and TSS percent (%) removals on the treated excess combined sewer waste water, the influent sample shall only be collected during overflow occurrences.

For facilities whose normal staffing hours do not include weekends, or whose weekend staffing time is limited to minimum facility oversight (i.e. permit required daily grab sample analysis, setting up composite samplers, or performing routine observations of treatment plant functions), bypass BOD<sub>5</sub>/Total Suspended Solids composite samples collected after one hour before the end of normal staffing hours on Friday through 22 hours before normal staffing time on Monday may be held beyond the maximum holding time of twenty-four hours and analyzed as soon as possible during staffed hours on the Monday following the weekend. Composite samples with extended holding times must remain refrigerated until analyzed, and must conform to any other bypass sampling procedures as defined in this document. Any reported extended holding time composite sample results must be flagged to distinguish them from samples that were analyzed within the proper holding time.

## **SPECIAL CONDITIONS**

### **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 discharges 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 a 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 Total Residual Chlorine (TRC) cannot be met 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 be sufficient to leave a TRC concentration that will effectively reduce bacteria to levels below those specified in Special Condition A, "*Effluent Limitations and Monitoring Requirements*", above.

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

The treatment facility must be operated by a person holding a **Grade III** certificate (or Registered Maine Professional Engineer) pursuant to *Sewerage Treatment Operators*, Title 32 M.R.S.A., Sections 4171-4182 and *Regulations for Wastewater Operator Certification*, 06-096 CMR 531 (effective May 8, 2006). 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. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on March 28, 2008; 2) the terms and conditions of this permit; and 3) from Outfall #001A and nine (9) combined sewer overflow outfalls listed in Special Condition K, *Combined Sewer Overflows*, of this permit. Discharges of waste water from any other point source are not authorized under this permit, and shall be reported in accordance with Standard Condition B(5), *Bypasses*, of this permit.

### G. 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; and
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.

### H. 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 up to **a maximum of 10,000 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 the 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.

## SPECIAL CONDITIONS

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

3. 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.
4. Holding tank waste water shall not be recorded as septage but should be reported in the treatment facility's influent flow.
5. During overflow occurrences of the secondary bypass, no septage shall be added to the treatment process or solids handling facilities.
6. 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.
7. The 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.

### I. 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.

**Within 90 days of completion of new and or substantial upgrades of the waste water treatment facility**, 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 at least annually** and record any necessary changes to keep the plan up to date.

**SPECIAL CONDITIONS**

**J. 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 transport, 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, and 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.

**K. COMBINED SEWER OVERFLOWS (CSO's)**

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

1. CSO locations

<u>Outfall #</u>	<u>Location</u>	<u>Receiving Water &amp; Class</u>
002	Water Street – Pump Station	Kennebec River, Class B
003	Footbridge-North End –Interceptor	Kennebec River, Class B
004	Joyce Street-Interceptor	Kennebec River, Class B
005	Elm Street – Pump Station	Kennebec River, Class B
006	Dinsmore Street-Pump Station	Kennebec River, Class B
007	Water Street/ High Street	Kennebec River, Class B
008	Footbridge-South End –Interceptor	Kennebec River, Class B
009	Island Avenue Ejector Station	Kennebec River, Class B
010	Water Street/North Avenue	Kennebec River, Class B

## SPECIAL CONDITIONS

### K. COMBINED SEWER OVERFLOWS (CSO's)(cont'd)

#### 2. Prohibited Discharges

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

#### 3. Narrative Effluent Limitations

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

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

The permittee shall implement CSO control projects in accordance with an approved CSO Master Plan entitled *Town of Skowhegan CSO Mater Plan And Waste Water Treatment Plant Upgrade, Proposed Implementation Schedule*, dated December 12, 1997, the updated document entitled "*Combined Sewer Overflow Facilities Plan Update*," dated December 2003, and the most recently revised implementation schedule dated, June 21, 2004 and approved by the Department July 8, 2004. The abatement schedule may be amended from time to time based on mutual agreements between the permittee and the Department. The permittee must notify the Department in writing prior to any proposed changes to the implementation schedule.

## SPECIAL CONDITIONS

### K. COMBINED SEWER OVERFLOWS (CSO's)(cont'd)

**On or before December 31, 2009**, (*PCS Code 04599*), the permittee shall complete construction of the CSO abatement projects in the drainage areas contributing to CSOs #007, Water Street/ High Street, and #006, Dinsmore Street Pump Station, as approved by the Department pursuant to the current Master Plan and eliminate these CSOs.

