



DEPARTMENT ORDER

IN THE MATTER OF

CALAIS SCHOOL DEPARTMENT)	MAINE POLLUTANT DISCHARGE
OVERBOARD DISCHARGE)	ELIMINATION SYSTEM PERMIT
CALAIS, WASHINGTON COUNTY, MAINE)	AND
#ME0102765)	WASTE DISCHARGE LICENSE
#W002375-5D-F-R)	RENEWAL
APPROVAL)	

In compliance with the provisions of the *Federal Water Pollution Control Act*, Title 33 USC, §1251, *Conditions of licenses*, 38 M.R.S. § 414-A, and applicable regulations, the Department of Environmental Protection (Department) has considered the application of the CALAIS SCHOOL DEPARTMENT (CSD or permittee) with its supportive data, agency review comments, and other related materials on file and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On August 11, 2022, the Department accepted as complete an application for the renewal of combination Maine Waste Discharge License (WDL) #W002375-5D-E-R / Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0102765, which was issued by the Department on August 10, 2017, for a five-year term. The 8/10/17 permit authorized the daily maximum discharge of 13,000 gallons per day (GPD) of secondary treated sanitary wastewater from the CSD wastewater treatment system to the Saint Croix River, Class SC, in Calais, Maine.

PERMIT SUMMARY

This permitting action carries forward all the terms and conditions of the previous permit, except that this permit,

1. Establishes a year-round testing season for Fecal Coliform and
2. Revises Fecal Coliform limits pursuant to 38 M.R.S. § 465-B.

CONCLUSIONS

BASED on the findings summarized in the attached Fact Sheet dated January 24, 2024, 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. §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 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 discharge will be subject to effluent limitations that require application of best practicable treatment as defined in 38 M.R.S. § 414-A(1)(D).
5. The overboard discharge system was in continuing existence for the 12 months preceding June 1, 1987.
6. A subsurface wastewater disposal system could not be installed in compliance with the Maine Subsurface Wastewater Disposal Rules at the time the renewal application was accepted by the Department.
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.

ACTION

THEREFORE, the Department APPROVES the above noted application of the CALAIS SCHOOL DEPARTMENT to discharge a daily maximum flow of 13,000 gallons per day of secondary treated sanitary wastewater from the CSD wastewater treatment system to the Saint Croix River, Class SC, 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 from the effective 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. §10002 and Rules Concerning the Processing of Applications and Other Administrative Matters, 06-096 CMR 2(21)(A) (amended June 9, 2018)*]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

DONE AND DATED AT AUGUSTA, MAINE, THIS _____ DAY OF _____, 2024.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
for Melanie Loyzim, Commissioner

<p>Filed March 9, 2023 State of Maine Board of Environmental Protection</p>

Date filed with Board of Environmental Protection

Date of initial receipt of application: August 11, 2022

Date of application acceptance: August 11, 2022

This Order prepared by Rod Robert, BUREAU OF WATER QUALITY

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge **secondary treated sanitary wastewater** via **Outfall #001A** to the Saint Croix River. Such discharges shall be limited and monitored by the permittee as specified below.

