



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

February 22, 2016

Maine School Administrative District #6
Bill Ellis
94 Main Street
Buxton ME, 04093
billis@bonnyeagle.org

*Sent via electronic mail
Delivery confirmation requested*

**RE: *Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0101826
Maine Waste Discharge License (WDL) Application #W000698-5E-E-R
Proposed Draft MEPDES Permit Renewal***

Dear: William Ellis

Attached is a proposed draft MEPDES permit and Maine WDL which the Department proposes to issue for your facility 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 special and standard conditions. 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 and from any other parties who have notified the Department of their interest in this matter.

The comment period begins on February 22, 2016, and ends on March 22, 2016. All comments on the proposed draft permit must be received by the Department of Environmental Protection office on or before the close of business Tuesday, March 22, 2016. Failure to submit comments in a timely fashion will result in the proposed draft/license permit document being issued as drafted.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-3901 FAX: (207) 287-3435
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
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 04769-2094
(207) 764-6477 FAX: (207) 764-1507

Letter to William Ellis
February 22, 2016
Page 2 of 2

Comments in writing should be submitted to my attention at the following address:

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

Sincerely,



Aaron Dumont
Division of Water Quality Management
Bureau of Water Quality

Enclosure

cc: Fred Gallant, DEP/SMRO
Lori Mitchell, DEP
Alex Rosenberg, EPA
David Webster, EPA
David Pincumbe, EPA
Olga Vergara, EPA
Marlyn Vega, EPA
Richard Carvalho, EPA
DMR Environmental Review
IF&W Environmental Review



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

MAINE SCHOOL ADMINISTRATIVE DISTRICT #6) MAINE POLLUTANT DISCHARGE
STANDISH, CUMBERLAND COUNTY, MAINE) ELIMINATION SYSTEM PERMIT
OVERBOARD DISCHARGE) AND
ME0101826) WASTE DISCHARGE LICENSE
W000698-5E-E-R) **APPROVAL**) **RENEWAL**

In compliance with the applicable provisions of *Pollution Control*, 38 M.R.S.A. §§ 411 – 424-B, *Water Classification Program*, 38 M.R.S.A. §§ 464 – 470 and *Federal Water Pollution Control Act*, Title 33 U.S.C. § 1251 *et seq.*, and applicable rules of the Department of Environmental Protection (Department), the Department has considered the application of MAINE SCHOOL ADMINISTRATIVE DISTRICT #6 (MSAD #6), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On November 17, 2015, the Department accepted as complete for processing an application from MSAD #6 for the renewal of a combination Maine Pollutant Discharge Elimination System (MEPDES) permit ME0101826/Maine Waste Discharge License (WDL) W000698-5E-D-R which was issued by the Department on August 11, 2010, for a five-year term. The August 11, 2010, permit authorized the discharge on a year-round basis a daily maximum of 0.05125 million gallons per day (MGD) or 51,250 gallons per day (GPD) of secondary treated sanitary wastewater from MSAD #6 to the Saco River, Class A, in Standish Maine.

PERMIT SUMMARY

a. Terms and conditions

This permitting action is carrying forward all the terms and conditions of the August 11, 2010, permit except that it is:

1. Changing the reporting units for effluent flow from Million Gallons per Day (MGD) to Gallons per Day (GPD);
2. Reducing the monitoring frequency for Settleable Solids from 5/Week to 3/Week based on a statistical evaluation for the previous 62-month period;

PERMIT SUMMARY (cont'd)

3. Reducing the monitoring frequency for Total Residual Chlorine from 5/Week to 3/Week based on a statistical evaluation for the previous 62-month period; and
4. Reducing the monitoring frequency for pH from 5/Week to 3/Week based on a statistical evaluation for the previous 62-month period.

CONCLUSIONS

BASED on the findings in the attached and incorporated draft **Fact Sheet** dated February 22, 2016, 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, *Classification of Maine Waters*, 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 waterbody are not met, the discharge will not cause or contribute to the failure of the waterbody to meet the standards of classification;
 - (d) Where the actual quality of any classified receiving waterbody 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 waterbody, 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.

CONCLUSIONS (cont'd)

4. The discharges will be subject to effluent limitations that require application of best practicable treatment as defined in Conditions of licenses, 38 M.R.S.A. § 414-A(1)(D) and 414-A(1-B).
5. The applicant has objectively demonstrated to the Department's satisfaction that the discharge is necessary and that there are no other reasonable alternatives available, as required by *Standards for classification of fresh surface waters*, 38 M.R.S.A. § 465(2), for the discharge to Class A waters
6. The overboard discharge system was in continuing existence for the 12 months preceding June 1, 1987.
7. The Department finds that there are no technologically proven alternative methods of wastewater disposal consistent with the plumbing code adopted by the Department of Health and Human Services pursuant to Title 22, section 42 that will not result in an overboard discharge.
8. 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.
9. The discharge is not located within the boundaries of a sanitary district or sewer district however connection to the existing infrastructure is not practicable.

ACTION

THEREFORE, the Department APPROVES the application of MAINE SCHOOL ADMINISTRATIVE DISTRICT #6 to discharge on a year-round basis a daily maximum 51,250 gpd of secondary treated sanitary wastewater from the MAINE SCHOOL ADMINISTRATIVE DISTRICT #6 to the Saco River, Class A, in Standish Maine, SUBJECT TO ALL APPLICABLE STANDARDS AND REGULATIONS AND THE FOLLOWING CONDITIONS:

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 becomes effective upon the date of signature below and expires 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 terms and conditions of this permit and all subsequent modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. *Maine Administrative Procedure and Services*, 5 M.R.S.A. § 10002 and Rules Concerning the *Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(21)(A) (amended October 19, 2015).

