December 19, 2008

Ms. Mary Bowers
67 Ames Road
Alna, ME. 04543

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit ME0102814
Maine Waste Discharge License (WDL) Application #W006042-5E-D-R
School Union 74 – Bristol Consolidated School
Final Permit

Dear Mary:

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

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

If you have any questions regarding 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: Bill Johnson, DEP/CMRO
Sandy Mojica, USEPA

IN THE MATTER OF

SCHOOL UNION 74		)	MAINE POLLUTANT DISCHARGE
BRISTOL CONSOLIDATED SCHOOL		)	ELIMINATION SYSTEM PERMIT
BRISTOL, LINCOLN COUNTY, MAINE		)	
OVERBOARD DISCHARGE		)	AND
ME0102814		)	WASTE DISCHARGE LICENSE
W006042-5E-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 (the Department hereinafter) has considered the application of SCHOOL UNION 74 (SU 74 hereinafter), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

SU 74 has filed a timely and complete application with the Department for the renewal of overboard discharge (OBD) Waste Discharge License (WDL) #W006042-ZC-C-R which was issued by the Department on February 19, 1998 and expired on February 19, 2008. The WDL authorized the discharge of secondary treated waste waters to a tidal section of the Pemaquid River, Class SB, in Bristol, Maine. The discharge was limited to a daily maximum flow of 3,500 gallons per day (gpd) between September 1st and June 30th and limited to a daily maximum flow of 1,500 gpd between July 1st and August 31st.

PERMIT SUMMARY

a. Regulatory - On January 12, 2001, the Department received authorization from the EPA to administer the NPDES permit program in Maine, excluding areas of special interest to Maine Indian Tribes. From that point forward, the program has been referred to as the Maine Pollutant Discharge Elimination System (MEPDES) permit program and permit #ME0102814 will be utilized as the primary reference number for the SU 74 facility. It is noted permit compliance submitted to the Department prior to this permitting action can be found under MEPDES #MEU506042.

b. Terms and conditions

This permitting action is similar to the 2/19/98 licensing action in that it is:

1. Carrying forward the monthly average technology-based concentration limitations for biochemical oxygen demand (BOD_5) and total suspended solids (TSS);

2. Carrying forward the daily maximum flow limitation of 3,500 gallons per day (gpd) and establishing said limit on a year-round basis rather than seasonally.

PERMIT SUMMARY

This permitting action is different from the 2/19/98 licensing action in that it is:

3. Eliminating the flow limitation of 1,500 gpd for the summer period July 1st to September 1st.

4. Establishing weekly average technology based concentration limits for BOD and TSS.

5. Establishing monthly average, weekly average, and daily maximum technology-based mass limitations for BOD_5 and TSS;

6. Establishing a requirement for at least 85% removal of BOD and TSS on a monthly basis.

7. Establishing a daily maximum technology based concentration limitation for settleable solids of 0.3 ml/L.

8. Modifying the disinfection season from May 1 – September 30 to May 15 – September 30.

9. Establishing a more stringent daily maximum water quality based limitation for total residual chlorine along with a schedule of compliance to meet said limit. This permit also reduces the monitoring frequency for TRC from 2/Week to 1/Week.

10. Establishing a requirement for the permittee to have a site evaluation performed by a licensed site evaluator with experience in designing systems for the replacement of overboard discharge systems prior the expiration date of the permit.

11. Establishing a requirement for the permittee to develop and keep current, an Operations and Maintenance (O&M) plan for the waste treatment system and appurtenances.

12. Removing the applicability of the May 1 – September 30 season associated with total residual chlorine limitations.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated November 18, 2008, and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.

2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with State law.

3. The provisions of the State's antidegradation policy, 38 M.R.S.A. §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 water 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 will be subject to effluent limitations that require application of best practicable treatment as defined in Maine law, 38 M.R.S.A., §414-A(1)(D).

5. The overboard discharge system was in continuing existence for the 12 months preceding June 1, 1987.

6. A non-discharging sub-surface waste water disposal system could be installed in compliance with the Maine Subsurface Waste Water Disposal Rules at the time the renewal application was accepted for processing by the Department but the Department has not offered the permittee funds to remove the discharge from the receiving water.