**On or before April 30, 2012**, (*PCS Code 06699*), the permittee shall submit to the Department for review and approval an Updated CSO Master Plan and an implementation schedule of additional abatement projects, if necessary.

To modify the dates and or projects specified above (but not dates in the Master Plan), the permittee must file an application with the Department to formally modify this permit. The work items identified in the abatement schedule may be amended from time to time based upon approval by the Department. The permittee must notify the Department in writing prior to any proposed changes to the implementation schedule.

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

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

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

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

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

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

**SPECIAL CONDITIONS**

**K. COMBINED SEWER OVERFLOWS (CSO's)(cont'd)**

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

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

8. Annual CSO Progress Reports (see Section 7 of Chapter 570 of Department Rules) **By March 1 (PCS Code 11099)**, of each year 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.

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 to the following address:

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

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:

**TOWN OF SKOWHEGAN  
WET WEATHER  
SEWAGE DISCHARGE  
CSO # AND NAME**

## **SPECIAL CONDITIONS**

### **K. COMBINED SEWER OVERFLOWS (CSO's)(cont'd)**

#### 10. Definitions

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

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

### **L. CHAPTER 530.5(B)(7)(c)(iii) CERTIFICATION**

**By December 31 of each calendar year, [PCS code 95799]** the permittee shall provide the Department with a certification describing any of the following that have occurred since the effective date of this permit:

1. Increases in the number, types and flows of industrial, commercial or domestic discharges to the facility that in the judgment of the Department may cause the receiving water to become toxic.
2. Changes in the condition or operations of the facility that may increase the toxicity of the discharge.
3. Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge.
4. Increases in the type or volume of hauled wastes accepted by the facility.
5. The Department reserves the right to reinstate annual (surveillance level) testing or other toxicity testing if new information becomes available that indicates the discharge may cause or have a reasonable potential to cause exceedences of ambient water quality criteria/thresholds.

## SPECIAL CONDITIONS

### M. MONITORING AND REPORTING

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

Department of Environmental Protection  
Central Maine Regional Office  
Bureau of Land and Water Quality  
Division of Water Quality Management  
17 State House Station  
Augusta, Maine 04333

Additional monthly reporting requires submitting (in electronic version preferably) a *DEP-49-CSO Form For Use With Non-Dedicated CSO Primary Clarifiers*" (see Attachment D of this permit) to:

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

### N. 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 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.

**SPECIAL CONDITIONS**

**O. 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 respects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

**MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT****AND****MAINE WASTE DISCHARGE LICENSE****FACT SHEET**Date: **April 29, 2008**PERMIT NUMBER: **ME0100625**  
LICENSE NUMBER: **W002645-5L-F-R**

NAME AND ADDRESS OF APPLICANT:

**TOWN OF SKOWHEGAN  
90 Water Street  
Skowhegan, Maine 04976**COUNTY: **Somerset County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

**Joyce Street  
Skowhegan, Maine 04330**RECEIVING WATER/CLASSIFICATION: **Kennebec River/Class B**COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Brent Dickey, Superintendent  
(207) 474-6909  
e-mail: [skowpoll@skowhegan.org](mailto:skowpoll@skowhegan.org)****1. APPLICATION SUMMARY**

- a. Application: The Town of Skowhegan has submitted a timely and complete application to the Department for renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0100625/Waste Discharge License (WDL) #W002645-5L-E-R (permit hereinafter) which was issued on April 25, 2003 and expired on April 25, 2008. The 4/25/03 permit authorized the discharge of up to a monthly average flow of 1.65 million gallons per day (MGD) of secondary treated sanitary waste waters from a municipal waste water treatment facility to the Kennebec River, Class B, in Skowhegan, Maine. The 4/25/03 permit also authorized the discharge of primary treated waste waters when the instantaneous flow rate through the primary clarifiers exceeds 5.0 MGD and authorized the discharge of an unspecified quantity of untreated combined sanitary and storm water from nine (9) combined sewer overflow (CSO) outfalls to the Kennebec River, Class B in Skowhegan, Maine. See Attachment A of this Fact Sheet for a location map of the waste water treatment facility.

## 1. APPLICATION SUMMARY (cont'd)

- b. Source Description: The waste water treatment facility receives sanitary waste water flows from approximately 2,500 residential, commercial and industrial users within the Town of Skowhegan's boundaries. The permittee has indicated there are no major commercial or industrial users of the system that contribute more than 10% of the flow or pollutant loading to the waste water treatment facility.

