STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Paul R. LePage
GOVERNOR

Paul Mercer
COMMISSIONER

July 25, 2018

Mr. Richard Jacques
RSU #35 – Marshwood Middle School
180 Depot Road
Eliot, Maine 03903
richard.jacques@rsu35.org

RE: Maine Pollutant Discharge Elimination System (MEPDES) # ME0101605
Maine Waste Discharge License (WDL) Application # W002417-5D-E-R
Marshwood Middle School – Proposed Draft Permit

Dear Mr. Jacques:

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

By copy of this letter, the Department is requesting comments on the proposed draft permit from various state and federal agencies, as required by our new regulations, and from any other parties who have notified the Department of their interest in this matter. All comments must be received in the Department of Environmental Protection office on or before the close of business **Thursday, August 23, 2018**. Failure to submit comments in a timely fashion will result in the final document being issued as drafted.

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

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

If you have any questions regarding the matter, please feel free to call me at 485-2404.

Sincerely,

Irene Saumur
Division of Water Quality Management
Bureau of Water Quality

Enc.

cc: William Johnson, DEP/CMRO
Lori Mitchell, DEP/CMRO
Olga Vergara, USEPA,
Marelyn Vega, USEPA,
IFWEnvironmentalreview@maine.gov
EnvironmentalReview.DMR@maine.gov

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEPARTMENT ORDER

IN THE MATTER OF

REGIONAL SCHOOL UNION #35	)	MAINE POLLUTANT DISCHARGE
MARSHWOOD MIDDLE SCHOOL	)	ELIMINATION SYSTEM PERMIT
ELIOT, YORK COUNTY, MAINE	)	AND
OVERBOARD DISCHARGE	)	WASTE DISCHARGE LICENSE
#ME0101605	)	
#W002417-5D-E-R **APPROVAL**	)	**RENEWAL**

Pursuant to the provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251, et seq. and Maine Law 38 M.R.S. Section 414-A, et seq., and applicable regulations, the Department of Environmental Protection (Department hereinafter) has considered the application of REGIONAL SCHOOL UNION #35-MARSHWOOD MIDDLE SCHOOL (MMS/Permittee, hereinafter), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

MMS/Permittee has submitted a timely and complete application for renewal of combination Maine Pollutant Discharge Elimination system (MEPDES) permit #ME0101605/ Maine Waste Discharge License (WDL) #W002417-5D-D-R which was issued by the Department on October 10, 2013, and is scheduled to expire on October 10, 2018. The WDL authorized a year-round monthly average discharge of up to 15,000 gallons per day of secondary treated waste waters to Sturgeon Creek, a Class B receiving water body in Eliot, Maine.

PERMIT SUMMARY

a. Terms and conditions – This permitting action is carrying forward all the terms and conditions established in the previous permitting action except that this permit is;

   1. Establishing a monitoring and reporting frequency for both Settleable Solids and pH of 1/YR, pursuant to 40 CFR §122.44 (i)(2), which states in part; *requirements to report monitoring results shall be established on a case-by-case basis with a frequency dependent on the nature and effect of the discharge, but in no case less than once a year.*

   2. Increasing the timeframe when E. Coli Bacteria limits are in effect from May 15 – September 30 to April 15 – October 31 based on a revision to Maine Law 38 M.R.S. §465(3)(B) effective August 2, 2018.

   3. Establishing a monitoring and reporting frequency for BOD_5 and TSS 85% removal of 1/Two Months to be consistent with monitoring and reporting for BOD_5 & TSS.

CONCLUSIONS

BASED on the findings in the attached **Proposed Draft** Fact Sheet dated July 25, 2018, 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. §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 discharges will be subject to effluent limitations that require application of best practicable treatment as defined in Maine law, 38 M.R.S., §414-A(1)(D) and 414-A(1-B).

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

6. A subsurface wastewater disposal system can be installed in compliance with the Maine Subsurface Waste Water Disposal Rules at the time the renewal application was accepted by the Department but the Department has not offered the permittee funding to eliminate the discharge.

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

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

ACTION

THEREFORE, the Department APPROVES the above noted application of the MSAD #35 (MARSHWOOD MIDDLE SCHOOL) to discharge a monthly average flow of up to 15,000 GPD of secondary treated sanitary waste water to the Sturgeon Creek, Class B, in Eliot, 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 _____, 2018.

DEPA RTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
Paul Mercer, Commissioner

Date of initial receipt of application: July 2, 2018
Date of application acceptance: July 2, 2018

Date filed with Board of Environmental Protection: _____.

