



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE  
GOVERNOR

PATRICIA W. AHO  
COMMISSIONER

Ms. Desiree Thompson  
Washington County Community College  
RR #1, Box 22C  
Calais, ME 04619

January 10, 2014

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0102831  
Maine Waste Discharge License (WDL) Application #W001339-5D-C-R  
**PROPOSED DRAFT** Permit/License  
Washington County Community College

Dear Ms. Thompson:

Enclosed is a proposed draft MEPDES permit and Maine WDL (permit hereinafter) which the Department proposes to issue as a final document after opportunity for your review and comment. By transmittal of this letter you are provided with an opportunity to comment on the proposed draft permit and its conditions (special conditions specific to this permit are enclosed; standard conditions applicable to all permits are available upon request). If it contains errors or does not accurately reflect present or proposed conditions, please respond to this Department so that changes can be considered.

By copy of this letter, the Department is requesting comments on the proposed draft permit from various state and federal agencies, as required by our new regulations, and from any other parties who have notified the Department of their interest in this matter.

All comments must be received in the Department of Environmental Protection office on or before the close of business Monday, February 10, 2014. Failure to submit comments in a timely fashion will result in the final document being issued as drafted. Comments in writing should be submitted to my attention at the following address:

Maine Department of Environmental Protection  
Bureau of Land & Water Quality  
Division of Water Quality Management  
17 State House Station  
Augusta, ME 04333

AUGUSTA  
17 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0017  
(207) 287-7688 FAX: (207) 287-7826

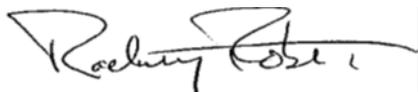
BANGOR  
106 HOGAN ROAD, SUITE 6  
BANGOR, MAINE 04401  
(207) 941-4570 FAX: (207) 941-4584

PORTLAND  
312 CANCO ROAD  
PORTLAND, MAINE 04103  
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE  
1235 CENTRAL DRIVE, SKYWAY PARK  
PRESQUE ISLE, MAINE 04679  
(207) 764-0477 FAX: (207) 760-3143

If you have any questions regarding the matter, please feel free to call me at 446-1875.

Sincerely,



Rodney Robert  
Bureau of Land and Water Quality  
Division of Water Quality Management

Enc.

cc:

Trevor White, Indian Township Tribal Government  
Dale Mitchell, Passamaquoddy Tribal Government  
Ivy Frignoca, CLF  
Oliver Cox, DMR  
Environmental Review. DMR  
Alex Rosenburg, USEPA  
David Pincumbe, USEPA  
Olga Vergara, USEPA

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

## DEPARTMENT ORDER

### IN THE MATTER OF

WASHINGTON COUNTY TECH. COLLEGE	)	MAINE POLLUTANT DISCHARGE
CALAIS, WASHINGTON COUNTY, MAINE	)	ELIMINATION SYSTEM PERMIT
OVERBOARD DISCHARGE	)	AND
ME0102831	)	WASTE DISCHARGE LICENSE
W001339-5D-C-R	)	<b>RENEWAL</b>
<b>APPROVAL</b>	)	

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

### APPLICATION SUMMARY

The permittee submitted a timely and complete application to the Department for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0102831/Maine Waste Discharge License (WDL) #W001339-5D-B-R (permit hereinafter) which was issued by the Department on March 5, 2009 and expires on March 5, 2014. The permit authorized the year-round discharge of up to 10,500 gallons per day (GPD) of secondary treated sanitary wastewater to the St. Croix River, Class SB, in Calais, Maine.

### PERMIT SUMMARY

**This permitting action is carrying forward all the terms and conditions of the March 5, 2009 permit.**

## CONCLUSIONS

BASED on the findings in the attached **PROPOSED DRAFT** Fact Sheet dated January 10, 2014, 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) Where 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.
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.