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>
	as specified	as specified	as specified	as specified	as specified	as specified	as specified	as specified
Flow⁽¹⁾ <i>[50050]</i>	--	--	13,000 GPD <i>[07]</i>	--	--	--	1/Month <i>[01/30]</i>	Estimated <i>[ES]</i>
BOD₅⁽¹⁾ <i>[00310]</i>	3.3 lbs./day <i>[26]</i>	4.9 lbs./day <i>[26]</i>	5.4 lbs./day <i>[26]</i>	30 mg/L <i>[19]</i>	45 mg/L <i>[19]</i>	50 mg/L <i>[19]</i>	1/Month <i>[01/30]</i>	Grab <i>[GR]</i>
BOD₅ % Removal⁽²⁾⁽¹⁾ <i>[81010]</i>	---	---	---	85% <i>[23]</i>	---	---	1/Month <i>[01/30]</i>	Calculate <i>[CA]</i>
TSS⁽¹⁾ <i>[00530]</i>	3.3 lbs./day <i>[26]</i>	4.9 lbs./day <i>[26]</i>	5.4 lbs./day <i>[26]</i>	30 mg/L <i>[19]</i>	45 mg/L <i>[19]</i>	50 mg/L <i>[19]</i>	1/Month <i>[01/30]</i>	Grab <i>[GR]</i>
TSS % Removal⁽²⁾⁽¹⁾ <i>[81011]</i>	---	---	---	85% <i>[23]</i>	---	---	1/Month <i>[01/30]</i>	Calculate <i>[CA]</i>
Settleable Solids⁽¹⁾ <i>[00545]</i>	--	--	--	--	--	0.3 ml/L <i>[25]</i>	1/Month <i>[01/30]</i>	Grab <i>[GR]</i>
Fecal Coliform Bacteria⁽³⁾⁽¹⁾ <i>[31616]</i>	--	--	--	14/100 ml ⁽⁴⁾ <i>[13]</i>	--	31/100 ml <i>[13]</i>	1/Month <i>[01/30]</i>	Grab <i>[GR]</i>
Total Residual Chlorine⁽⁵⁾ ⁽¹⁾ <i>[50060]</i>	--	--	--	--	--	1.0 mg/L <i>[19]</i>	1/Month <i>[01/30]</i>	Grab <i>[GR]</i>
pH⁽¹⁾ <i>[00400]</i>	--	--	--	--	--	6.0 – 9.0 SU <i>[12]</i>	1/Month <i>[01/30]</i>	Grab <i>[GR]</i>

The italicized numeric values bracketed in the table and in subsequent text are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports.

FOOTNOTES: See Pages 5-6 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

FOOTNOTES:

1. **Monitoring** – All effluent monitoring must be conducted at a location following the last treatment unit in the treatment process as to be representative of end-of-pipe effluent characteristics. A routine sampling program must be developed in which samples are taken at the same location, same time and same days of the week each month. Occasional deviations from the routine sampling program are allowed, but the reason for the deviation must be documented as an electronic attachment to the applicable discharge monitoring report.

All effluent monitoring must be conducted at a location following the last treatment unit in the treatment process as to be representative of end-of-pipe effluent characteristics. Sampling and analysis must be conducted in accordance with; a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis must be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services for wastewater testing. Samples that are sent to another POTW licensed pursuant to Waste discharge licenses, 38 M.R.S. § 413 or laboratory facilities that analyze compliance samples in-house are subject to the provisions and restrictions of Maine Comprehensive and Limited Environmental Laboratory Certification Rules, 10-144 CMR 263 (last amended April 1, 2010). If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report.

In accordance with 40 CFR § 122.44(i)(1)(iv), the permittee must monitor according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O, for the analysis of pollutants or pollutant parameters (except WET). A method is "sufficiently sensitive" when: 1) The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter; or 2) The method has the lowest ML of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O for the measured pollutant or pollutant parameter. The term "minimum level" refers either to the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL), whichever is higher. Minimum levels may be obtained in the following ways: they may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a laboratory, by a factor.

SPECIAL CONDITIONS

Footnotes (cont'd)

2. **Percent Removal** – The permittee must maintain a minimum of 85 percent removal of both BOD₅ and TSS for all flows receiving secondary treatment. The percent removal must be calculated based on influent and effluent concentration values. The permittee's wastewater treatment system does not contain an influent sampling location that is representative of raw wastewater conditions. Therefore, this permitting action authorizes the permittee to assume an influent BOD₅ and TSS concentration value of 286 mg/L for purposes of calculating the monthly percent removal value.
3. **Bacteria Limits** – Pursuant to 38 M.R.S. § 465-B, fecal coliform bacteria limits and monitoring requirements are in effect year-round. However, the permittee has requested additional time to facilitate year-round testing. By December 31, 2024, the permittee will update the Department on its progress to meet the year-round testing requirement to ensure the permittee will meet the year-round testing requirement beginning no later than April 15th, 2025.
4. **Bacteria Reporting** – The monthly average fecal coliform bacteria limitation is a geometric mean limitation and sample results shall be reported as such.
5. **Total residual chlorine (TRC)** – Limitations and monitoring requirements are applicable whenever elemental chlorine or chlorine-based compounds are being used to disinfect the discharge. The permittee shall utilize approved test methods that can bracket the TRC limitation in this permit.