This Order prepared by Irene Saumur, 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 #001** to Sturgeon Creek, Class B. Such discharges shall be limited and monitored by the permittee as specified below[(1)]:

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type [(7)]
Flow ***[50050]***	15,000 GPD *[07]*	---	Report GPD *[07]*	---	---	---	1/Week *[01/07]*	Measured *[MS]*
BOD_5 ***[00310]***	3.8 lbs/day *[26]*	5.6 lbs/day *[26]*	6.2 lbs/day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Two Months[(6)] *[01/60]*	Grab *[GR]*
BOD_5 Percent Removal[(2)] ***[81010]***	---	---	---	85% *[23]*	---	---	1/Two Months[(6)] *[01/60]*	Calculate *[CA]*
TSS ***[00530]***	3.8 lbs/day *[26]*	5.6 lbs/day *[26]*	6.2 lbs/day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Two Months[(6)] *[01/60]*	Grab *[GR]*
TSS Percent Removal[(2)] ***[81011]***	---	---	---	85% *[23]*	---	---	1/Two Months[(6)] *[01/60]*	Calculate *[CA]*
E. Coli.* Bacteria[(3)]** *(April 15 – Oct. 31)* ***[31633]	---	---	---	64/100 ml[(4)] *[13]*	---	427/100 ml *[13]*	1/Month *[01/30]*	Grab *[GR]*
Settleable Solids [00545]	---	---	---	---	---	0.3 ml/L [25]	1/Year *[01/YR]*	Grab *[GR]*
Total Residual Chlorine[(5)] ***[50060]***	---	---	---	---	---	0.1 mg/L *[19]*	3/Week[(6)] *[03/07]*	Grab *[GR]*
pH ***[00400]***	---	---	---	---	---	6.0 – 9.0 SU*[12]*	1/Year *[01/YR]*	Grab *[GR]*
The italicized numeric values bracketed in the table and in subsequent text are code numbers Department personnel utilize to code the monthly Discharge Monitoring Reports.								

FOOTNOTES: See Page 5 & 6 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

Footnotes:

1. **Sampling** – 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 waste water 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.

2. **Percent Removal –** The treatment facility must maintain a minimum of 85 percent removal of both BOD_5 and TSS for all flows receiving secondary treatment. This permitting action authorizes the permittee to assume an influent BOD_5 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.

3. **Bacteria limits –** *E. coli* bacteria limits and monitoring requirements are seasonal and apply between April 15th and October 31th of each year. The Department reserves the right to impose bacteria limits on a year-round basis to protect the health, safety, and welfare of the public.

4. **Bacteria reporting –** The monthly average *E. coli.* bacteria limitation is a geometric mean limitation and sample results must be reported as such.

5. **Total Residual Chlorine (TRC)** – Limitations and monitoring requirements are in effect any time elemental chlorine or chlorine-based compounds are utilized to disinfect the discharge(s). The permittee must utilize a USEPA-approved test method capable of bracketing the TRC limitations specified in this permitting action. Monitoring for TRC is only required when elemental chlorine or chlorine-based compounds are in use for effluent disinfection. For instances when a facility has not disinfected with chlorine-based compounds for an entire reporting period, the facility must report "NODI-9" for this parameter on the monthly DMR or "N9" if the submittal is an electronic DMR. The permittee must utilize approved test methods that are capable of bracketing the TRC limitation in this permit.

SPECIAL CONDITIONS

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

Footnotes:

6. **3/Week & 1/Two months sampling** – There must be at least 1 day between sampling events when monitoring on a 3/week frequency. There must be at least 30 days between sampling events when monitoring on a 1/Two months frequency.

7. **Samples Types –** Where grab sampling is specified, the applicant may choose to obtain a composite sample instead provided the alternate sampling is noted on the DMR.

B. ANNUAL DISCHARGE FEES

Pursuant to Maine law, 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 revocation of the license, permit or privilege under Maine law, 38 M.R.S. §341-D, subsection 3.

C. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent must not contain 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 effluent must not contain 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 discharges must not cause visible discoloration or turbidity in the receiving waters which would impair 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.

D. DISINFECTION

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

SPECIAL CONDITIONS

E. TREATMENT PLANT OPERATOR

The treatment facility must be operated by a person holding a **Maine Grade I** certificate (or higher) or must be a Maine Registered Professional Engineer pursuant to *Sewerage 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.

F. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on July 2, 2018, 2) the terms and conditions of this permit; and 3) only from Outfall #001. Discharges of wastewater from any other point source(s) 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.