CONCLUSIONS (cont'd)

7. A publicly owned sewer line is not located on or abutting land owned or controlled by the permittee or is not available for the permittee's use.

8. The discharge is not located within the boundaries of a sanitary district or sewer district.

ACTION

THEREFORE, the Department APPROVES the above noted application of SCHOOL UNION 74 to discharge a daily maximum flow of up to 3,500 gpd of secondary treated sanitary waste water to a tidal segment of the Pemaquid River, Class SB, in Bristol, Maine, 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 29 DAY OF December, 2008.

DEPA RTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
DAVID P. LITTELL, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: December 17, 2007.

Date of application acceptance: December 31, 2007.

Date filed with Board of Environmental Protection _____.

This Order prepared by Gregg Wood, BUREAU OF LAND & WATER QUALITY

ME0102814 2008 12/19/08

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. Beginning the effective date of this permit, the permittee is authorized to discharge secondary treated sanitary waste water from **Outfall #001A** to the Pemaquid River, Class SB. Such discharges shall be limited and monitored by the permittee as specified below[(1)]:

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow *[50050]*	---	---	3,500 gpd *[07]*	---	---	---	1/Month *[01/30]*	Meter *[MT]*
BOD_5 *[00310]*	1.0 lbs/day *[26]*	1.0 lbs/day *[26]*	1.0 lbs/day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Quarter *[01/90]*	Grab *[GR]*
BOD_5 Percent Removal[(2)] *[81010]*	---	---	---	85% *[23]*	---	---	---	Calculate *[CA]*
TSS *[00530]*	1.0 lbs/day *[26]*	1.0 lbs/day *[26]*	1.0 lbs/day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Quarter *[01/90]*	Grab *[GR]*
TSS Percent Removal[(2)] *[81011]*	---	---	---	85% *[23]*	---	---	---	Calculate *[CA]*
Settleable Solids *[00545]*	---	---	---	---	---	0.3 ml/L *[25]*	---	---
Fecal Coliform Bacteria[(3)] *[31616] (May 15 – September 30)*	---	---	---	15/100 ml[(4)] *[13]*	---	50/100 ml *[13]*	1/Month *[01/30]*	Grab *[GR]*
Total Residual Chlorine *[50060]*								
Through May 14, 2010	---	---	---	---	---	1.0 mg/L[(5a)]	1/Week	Grab
Beginning May 15, 2010	---	---	---	---	---	0.013 mg/L[(5b)] *[19]*	2/Week *[01/07,02/07]*	Grab *[GR]*
pH *[00400]*	---	---	---	---	---	6.0 – 9.0 SU *[12]*	---	---

Footnotes **See Page 6 of this permit for applicable footnotes.**

SPECIAL CONDITIONS

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

Footnotes

1. **Sampling** – Sampling shall be conducted after the last treatment process such that samples are representative of what is actually being discharged to the receiving waters. Sampling shall be conducted in accordance with federally approved methods for sampling, handling and preservation. Samples shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services and in accordance with methods approved by 40 Code of Federal Regulations (CFR) Part 136. Samples that are sent to a 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.

2. **Percent Removal –** The treatment facility shall maintain a minimum of 85 percent removal of both BOD_5 and TSS for all flows receiving secondary treatment. If required to do so, the percent removal shall be calculated based on an assumed influent value of 286 mg/L and measured effluent concentration values.

3. **Bacteria Limits –** Fecal coliform bacteria limits and monitoring requirements are in effect between May 15th and September 30th of each year. The Department reserves the right to require year-round disinfection on a year-round basis to protect the health, safety, and welfare of the public.

4. **Bacteria Reporting –** The monthly average fecal coliform bacteria limitation is a geometric mean limitation and sample results shall be reported as such.

SPECIAL CONDITIONS

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

Footnotes

5. **Total residual chlorine** (**TRC) –**

   a. **Beginning upon issuance of this permit and lasting through May 14, 2010**, the permittee is limited to a daily maximum concentration limit of 1.0 mg/L.

   b. **Beginning May 15, 2010**, the permittee is limited to a daily maximum limit of 0.013 mg/L. Compliance will be based on EPA's minimum level (ML) of detection of 0.05 mg/L. All analytical test results shall be reported to the Department including results which are detected below the ML of 0.05 mg/L.