B. NARRATIVE EFFLUENT LIMITATIONS

1. The permittee must not discharge effluent that contains a visible oil sheen, foam or floating solids at any time which would impair the uses designated for the classification of the receiving waters.
2. The permittee must not discharge effluent that contains materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the uses designated for the classification of the receiving waters.
3. The permittee must not discharge effluent that causes visible discoloration or turbidity in the receiving waters or otherwise impairs the uses designated for the classification of the receiving waters.
4. The permittee must not discharge effluent that lowers the quality of any classified body of water below such classification or lowers the existing quality of any body of water if the existing quality is higher than the classification.

SPECIAL CONDITIONS

C. ANNUAL DISCHARGE FEES

Pursuant to *Annual Waste Discharge License Fees*, 38 M.R.S. §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 permit.

D. TREATMENT PLANT OPERATOR

The treatment facility must be operated by a person holding a minimum of a Maine Grade II certificate (or higher) or must be a Maine Registered Professional Engineer pursuant to *Sewage Treatment Operators*, 32 M.R.S. § 4171-4182 and *Regulations for Wastewater Operator Certification*, 06-096 CMR 531 (effective May 8, 2006). All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

E. 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 on August 11, 2022; 2) the terms and conditions of this permit; and 3) only from Outfall #001. Discharges of wastewater from any other point source are not authorized under this permit and must be reported in accordance with Standard Condition D(1)(f) *Twenty-four-hour reporting* of this permit.

F. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the permittee must notify the Department of the following:

1. Any substantial change in the characteristics of pollutants being introduced into the wastewater collection and treatment system by a source introducing pollutants to the system at the time of permit issuance.
2. For the purposes of this section, adequate notice must include information on:
 - a. The quality of wastewater introduced to the wastewater collection and treatment system; and
 - b. Any anticipated impact of the change in the quality of the wastewater to be discharged from the treatment system.

SPECIAL CONDITIONS

G. 06-096 CMR 530(2)(D)(4) STATEMENT FOR REDUCED/WAIVED TOXICS TESTING

By December 31 of each calendar year, the permittee must provide the Department with a certification describing any of the following that have occurred since the effective date of this permit [*JICIS Code 75305*]. See **Attachment B** of the Fact Sheet for an acceptable certification form to satisfy this Special Condition.

- (a) Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge.
- (b) Changes in the operation of the treatment works that may increase the toxicity of the discharge.
- (c) Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge;

In addition, in the comments section of the certification form, the permittee must provide the Department with statements describing.

- (d) Changes in stormwater collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge; and
- (e) Increases in the type or volume of transported (hauled) wastes accepted by the facility.

The Department may require that routine screening or surveillance level testing be imposed if it determines that there have been changes in the character of the discharge or if annual certifications described above are not submitted.

H. 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 (if not done so within the most recent five-year period) by a licensed site evaluator with experience in designing systems for the replacement of overboard discharge systems.

Transfers - The Department may not grant approval for permit transfer if the site evaluation concludes that a non-discharging wastewater disposal system designed in compliance with the Maine Subsurface Wastewater Disposal Rules administered by the Maine Department of Health and Human Services, Division of Environmental Health can be installed as an alternative system for the overboard discharge. Pursuant to Maine law 38 M.R.S. §413(3) the alternative system would need to be installed within 90 days of property transfer, except that, if soil conditions are poor due to seasonal weather, the alternative system may be installed as soon as soil conditions permit.

SPECIAL CONDITIONS

H. SITE EVALUATION FOR TRANSFERRED AND RENEWED PERMITS (cont'd)

Renewals – Pursuant to Maine law 38 M.R.S. §414-A(1-B), if a technologically proven alternative is identified, the alternative must be installed within 180 days of the application's being accepted by the department, subject to availability of funding under section 411-A. If the applicant is not eligible for funding under section 411-A, the alternative system must be installed within 180 days. If the applicant is eligible for funding but no funding is available, the installation of an alternative system may be postponed until funding is available.

I. OPERATION & MAINTENANCE (O&M) PLAN

The permittee must maintain a current written comprehensive Operation & Maintenance (O&M) Plan for the facility. The plan must provide a systematic approach by which the permittee must always, 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 must 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 must be kept on-site at all times and made available to Department and USEPA personnel upon request.

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

J. MONITORING AND REPORTING

Electronic Reporting

NPDES Electronic Reporting, 40 C.F.R. 127, requires MEPDES permit holders to submit monitoring results obtained during the previous month on an electronic discharge monitoring report to the regulatory agency utilizing the USEPA electronic system.