**CONCLUSIONS (cont'd)**

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 WASHINGTON COUNTY COMMUNITY COLLEGE, to discharge a monthly average flow of up to 10,500 gallons per day of secondary treated sanitary waste water to the ST. CROIX RIVER, Class SB, in Calais, 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 and the authorization to discharge become effective upon the date of signature below and expire at midnight five (5) years after that date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the authorization to discharge and the terms and conditions of this permit and all modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [*Maine Administrative Procedure Act*, 5 M.R.S.A. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(21)(A) (effective April 1, 2003)].

DONE AND DATED AT AUGUSTA, MAINE, THIS \_\_\_\_ DAY OF \_\_\_\_\_, 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
Patricia W. Aho, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: December 30, 2013.  
Date of application acceptance: December 31, 2013.

This Order prepared by Rodney Robert, BUREAU OF LAND & WATER QUALITY

ME0102831 10JAN2014

**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 #001** to the St. Croix River, Class SB. Such discharges shall be limited and monitored by the permittee as specified below<sup>(1)</sup>:

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
<b>Flow</b> [50050]	10,500 GPD [07]	---	Report (GPD) [07]	---	---	---	Weekly [01/07]	Calculate [CA]
<b>BOD<sub>5</sub></b> [00310]	2.6 lbs/day [26]	3.9 lbs/day [26]	4.4 lbs/day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	1/2 Month [01/60]	Grab [GR]
<b>BOD<sub>5</sub> Percent Removal</b> <sup>(2)</sup> [81010]	---	---	---	85% [23]	---	---	----	----
<b>TSS</b> [00530]	2.6 lbs/day [26]	3.9 lbs/day [26]	4.4 lbs/day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	1/2 Month [01/60]	Grab [GR]
<b>TSS Percent Removal</b> <sup>(2)</sup> [81011]	---	---	---	85% [23]	---	---	----	----
<b>Settleable Solids</b> [00545]	---	---	---	---	---	0.3 mL/L [25]	---	Grab [GR]
<b>Fecal Coliform Bacteria</b> <sup>(3)</sup> [31616] (May 15 – September 30)	---	---	---	15/100 mL <sup>(4)</sup> [13]	---	50/100 mL [13]	1 Month [01/30]	Grab [GR]
<b>Total Residual Chlorine</b> [50060]	---	---	---	---	---	1.0 mg/L [19]	3/Week [03/07]	Grab [GR]
<b>pH</b> [00400]	---	---	---	---	---	6.0 – 9.0 SU [12]	---	---

Footnotes See Page 5 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 in Title 40, *Code of Federal Regulations* (CFR) Part 136. Samples that are sent to a waste water treatment plant 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 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 RL achieved by the laboratory for each respective parameter. Reporting a value of <Y that is greater than an established RL or reporting an estimated value (“J” flagged) is not acceptable and will be rejected by the Department. Reporting analytical data and its use in calculations must follow established Department guidelines specified in this permit or in available Department guidance documents.

2. **Percent Removal** – The treatment facility shall maintain a minimum of 85 percent removal of both BOD<sub>5</sub> and TSS for all flows receiving secondary treatment. If the permittee is required to calculate percent removals but does not have access to an influent sampling location, the permittee shall use 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 15 and September 30 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 test results shall be reported as such.

## **SPECIAL CONDITIONS**

### **A. 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 permit is sufficient grounds for accruing interest charges, penalties or revocation of the permit.

### **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 for 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 for 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 for 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. TREATMENT PLANT OPERATOR**

The person who has the management responsibility over the treatment facility must hold a Maine **Grade I** (or higher) Waste Water Operator Certificate 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.

### **D. 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, 2013; 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.

## **SPECIAL CONDITIONS**

### **E. 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.

### **F. SITE EVALUATION FOR TRANSFERRED AND RENEWED PERMITS**

**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.

## **G. 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, the permittee shall submit an updated O&M Plan to their Department inspector for review and comment.