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS _____ DAY OF _____ 2016.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
PAUL MERCER, Commissioner

Date of initial receipt of application 11/17/2015
Date of application acceptance 11/17/2015

Date filed with Board of Environmental Protection _____

This Order prepared by Aaron Dumont, Bureau of Water Quality

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge secondary treated sanitary wastewater from **Outfall #001A** to the Saco River, Class A, in Standish, Maine. Such discharges are limited and must be monitored by the permittee as specified below⁽¹⁾.

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>
Flow <i>[50050]</i>	Report gpd <i>[07]</i>	---	51,250 gpd <i>[07]</i> ---	---	---	---	Continuous <i>[99/99]</i>	Recorder <i>[RC]</i>
BOD₅ <i>[00310]</i>	8.3 lbs./day <i>[26]</i>	---	12.8 lbs./day <i>[26]</i>	20 mg/L <i>[19]</i>	<i>[19]</i>	30 mg/L <i>[19]</i>	2/Month <i>[02/30]</i>	Grab <i>[GR]</i>
BOD₅ Percent Removal⁽²⁾ <i>[81010]</i>	---	---	---	85% <i>[23]</i>	---	---	2/Month <i>[01/30]</i>	Calculate <i>[CA]</i>
TSS <i>[00530]</i>	8.3 lbs./day <i>[26]</i>	---	12.8 <i>[26]</i>	20 mg/L <i>[19]</i>	<i>[19]</i>	30 mg/L <i>[19]</i>	2/Month <i>[02/30]</i>	Grab <i>[GR]</i>
TSS Percent Removal⁽²⁾ <i>[81011]</i>	---	---	---	85% <i>[23]</i>	---	---	2/Month <i>[01/30]</i>	Calculate <i>[CA]</i>
Settleable Solids <i>[00545]</i>	---	---	---	---	---	0.3 ml/L <i>[25]</i>	3/Week <i>[05/07]</i>	Grab <i>[GR]</i>
<i>E. coli</i>⁽³⁾ <i>(Year round)</i> <i>[31633]</i>	---	---	---	29/100 ml <i>[13]</i>	---	194/100 ml <i>[13]</i>	2/Month <i>[02/30]</i>	Grab <i>[GR]</i>
Total Residual Chlorine⁽⁴⁾ <i>[50060]</i>	---	---	---	0.3 mg/L <i>[19]</i>	---	0.6 mg/L <i>[19]</i>	3/Week <i>[05/07]</i>	Grab <i>[GR]</i>
pH <i>[00400]</i>	---	---	---	---	---	6.0 – 9.0 SU <i>[12]</i>	3/Week <i>[05/30]</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 Page 6 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

FOOTNOTES

1. **Sampling** – The permittee must conduct all effluent sampling and analysis 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. Samples that are sent to another POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S.A. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (last amended February 13, 2000). 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.
2. **Percent Removal** – The permittee must achieve a minimum of 85 percent removal of both total suspended solids and biochemical oxygen demand for all flows receiving secondary treatment. The percent removal is calculated based on influent and effluent concentration values. For influent concentrations an assumed value of 286 mg/L will be used for total suspended solids and biochemical oxygen demand.
3. **Bacteria Reporting** – The monthly average *E.coli* coliform bacteria limitation is a geometric mean limitation and sample results must be reported as such.
4. **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 must utilize a USEPA-approved test method that capable of bracketing the TRC limitations specified in this permit.

SPECIAL CONDITIONS

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 that causes those waters to be unsuitable for the designated uses and characteristics ascribed to their class.
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.

C. TREATMENT PLANT OPERATOR

The person who has management responsibility over the treatment facility must hold a minimum of a **Grade II** certificate (or higher) or must be a Maine Registered Professional Engineer pursuant to *Sewerage Treatment Operators*, 32 M.R.S.A. § 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 on November 17, 2015; 2) the terms and conditions of this permit; and 3) only from Outfall #001A. Discharges of wastewater from any other point source are not authorized under this permit, and must be reported in accordance with Standard Condition D(f)(1), *Twenty-four hour reporting*, of this permit.

E. NOTIFICATION REQUIREMENT

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

1. Any introduction of pollutants into the wastewater collection and treatment system from an indirect discharger in a primary industrial category discharging process wastewater; and
2. Any substantial change in the volume or character 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.
3. For the purposes of this section, adequate notice shall include information on:
 - a. The quality and quantity of wastewater introduced to the waste water collection and treatment system; and
 - b. Any anticipated impact of the change in the quantity or quality of the waste water to be discharged from the treatment system.

F. SITE EVALUATION FOR TRANSFER OF OWNERSHIP

Pursuant to 38 M.R.S.A. § 413(3-A)(B)(1), except when it has been demonstrated within 5 years prior to a transfer of ownership of the property containing an overboard discharge, or some other time period acceptable to the Department, that there is no technologically proven alternative to an overboard discharge, prior to transfer of ownership of property containing an overboard discharge, the parties to the transfer must determine the feasibility of technologically proven alternatives to the overboard discharge that are consistent with the plumbing standards adopted by the Department of Health and Human Services pursuant to Title 22, section 42.