B. ANNUAL DISCHARGE FEES

Pursuant to Maine law, 38 M.R.S.A. §353-B, the permittee is required to pay an applicable annual fee for discharges authorized by this permit. Failure to pay an annual fee within 30 days of the billing date of a license/permit is sufficient grounds for accruing interest charges, penalties or revocation of the license.

C. 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.

SPECIAL CONDITIONS

D. DISINFECTION

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

E. TREATMENT PLANT OPERATOR

The person who has the management responsibility over the treatment facility must hold a **Grade I** certificate (or higher) or must be a Maine Registered 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.

F. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing December 31, 2007; 2) the terms and conditions of this permit; and 3) only from Outfall #001. 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)(*Bypass*) of this permit.

G. NOTIFICATION REQUIREMENT

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

1. Any substantial change or proposed change in the volume or character of pollutants being introduced into the wastewater 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 wastewater introduced to the wastewater collection and treatment system; and

   (b) any anticipated impact caused by the change in the quantity or quality of the wastewater to be discharged from the treatment system.

SPECIAL CONDITIONS

H. SITE EVALUATION FOR TRANSFERRED AND RENEWED PERMITS

On or before January 1, 2011, prior to permit transfer or **transfer of the property** occupying the permitted overboard discharge system, a site evaluation must be performed by a licensed site evaluator with experience in designing systems for the replacement of overboard discharge systems.

The Department may not grant approval for a **permit transfer** if the site evaluation concludes that a non-discharging wastewater disposal system designed in compliance with the Maine Subsurface Waste Water Disposal Rules administered by the Maine Department of Health and Human Services, Division of Environmental Health can be installed as a replacement system for the overboard discharge.

The Department may not grant approval for a **permit renewal** if the site evaluation concludes that a non-discharging wastewater disposal system can be installed as a replacement system for the overboard discharge and the Department has offered the permittee funding for the removal of the discharge.

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 wastewater treatment facility to ensure that it is up-to-date. The O&M Plan shall be kept on-site at all times and made available to Department and EPA personnel upon request.

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

SPECIAL CONDITIONS

J. SEPTIC TANKS

1. Septic tanks and other treatment tanks shall be regularly inspected (at least once per calendar year) and maintained to ensure that they are providing best practicable treatment. The licensee shall maintain logs of inspections/maintenance that records the date, notes on observations, repairs conducted etc. The logs shall be maintained on site at all times and made available to Department personnel upon request.

2. Tank contents should be removed whenever the sludge and scum occupies one-third of the tank's liquid capacity or whenever levels approach maximum design capacity. Following pumping, the tanks shall be checked for damage at key joints and the inlet and outlet baffles, and repaired promptly if damaged. The licensee shall keep a pumping log including the date of pumping, quantity of material removed, name and number of licensed contractor, pumping frequency and other relevant observations.

K. MONITORING AND REPORTING

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

Department of Environmental Protection
Bureau of Land and Water Quality
Division of Water Quality Management
17 State House Station
Augusta, Maine 04333-0017

L. REOPENING OF PERMIT FOR MODIFICATIONS

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

SPECIAL CONDITIONS

M. SEVERABILITY

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
WASTE DISCHARGE LICENSE

FACT SHEET

Date: **November 18, 2008**

MEPDES PERMIT: **ME0102814**
WASTE DISCHARGE LICENSE: **W006042-5E-D-R**

NAME AND ADDRESS OF APPLICANT:

SCHOOL UNION 74
76 Main Street
Damariscotta, Maine 04543

COUNTY: **Lincoln County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

Bristol Consolidated School
2153 Bristol Road
Bristol, Maine

RECEIVING WATER / CLASSIFICATION: **Pemaquid River/Class SB**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: Mr**. Robert Bouchard, Supt.**
(207) 563-3044

CONTRACT OPERATOR **Ms. Mary Bowers, Grade V**
(207) 563-5105

1. APPLICATION SUMMARY

a. Application School Union (SU) 74 has filed a timely and complete application with the Department for the renewal of overboard discharge (OBD) Waste Discharge License (WDL) #W006042-ZC-C-R which was issued by the Department on February 19, 1998 and expired on February 19, 2008. The WDL authorized the discharge of secondary treated waste waters from the Bristol Consolidated School to a tidal segment of the Pemaquid River, Class SB, in Bristol, Maine. The discharge was limited to a daily maximum flow of 3,500 gallons per day (gpd) between September 1st and June 30th and limited to a daily maximum flow of 1,500 gpd between July 1st and August 31st. See Attachment A of this Fact Sheet for a location map.