Electronic Discharge Monitoring Reports (DMRs) submitted using the USEPA NetDMR system, must be:

1. Submitted by a facility authorized signatory; and
2. Submitted no later than **midnight on the 15th day of the month** following the completed reporting period.

SPECIAL CONDITIONS

K. REOPENING OF PERMIT FOR MODIFICATIONS

In accordance with 38 M.R.S. § 414-A(5) and upon evaluation of the test results required by the Special Conditions of this permitting action, new site specific information, or any other pertinent test results or information obtained during the term of this permit, the Department may, at any time and with notice to the permittee, modify this permit to: (1) include effluent limitations necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded; (2) require additional monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

L. SEVERABILITY

If any provision, or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit must remain in full force and effect and must 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: **January 24, 2024**

MEPDES PERMIT: **#ME0102765**
WASTE DISCHARGE LICENSE: **#W002375-5D-F-R**

NAME AND ADDRESS OF APPLICANT:

**CALAIS SCHOOL DEPARTMENT
32 BLUE DEVIL HILL ROAD
CALAIS, MAINE 04619**

COUNTY: **WASHINGTON**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

**CALAIS SCHOOL DEPARTMENT
32 BLUE DEVIL HILL ROAD
CALAIS, MAINE 04619**

RECEIVING WATER / CLASSIFICATION: **ST. CROIX RIVER/CLASS SC**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **MS. ANNALEIS HAFFORD, P.E.
OLVER ASSOCIATES, INC.
(207) 223-2232
annaleis@olverassociatesinc.com**

1. APPLICATION SUMMARY

- a. Application: On August 11, 2022, the Department accepted as complete an application for the renewal of combination Maine Waste Discharge License (WDL) #W002375-5D-E-R / Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0102765, which was issued by the Department on August 10, 2017, for a five-year term. The 8/10/17 permit authorized the daily maximum discharge of 13,000 gallons per day (GPD) of secondary treated sanitary wastewater from the CSD wastewater treatment system to the Saint Croix River, Class SC, in Calais, Maine.

2. PERMIT SUMMARY

- a. Terms and conditions: This permitting action carries forward all the terms and conditions of the previous permit, except that this permit,
 1. Establishes a year-round testing season for Fecal Coliform and
 2. Revises Fecal Coliform limits pursuant to 38 M.R.S. § 465.
- b. History: This section provides a summary of significant licensing/permitting actions that have been completed for the CSD facility.

April 8, 1993 – The U.S. Environmental Protection Agency (USEPA) issued National Pollutant Discharge Elimination System (NPDES) permit #MEU502375 to the CSD for a five-year term.

January 12, 2001 – The Department received authorization from the USEPA 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 MEPDES program, and MEPDES permit #ME0102765 has been utilized as the primary reference number for the CSD wastewater treatment facility.

January 22, 2007 – The Department issued combination WDL/MEPDES permit #W002375-5E-C-R/#ME0102765 to the CSD for a five-year term. The January 22, 2007 permit superseded the April 8, 1993 NPDES permit, WDL #W002375-ZC-B-R issued on December 14, 1995 for a ten-year term, WDL #W2375 issued on October 4, 1983 for a five-year term, WDL #W2375 issued on August 25, 1978, and WDL #743 issued on July 9, 1975.

June 7, 2012 – The Department issued combination MEPDES Permit #ME0102765 / WDL #W002375-5D-D-R to CSD for a five-year term.

December 8, 2016 – CSD submitted a General Application to the Department for renewal of the 6/7/12 MEDPES permit. The application was accepted for processing on December 10, 2016 and was assigned WDL #W002375-5D-E-R / ME0102765.

August 10, 2017 – The Department issued combination MEPDES Permit #ME0102765 / WDL #W002375-5D-E-R to CSD for a five-year term.

August 11, 2022 – CSD submitted a General Application to the Department for renewal of the 8/10/17 MEDPES permit. The application was accepted for processing on December 10, 2016 and was assigned WDL #W002375-5D-F-R / ME0102765.