Notwithstanding other applicable provisions of 38 M.R.S.A. § 413(3-A), if an alternative to the overboard discharge is identified, the alternative system must be installed within 180 days of property transfer, except that, if soil conditions are poor due to seasonal weather, the alternative may be installed as soon as soil conditions permit.

SPECIAL CONDITIONS

G. OPERATION & MAINTENANCE (O&M) PLAN

The permittee must have a current written comprehensive Operation & Maintenance (O&M) Plan. The plan must provide a systematic approach by which the permittee must 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 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.

H. WET WEATHER MANAGEMENT PLAN

The permittee must maintain a Wet Weather Management Plan to direct the staff on how to operate the facility effectively during periods of high flow. The Department acknowledges that the existing collection system may deliver flows in excess of the monthly average design capacity of the treatment plant during periods of high infiltration and rainfall. A specific objective of the Wet Weather Management Plan must be to maximize the volume of wastewater receiving secondary treatment under all operating conditions. The Wet Weather Management Plan must include operating procedures for a range of intensities, address solids handling procedures (including septic waste and other high strength wastes if applicable) and provide written operating and maintenance procedures during the events. The Department may require the submission of the Wet Weather Management Plan for review and approval.

The permittee must review the Wet Weather Management Plan at least annually and record any necessary changes to keep the plan up-to-date. The Department may require review and update of the plan as it is determined to be necessary.

I. SEPTIC TANKS

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

SPECIAL CONDITIONS

I. SEPTIC TANKS (cont'd)

2. Tank contents must 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 must be checked for damage at key joints and the inlet and outlet baffles, and repaired promptly if damaged. The permittee must keep a pumping log including the date of pumping, quantity of material removed, name and number of licensed contractor, and pumping frequency.

J. MONITORING AND REPORTING

Monitoring results obtained during the previous month must 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 the Department's Regional Office such that the DMRs 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 must be submitted to the Department assigned inspector (unless otherwise specified by the Department) at the following address:

Department of Environmental Protection
Southern Maine Regional Office
Bureau of Water Quality
Division of Water Quality Management
312 Canco Road
Portland, ME 04103

Alternatively, if the permittee submits 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 **15th 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 (13th) 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 (15th) 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 15th day of the month following the completed reporting period.

SPECIAL CONDITIONS

K. 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 [*ICIS Code 75305*]. See **Attachment A** of the permit 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 (hailed) wastes accepted by the facility.

The Department may require that annual testing be re-instated if it determines that there have been changes in the character of the discharge or if annual certifications described above are not submitted.

L. REOPENING OF PERMIT FOR MODIFICATION

In accordance with 38 M.R.S.A. § 414-A(5) and 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 monitoring if results on file are inconclusive; or 3) change monitoring requirements or limitations based on new information.

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 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.

ATTACHMENT A

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAPTER 530.2(D)(4) CERTIFICATION

MEPDES# _____ Facility Name _____

Since the effective date of your permit, have there been;		NO	YES Describe in comments section
1	Increases in the number, types, and flows of industrial, commercial, or domestic discharges to the facility that in the judgment of the Department may cause the receiving water to become toxic?	<input type="checkbox"/>	<input type="checkbox"/>
2	Changes in the condition or operations of the facility that may increase the toxicity of the discharge?	<input type="checkbox"/>	<input type="checkbox"/>
3	Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge?	<input type="checkbox"/>	<input type="checkbox"/>
4	Increases in the type or volume of hauled wastes accepted by the facility?	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS:

Name (printed): _____

Signature: _____ Date: _____

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

This form may be used to meet the requirements of Chapter 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.

Scheduled Toxicity Testing for the next calendar year

Test Conducted	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
WET Testing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Priority Pollutant Testing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analytical Chemistry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other toxic parameters ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please place an "X" in each of the boxes that apply to when you will be conducting any one of the three test types during the next calendar year.

¹ This only applies to parameters where testing is required at a rate less frequently than quarterly.

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**MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
WASTE DISCHARGE LICENSE**

FACT SHEET

Date: **February 22, 2016**

MEPDES PERMIT: **ME0101826**
WASTE DISCHARGE LICENSE: **W000698-5E-E-R**

NAME AND ADDRESS OF APPLICANT:

MAINE SCHOOL ADMINISTRATIVE DISTRICT #6
WILLIAM ELLIS
94 MAIN STREET
BUXTON, ME 04093

COUNTY: **CUMBERLAND COUNTY**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

MSAD#6 BONNY EAGLE
700 SACO ROAD
STANDISH, ME 04084

RECEIVING WATER / CLASSIFICATION: **SACO RIVER/CLASS A**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **WILLIAM ELLIS**
(207)-649-7993
billis@bonnyeagle.org

1. APPLICATION SUMMARY

- a. Application: On November 17, 2015, the Department accepted as complete for processing an application from MSAD #6 for the renewal of a combination Maine Pollutant Discharge Elimination System (MEPDES) permit ME0101826/Maine Waste Discharge License (WDL) W000698-5E-D-R which was issued by the Department on August 11, 2010, for a five-year term. The August 11, 2010, permit authorized the discharge on a year-round basis a daily maximum of 0.05125 million gallons per day (MGD) or 51,250 gallons per day (GPD) of secondary treated sanitary wastewater from MSAD #6 to the Saco River, Class A, in Standish Maine.