1. APPLICATION SUMMARY (cont'd)

b. Source description: The source of waste waters treated is generated at an elementary school that currently has a population of 213 students and 40 staff members during the school year and 15 staff members during the summer months.

c. Waste water treatment: The school has one grease trap and two (2) 1,000-gallon septic tank where primary settling takes place. The primary treated waste water is then conveyed by gravity or force main to a sand filter that provides a secondary level of treatment and disinfection via a tablet chlorinator. The treated waste water is disinfected and discharged to a tidal segment of the Pemaquid River via a four (4) inch diameter outfall pipe that extends out into the receiving water but is currently exposed at low tide and has approximately three feet of water over the crown of the pipe at mean tide.

d. Replacement Options: In May of 2003, the State Legislature adopted several amendments to the licensing of overboard discharges and the Department revised its rule Chapter 596, *Overboard Discharges: Licensing and Abandonment*, accordingly. One of the amendments in the revised rule required OBD owners that were applying to the Department to renew their OBD license, to hire a licensed site evaluator (LSE) to determine whether there is a technologically feasible replacement of the existing system prior to license renewal and install the replacement system within 180 days if grant money is offered by the Department.

The application for license renewal contained a letter dated February 28, 2003, from a LSE who indentified a parcel of land owned by the school that is suitable for a replacement system at a cost of $450,000 in 2003 dollars as estimated by the permittee's consultants however, the Department has not offered the permittee funding to eliminate the discharge.

2. PERMIT SUMMARY

a. Regulatory - On January 12, 2001, the Department received authorization from the EPA to administer the NPDES permit program in Maine, excluding areas of special interest to Maine Indian Tribes. From that point forward, the program has been referred to as the Maine Pollutant Discharge Elimination System (MEPDES) permit program, and permit #ME0101947 (same as the NPDES permit number) will be utilized as the primary reference number for the SU 74 facility. It is noted permit compliance submitted to the Department prior to this permitting action can be found under MEPDES #MEU506042.

2. PERMIT SUMMARY

b. Terms and conditions

This permitting action is similar to the 2/19/98 licensing action in that it is:

1. Carrying forward the monthly average and daily maximum technology-based concentration limitations for biochemical oxygen demand (BOD_5) and total suspended solids (TSS);

2. Carrying forward the forward the daily maximum flow limitation of 3,500 gallons per day (gpd) and establishing said limit on a year-round basis rather than seasonally.

This permitting action is different from the 2/19/98 licensing action in that it is:

3. Eliminating the flow limitation of 1,500 gpd for the summer period July 1st to September 1st.

4. Establishing weekly average technology based concentration limits for BOD and TSS.

5. Establishing monthly average, weekly average, and daily maximum technology-based mass limitations for BOD_5 and TSS;

6. Establishing a requirement for at least 85% removal of BOD and TSS on a monthly basis.

7. Establishing a daily maximum technology based concentration limitation for settleable solids of 0.3 ml/L.

8. Modifying the disinfection season from May 1 – September 30 to May 15 – September 30.

9. Establishing a more stringent daily maximum water quality based limitation for total residual chlorine along with a schedule of compliance to meet said limit. This permit also reduces the monitoring frequency for TRC from 2/Week to 1/Week.

10. Establishing a requirement for the permittee to have a site evaluation performed by a licensed site evaluator with experience in designing systems for the replacement of overboard discharge systems prior the expiration date of the permit.

11. Establishing a requirement for the permittee to develop and keep current, an Operations and Maintenance (O&M) plan for the waste treatment system and appurtenances.

12. Removing the applicability of the May 1 – September 30 season associated with total residual chlorine limitations.

3. CONDITIONS OF PERMIT

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

4. RECEIVING WATER QUALITY STANDARDS

Maine law, 38 M.R.S.A. §469(3-A) classifies the Pemaquid River at the point of discharge as a Class SB waterbody. Maine law, 38 M.R.S.A. §465-B(2) contains the standards for Class SB waterbodies.