## **H. 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 permittee 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 permittee 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.

## **I. 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.

## **J. 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:

Overboard Discharge Inspector  
Department of Environmental Protection  
Bureau of Land and Water Quality  
17 State House Station, Augusta, Maine 04333-0017

Alternatively, if submitting an electronic DMR (eDMR), the completed eDMR must be electronically submitted to the Department by a facility authorized DMR Signatory not later than close of business on the 15<sup>th</sup> day of the month following the completed reporting period. Hard Copy documentation submitted in support of the eDMR must be postmarked on or before the thirteenth (13<sup>th</sup>) day of the month or hand-delivered to the Department's Regional Office such that it is received by the Department on or before the fifteenth (15<sup>th</sup>) day of the month following the completed reporting period. Electronic documentation in support of the eDMR must be submitted not later than close of business on the 15<sup>th</sup> day of the month following the completed reporting period.

## **K. 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**

**PROPOSED DRAFT FACT SHEET**

**January 10, 2014**

MEPDES PERMIT: **ME0102831**  
WASTE DISCHARGE LICENSE: **W001339-5D-C-R**

NAME AND ADDRESS OF APPLICANT:

**WASHINGTON COUNTY COMMUNITY COLLEGE  
RR #1, Box 22C  
Calais, Maine 04619**

COUNTY: **Washington County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

**One College Drive  
Calais, Maine**

RECEIVING WATER / CLASSIFICATION: **St. Croix River/Class SB**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Desiree Thompson**  
**(207) 454-1021**  
[dthompson@wccc.me.edu](mailto:dthompson@wccc.me.edu)

CONTRACT OPERATOR: **John Carman, JMC Wastewater**  
**(207) 948-3228**

**1. APPLICATION SUMMARY**

- a. Application: Washington County Community College (WCCC/permittee hereinafter) has submitted a timely and complete application to the Department to renew combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0102831/Maine Waste Discharge License (WDL) #W001339-5D-B-R (permit hereinafter) which was issued by the Department on March 5, 2009 and expires on March 5, 2014. The permit authorized the year-round discharge of up to 10,500 gallons per day (GPD) of secondary treated sanitary wastewater to the St. Croix River, Class SB, in Calais, Maine. See **Attachment A** of this Fact Sheet for a location map.

## 1. APPLICATION SUMMARY (cont'd)

- b. Source description: The Washington County Community College (WCCC) is a division of the Maine Community College System. The facility is located on a 400 acre parcel in Calais, Maine and serves approximately 500 students and 60 faculty and staff employees.
- c. Waste water treatment: The waste water treatment system serves only the WCCC and is entirely on its property. The waste water treatment system consists of a 10,000 gallon septic tank, a sand filtration system and a chlorine tablet disinfection system. The treated waste water is discharged to the St. Croix River via a 6-inch outfall pipe with no diffuser. The outfall depth below mean low water is 2 feet.
- d. Replacement Options: In May of 2003, the Maine 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 requires OBD owners who are applying to the Department to renew their OBD licenses to hire a licensed site evaluator (LSE) to determine whether or not it is technologically feasible to replace the existing waste water treatment system prior to license renewal and install a replacement system within 180 days if grant money is offered by the Department. The site evaluation performed on December 3, 2008 by Deane Bradshaw, P.E., concluded that while the WCCC campus is relatively large (approximately 400 acres), there are no suitable soil areas within the reasonably accessible portion. The soils over the campus range from marine clays to poorly drained, silty, glacial till in the field areas above and behind the school. Continued use of the overboard discharge system was recommended by the site evaluator.