2. PERMIT SUMMARY

a. Terms and Conditions:

This permitting action is carrying forward all the terms and conditions of the August 11, 2010, permit except that it is:

1. Changing the reporting units for effluent flow from Million Gallons per Day (MGD) to Gallons per Day (GPD);
2. Reducing the monitoring frequency for Settleable Solids from 5/Week to 3/Week based on a statistical evaluation for the previous 60-month period;
3. Reducing the monitoring frequency for Total Residual Chlorine from 5/Week to 3/Week based on a statistical evaluation for the previous 60-month period; and
4. Reducing the monitoring frequency for pH from 5/Week to 3/Week based on a statistical evaluation for the previous 60-month period.

b. Facility History: This section provides a summary of the most significant regulatory actions for MSAD#6:

May 9, 1975 – The Department issued Waste Discharge License (WDL) #698 that authorized the discharge of up to 0.05125 MGD of treated sanitary wastewater to the Saco River.

May 28, 1975 – The U.S. Environmental Protection Agency (USEPA) issued National Pollutant Discharge Elimination System (NPDES) permit #ME0101826.

June 11, 1980 – The Department issued license renewal WDL #W698 for five years.

June 26, 1985 – The Department issued license renewal WDL #W000698-45-A-R, for five years.

February 22, 1991 – The Department issued license renewal #W000698-59-B-R, for five-years.

September 13, 2003 – The Maine Legislature amended the Maine Surface Water Classification Program at 38 M.R.S.A. §467(12)(A)(10) by reclassifying the Saco River at the point of discharge from Class B to Class A.

2. PERMIT SUMMARY

August 2005 – A new trickling filter secondary treatment system with UV disinfection was installed to replace the previously existing mechanical treatment system. Alternative wastewater disposal methods were evaluated by the school prior to the installation of the trickling filter system, such as subsurface disposal and spray irrigation, and found to be unsuitable given the existing facilities, location, soil conditions, and other limiting factors.

July 5, 2005 – The Department issued WDL #W000698-ZD-C-R/ MEPDES Permit #ME0101826, for five years. The renewal included more stringent water quality-based effluent limits.

August 11, 2010 – The Department issued WDL #W000698-5E-D-R/ MEPDES Permit #ME0101826, for five years.

November 17, 2015 – The permittee submitted a General Application to the Department for renewal of the August 11, 2010, permit. The application was accepted for processing on November 17, 2015.

- c. Source Description: The source of treated wastewater is the MSAD #6 campus that consists of the Bonny Eagle Middle School and Bonny Eagle High School. The campus is located at 700 Saco Road in the town of Standish Maine. Together the two schools serve approximately 2,600 students and staff. The site is developed with school buildings, parking areas, and athletic fields. There are several overburden and bedrock water supply wells that provide potable water for the campus. Additional public water supplies on the property include an overburden well serving the athletic field stadium complex with snack bar, and a bedrock water supply well serving the bus garage facility. See **Attachment A** of this Fact Sheet for a site location map.
- d. Wastewater Treatment: Wastewater generated onsite is treated with a trickling filter system consisting of two parallel trains of three 19,500-gallon primary treatment septic tanks, followed by a 10,000-gallon equalization tank with three triplex pumps. From the equalization tank, wastewater is pumped to three Bioclere™ trickling filters arranged in a parallel configuration that provide secondary treatment. The secondary treated wastewater flows to a 5,000-gallon equalization tank and then directed through a Parshall flume (with a flow monitor and sampling port) to the disinfection unit. The system now has a liquid chlorine disinfection unit comprised of liquid Clorox injection pump and a 2,423 gallon baffled chlorine contact chamber. From the disinfection unit, treated wastewater is routed to the Saco River outfall via a 4-inch diameter force main. The outfall in the Saco River is approximately 3,000 feet from the treatment facility and discharges upriver from the Bonny Eagle Dam below mean low water level of the river.

2. PERMIT SUMMARY (cont'd)

- e. Replacement Options: Pursuant to *Conditions of license*, 38 M.R.S.A. § 414-A(1-B), the Department will find that the discharge from an OBD meets the requirements of best practicable treatment for purposes of licensing when it finds that there are no technologically proven alternative methods of wastewater disposal consistent with the plumbing code adopted by the Department of Health and Human Services pursuant to Title 22, section 42 that will not result in an overboard discharge. The Department's finding must be based on documentation from a licensed site evaluator having experience in designing replacement systems for overboard discharges and provided by the overboard discharge owner.

The classification of this reach of the Saco River was upgraded from Class B to Class A by the Maine Legislature in 2003 (effective date of change was September 13, 2003). Prior to the reclassification of the Saco River, the permittee submitted additional supplemental documentation demonstrating that no reasonable alternative for the discharge exist. This was done in the form of a report dated December, 2002. Based upon the number of students and faculty on campus the report concluded that a subsurface system needs to capable of handling 30,000 gpd, also needed to be located within a half mile of the school campus, required pretreatment, and required a subsurface disposal area of 1.7 to 2.2 acres in size. The report ultimately concluded that due to hydraulic and hydrogeologic conditions at the site, along with the intrinsic need to protect groundwater supply wells located onsite, MSAD #6 does not have the ability to construct a subsurface wastewater system with adequate capacity to serve its current needs. The Department finds the applicant is eligible for grant funding pursuant to *Waste discharge license*, 38 M.R.S.A. § 411-A. However, the Department has determined that no funding is currently available for the replacement system(s) identified in the renewal application.