The Town's sewer collection system is approximately 31 miles in length, has nine (9) pump stations and is approximately 65% combined and 35% separated. All nine pump stations are serviced by a portable generator and two of the pump stations are equipped with holding tanks. There are nine (9) remaining permitted CSO's associated with the collection system and are listed in Special Condition K, *Combined Sewer Overflows (CSO)*, of this permitting action. This permit authorizes the Town to increase the quantity of septage the facility receives and introduces into the treatment process and or solids handling facilities from 7,500 gpd to 10,000 gpd from local septage haulers.

- c. Waste Water Treatment: The Town completed an upgrade of the waste water treatment facility in 2004. The primary objective of the upgrade was to mitigate CSO events by providing the facility with the ability to provide primary treatment and disinfection for flows that exceed a flow rate of 3,472 gallons per minute (5.0 MGD), the peak hourly capacity of the secondary treatment process. Other major project components included in the upgrade were new influent screening, secondary treatment improvements (including provisions for contact stabilization mode of operation, secondary clarifier density current baffles, and return sludge pumps), solids handling improvements (including new waste sludge pumps, sludge storage tank, sludge feed pumps, dewatering system and post-lime stabilization system), and chlorination/ dechlorination system improvements, as well as sewer separation and sewer replacement to reduce system inflow.

### *Secondary Treatment*

The upgraded waste water treatment facility is capable of providing a secondary level of treatment of up to 1.65 MGD as a monthly average and 5.0 MGD as a peak hourly flow. Flows are conveyed into the waste water treatment facility via an interceptor pipe measuring 24" in diameter and is capable of delivering up to 7.5 MGD to the treatment facility. During dry weather flows, a secondary level of treatment is provided via a conventional activated sludge treatment process that includes an aerated grit chamber, two primary clarifiers tanks (each 40 feet in diameter), two aeration tanks with mechanical surface aerators, two secondary clarifiers (each 50 feet in diameter) and two chlorine contact chambers where sodium hypochlorite is utilized as a disinfectant. The facility is capable of dechlorinating the discharge if necessary. Secondary treated effluent flows is measured via an ultra-sonic meter located after the chlorine contact chamber. Treated effluent is discharged to the Kennebec River via a reinforced concrete pipe measuring 24" in diameter without a diffuser.

## 1. APPLICATION SUMMARY (cont'd)

The pipe extends out into the main channel of the river approximately 150 feet where there is approximately five feet of water over the crown of the pipe under low flow conditions in the river. See Attachment B of this Fact Sheet for a schematic of the treatment facility.

### *Wet Weather Flows (CSO-Related Bypasses of Secondary Treatment)*

During wet weather events, flows up to 7.5 MGD pass through the preliminary and primary treatment component of the plant (grit removal and primary clarification). At the flow distribution structure after the primary clarifiers, instantaneous flow rates up to 3,472 gallons per minute (5.0 MGD) are conveyed to the secondary treatment process and the balance of the flow is conveyed to a dedicated storm flow chlorine contact chamber for disinfection with dechlorination capabilities. After disinfection, the primary treated flow is combined with the secondary treated flow (after the secondary treatment disinfection chamber) prior to discharge to the river via Outfall #001A. Measurement of flows receiving primary treatment are obtained via an ultra-sonic flow meter located just after the storm flow chlorine contact chamber. See Attachment B of this fact Sheet for a schematic of the treatment facility.

## 2. PERMIT SUMMARY

- a. Terms and conditions - This permitting action is carrying forward all the terms and conditions of the 4/25/03 permitting action except that this permit;
  1. Reducing the seasonal (June – September) monitoring frequency for total phosphorus from 1/Week to 1/Month.
  2. Increasing the quantity of septage the facility is authorized to receive from 7,500 gpd to 10,000 gpd.
- b. History: The most current relevant licensing permitting and other actions include the following:

*April 6, 1998* – The Department issued WDL renewal #W002645-46-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 renewal #ME0100625 with an expiration date of March 31, 2003.

*December 1999* – The Department and the EPA approved the December 1997 document *CSO Master Plan and Waste Water Treatment Plant Upgrade, Proposed Implementation Schedule* (with subsequent revisions).

*May 25, 2000* – The Department established interim average and maximum concentration limitations for the discharge of mercury.

## 2. PERMIT SUMMARY (cont'd)

*January 12, 2001* – The State of Maine received authorization from the EPA to administer the NPDES permitting program in Maine. From this date forward the program has been referred to as the Maine Pollutant Discharge Elimination System (MEPDES) permit program.