The previous licensing action mistakenly stated that Maine law 38 M.R.S.A, §464(4)(A)(1) was applicable to the discharge from the SU 74 school. Maine law 38 M.R.S.A, §464(4)(A)(1) states *"the Department may not issue a waste discharge license for the direct discharge of pollutants to waters having a drainage area of less than 10 square miles, except that discharges into these waters that were licensed prior to January 1, 1986 are allowed to continue only until practical alternatives exist."* The Department has re-evaluated its position on the applicability of said law in this circumstance and determined because the discharge is to an isolated embayment subject to tidal action, 38M.R.S.A, §464(4)(A)(1) is not applicable.

5. RECEIVING WATER QUALITY CONDITIONS

The 2008 Integrated Water Quality Monitoring and Assessment Report published by the Department pursuant to Section 305(b) of the Federal Water Pollution Control Act lists the Pemaquid River as marine waters with insufficient data or information to determine attainment of water quality standards. Attainment in this context is in regard to the designated use of harvesting of shellfish which is currently prohibited due to overboard discharges and boats. Currently, DMR shellfish harvesting Area 24-A, Johns River and Pemaquid River (South Bristol and Bristol) is closed to the harvesting of shellfish. See Attachment B of this Fact Sheet for a map of Area 24-A. The DMR closed or restricted Area 24-A on March 27, 2008 based on ambient water quality data at that time indicated the area did not meet or marginally met the standards in the National Shellfish Sanitation Program. In addition, DMR closes areas by default in the vicinity of outfall pipes associated with treated sanitary waste water discharges in the event of a failure of the disinfection system. Therefore, Area 24-A remains closed as of the date of this permitting action. Compliance with the seasonal fecal coliform bacteria limits

5. RECEIVING WATER QUALITY CONDITIONS

in this permitting action will ensure that the discharge from the SU 74 facility will not cause or contribute to the shellfish harvesting closure. The Department has no information at this time that the discharge from the SU 74 facility is causing or contributing to the impairment status of the receiving waterbody as monthly Discharge Monitoring Report data for the period 2003 – 2007 indicates the permittee has been in substantial compliance with the permit limitations for fecal coliform bacteria.

The 2006 305(b) report also lists all estuarine and marine waters in a category entitled, *Category 5-D: Estuarine and Marine Waters Impaired by Legacy Pollutants*. The waters are listed as partially supporting fishing ("shellfish consumption) due to elevated levels of PCBs and other persistent, bioaccumulating substances in lobster tomally. Department rule Chapter 519, *Interim Effluent Limitations and Controls for the Discharge of Mercury*, establishes controls on the discharge of mercury to the surface waters of the State through interim effluent limits and implementation of pollution prevention plans. However, Section 1(A)(1) of the Chapter 519 rule states in part:

> *"This rule applies to all persons licensed or permitted pursuant to 38 MRSA §413 to discharge pollutants to the surface waters of the State except as described below. For the purposes of this rule, the term licensee also means permittee.*
>
> *Categorical exclusions. This rule does not apply to the following categories of licensees: combined sewer overflows, snow dumps, pesticide applications, and over board discharges licensed pursuant to 38 MRSA §413.[emphasis added] Except, however, specific members of these categories may be required by the department to comply with this rule on a case by case basis…"*

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

a. Best Practicable Treatment (BPT) - Overboard discharges may be permitted only where no technologically proven alternative exists. Overboard discharge treatment systems must be capable of meeting secondary treatment standards as described in CMR Chapter 525, Section 3 and Chapter 596 section 9, unless the Department finds that alternate limits are appropriate. After accepting a renewal application as complete for processing, the Department shall approve an overboard waste discharge license only if all of the following criteria are met.

(1) A publicly owned sewer line is not located on or abutting land owned or controlled by the applicant or is not available for the applicant's use.

(2) A subsurface wastewater disposal system cannot be installed in compliance with the Subsurface Rules, 10-144 CMR 241, on land owned or controlled by the applicant. Or, a subsurface wastewater disposal system can be installed on land owned or controlled by the applicant and the applicant is eligible for grant funding pursuant to 38 M.R.S.A § 411-A but no funding is available.