The Department concludes that there are no other reasonable alternatives to eliminate the discharge from MSAD #6 to the Class A reach of the Saco River due to reasonability of cost, technical limitations, and availability of resources. The Department concludes that MSAD#6 has objectively demonstrated to the Department's satisfaction that the discharge is necessary and that there are no other reasonable alternatives.

3. CONDITIONS OF PERMIT

Conditions of licenses, 38 M.R.S.A. § 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.A. § 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 (effective July 29, 2012), 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 major river basins, 38 M.R.S.A. § 467(12)(A)(6) states that the main stem of the Saco River is classified as a Class A waterbody. *Standards for classification of fresh surface waters*, 38 M.R.S.A. § 465(2) contains the classification standards for Class A waters.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2012 Integrated Water Quality Monitoring and Assessment Report, prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists the main stem of the Saco River (ME0106000211_619R) located in Standish as “Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses.”

The Report lists all of Maine’s fresh waters as, “Category 4-A: Waters Impaired by Atmospheric Deposition of Mercury.” Impairment in this context refers to a statewide fish consumption advisory due to elevated levels of mercury in some fish tissues. The Report states, “All freshwaters are listed in Category 4A (TMDL Completed) due to USEPA approval of a Regional Mercury TMDL. Maine has a fish consumption advisory for fish taken from all freshwaters due to mercury. Many waters and many fish from any given water do not exceed the action level for mercury. However, because it is impossible for someone consuming a fish to know whether the mercury level exceeds the action level, the Maine Department of Human Services decided to establish a statewide advisory for all freshwater fish that recommends limits on consumption. Maine has already instituted statewide programs for removal and reduction of mercury sources.”

5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

Pursuant to 38 M.R.S.A. § 420(1-B)(B), “a facility is not in violation of the ambient criteria for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413 subsection 11.” However, *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519(1)(A)(1) states that overboard discharges licensed pursuant to 38 M.R.S.A. § 413 are not subject to the rule.

In 2013 the Department sampled for macroinvertebrates less than a quarter mile below the West Buxton dam. The West Buxton dam is located down river from the MSAD #6 outfall pipe. Results from the 2013 sampling event indicated that the River met class A aquatic life standards. **The Department has no information that the discharge from the permittee, as conditioned, causes or contributes to non-attainment of applicable Class A water quality standards.**

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

- a. Best Practicable Treatment (BPT): The Department will find that the discharge meets the requirements of best practicable treatment pursuant to 38 M.R.S.A. § 414-A(1-B) for purposes of licensing when it finds that there are no technologically proven alternative methods of wastewater disposal consistent with the plumbing code adopted by the Department of Health and Human Services pursuant to Title 22, section 42 that will not result in an overboard discharge. Pursuant to *Overboard Discharges: Licensing and Abandonment*, 06-096 CMR 596(9), *Criteria and Standards for Waste Discharge Licenses*, 06-096 CMR 524(2) (effective January 12, 2001) and *Effluent Guidelines and Standards*, 06-096 CMR 525(3)(III) (effective date January 12, 2001), BPT for overboard discharges is secondary treatment. The secondary treatment regulation establishes technology-based effluent limitations for BOD₅, TSS, and pH which are discussed in more detail in the individual parameter sections below.
- b. Flow: The previous permitting action established a monthly average discharge flow limitation of 0.05125 million gallons per day (MGD). This permitting action is establishing an equivalent flow limit of 51,250 gallons per (gpd) day, which is based on the design of the treatment facility, and a daily maximum discharge flow monitoring and reporting requirement.

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

- c. Dilution Factors: Dilution factors associated with the permitted discharge flow of 51,250 gpd (same as 0.05125 million gallons per day, MGD) from the facility and the 7Q10 and 1Q10 low flow values for the Main Stem of the Saco River, were derived in accordance with *Surface Water Toxics Control Program*, 06-096 CMR 530(4)(A) and were calculated as follows:

$$\text{Modified Acute: } 1\text{Q}10 = 63 \text{ cfs}^{(1)} \Rightarrow \frac{(63 \text{ cfs})(0.6464) + (0.05125 \text{ MGD})}{(0.005125 \text{ MGD})} = 796:1$$

$$\text{Acute: } 1\text{Q}10 = 250 \text{ cfs} \Rightarrow \frac{(250 \text{ cfs})(0.6464) + (0.05125 \text{ MGD})}{(0.05125 \text{ MGD})} = 3,154:1$$

$$\text{Chronic: } 7\text{Q}10 = 386 \text{ cfs} \Rightarrow \frac{(386 \text{ cfs})(0.6464) + (0.05125 \text{ MGD})}{(0.05125 \text{ MGD})} = 4,869:1$$

$$\text{Harmonic Mean: } = 1,158 \text{ cfs} \Rightarrow \frac{(1,158 \text{ cfs})(0.6464) + (0.05125 \text{ MGD})}{(0.05125 \text{ MGD})} = 14,606:1$$

Footnotes:

⁽¹⁾*Surface Water Toxics Control Program*, 06-096 CMR 530(4)(B)(1) states that analyses using numeric acute criteria for aquatic life must be based on 1/4 of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone. The 1Q10 is the lowest one-day flow over a ten-year recurrence interval. The regulation goes on to say that where it can be demonstrated that a discharge achieves rapid and complete mixing with the receiving water by way of an efficient diffuser or other effective method, analyses may use a greater proportion of the stream design, up to including all of it. Based on information provided by the permittee as to the configuration and location of the outfall pipe the Department has made the determination that the discharge does not receive rapid and complete mixing with the receiving water, therefore the default stream flow of 1/4 of the 1Q10 is applicable in acute statistical evaluations pursuant to *Surface Water Toxics Control Program*, 06-096 CMR 530.