G. NOTIFICATION REQUIREMENT

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

1. 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.

2. For the purposes of this section, notice regarding substantial change must include information on:

   a. The quality and quantity of wastewater introduced to the wastewater collection and treatment system; and

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

SPECIAL CONDITIONS

H. REQUIREMENTS TO ELIMINATE OVERBOARD DISCHARGES

The owners of the overboard discharges subject to this permit are required to install a technologically proven alternative and properly abandon the overboard discharges when any of the following actions are initiated.

1. ***Transfer of Ownership of Property or Significant Action***. Prior to transfer of ownership of property containing an overboard discharge (*i.e.*, change in the legal entity that owns a property, facility or structure that is the subject of a permit), the parties to the transfer shall determine the feasibility of technologically proven alternatives[1] to the overboard discharge. Prior to completing a significant action (*i.e.*, single construction project performed on a primary residence with an overboard discharge when the total material and labor cost of the construction project exceeds $50,000), the owner shall determine the feasibility of technologically proven alternatives to the overboard discharge.

   a) If an alternative to the overboard discharge is available, the alternative system must be installed within 90 days of property transfer or significant action, unless otherwise provided by *Waste discharge licenses*, 38 M.R.S. § 413(3-A).

   b) If an alternative to the overboard discharge is not available, the new owner shall, no later than two weeks after any transfer of ownership, submit an application to the Department for transfer of this permit.

2. ***Permit Renewal***. Waste Discharge Permits for overboard discharges are issued for a five-year term. The permittee shall submit a complete application for permit renewal prior to the expiration date of this permit to continue the discharge beyond the expiration date of this permit. If a technologically proven alternative system is available and;

   a) The overboard discharge owner is eligible for grant funding[2], the alternative system must be installed within 180 days of written notification from the Department, unless otherwise provided by *Conditions of licenses*, 38 M.R.S. § 414-A(1-B); or

   b) The overboard discharge owner is not eligible for grant funding, the alternative system must be installed prior to the expiration date of this permit.

3. ***Abandonment of Overboard Discharge.*** When an overboard discharge is no longer necessary or is replaced by technologically proven alternative system, it must be properly abandoned within 90 days following the requirements of *Overboard discharges: licenses and abandonment*, 06-096 CMR 596(8), including submission of Overboard Discharge Abandonment Certification Form #DEPLW0653A.

[1] Feasibility of technologically proven alternatives are based on determinations by a licensed site evaluator's application of plumbing standards adopted by the Department of Health and Human Services pursuant to Title 22, section 42.

[2] Grant eligibility is based on the cost-share schedule under *State contribution to residential overboard discharge replacement projects*, 38 M.R.S. § 411-A.

SPECIAL CONDITIONS

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 licensee 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.

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 shall be checked for damage at key joints and the inlet and outlet baffles, and repaired promptly if damaged. The licensee must keep a pumping log including the date of pumping, quantity of material removed, name and number of licensed contractor, pumping frequency and other relevant observations.

J. OPERATION & MAINTENANCE (O&M) PLAN

This facility must have a current written comprehensive Operation & Maintenance (O&M) Plan. The plan must provide a systematic approach by which the permittee shall at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.

By December 31 of each year, **or within 90 days of any process changes or minor equipment upgrades,** the permittee 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 EPA personnel upon request.

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

K. CONNECTION TO MUNICIPAL SEWER

All wastewaters designated by the Department as treatable in a municipal treatment system will be cosigned to that system within 180 days of the system becoming available, unless this time is extended by the Department in writing.

L. REOPENING OF PERMIT FOR MODIFICATIONS

In accordance with 38 M.R.S. § 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 effluent or ambient water quality monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

SPECIAL CONDITIONS

M. 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.

Documentation submitted in support of the electronic DMR may be attached to the electronic DMR and must be submitted no later than midnight on the 15th day of the month following the completed reporting period.

N. SEVERABILITY

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
WASTE DISCHARGE LICENSE

PROPOSED DRAFT FACT SHEET

Date: **JULY 25, 2018**

MEPDES PERMIT: **ME0101605**
WASTE DISCHARGE LICENSE: **W002417-5D-E-R**

NAME AND ADDRESS OF APPLICANT:

RSU #35 – Marshwood Middle School
180 Depot Road
Eliot, Maine 03903

COUNTY: **York County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

Marshwood Middle School
626 Dow Highway
Eliot, Maine

RECEIVING WATER / CLASSIFICATION: **Sturgeon Creek/Class B**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Richard Jacques**
richard.jacques@rsu35.org **(207) 439-2438**

1. APPLICATION SUMMARY

MMS/Permittee has submitted a timely and complete application for renewal of combination Maine Pollutant Discharge Elimination system (MEPDES) permit #ME0101605/ Maine Waste Discharge License (WDL) #W002417-5D-D-R which was issued by the Department on October 10, 2013, and is scheduled to expire on October 10, 2018. The WDL authorized a year-round monthly average discharge of up to 15,000 gallons per day of secondary treated waste waters to Sturgeon Creek, a Class B receiving water body in Eliot, Maine..