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

(3) The discharge is not located within the boundaries of a sanitary or sewer district and the district has not agreed to service and maintain a holding tank at an annual fee that does not exceed those fees charged to other similar users of the district's services who are physically connected to the sewers of the district.

(4) For a school, the volume or quantity of waste water that is discharged does not exceed;

(a) the limit imposed by the previous license.

(b) the actual or estimated flow at the time of current application if a license volume increase is necessary.

(5) The receiving water is not:

(a) A Class GPA, AA, A, or SA water;

(b) A tributary to Class GPA water; or

(c) A waterbody with a drainage area of less than 10 square miles,

(6) The discharge meets the requirements of *Maine's Pollution Control Laws* 38 M.R.S.A. §414-A, and Maine's *Water Classification Laws* 38 M.R.S.A. §§ 464 to 469.

(7) The discharge receives best practicable treatment consistent with requirements in Section 9 of Department rule Chapter 596.

The discharge from the SU 74 facility has met all the above criteria. It is noted he application for license renewal contained a letter dated February 28, 2003, from a LSE who indentified a parcel of land owned by the school that is suitable for a replacement system, however, the Department has not offered the permittee funding to remove the discharge. Therefore, the discharge may remain until SU 74 is offered funding to remove it.

b. Flow: The previous licensing action established seasonal daily maximum flow limitations of 3,500 gallons per day (gpd) between September 1st and June 30th and a daily maximum flow of 1,500 gpd between July 1st and August 31st. Page 3 of the 2/19/98 license contained the following text. "*During the summer months, the flows in the Pemaquid River drainage area may be so low that the discharge from this facility may not receive adequate dilution to maintain water quality. To provide for adequate dilution of the disinfected effluent during the summer months, the applicant's discharge limit will be reduced to 1,500 gallons per day from July 1 to September of each year.*"

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

Being that the outfall pipe discharges to an isolated embayment in the tidal segment of the Pemaquid River and the fact the pipe is exposed at mean low tide, flows in the Pemaquid River and their effect on the dilution factors are irrelevant. See the discussion on calculating dilution factors in Section 6(c) of this Fact Sheet. As a result, the Department is eliminating the reduced flow limit in the summer months and establishing the daily maximum flow limitation of 3,500 gpd on a year-round basis.

c. Dilution Factors – Department rule 06-096 CMR, Chapter 530, *Surface Water Toxics Control Program*, §4(A)(2) states,

(2) For estuaries where tidal flow is dominant and marine discharges, dilution factors are calculated as follows. These methods may be supplemented with additional information such as current studies or dye studies.

(a) For discharges to the ocean, dilution must be calculated as near-field or initial dilution, or that dilution available as the effluent plume rises from the point of discharge to its trapping level, at mean low water level and slack tide for the acute exposure analysis, and at mean tide for the chronic exposure analysis using appropriate models determined by the Department such as MERGE, CORMIX or another predictive model.

(b) For discharges to estuaries, dilution must be calculated using a method such as MERGE, CORMIX or another predictive model determined by the Department to be appropriate for the site conditions.

(c) In the case of discharges to estuaries where tidal flow is dominant and marine waters, the human health criteria must be analyzed using a dilution equal to three times the chronic dilution factor.

With a permitted flow of 3,500 gpd, the location and configuration of the outfall structure, the Department has made a best professional judgment that dilution factors are follows:

Acute = 1:1 Chronic = 14.8:1 Harmonic Mean[(1)] = 44.4:1

Footnote:

(1) The harmonic mean dilution factor is approximated by multiplying the chronic dilution factor by three (3). This multiplying factor is based on guidelines for estimation of human health dilution presented in the USEPA publication *"Technical Support Document for Water Quality-based Toxics Control"* (Office of Water; EPA/505/2-90-001, page 88), and represents an estimation of harmonic mean flow on which human health dilutions are based in a riverine 7Q10 flow situation.