- d. Biochemical Oxygen Demand (BOD₅) and Total Suspended Solids (TSS): The previous permitting action established, and this permitting action is carrying forward, monthly average and daily maximum of 20 mg/L and 30 mg/L, respectively, for BOD₅ and TSS. Due to the waterbody classification upgrade in September 12, 2003, these effluent limits are stricter than the secondary treatment regulation at 40 CFR 133.102 and *Effluent Guidelines and Standards*, 06-096 CMR 525(3)(III). Monthly average, and a daily maximum 8.3 lbs./day, and 12.8 lbs./day, respectively, established in the previous permitting actions for BOD₅ and TSS were based on the monthly average flow design criterion of 51,250 GPD (0.05125 MGD).

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

The mass-based limits were calculated as follows:

Monthly Average Mass Limit: $(20 \text{ mg/L})(8.34 \text{ lbs./gallon})(0.05125 \text{ MGD}) = 8.5 \text{ lbs./day}$

Daily Maximum Mass Limit: $(30 \text{ mg/L})(8.34 \text{ lbs./day})(0.05125 \text{ MGD}) = 12.8 \text{ lbs./day}$

The Department reviewed 62 Discharge Monitoring Reports (DMRs) that were submitted for the period of September 2010 – October 2015. A review of the data indicates the following:

BOD₅ Mass (DMRs = 62)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	8.3	0.09 – 3.4	1.0
Daily Maximum	12.8	0.11 – 4.5	1.2

BOD₅ concentration (DMRs = 62)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	20	2 – 81	18.0
Daily Maximum	30	2 – 160	28.0

TSS Mass (DMRs = 62)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	8.3	0.09 – 3.4	1.0
Daily Maximum	12.8	0.11 – 4.8	1.2

TSS concentration (DMRs = 62)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	20	4 – 35.2	11.0
Daily Maximum	30	4 – 66.0	14.0

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

The previous permit established a minimum monitoring frequency for BOD₅ and TSS of twice per month (2/Month) based on the Department best professional judgement. Minimum monitoring frequency requirements in MEPDES permits are prescribed by 06-096 CMR Chapter 523(5)(i). The USEPA has published guidance entitled, *Interim Guidance for Performance Based Reductions of NPDES Permit Monitoring Frequencies* (USEPA Guidance April 1996). In addition, the Department has supplemented the EPA guidance with its own guidance entitled, *Performance Based Reduction of Monitoring Frequencies - Modification of EPA Guidance Released April 1996* (Maine DEP May 22, 2014). Both documents are being utilized to evaluate the compliance history for each parameter regulated by the previous permit to determine if a reduction in the monitoring frequencies is justified.

Although EPA's 1996 Guidance recommends evaluation of the most current two-years of effluent data for a parameter, the Department is considering 62 months of data (September 2010 – October 2015). A review of the mass monitoring data for BOD indicates the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as 12% respectively. According to Table I of the EPA Guidance and Department Guidance, a 2/Month monitoring requirement can be reduced to 1/Quarter. However, the Department has determined that a reduction in the minimum monitoring frequency to once every three months for BOD₅ and TSS is not sufficient to assess compliance with the effluent limitations and is therefore carrying forward the monitoring frequency of twice per month (2/Month) for BOD₅ and TSS.

- e. Settleable Solids: The Department reviewed 62 Discharge Monitoring Reports (DMRs) that were submitted for the period of September 2010 – October 2015. A review of the data indicates the following:

Settleable Solids Concentration (DMRs=62)

Value	Limit (ml/L)	Range (ml/L)	Average (ml/L)
Daily Maximum	0.3	0.1 – 0.30	0.13

The previous permit established a minimum monitoring frequency for Settleable Solids Concentration of five times per week (5/Week) based on the Department best professional judgement. Minimum monitoring frequency requirements in MEPDES permits are prescribed by 06-096 CMR Chapter 523(5)(i). Although EPA's 1996 Guidance recommends evaluation of the most current two-years of effluent data for a parameter, the Department is considering 62 months of data (September 2010 – October 2015). A review of the mass monitoring data for Settleable Solids indicates the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as 43% respectively. According to Table I of the EPA Guidance and Department Guidance, a 5/Week monitoring requirement can be reduced to 3/Week. Therefore, this permitting action is reducing the monitoring frequency for Settleable Solids to 3/Week.

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

- f. *E. coli* Bacteria: The previous permitting action established, and this permitting action is carrying forward, a year-round monthly average (geometric mean) *E. coli* concentration limit of 29 colonies/100 mL and a daily maximum (instantaneous) *E. coli* concentration limit of 194 colonies/100 mL and a monitoring frequency of twice per month (2/Month). These limits and monitoring frequencies are being carried forward and were based on 38 M.R.S.A. § 465(2)(C), which the Department determined at the time of renewal were equal to or better than class A receiving water standards. Bacteria limits are in effect on a year-round basis to protect the health, safety and welfare of the public.