## 2. PERMIT SUMMARY

**This permitting action is carrying forward all the terms and conditions of the March 5, 2009 permit.**

### 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 classifies the St. Croix River at the point of discharge as a Class SB waterbody. Maine law, 38 M.R.S.A. §465-B(2) establishes the standards for Class SB as follows:

*Class SB waters must be of such quality that they are suitable for the designated uses of recreation in and on the water, fishing, aquaculture, propagation and harvesting of shellfish, industrial process and cooling water supply, hydroelectric power generation, navigation and as habitat for fish and other estuarine and marine life. The habitat must be characterized as unimpaired.*

*The dissolved oxygen content of Class SB waters must be not less than 85% of saturation. Between May 15th and September 30th, the numbers of enterococcus bacteria of human and domestic animal origin in these waters may not exceed a geometric mean of 8 per 100 milliliters or an instantaneous level of 54 per 100 milliliters. In determining human and domestic animal origin, the department shall assess licensed and unlicensed sources using available diagnostic procedures. The numbers of total coliform bacteria or other specified indicator organisms in samples representative of the waters in shellfish harvesting areas may not exceed the criteria recommended under the National Shellfish Sanitation Program, United States Food and Drug Administration.*

*Discharges to Class SB waters may not cause adverse impact to estuarine and marine life in that the receiving waters must be of sufficient quality to support all estuarine and marine species indigenous to the receiving water without detrimental changes in the resident biological community. There may be no new discharge to Class SB waters that would cause closure of open shellfish areas by the Department of Marine Resources. For the purpose of allowing the discharge of aquatic pesticides approved by the department for the control of mosquito-borne diseases in the interest of public health and safety, the department may find that the discharged effluent will not cause adverse impact to estuarine and marine life as long as the materials and methods used provide protection for nontarget species. When the department issues a license for the discharge of aquatic pesticides authorized under this paragraph, the department shall notify the municipality in which the application is licensed to occur and post the notice on the department's publicly accessible website.*

## 5. RECEIVING WATER QUALITY CONDITIONS

The 2010 Integrated Water Quality Monitoring and Assessment Report published by the Department pursuant to Section 305(b) of the Federal Water Pollution Control Act, lists waterbody #702-4 (including DMR Legal Notice Closed Area C-62) in a table entitled, *Category 4-A: Estuarine and Marine Waters Impaired Use TMDL Completed*. The report lists potential sources contributing to the impairment, including overboard discharge systems, elevated levels of fecal coliform bacteria, sewerage treatment facilities and non-point source pollution.

The Maine Department of Marine Resources (DMR) assesses information on shellfish growing areas to ensure that shellfish harvested are safe for consumption. The DMR has authority to close shellfish harvesting areas wherever there is a pollution source, a potential pollution threat, or poor water quality.

The DMR traditionally closes shellfish harvesting areas if there are known sources of discharges with unacceptable bacteria levels (in-stream thresholds established in the National Shellfish Sanitation Program) or maintains shellfish harvesting closure areas due to lack of updated information regarding ambient water quality conditions. The Maine DMR closed or restricted Area C-62 (Waterbody ID 702-4) on March 8, 2013 based on ambient water quality data that, at that time, indicated the area did not meet or marginally met the standards in the National Shellfish Sanitation Program. In addition, the Maine 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.

Compliance with the seasonal fecal coliform bacteria limits in this permitting action will ensure that the discharge from the permittee's facility will not cause or contribute to the shellfish harvesting closure.

The 2008 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*. These waters are listed as partially supporting fishing ("shellfish consumption) due to elevated levels of PCBs and other persistent, bioaccumulating substances in lobster tomalley.

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.

## 5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

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.’

- (1) 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.
  - (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.

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

- (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 WCCC facility has met all the above criteria. Site evaluation conducted in 2008 from a licensed site evaluator concluded that a replacement subsurface waste water disposal system cannot be installed in compliance with the Subsurface Rules, 10-144 CMR 241, on land owned or controlled by the applicant.