2. PERMIT SUMMARY (cont'd)

- c. Source Description: Sanitary wastewaters are generated from the Calais High School which serves a maximum of 356 students and 42 staff. A map created by the Department showing the location of the facility and receiving water is included as **Attachment A** of this Fact Sheet.
- d. Wastewater Treatment: The wastewater currently receives primary treatment from a 13,000-gallon septic tank and secondary treatment from a 16,000 square foot sand filter bed with chlorine disinfection. The treated wastewater is discharged into the receiving waterbody via a six-inch diameter outfall pipe shared with Washington County Technical Center. The outfall pipe has approximately two feet of water over the crown of the pipe at mean low water.
- e. Replacement Options: CSD submitted documentation in 2016 indicating that replacement of the overboard discharge system with a subsurface wastewater disposal system is not feasible at this location. The site evaluation report was completed by Dean Bradshaw, P.E., of Dennysville, Maine. The evaluation is dated 5/26/06 and updated on 12/2/16. Therefore, the Department concurs with CSD that there are no viable subsurface disposal options available at this time.

3. CONDITIONS OF PERMITS

Conditions of licenses, 38 M.R.S. § 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require the 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, *Certain deposits and discharges prohibited*, 38 M.R.S. § 420 and Department rule *Surface Water Toxics Control Program*, 06-096 CMR 530 (effective March 21, 2012), require the regulation of toxic substances not to exceed levels set forth in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (amended February 16, 2020), 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

Classification of estuarine and marine waters, 38 M.R.S. § 469(7)(B)(1) classifies the tidal waters of the St. Croix River as Class SC waters. *Standards for classification of estuarine and marine waters*, 38 M.R.S. § 465-B(2) describes the standards for Class SC waters.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2018/2020/2022 Integrated Water Quality Monitoring and Assessment Report, (Report) prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists the St. Croix River (DMR Pollution Area 62) as “Category 5-B-1(a): Estuarine and Marine Waters with Impaired for Bacteria Only, TMDL Required.” The report states shellfish harvesting is prohibited in the St. Croix River.

The Report states, “All estuarine and marine waters capable of supporting American lobster are listed in Category 5-D, partially supporting fishing (‘shellfish’ consumption) due to elevated levels of PCBs and other persistent, bioaccumulating substances in lobster tomalley.” The Department has no information that the discharge from the CSD, as permitted, causes or contributes to this non-attainment status.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

- a. Flow: The previous permitting action established, and this permitting action is carrying forward, a daily maximum discharge flow limit of 13,000 gallons per day (GPD) based on the *Maine Subsurface Wastewater Disposal Rules*, 10-144 CMR 241 guidelines for the number of treatment system users.

Flow data reporting is estimated only. Discharge Monitoring Reports (DMRs) for the period of January 2014 through December 2016 (**DMRs = 36**) indicate 5,000 GPD 32 out of 36 times, with other estimates being <5,000 GPD. These estimates are derived from pump hour readings, not a flow monitoring device.

- b. Dilution Factors: 06-096 CMR Chapter 530(4)(A)(2)(a) states that, “*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.*”

Based on the configuration of the outfall structure and a discharge flow limit of 13,000 GPD, dilution factors associated with the discharge are as follows:

Acute: 127.9:1

Chronic: 38,000:1

Harmonic Mean: 114,000:1

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

- c. **Biochemical Oxygen Demand (BOD₅) and Total Suspended Solids (TSS):** The previous permitting action established, and this permitting action is carrying forward, monthly average and weekly average technology-based concentration limits of 30 mg/L and 45 mg/L, respectively, for BOD₅ and TSS based on the secondary treatment requirements specified at *Effluent Guidelines and Standards*, 06-096 CMR 525(3)(III) (effective January 12, 2001), and a daily maximum concentration limit of 50 mg/L, which is based on a Department best professional judgment of best practicable treatment for secondary treated wastewater. The technology-based monthly average, weekly average and daily maximum mass limits of 3.3 lbs./day, 4.9 lbs./day and 5.4 lbs./day, respectively, established in the previous permitting action for BOD₅ and TSS are based on the discharge flow limit of 13,000 GPD and the applicable concentration limits are also being carried forward in this permitting action.

A summary of the effluent BOD₅ and TSS data as reported on the DMRs submitted to the Department for the period September 2017 - October 2023 follows.