The Department reviewed 62 DMRs that were submitted for the period September, 2010 – October, 2015. A review of data indicates the following:

***E. coli* Bacteria (DMRs=62)**

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100 ml)
Monthly Average	29	1 – 2,419	49
Daily Maximum	194	1 – 2,419	143

For the monitoring period of September 2010 – October 2015 there were a total of 9 excursions from the effluent limitations.

The previous permit established a minimum monitoring frequency for *E. coli* bacteria of twice per month (2/Month) based on the Department best professional judgement. Minimum monitoring frequency requirements in MEPDES permits are prescribed by 06-096 CMR 523(5)(i). Although EPA’s 1996 Guidance recommends evaluation of the most current two years of effluent data for a parameter, the Department is considering 62 months of data (September 2010 – October 2015). A review of the data for *E. coli* indicates the ratio (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as 100%. According to Table I of the EPA Guidance and Department Guidance, a 2/Month monitoring requirement cannot be reduced and is therefore carrying forward the monitoring frequency of 2/Month for *E. coli* bacteria.

- g. Total Residual Chlorine (TRC): The previous permitting action established, and this permitting action is carrying forward monthly limit of 0.3 mg/L and a daily maximum of 0.6 mg/L for TRC. 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 6(c) of this Fact Sheet, end-of-pipe (EOP) water quality-based concentration thresholds for TRC may be calculated as follows:

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

Acute (A) Criterion	Chronic (C) Criterion	Modified A & C Dilution Factors	Calculated	
			Acute Threshold	Chronic Threshold
0.019 mg/L	0.011 mg/L	769:1(Mod A) 4,869:1 (C)	15 mg/L	54 mg/L

The following is an excerpt from the previous permit that explains how the limits for TRC were set. *The Department specifies TRC limits to ensure that ambient water quality standards are maintained and that BPT is being applied to the discharge. The previous permitting action did not have a TRC limit because the treatment system utilized UV disinfection. Although the Department could imposing the most stringent TRC limits of 0.1 mg/L (monthly average) and 0.3 mg/L (daily maximum) in this permitting action because the end of pipe water quality based concentration threshold is to be “as naturally exists,” the Department is imposing 0.3 and 0.6 mg/L limits because the actual sampling location and the outfall are separated by the approximately 3,000 ft outfall pipe. The Department reasons that the higher TRC will prevent regrowth in the discharge pipe, while yielding the desired lower readings at the outfall. TRC must be monitored year-round as this permit is requiring year-round disinfection.*

A summary of the effluent TRC data as reported on the DMRs submitted to the Department for the period of September 2010 – October 2015 is as follows;

Total residual chlorine (DMRs = 62)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	0.3	0.00 – 0.65	0.20
Daily Maximum	0.6	0.00 – 0.81	0.26

For the monitoring period of September 2010 – October 2015 there were a total of three excursions from the effluent limits.

Although EPA’s 1996 Guidance recommends evaluation of the most current two years of effluent data for a parameter, the Department is considering 62 months of data (September 2010 – October 2015). A review of the monitoring data for TRC indicates the ratio (expressed in percent) of the long term effluent average to the monthly average limit can be calculated as 84%. According to EPA and Department Guidance, a 5/Week monitoring requirement can be reduced to 3/Week. Therefore this permitting action is establishing a minimum monitoring frequency of 3/Week for TRC.

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

- h. pH: The previous permitting action established, a technology-based pH limit of 6.0 – 9.0 standard units (SU), which is based on 06-096 CMR 525(3)(III)(c), and a minimum monitoring frequency requirement of 5/week.

A summary of pH data as reported on the DMRs for the period of September, 2010 – October, 2015 (DMRs = 62) indicates the permittee has been in compliance with the pH range limitation 100% of the time.

The previous permit established a minimum monitoring frequency for pH of five times per week (5/Week) based on the Department best professional judgement. Although EPA's 1996 Guidance recommends evaluation of the most current two-years of effluent data for a parameter, the Department is considering 62 months of data (September 2010 – October 2015). A review of the data for pH indicates compliance of the long term effluent average to the monthly average limits 100% of the time. According to Table I of the EPA Guidance and Department Guidance, a 5/Week monitoring requirement can be reduced to 3/Week. Therefore, this permitting action is reducing the monitoring frequency for pH to 3/Week.

- i. Total Phosphorus: *Waste Discharge License Conditions*, 06-096 CMR 523 (effective January 12, 2001) specifies that water quality based limits are necessary when it has been determined that a discharge has a reasonable potential to cause or contribute to an excursion above any State water quality standard including State narrative criteria¹. In addition, 06-096 CMR 523 specifies that water quality based limits may be based upon criterion derived from a proposed State goals, or an explicit State policy or regulation interpreting its narrative water quality criterion, supplemented with other relevant information which may include: EPA's Water Quality Standards Handbook, October 1983, risk assessment data, exposure data, information about the pollutant from the Food and Drug Administration, and current EPA criteria documents.²

USEPA's Quality Criteria for Water 1986 (Gold Book) puts forth an in-stream phosphorus concentration goal of less than 0.100 mg/L in streams or other flowing waters not discharging directly to lakes or impoundments, to prevent nuisance algal growth. The use of the 0.100 mg/L Gold Book value is consistent with the requirements of 06-096 CMR 523 noted above for use in a reasonable potential (RP) calculation.