*June 2001* – The Department and the USEPA approved the implementation schedule in a document entitled, *Combined Sewer Overflow Facilities Plan Update* dated March 2001.

*April 25, 2003* – The Department issued combination MEPDES permit #ME0100625/WDL W002645-5L-E-R for a five-year term.

*April 10, 2006* – The Department issued a modification of the 4/25/03 MEPDES permit/WDL by incorporating whole effluent toxicity (WET) and chemical specific testing requirements pursuant to Department rule, 06-096 CMR, Chapter 530, *Surface Water Toxics Control Program*, promulgated on October 12, 2005.

*March 28, 2008* – The Town submitted a timely and complete application to the Department to renew the MEPDES permit/WDL.

## 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 STANDARDS

Maine law, 38 M.R.S.A., Section 467(4)(A)(7) indicates the Kennebec River at the point of discharge is classified as a Class B waterway. Maine law, 38 M.R.S.A., Section 465(3) describes standards for classification of Class B waters.

## 5. RECEIVING WATER CONDITIONS

The Kennebec River main stem immediately below the discharge from the S.D. Warren pulp and paper mill (approximately five miles below the discharge from the Town of Skowhegan's discharge) and extending downstream to Merrymeeting Bay is listed in a table entitled, *Category 4-B, Rivers and Streams Impaired By Pollutants, Pollution Control Requirements Reasonably Expected to Result in Attainment* of a document entitled, The State of Maine, Department of Environmental Protection, 2006 Integrated Water Quality Monitoring and Assessment Report, (305b report) published by the Department. The report indicates the Kennebec River is attaining the standards of its assigned classification with the exception of fishing (consumption) due to presence of dioxin in fish tissue.

The 2006 305(b) report also lists the main stem of the Kennebec River at Skowhegan in a table entitled, *Category 5-B: Rivers and Streams Impaired By Bacteria Contamination (TMDL required)*. This listing is a result of discharge of untreated storm water/sanitary waste waters from combined sewer overflows (CSOs) in the Town of Skowhegan's waste water collection system.

The 2006 305(b) report also lists all fresh waters in the State of Maine in a table entitled, *Category 5-C: Waters Impaired by Atmospheric Deposition of Mercury. Regional or National TMDL May Be Required*.

It is noted, during the summers of calendar years 1997 and 1998, the Department conducted an ambient water quality study on the Kennebec River from the Towns of Anson-Madison to Abagadasset Point in the Town of Richmond. A model report entitled Kennebec River Model Report dated April 2000 was published by the Department. The model predicts that Maine water quality standards for dissolved oxygen will be maintained during summer time low river flow conditions at current point source loadings. Nutrient loadings and chlorophyll-a river data were evaluated as part of the model report. It was noted that nutrient loading may become a major water quality issue in the future. At the time of the study, the major source of phosphorous was from point sources with the SDW Somerset mill accounting for about 35% of the total point source load with a number of municipal waste water treatment facilities contributing smaller quantities.

In response to the listings cited above, the Department is not aware of any information nor does the Department have reason to believe that the discharge from the Town of Skowhegan's waste water treatment facility contains dioxin or dioxin like compounds that are causing or contributing to the fish consumption advisory. As for bacteria, Special Condition K, *Combined Sewer Overflows (CSOs)* of this permitting action requires the Town to continue work on mitigating the discharges of untreated waste waters via CSOs. And finally, Maine law 38 M.R.S.A., §420 1-B,(B)(1) states that a facility is not in violation of the AWQC for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413, subsection 11. A review of the Department's data base for the period February 2001 through the present indicates the permittee has been in compliance with the interim limits for mercury.

**6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

*Secondary Treated Effluent*

- a. Flow: The monthly average flow limitation of 1.65 MGD in the previous permitting action is being carried forward in this permitting action and is considered to be representative of the monthly average design flow for the waste water treatment facility. A review of the monthly Discharge Monitoring Report (DMR) data for the period January 2005 – July 2007 indicates flows have been reported as follows

**Flow**

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	1.65	0.612 – 2.61	2.05
Daily Maximum	Report	1.08 – 3.982	2.64