BOD₅ Mass (DMRs=71)

Value	Limit (lbs./day)	Range (lbs./day)	Average (lbs./day)
Monthly Average	3.3	0.00 – 0.09	0.009
Weekly Average	4.9	0.00 – 0.18	0.02
Daily Maximum	5.4	0.01 – 0.20	0.036

BOD₅ Concentration (DMRs=35)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	1.0 – 10.0	2.18
Weekly Average	45	2.0 – 11.0	2.64
Daily Maximum	50	2.00 – 11	2.63

TSS Mass (DMRs=35)

Value	Limit (lbs./day)	Range (lbs./day)	Average (lbs./day)
Monthly Average	3.3	0.00 – 0.39	0.91
Weekly Average	4.9	0.00 – 0.70	0.13
Daily Maximum	5.4	0.01 – 0.70	0.136

TSS Concentration (DMRs=35)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	1.0 – 24.0	7.65
Weekly Average	45	2.3 – 35.0	10.4
Daily Maximum	50	2.3 – 35	10.5

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

This permit carries forward the minimum monitoring frequency requirement of once per month.

This permit also carries forward a requirement for a minimum of 85% removal of BOD₅ and TSS pursuant to 06-096 CMR 525(3)(III)(a)(3) and (b)(3). The Calais High School wastewater treatment system does not contain an influent sampling location that is representative of raw wastewater conditions.

According to the USEPA’s Onsite Wastewater Treatment Systems Manual, dated February 2002, table 3-7 entitled “Constituent Mass Loadings and Concentrations in Typical Residential Wastewater” high end range of values, influent values for BOD₅ and TSS may be assumed to be 286 mg/L.

Therefore, the permittee is authorized to assume an influent BOD₅ and TSS concentration value of 286 mg/L for purposes of calculating the monthly percent removal value until such time that the infrastructure is modified or replaced such that collection of a representative raw influent sample is practical.

BOD % Removal (DMRs=35)

Value	Limit (%)	Range (%)	Average (%)
Monthly Average	85	97 – 99	98.9

TSS % Removal (DMRs=35)

Value	Limit (%)	Range (%)	Average (%)
Monthly Average	85	92 - 99	97

- d. Settleable Solids: The previous permitting action established, and this permitting action is carrying forward, a daily maximum concentration limit of 0.3 ml/L, which is considered by the Department a best professional judgment of best practicable treatment.

A summary of the effluent settleable solids data as reported on the DMRs submitted to the Department for the period September 2017 – October 2023 (#DMRs = 70) indicates that the facility has been in compliance with the 0.3 ml/L limit during each sampling event.

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

- e. Fecal Coliform Bacteria: The previous permitting action established, a daily maximum limit of 50 colonies/100 ml and a monthly average limit of 15 colonies/100 ml (geometric mean) for fecal coliform bacteria.

In compliance with 38 M.R.S. § 465-B and guidance from USEPA to conform with the most current National Shellfish Sanitation Program, this permit establishes a daily maximum limit of 31 colonies/100 ml and a monthly average limit of 14 colonies/100 ml (geometric mean) for fecal coliform bacteria.

The bacteria limits established in this permit are year -round, however the permittee has requested more time to facilitate year-round testing. By December 31, 2024, the permittee will update the Department on its' progress to meet the year-round testing requirement to ensure the permittee will meet the year-round testing requirement beginning no later than April 15th, 2025.

A review of the monthly Report (DMR) data for the period January 2014 through December 2016 (applicable months only) indicates fecal coliform bacteria have been reported as follows:

Fecal coliform bacteria

Value	Limit (col/100 mL)	Range (col/100 mL)	Mean (col/100 mL)
Monthly Average	15	1.00 – 8.30	2.27
Daily Maximum	50	1.00 – 8.30	2.8

- f. Total Residual Chlorine (TRC): The previous permitting action established a technology-based daily maximum concentration limit of 1.0 mg/L for TRC. Limitations on TRC are specified to ensure that ambient water quality standards are maintained 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 Threshold	Chronic Threshold
0.013 mg/L	0.0075 mg/L	127.9:1 (A) 38,000:1 (C)	1.7 mg/L	285.0 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. The technology-based daily maximum concentration limit of 1.0 mg/L is more stringent than either the calculated acute or chronic water quality-based thresholds and is therefore being carried forward in this permitting action.

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

A summary of the effluent TRC data for the period September 2017 – October 2023 (applicable disinfection period only) follows.

Total residual chlorine (DMRs=16)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	1.0	0.16 – 0.98	0.77

TRC monitoring is required any time chlorine-based compounds are in use for effluent disinfection. For instances when the chlorine-based compounds have not been utilized for effluent disinfection for an entire reporting period, the permittee shall report “NODI-9” for this parameter on the monthly discharge monitoring report (DMR).