2. PERMIT SUMMARY

a. Terms and conditions - This permitting action is carrying forward all the terms and conditions established in the previous permitting action except that this permit is;

1. Establishing a monitoring and reporting frequency for both Settleable Solids and pH of 1/YR, pursuant to 40 CFR §122.44 (i)(2), which states in part; *requirements to report monitoring results shall be established on a case-by-case basis with a frequency dependent on the nature and effect of the discharge, but in no case less than once a year.*

2. PERMIT SUMMARY (cont'd)

2. Increasing the timeframe when E. Coli Bacteria limits are in effect from May 15 – September 30 to April 15 – October 31 based on a revision to Maine Law 38 M.R.S. §465(3)(B) effective August 2, 2018.

3. Establishing a monitoring and reporting frequency for BOD_5 and TSS 85% removal of 1/Two Months to be consistent with monitoring and reporting for BOD_5 & TSS.

b. Facility History: This section provides a summary of the most significant historical events for the MMS.

August 6, 1975 – The Department issued WDL #751 that authorized MSAD #35 to discharge 15,000 gpd of treated sanitary waste water, for a three year term.

September 8, 1978 – The Department renewed MMS's authorization to discharge treated sanitary waste water by the issuance of WDL #2417 for a five-year term.

November 1, 1983 - The Department renewed WDL #2417 for a five-year term.

June 29, 1987 -- The United States Environmental Protection Agency issued a NPDES permit to MMS authorizing the discharge for a five-year term.

May 6, 1990 – The Department issued WDL #W002417-5D-A-R with a five-year term.

March 12, 1996 – The Department issued WDL #W002417-5D-B-R for a ten-year term

July 2, 2007– The Department issued combination MEPDES permit ME0101605 / WDL #W002417-5D-C-R for a five-year term.

October 10, 2013 – The Department issued combination MEPDES permit ME0101605 / WDL #W002417-5D-D-R for a five-year term.

July 2, 2018 – RSU #35 Marshwood Middle School submitted a timely and complete application for renewal of combination MEPDES permit ME0101605 / WDL #W002417-5D-D-R. The application was accepted on July 2, 2018, and issued WDL #W002417-5D-E-R

c. Source Description: The year-round discharge is from a middle school and administrative office complex serving approximately 670 students and 70 staff. See Attachment A of this Fact Sheet for a layout of the school campus.

d. Wastewater Treatment: Residential like waste water generated at the school receives a secondary level of treatment via a septic tank and a sand filter bed treatment system. The waste water generated by the school is directed to a septic tank (that has a capacity of 2,000 gallons). After receiving primary treatment in the septic tank, waste water is pumped to a splitter box that directs one-half of the flow to each of two sand filter beds.

2. PERMIT SUMMARY (cont'd)

Waste Water is collected from the sand filters and then conveyed by gravity to a chlorination chamber for seasonal disinfection and then to the wet well of a pump station. The pump station consists of a wet well with a volume of 2,000 gallons. The pump is set to operate automatically after activated by float switches that are installed to initiate when the water level in the wet well rises to a certain height. From the pump station, the waste water is pumped to Sturgeon Creek via a 6-inch diameter force main that leads to an outfall pipe designated as Outfall #001. The outfall pipe extends out into the receiving waters with approximately one foot of water over the crown of the pipe at low flow conditions. See Attachment B of this Fact Sheet for a layout of the septic tank, sand filters, pump station and outfall pipe discharge area.

e. Replacement Options: MMS has submitted documentation with the 2007 application indicating that replacement options are feasible at this location. However, Department rule Chapter 596, *Overboard Discharges: Licensing and Abandonment,* Section 5(A)(2) states in part *"…the Department may approve an overboard discharge only if all of the following criteria are met." ".. .a subsurface wastewater disposal system can be installed on land owned or controlled by the applicant and the applicant is eligible for grant funding pursuant to 38 M.R.S., §411-A but no funding is available."* The Department has determined no funding is available at this time for replacement of OBD system identified at this location. Therefore, this permit is being renewed for another five-year term.