- b. Dilution Factors - The Department established applicable dilution factors for the discharge in accordance with freshwater protocols established in Department rule 06-096 CMR, Chapter 530, *Surface Water Toxics Control Program*, October 2005. With a monthly average permit flow limit of 1.65 MGD the dilution factors are as follows:

$$\text{Modified Acute}^{(1)} = 481 \text{ cfs} \Rightarrow \frac{(481 \text{ cfs})(0.6464) + (1.65 \text{ MGD})}{(1.65 \text{ MGD})} = 189:1$$

$$\text{Acute: } 1\text{Q}10^{(2)} = 1,923 \text{ cfs} \Rightarrow \frac{(1,923 \text{ cfs})(0.6464) + (1.65 \text{ MGD})}{(1.65 \text{ MGD})} = 754:1$$

$$\text{Chronic: } 7\text{Q}10^{(2)} = 2,359 \text{ cfs} \Rightarrow \frac{(2,359 \text{ cfs})(0.6464) + (1.65 \text{ MGD})}{(1.65 \text{ MGD})} = 925:1$$

$$\text{Harmonic Mean: } = 3,983 \text{ cfs} \Rightarrow \frac{(3,983 \text{ cfs})(0.6464) + (1.65 \text{ MGD})}{(1.65 \text{ MGD})} = 1,561:1$$

Footnotes:

(1) Chapter 530.5 (D)(4)(a) states that analyses using numeric acute criteria for aquatic life must be based on 1/4 of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone. The 1Q10 is the lowest one day flow over a ten-year recurrence interval. The regulation goes on to say that where it can be demonstrated that a discharge achieves rapid and complete mixing with the receiving water by way of an efficient diffuser or other effective method, analyses may use a greater proportion of the stream design, up to including all of it. The Department has made the determination that the discharge does not receive rapid and complete mixing with the receiving water, therefore the default stream flow of ¼ of the 1Q10 is applicable in acute statistical evaluations pursuant to Chapter 530.

(2) The 7Q10 and 1Q10 critical low flow values were recalculated in calendar year 2000 during the Department’s update of the water quality model for the Kennebec River.

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

*Secondary Treated Effluent*

- c. Biochemical Oxygen Demand (BOD5) & Total Suspended Solids (TSS): - The previous permit established monthly and weekly average BOD5 and TSS best practicable (BPT) concentration limits of 30 mg/L and 45 mg/L respectively, that were based on secondary treatment requirements of the Clean Water Act of 1977 §301(b)(1)(B) as defined in Department rule 06-096 CMR Chapter 525 § (3)(III). The maximum daily BOD5 and TSS concentration limits of 50 mg/L were based on a Department best professional judgment (BPJ) of BPT. All three concentration limits are being carried forward in this permitting action.

As for mass limitations, the previous permitting action established monthly average and weekly average limitations based on a monthly average limit of 1.65 MGD. The mass limits are being carried forward in this permitting action and were calculated as follows:

Monthly average:  $(1.65 \text{ MGD})(8.34)(30 \text{ mg/L}) = 413 \text{ lbs/day}$   
 Weekly average:  $(1.65 \text{ MGD})(8.34)(45 \text{ mg/L}) = 619 \text{ lbs/day}$

No daily maximum mass limitations (report only) for BOD5 or TSS were established in the previous licensing or this permitting action as doing so may discourage the Town from treating as much waste water as possible through the secondary treatment system during wet weather events.

This permitting action also carries forward a requirement of 85% removal for BOD and TSS pursuant to Department rule 06-096 CMR Chapter 525(3)(III)(a&b)(3).

A review of the monthly Discharge Monitoring Report (DMR) data for the period January 2005 – July 2007 indicates BOD and TSS levels have been reported as follows:

**BOD Mass**

Value	Limit (lbs/day)	Range (lbs/day)	Mean (lbs/day)
Monthly Average	413	37 - 548	138
Daily Maximum	Report	66 – 1,089	300

**BOD Concentration**

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	30	4 - 30	11
Daily Maximum	Report	7 - 68	18

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

*Secondary Treated Effluent*

**TSS mass**

Value	Limit (lbs/day)	Range (lbs/day)	Mean (lbs/day)
Monthly Average	413	10 - 388	98
Daily Maximum	Report	14 - 1,055	249

**TSS concentration**

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	30	1 - 15	7
Daily Maximum	50	2 - 59	15

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 document for facilities with a monthly average flow greater than 1.0 MGD but less than 5.0 MGD.

- d. Settleable Solids - The previous permitting action established a daily maximum concentration limit of 0.3 ml/L considered by the Department to be a BPJ of BPT.