- g. **pH:** The previous permitting action established, and this permit carries forward, a pH range limit of 6.0 – 9.0 standard units (SU), based on the secondary treatment requirements prescribed at 06-096 CMR 525(3)(III)(c).

pH (DMRs=71)

Value	Limit (su)	Range (su)	Mean (su)
Minimum	6.0	4.30 – 6.60	6.01
Maximum	9.0	6.20 – 9.0	6.81

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

- h. Whole Effluent Toxicity (WET) & Chemical-Specific Testing – *Conditions of licenses*, 38 M.R.S. § 414-A and *Certain deposits and discharges prohibited*, 38 M.R.S. § 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. *Surface Water Toxics Control Program*, 06-096 CMR 530 (effective October 9, 2005), and *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (effective October 9, 2005) set forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

06-096 CMR 530(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.

The rule further states:

The following dischargers are exempt from testing requirements of this rule unless the Department determines that there is a need for testing based on the nature, location or circumstances of an individual discharge.

- (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. See Chapter 570, Combined Sewer Overflow Abatement.

The CSD is permitted to discharge 13,000 GPD of solely domestic wastewater and has a chronic dilution factor of 38,000:1. Therefore, the facility qualifies for an exemption from toxics testing and this permitting action is not establishing toxics testing requirements. **06-096 CMR 530(2)(D)(4) states:**

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

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

- (a) Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge;
- (b) Changes in the operation of the treatment works that may increase the toxicity of the discharge; and
- (c) Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge.

Special Condition G of the permit establishes, *06-096 CMR 530(2)(D)(4) Statement for Reduced /Waived Toxics Testing*, pursuant to 06-096 CMR 530(2)(D)(4). The annual certification statement requirement is being carried forward in this permitting action. This permit provides for reconsideration of testing requirements, including the imposition of certain testing, in consideration of the nature of the wastewater discharged, existing wastewater treatment, receiving water characteristics, and results of testing.

7. ANTI-DEGRADATION/DISCHARGE IMPACT ON RECEIVING WATER QUALITY

Federal regulation 40 CFR, §122(l) contains the criteria for what is often referred to as the anti-backsliding provisions of the Federal Water Pollution Control Act (Clean Water Act). In general, the regulation states that except for provisions specified in the regulation, effluent limitations, standards, or conditions must be at least as stringent as the final effluent limitations, standards or conditions in the previous permit. Applicable exceptions include, (1) material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation and (2) information is available which was not available at the time of the permit issuance (other than revised regulations, guidance, or test methods) and which would justify the application of less stringent effluent limitations at the time of permit issuance. All limitations in this permit are equally or more stringent than those in the previous permit.

8. 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 will not cause or contribute to the failure of the Saint Croix River to meet standards for Class SC classification.

9. PUBLIC COMMENTS

Public notice of this application was made in the *Calais Advertiser* newspaper on or about August 4, 2022. 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 *Application Processing Procedures for Waste Discharge Licenses*, 06-096 CMR 522 (effective January 12, 2001).