- b. Flow: The previous permitting action established a monthly average flow limitation of 10,500 gallons per day (gpd) and a daily maximum reporting requirement along with a weekly measurement frequency, both of which are being carried forward in this permitting action. The Discharge Monitoring Report (DMR) data for the period October 2009 – September 2013 indicates the permittee has reported flow values as follows:

**Flow (DMRs = 48)**

Value	Limit (gpd)	Range (gpd)	Mean (gpd)
Monthly Average	10,500	1,069 – 6,284	3,077
Daily Maximum	Report	1,459 – 8,708	4,230

- 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.:*

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

- (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 10,500 GPD, the location and configuration of the outfall structure, the Department has made a best professional judgment that dilution factors are follows:

Acute = 103.4:1      Chronic = 30,692:1      Harmonic Mean<sup>(1)</sup> = 92,076:1

### 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.
- d. Biochemical Oxygen Demand (BOD<sub>5</sub>) and Total Suspended Solids (TSS): The previous permitting action established technology based monthly average, weekly average and daily maximum BOD<sub>5</sub> and TSS concentration limits of 30 mg/L, 45 mg/L and 50 mg/L, respectively. The monthly average and weekly average concentration limits are based on secondary treatment requirements as defined in Department rule, 06-096 CMR Chapter 525(3)(III) and the daily maximum concentration limit of 50 mg/L is based on a best professional judgment by the Department of best practicable treatment (BPT). This permitting action is carrying forward all three technology-based concentration limits.

06-096 CMR 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...*"

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

Therefore, this permitting action is carrying forward the monthly average, weekly average and daily maximum BOD<sub>5</sub> and TSS mass limitations based on calculations using the permittee's daily maximum permitted flow limitation of 10,500 GPD (0.0105 MGD) and the applicable concentration limits as follows:

Monthly Average Mass Limit: (30 mg/L)(8.34 lbs/gallon)( 0.0105 MGD) = 2.6 lbs/day

Weekly Average Mass Limit: (45 mg/L)(8.34 lbs/gallon)( 0.0105 MGD) = 3.9 lbs/day

Daily Maximum Mass Limit: (50 mg/L)(8.34 lbs/gallon)( 0.0105 MGD) = 4.4 lbs/day

The previous permitting action established a minimum monitoring frequency requirement of once every two months (1/2 Month) for BOD<sub>5</sub> and TSS that is being carried forward in this permitting action. A review of the discharge data as reported on the permittee's Discharge Monitoring Reports (DMR's) submitted to the Department for the period November 2009 – September 2013 indicate the following:

**BOD concentration (DMRs = 32)**

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	5 - 11	7.0
Weekly Average	45	5 - 11	7.0
Daily Maximum	50	5 - 11	7.0

**TSS concentration (DMRs = 32)**

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	3 - 11	5.4
Weekly Average	45	3 - 11	5.4
Daily Maximum	50	3 - 11	5.4

**BOD Mass (DMRs = 32)**

Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)
Monthly Average	30	0.02 -0.39	0.17
Weekly Average	45	0.02 -0.39	0.17
Daily Maximum	50	0.02 -0.39	0.17

**TSS Mass (DMRs = 32)**

Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)
Monthly Average	30	0.03 – 0.34	0.16
Weekly Average	45	0.03 – 0.34	0.16
Daily Maximum	50	0.03 – 0.34	0.16

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

This permitting action is also carrying forward a new requirement for a minimum of 85% removal of BOD<sub>5</sub> and TSS pursuant to Chapter 525(3)(III)(a)(3) and (b)(3) of the Department's rules.