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

d. Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS): The previous licensing action established technology-based monthly average and daily maximum BOD_5 and TSS concentration limits of 30 mg/L and 50 mg/L, respectively. The monthly average concentration limit is based on secondary treatment requirements as defined in Department rule, 06-096 CMR Chapter 525(3)(III) and for the daily maximum concentration limit of 50 mg/L, the basis is a best professional judgment by the Department of best practicable treatment (BPT). This permitting action is establishing a weekly average technology-based concentration limit of 45 mg/L based on secondary treatment requirements as defined in Department rule, 06-096 CMR Chapter 525(3)(III).

The previous licensing action did not establish mass limitations for BOD_5 and TSS. Department rule Chapter 523, *Waste Discharge License Conditions,* Section 6, *Calculating NPDES permit conditions*, sub-section f(1) states that, *"all pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass…."* Therefore, this permitting action is establishing monthly average, weekly average and daily maximum BOD_5 and TSS mass limitations based on calculations using the daily maximum permitted flow limitation for the facility of 3,500 gpd (0.0035 MGD) and the applicable concentration limits as follows:

Monthly Average Mass Limit: (30 mg/L)(8.34 lbs./gallon)(0.0035 MGD) = 1.0 lbs/day

Weekly Average Mass Limit: (45 mg/L)(8.34 lbs./day)(0.0035 MGD) = 1.0 lbs/day

Daily Maximum Mass Limit: (50 mg/L)(8.34 lbs./day)(0.0035 MGD) = 1.0 lbs/day

The previous licensing action established a minimum monitoring frequency requirement of once every calendar quarter for BOD_5 and TSS that is being carried forward in this permitting action. A review of the quarterly discharge flow data as reported on the DMR submitted to the Department for the period June 2004 – December 2007 (n=15) indicates the following:

BOD Concentration

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	1.3 – 27	9
Daily Maximum	50	1.3 - 27	9

TSS concentration

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	0 – 23	9
Daily Maximum	50	0 - 23	9

This permitting action is also establishing a new requirement for a minimum of 85% removal of BOD5 and TSS pursuant to Chapter 525(3)(III)(a)(3) and (b)(3) of the Department's rules.

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

e. Settleable Solids: The previous licensing action established a monthly average and daily maximum "report" only requirements for settleable solids with no monitoring frequency established. It is noted the permittee has been conducting quarterly monitoring for settleable solids to be consistent with the monitoring requirements for BOD and TSS. The Department has since reconsidered its position on limitations for settleable solids for OBDs and to be consistent with BPT limits established for all other MEPDES permits issued for like discharges this permit is establishing a daily maximum concentration limit of 0.3 ml/L. A review of the DMR data for the period June 2004 – December 2007 indicates the permittee has reported a value of 0.0 ml/L for the entire reporting time frame. This permitting action is establishing a daily maximum concentration limit to 0.3 ml/L but because of the excellent compliance history is not establishing a regular monitoring frequency to determine compliance on an on-going basis. However, the limitations are in effect and enforceable at all times.

f. Fecal coliform bacteria: The previous licensing action established a seasonal (May 1st – September 30th) water quality based monthly average concentration limit for fecal coliform bacteria of 15 colonies/100 ml (geometric mean) and a daily maximum "report" only (instantaneous level), requirement with a 1/Month monitoring frequency. Page 2 of the previous license contained the following text. *"The Departments Division of Environmental Assessment notes that the inter-tidal zone of the receiving waters serve as a spawning area for smelt and as a nursery area for juvenile alewives.* Page 3 of the previous license states "*For overboard discharges disinfection is normally year-round unless seasonal chlorination is recommended by the Division of Environmental Assessment or the Department of Marine Resources. To minimize the potential toxicity of chlorine to the aquatic life in the discharge area, the DMR recommends seasonal chlorination."*

This permitting action is carrying forward the monthly average concentration limitation of 15 colonies/100 ml and modifying the daily maximum reporting requirement by establishing a limitation of 50 colonies/100 ml to be consistent with the limits associated with the National Shellfish Sanitation Program. The season is being changed from May 1st – September 30th to May 15th – September 30th to be consistent with the time frame in Maine law 38 M.R.S.A., §465-B(2).

A review of the seasonal monthly average and daily maximum data as reported on the DMRs submitted to the Department for the period January 2004 – September 2007 indicates the monthly (geometric mean) and daily maximum fecal coliform bacteria discharged has ranged from 0 colonies/100 ml to <2 colonies/100 ml. The DMR data indicates the facility has been in compliance with the geometric mean limitation 100% of the time. As a result, the Department is maintaining the monitoring frequency of 1/Month.