10. DEPARTMENT CONTACTS

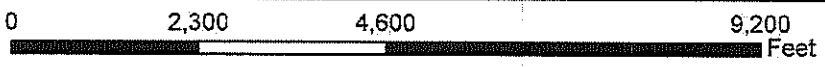
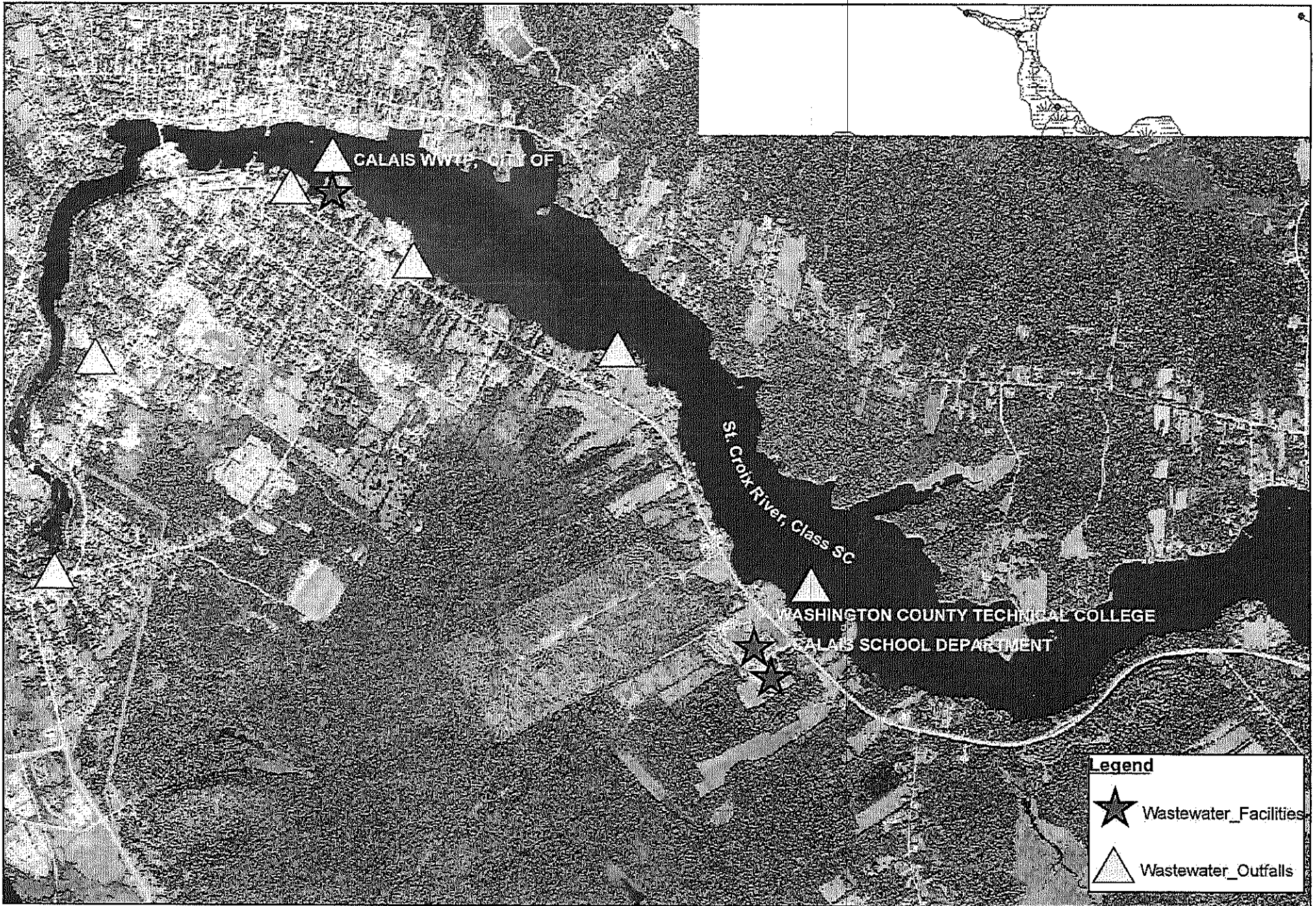
Additional information concerning this permitting action may be obtained from, and written comments sent to:

Rod Robert
Division of Water Quality Management
Bureau of Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017
e-mail: Rodney.robert@maine.gov Telephone: (207) 680-0576

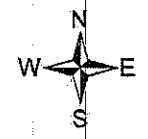
11. RESPONSE TO COMMENTS

Reserved until the end of the formal thirty (30) day comment period.

ATTACHMENT A



Calais, Maine



Map created by Maine DEP
May 2012



ATTACHMENT B

CHAPTER 530.2(D)(4) CERTIFICATION

MEPDES# _____ Facility Name _____

Since the effective date of your permit have there been:	NO	YES (Describe in Comments)
1. changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge?		
2. changes in the operation of the treatment works that may Increase the toxicity of the discharge?		
3. changes in industrial manufacturing processes contributing wastewater to the treatment works that may Increase the toxicity of the discharge?		

COMMENTS:

Name(print) _____

Signature _____ Date _____

This document must be signed by the permittee or their legal representative.

This form may be used to meet the requirements of Chap 530.2(D)(4). This Chapter requires all dischargers having waived or reduced Toxic testing to file a statement with the Department describing changes to the waste being contributed to their system as outlined above. As an alternative the discharger may submit a signed letter containing the same information.