Based on the above rationale, the Department has chosen to utilize the Gold Book value of 0.100 mg/L. It is the Department's intent to continue to make determinations of actual attainment or impairment based upon environmental response indicators from specific waterbodies.

¹*Waste Discharge License Conditions*, 06-096 CMR 523(5)(d)(1)(i) (effective date January 12, 2001)

²06-096 CMR 523(5)(d)(1)(vi)(A)

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

The use of the Gold Book value of 0.100 mg/L for use in the RP calculation will enable the Department to establish water quality based limits in a manner that is reasonable and that appropriately establishes the potential for impairment, while providing an opportunity to acquire environmental response indicator data, numeric nutrient indicator data, and facility data as needed to refine the establishment of site specific water quality based limits for phosphorus. This permit may be reopened during the term of the permit to modify any reasonable potential calculations, phosphorus limits, or monitoring requirements based on new site-specific data.

MSAD# 6 conducted total phosphorus effluent sampling during the summer of 2014. Based upon the most recent test results from the August and September 2014 sampling events, the arithmetic mean concentration discharged for the period is 1.4 mg/L (1,400 ug/L). For the background concentration, the permittee conducted sampling in the Saco River above its discharge during the summer of 2014. The results from the August and September 2014 sampling events indicate the background total phosphorus concentration is 0.017 mg/L.

Using the following calculation and criteria, tMSAD#6 does not exhibit a reasonable potential to exceed the EPA’s Gold Book ambient water quality goal of 0.100 mg/L (100 µg/L) for phosphorus but does not demonstrate RP to exceed the Department’s 06-096 CMR 583 draft goal of 0.018 mg/L (18 ug/L).

$$Cr = \frac{QeCe + QsCs}{Qr}$$

- Qe = effluent flow i.e. facility design flow = 0.05125 MGD
- Ce = effluent pollutant concentration = 1.4 mg/L
- Qs = 7Q10 flow of receiving water = 249 MGD
- Cs = upstream concentration = 0.017 mg/L
- Qr = receiving water flow (Qs + Qe)=(249 MGD + 0.05125 MGD)=249.051 MGD
- Cr = receiving water concentration

$$Cr = \frac{(0.05125 \text{ MGD} \times 1.4 \text{ mg/L}) + (249 \text{ MGD} \times 0.017 \text{ mg/L})}{249.051 \text{ MGD}} = 0.017 \text{ mg/L}$$

- Cr = 0.017 mg/L < 0.100 mg/L ⇒ No Reasonable Potential
- Cr = 0.017 mg/L < 0.018 mg/L ⇒ No, Reasonable Potential

The discharge from MSAD #6 will not result in a measurable increase in the ambient total phosphorus concentration of the Saco River. **Therefore, no effluent limitations or monitoring requirements are being established in this permitting action.**

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

j. Whole Effluent Toxicity (WET), Priority Pollutant, and Analytical Chemistry Testing:

38 M.R.S.A. § 414-A and 38 M.R.S.A. § 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. 06-096 CMR 530 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. 06-096 CMR 584 sets forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

WET monitoring is required to assess and protect against impacts upon water quality and designated uses caused by the aggregate effect of the discharge on specific aquatic organisms. Acute and chronic WET tests are performed on invertebrate and vertebrate species. Priority pollutant and analytical chemistry testing is required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health AWQC as established in Chapter 584. 06-096 CMR 530(2)(B) categorizes dischargers subject to the toxics rule into one of four levels the categories are as follows:

- 1) Level I – chronic dilution factor of <20:1
- 2) Level II – chronic dilution factor of >20:1 but <100:1
- 3) Level III – chronic dilution factor >100:1 but <500:1 or >500:1 and Q >1.0 MGD
- 4) Level IV – chronic dilution >500:1 and Q <1.0 MGD

Therefore, MSAD #6 is considered a Level IV facility for toxics testing purposes. The facility has a chronic dilution factor of greater than 500:1 and a permitted flow of less than 1.0 MGD. Therefore, this permitting action is carrying forward the waiver from toxics testing. 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 L, *Reopening of Permit for Modifications*, to incorporate the applicable whole effluent toxicity (WET), priority pollutant or analytical testing requirements cited above.

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

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:*

- (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.”*

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

- (d) *Changes in storm water 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 (hailed) wastes accepted by the facility.*

The Department may require that annual testing be instituted if it determines that there have been changes in the character of the discharge or if annual certifications described above are not submitted. This permitting action carries forward Special Condition I 06-096 CMR 530(2)(D)(4) *Statement for Reduced/Waived Toxics Testing*, pursuant to 06-096 CMR 530(2)(D)(4).

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 waterbody to meet standards for Class A waters.

8. PUBLIC COMMENTS

Public notice of this application was made in the Portland Press Harold newspaper on or about November 17, 2015. 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 must 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*, CMR 522 (effective January 12, 2001).

9. DEPARTMENT CONTACTS

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

Aaron Dumont
Division of Water Quality Management
Bureau of Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 592-7161
e-mail: Aaron.A.Dumont@maine.gov

10. RESPONSE TO COMMENTS

Reserved until the end of the comment period

ATTACHMENT A

Bonny Eagle School Complex and Wastewater Treatment Plant