A review of the monthly Discharge Monitoring Report (DMR) data for the period January 2005 – July 2007 indicates settleable solids levels have been reported as follows:

**Settleable solids concentration**

Value	Limit (ml/L)	Range (ml/L)	Average (ml/L)
Daily Maximum	0.3	0 - 3.0	0.1

- e. Escherichia coliform (*E. coli*) bacteria: The monthly average and daily maximum *E. coli* bacteria limits of 64 colonies/100 ml and 427 colonies/100 ml in the previous permitting action are being carried forward in this permitting action and were based on the State of Maine Water Classification Program criteria for Class B waters at that time. Subsequent to issuance of the 4/23/03 permit, the State Legislature adopted more stringent AWQC for *E. coli* bacteria. The newer criteria for Class B water are 64 colonies/100 ml as a monthly average and 236 colonies/100 ml as a daily maximum. The Department has made the determination that after taking into consideration the dilution associated with the discharge, the BPT limits established in this permitting action are protective of the newer AWQC for bacteria.

***E. coli* bacteria**

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100 ml)
Monthly Average	64	1 - 33	10
Daily Maximum	427	1 - 2,419	130

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

*Secondary Treated Effluent*

- f. Total Residual Chlorine - The previous permitting action established a seasonal (May 15 – September 30) daily maximum BPT limit of 1.0 mg/L for the discharge. This permitting action is removing the reference to seasonal as chlorine is toxic all times of the year. 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 Department imposes the more stringent of the water quality or technology based limits in permitting actions. End-of-pipe water quality based concentration thresholds may be calculated as follows:

Parameter	Acute Criteria	Chronic Criteria	Acute Dilution	Chronic Dilution	Acute Limit	Chronic Limit
Chlorine	19 ug/L	11 ug/L	189:1	925:1	3.6 mg/L	10 mg/L

Example calculation: Acute –  $0.019 \text{ mg/L} (189) = 3.6 \text{ mg/L}$

In the case of the Skowhegan facility, the calculated acute water quality based threshold is higher than 1.0 mg/l, thus the BPT limit of 1.0 mg/L is imposed as a daily maximum limit. A review of the seasonal DMR data for the period May 2005 – July 2007 indicates the daily maximum TRC discharged is as follows:

**Total residual chlorine**

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	1.0	0.66 – 1.0	0.91

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

*Secondary Treated Effluent*

- g. Total phosphorus – The previous permitting action established a seasonal (June – September) 1/Week monitoring and reporting requirement for total phosphorus due to the limited assimilative capacity of the Kennebec River. The Town was required to report monthly average, weekly average and daily maximum mass and concentrations values for total phosphorus. Gathering such data was required to enable the Department to continually update the river model developed by the Department in calendar year 2000 to predict potential algal blooms that may lead to depressed ambient dissolved oxygen conditions.

A review of the seasonal DMR data for the period May 2003 – July 2007 indicates total phosphorus discharge values have been reported as follows:

**Total Phosphorus Mass**

Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)
Monthly Average	Report	6 - 11	7
Daily Maximum	Report	7.2 - 16	11

**Total phosphorus Concentration**

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	Report	0.35 – 1.26	0.7
Daily Maximum	Report	0.47 – 1.6	1.0

Based on the consistency of the data cited above, the Department is making a BPJ determination to reduce the seasonal (June – September 30) monitoring frequency to 1/Month. This permitting action is carrying forward the monthly average and daily maximum reporting requirement for both mass and concentration but eliminating the weekly average reporting requirements as they are not necessary given the change in the monitoring frequency.

- h. pH Range- The previous licensing action established a pH range limitation of 6.0 –9.0 standard units pursuant to Department rule, 06-096 CMR, Chapter 525 §(3)(III)(c). The limits are considered BPT. A review of the DMR data for the period January 2005 – July 2007 indicates the limitation has never been exceeded.
- i. Whole Effluent Toxicity (WET), Analytical chemistry and priority pollutant – Maine law, 38 M.R.S.A., Sections 414-A and 420, prohibits 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. The previous permitting action contained WET and chemical specific testing requirements pursuant to Department rule Chapter 530.5, *Surface Water Toxics Control Program*, promulgated in October 1995. The rule was subsequently revised and promulgated as Department Rule, 06-096 CMR Chapter 530, *Surface Water Toxics Control Program*, and Chapter 584, *Surface Water Quality Criteria for Toxic*

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

*Secondary Treated Effluent*

*Pollutants* in October 2005 and 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 waste water, existing treatment and receiving water characteristics.