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

g. Total Residual Chlorine (TRC): The previous licensing action established a daily maximum technology based concentration limit of 1.0 mg/L for TRC along with a 2/Week monitoring requirement between May 1st and September 30th. Limitations on TRC are specified to ensure that ambient water quality standards are maintained at all times of the year and that BPT technology is being applied to the discharge. Department permitting actions impose the more stringent of either a water quality-based or BPT-based limit. With dilution factors as determined above, end-of-pipe (EOP) water quality-based concentration thresholds for TRC may be calculated as follows:

Acute (A) Criterion	Chronic (C) Criterion	A & C Dilution Factors	Calculated Acute Limit	Calculated Chronic Limit
0.013 mg/L	0.0075 mg/L	1:1 (A) 14.8:1 (C)	0.013 mg/L	0.1 mg/L

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine-based compounds. For facilities that need to dechlorinate the discharge in order to meet water quality based thresholds, the Department has established daily maximum and monthly average BPT limits of 0.3 mg/L and 0.1 mg/L, respectively. The SU 74 facility must dechlorinate the effluent prior to discharge in order to consistently achieve compliance with the calculated water quality-based thresholds. Therefore, this permitting action is establishing a daily maximum water quality-based concentration limit of 0.013 mg/L that is applicable on a year-round basis as chlorine is toxic year-round and not seasonally. Compliance shall be based on EPA's minimum level (ML) of detection of 0.05 mg/L. All analytical test results shall be reported to the Department including results which are detected below the ML of 0.05 mg/L.

The permittee has indicated it can not comply with the more stringent water quality based limit immediately upon issuance of the permit as doing so will require additional funding not yet budgeted and likely require physical modifications to their existing infrastructure. As a result, the Department is carrying forward the technology based daily maximum limit of 1.0 mg/L in the previous permitting action through May 14, 2010. Beginning May 15, 2010, the new daily maximum water quality based limit of 0.013 mg/L will become effective and compliance will be based on EPA's minimum level (ML) of 0.05 mg/L.

A review of the daily maximum data as reported on the DMRs submitted to the Department for the period June 2004 - September 2007 indicates the maximum TRC discharged has ranged from 0.15 mg/L to 1.6 mg/L with an arithmetic mean (n=17) of 0.71 mg/L. The DMR data indicate the facility has only had 3 exceeedences of the previous license limit of 1.0 mg/L. Due to the good compliance record, this permitting action is reducing the monitoring frequency to 1/Week until May 14, 2010 while the limit of 1.0 mg/L is in effect but reverting back to the monitoring frequency of 2/Week when the new water quality based limitation becomes effective on May 15, 2010.

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

h. pH: The previous licensing action established a pH range limit of 6.0 – 8.5 standard units (SU), considered by the Department at the time as BPT for secondary treated waste water, but did not establish any monitoring frequency requirements. Pursuant to Department rule found at Chapter 525(3)(III)(c), (promulgated subsequent to issuance of the previous licensing action) the pH range limitation is being revised to 6.0 – 9.0 SU, which is considered BPT for secondary treated domestic like waste water. This permitting action is not establishing a regular monitoring frequency to determine compliance on an on-going basis but the limitations are in effect and enforceable at all times.

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

As permitted, the Department has determined the existing water uses will be maintained and protected, and that the discharge as permitted will not cause or contribute to the failure of the water body to meet standards for Class SB waters.

8. PUBLIC COMMENTS

Public notice of this application was made in the Lincoln County News newspaper on or about December, 2007. The Department receives public comments on an application until the date a final agency action is taken on the 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 sent to:

Gregg Wood
Division of Water Quality Management
Bureau of Land & Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 287-7693
e-mail: gregg.wood@maine.gov

10. RESPONSE TO COMMENTS

During the period of November 18, 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 Bristol Consolidated School. The only comments received by the Department were from the permittee in a letter dated December 15th. None of the comments resulted in any substantive change(s) in the terms and conditions of the permit. Therefore, the Department has not prepared a Response to Comments.