- e. Settleable Solids: This permitting action is carrying forward a daily maximum settleable solids technology based concentration limit of 0.3 mL/L but is not establishing a regular monitoring frequency; however, the limitations are in effect and enforceable at all times.
- f. Fecal coliform bacteria: The previous permitting action established a seasonal monthly average limitation of 15 colonies/100 mL (geometric mean) and a daily maximum limitation of 50 colonies/100 mL to be consistent with the limits associated with the National Shellfish Sanitation Program. A seasonal timeframe of May 15 – September 30 is being carried forward in this permitting action in order 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 May 2010 – September 2013 indicates monthly average and daily maximum fecal coliform bacteria counts have been reported as follows:

**Fecal coliform bacteria (DMRs=20)**

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100 ml)
Monthly Average	15	<1-2	<1
Daily Maximum	50	<1-2	<1

- g. Total Residual Chlorine (TRC): The previous permitting action established a daily maximum TRC technology-based concentration limit of 1.0 mg/L along with a 3/Week monitoring requirement. 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 in Section 7C of this fact sheet, 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	103.4:1 (A) 30,692:1 (C)	1.34mg/L	230 mg/L

Example: Acute Limit Calculation: (0.013 mg/L)(103.4) = 1.34mg/L

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

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. Based on the calculated acute and chronic total residual chlorine limits, the WCCC facility is not required to dechlorinate the effluent prior to discharge in order to consistently achieve compliance with the calculated water quality-based thresholds.

A review of the daily maximum data as reported on the DMRs submitted to the Department for the period October 2009 – September 2013 indicates the maximum TRC discharged has been as follows;

**Total residual chlorine (DMRs = 23)**

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	1.0	0.17 – 0.90	0.73

- h. **pH:** The previous permitting action established a technology based pH range limit of 6.0 – 9.0 standard units (SU), pursuant to Department rule found at 06-096 CMR Chapter 525(3)(III)(c). This permitting action is not establishing a regular monitoring frequency but the limitations are in effect and enforceable at all times.
- i. **Whole Effluent Toxicity (WET), Priority Pollutant, and Analytical Chemistry Testing:** Maine law, 38 M.R.S.A., §414-A and §420, prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. Department rule, 06-096 CMR Chapter 530, *Surface Water Toxics Control Program* (toxics rule) sets forth effluent monitoring requirements and procedures to establish safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected and narrative and numeric water quality criteria are met. Department rule 06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, sets forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

Chapter 530 Section (2)(A) specifies the dischargers subject to the rule as, “...all licensed dischargers of industrial process wastewater or domestic wastes discharging to surface waters of the State must meet the testing requirements of this section. Dischargers of other types of wastewater are subject to this subsection when and if the Department determines that toxicity of effluents may have reasonable potential to cause or contribute to exceedences of narrative or numerical water quality criteria.”

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

Chapter 530 Section 2.A specifies the criteria for exemption of certain discharges from toxics testing as follows:

- (1) Discharges from individual discharge points licensed to discharge less than 50,000 gallons per day of solely domestic wastewater and with a chronic dilution factor of at least 50 to 1, provided no holding tank wastes containing chemicals are accepted by the facility;*
- (2) Discharges from residential overboard discharge systems; or*
- (3) Discharges from combined sewer overflow discharge points, provided the owner of the sewerage system is conducting or participating in a discharge abatement program.*

The permittee's facility is exempt from the Chapter 530 requirements as it permitted to discharge less than 50,000 gpd, the chronic dilution factor is greater than 50:1 (Department BPJ) and the waste water has domestic-like characteristics. However, should there be a substantial change in the characteristics of the discharge in the future; the Department may reopen this permit pursuant to Special Condition I, *Reopening of Permit for Modifications*, to incorporate the applicable whole effluent toxicity (WET), priority pollutant or analytical testing requirements cited above.

## **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 *Calais Advertiser* newspaper on or about December 26, 2013. 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:

Rod Robert  
Division of Water Quality Management  
Bureau of Land & Water Quality  
Department of Environmental Protection  
17 State House Station  
Augusta, Maine 04333-0017 Telephone: (207) 446-1875  
e-mail: [rodney.robert@maine.gov](mailto:rodney.robert@maine.gov)

## **10. RESPONSE TO COMMENTS**

*Reserved until the close of the formal 30-day public comment period.*