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

Level I – chronic dilution factor of <20:1.

Level II – chronic dilution factor of  $\geq 20:1$  but <100:1.

Level III – chronic dilution factor  $\geq 100:1$  but <500:1 or >500:1 and  $Q \geq 1.0$  MGD.

Level IV – chronic dilution >500:1 and  $Q \leq 1.0$  MGD.

Department rule Chapter 530 (2)(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 permittee's facility falls into the Level III frequency category as the facility has a chronic dilution factor >500:1 and a  $Q \geq 1.0$  MGD. Chapter 530(2)(D)(1) specifies that default surveillance and screening level testing requirements are as follows:

Screening level testing

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

Surveillance level testing

Level	WET Testing	Priority pollutant testing	Analytical chemistry
III	1 per year	Not required	1 per year

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

### *Secondary Treated Effluent*

Chapter 530(2)(D)(3)(d) states in part that for Level III facilities “...*may be waived from conducting surveillance testing for individual WET species or chemicals provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedence as calculated pursuant to section 3(E).*”

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.*”

#### i. WET test evaluation

On January 24, 2008, the Department conducted a statistical evaluation on the most recent 60 months of WET test results on file with the Department in accordance with the statistical approach in Chapter 530. The statistical evaluation indicates the discharge from the permittee's waste water treatment facility does not have any WET test results for the water flea or the brook trout that exceed or have a reasonable potential to exceed the critical modified acute or chronic water quality thresholds of 0.5% and 0.1 % respectively. The critical thresholds are calculated as the mathematical inverse of the applicable dilution factors of 189:1 as a modified acute and 925:1 as a chronic.

Based on the results of the 1/24/08 statistical evaluation, the permittee qualifies for the Chapter 530(2)(D)(3)(d) testing reduction for WET test species. Therefore, this permit action waives surveillance level testing for the first four years of the term of the permit.

Chapter 530 §(2)(D) states:

*(4) All dischargers having waived or reduced testing must file statements with the Department on or before December 31 of each year describing the following.*

*(a) Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge;*

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

*Secondary Treated Effluent*

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

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

Department rule Chapter 530 (2)(D)(1) specifies that screening level testing is to be established as follows:

Beginning 12 months prior to and lasting through permit expiration and every five years thereafter.

Level	WET Testing
III	1 per year for the water flea 1 per year for the brook trout

ii. Analytical chemistry & priority pollutant testing evaluation

Chapter 530 §4(C), states “*The background concentration of specific chemicals must be included in all calculations using the following procedures. The Department may publish and periodically update a list of default background concentrations for specific pollutants on a regional, watershed or statewide basis. In doing so, the Department shall use data collected from reference sites that are measured at points not significantly affected by point and non-point discharges and best calculated to accurately represent ambient water quality conditions.*” The Department shall use the same general methods as those in section 4(D) to determine background concentrations. For pollutants not listed by the Department, an assumed concentration of 10% of the applicable water quality criteria must be used in calculations. The Department has limited information on the background levels of metals in the water column of the Kennebec River. Therefore, a default background concentration of 10% of the 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.

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

*Secondary Treated Effluent*

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

Chapter 530 §(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."

As with WET test results, on 1/24/08, the Department conducted a statistical evaluation on the most recent 60 months of analytical chemistry and priority pollutant test results on file with the Department in accordance with the statistical approach outlined in Chapter 530. The statistical evaluation indicates there are no test results for any parameters that exceed or have a reasonable potential to exceed acute, chronic or human health AWQC. Therefore, no chemical specific limitations are being established in this permitting action. As with WET testing, the permittee qualifies for the surveillance level testing waiver.

Department rule Chapter 530 (2)(D)(1) specifies that screening level testing is to be establishes for analytical chemistry and priority pollutant testing requirements as follows:

Beginning 12 months prior to and lasting through permit expiration and every five years thereafter screening level testing is as follows:

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

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

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

### *Secondary Treated Effluent*

- j. Septage– The previous permitting action authorized the Town to receive and treat up to 7,500 gallons per day (gpd) of septage from local septage haulers. In their application for permit renewal, the permittee has requested to increase the quantity to 10,000 gpd. 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 1.65 MGD, 10,000 gpd only represents 0.61% of said capacity. The permittee has submitted an up-to-date Septage Management Plan as an exhibit to their March 2008 application for permit renewal. The Department has reviewed and approved said plan and determined that under normal operating conditions, the addition of 10,000 gpd of septage to the facility will not cause or contribute to upset conditions of the treatment process.
- k. Mercury - May 25, 2000 – Pursuant to *Certain deposits and discharges prohibited*, Maine law, 38 M.R.S.A. § 420 and *Waste discharge licenses*, 38 M.R.S.A. § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001), the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL #W002645-5L-E-R by establishing interim monthly average and daily maximum effluent concentration limits of 7.0 parts per trillion (ppt) and 10.6 ppt, respectively, and a minimum monitoring frequency requirement of four (4) tests per year for mercury. It is noted the limitations have not been incorporated into Special Condition A, *Effluent Limitations And Monitoring Requirements*, of this permit as limitations and monitoring frequencies are regulated separately through 38 M.R.S.A. § 413 and 06-096 CMR 519. However, the interim limitations remain in effect and enforceable and any modifications to the limits and or monitoring requirements will be formalized outside of this permitting document.

Maine law 38 M.R.S.A., §420 1-B,(B)(1) states that a facility is not in violation of the AWQC for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413, subsection 11. A review of the Department's data base for the period February 2001 through the present indicates the permittee has been in compliance with the interim limits for mercury.

### *CSO-Related Bypasses of Secondary Treatment*

For those flows received at the treatment facility which are greater than that which can be treated to a secondary level of treatment, the Department has made a BPJ that primary treatment and disinfection constitutes appropriate and BPT. The only limitations that have been established for this waste stream are daily maximum limitations for *E. coli* bacteria and TRC. As with the limitations established for the secondary treatment process, the *E. coli* bacteria and TRC limits are based on a BPJ of BPT.

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

*CSO-Related Bypasses of Secondary Treatment*

The reporting requirements for the parameters in Special Condition A(2) of this permit (Flow, Surface Loading Rate, Overflow Occurrences and BOD5 and TSS percent removal rates) are being carried forward in this permitting action. These are parameters the Department has deemed necessary to evaluate the performance of the primary treatment process.

A review of the DMR data for the period January 2005 – July 2007 indicates the following:

l. Flow:

**Flow**

Value	Limit (MGD)	Range (MGD)	Total (MGD)
Total gallons/month	Report	0.151 – 11.10 (2005) 0.023 – 2.618 (2006) 0.077 – 8.638 (2007)	27.28 (2005) 9.49 (2006) 9.97 (2007)
Daily Maximum	Report	0.064 – 2.532 (2005) 0.023 – 1.232 (2006) 0.045 – 2.683 (2007)	0.88 (2005) 0.38 (2006) 0.59 (2007)

m. Surface loading rate

**Surface loading rate**

Value	Limit (gpd/sf)	Range (gpd/sf)	Mean (gpd/sf)
Daily Maximum	Report	1,377 – 4,605	2,056

n. Overflow occurrences

**Overflow occurrences**

Value	Limit (# of days)	Range (# of days)	Total (# of days)
Daily Maximum	Report	---	---
2005	---	1-14	50
2006	---	1-6	29
2007	---	1-11	22

o. BOD concentration

**BOD concentration**

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	Report	43 - 156	85

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

*CSO-Related Bypasses of Secondary Treatment*

p. TSS concentration

**TSS concentration**

<b>Value</b>	<b>Limit (mg/L)</b>	<b>Range (mg/L)</b>	<b>Mean (mg/L)</b>
Daily Maximum	Report	85 - 364	187

**7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY**

The Department acknowledges that the elimination of the nine (9) remaining CSO's in the collection system and the CSO-related bypasses of secondary treatment (primary treated only) of sanitary waste water is a costly long term project. With the implementation of the CSO Master Plan and Nine Minimum Controls there should be reductions in the frequency and volume of CSO activities and in the waste water receiving primary treatment only at the treatment plant and over time, improvement in the quality of the waste water discharge to the receiving waters.

As permitted, the Department has determined the existing water uses will be maintained and protected.

**8. PUBLIC COMMENTS**

Public notice of this application was made in the Morning Sentinel newspaper on or about March 29, 2008. 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](mailto:gregg.wood@maine.gov)

Telephone: (207) 287-7693

## **10. RESPONSE TO COMMENTS**

During the period of April 29, 2008, through the issuance date of the permit/license, the Department solicited comments on the proposed draft permit/license to be issued for the discharge(s) from the Town of Skowhegan's facility. The Department did not receive comments from the permittee, state or federal agencies or interested parties that resulted in any substantive change(s) in the terms and conditions of the permit. Therefore, the Department has not prepared a Response to Comments.