3. CONDITIONS OF PERMIT

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 (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

Maine law, 38 M.R.S. §468(9) states that those waters draining directly or indirectly into tidal waters of York County, with the exception of the Saco River Basin, the Salmon Falls River Basin and the Mousam River Basin are deemed to be Class B water bodies. Sturgeon Creek is the water body that receives the discharge from the school. Sturgeon Creek drains directly into tidal waters of York County, therefore, the Creek is classified as a Class B water. Maine law 38 M.R.S. §465(3) contains the classification standards for Class B water bodies.

Maine law 38 M.R.S. §464(4)(A) states "Notwithstanding section 414-A, the department may not issue a water discharge license for any of the following discharges:

(1) Direct discharge of pollutants to waters having a drainage area of less than 10 square miles, except that:
   (a) Discharges into these waters that were licensed prior to January 1, 1986 are allowed to continue only until practical alternatives exist; "

4. RECEIVING WATER QUALITY STANDARDS (cont'd)

Sturgeon Creek has a drainage area of less than 10 square miles. There is a practical alternative to the discharge but funding is currently not available to eliminate the discharge. See the discussion in Section 2(e) of this Fact Sheet.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2016 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 minor drainages entering tide water of the Piscataqua Estuary as Class B waters. (Hydrologic Unit Code #ME0106000310 / Waterbody ID #626R) as, *"Category 2: Rivers and Streams Attaining Some Designated Uses—Insufficient Information for Other Uses.*

The 305b Report lists all of Maine's fresh waters as, *"Category 5C: Waters Impaired by Atmospheric Deposition of Mercury. Regional or National TMDL may be required."* Impairment in this context refers to a statewide fish consumption advisory due to elevated levels of mercury in some fish tissues. Department rule Chapter 519, *Interim Effluent Limitations and Controls for the Discharge of Mercury*, establishes controls on the discharge of mercury to the surface waters of the State through interim effluent limits and implementation of pollution prevention plans. However, Section 1(A)(1) of the Chapter 519 rule states in part:

> "This rule applies to all persons licensed or permitted pursuant to 38 M.R.S. §413 to discharge pollutants to the surface waters of the State except as described below. For the purposes of this rule, the term licensee also means permittee.
>
> (1) Categorical exclusions. This rule does not apply to the following categories of licensees: combined sewer overflows, snow dumps, pesticide applications, and over board discharges licensed pursuant to 38 M.R.S. §413.[emphasis added] Except, however, specific members of these categories may be required by the department to comply with this rule on a case by case basis…"

The Department has no information at this time that the discharge from MMS causes or contributes to any impairment status of the receiving waterbody.

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. § 414-A(1-B) for purposes of permitting 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 06-096 CMR 525(3)(III), BPT for overboard discharges is secondary treatment.

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

b. Flow: This permitting action carries forward a monthly average discharge flow limitation of 15,000 gallons per day (gpd) based on the design flow for the treatment system. Department rule, 06-096 CMR Chapter 523 §6(b)(1), specifies, *"effluent limitations, standards, or prohibitions shall be calculated based on design flow."*

A review of the daily maximum discharge flow data as reported on the Discharge Monitoring Reports (DMRs) submitted to the Department for the period January 2014 – December 2017 indicates the following:

Flow (N= 48)

Value	Limit (gpd)	Range (gpd)	Mean (gpd)
Daily Maximum	15,500	114 – 8,714	2,736
Monthly Average	15,500	0 – 6,516	1,744

c. Dilution Factors: The Department established applicable dilution factors for the discharge in accordance with freshwater protocols established in *Surface Water Toxics Control Program*, 06-096 CMR 530 (last amended March 21, 2012). This permitting action is calculating dilution factors associated with the discharge flow limit of 0.0155 (MGD) as follows.

Acute: 1Q10 = 0.163 cfs $\Rightarrow \frac{(0.163 \text{ cfs})(0.6464) + 0.015 \text{ MGD}}{0.015 \text{ MGD}} = 8.6{:}1$

Chronic: 7Q10 = 0.192 cfs $\Rightarrow \frac{(0.192 \text{ cfs})(0.6464) + 0.015 \text{ MGD}}{0.015 \text{ MGD}} = 9.3{:}1$

Harmonic Mean[1] = 0.576 $\Rightarrow \frac{(0.576 \text{ cfs})(0.6464) + 0.015 \text{ MGD}}{0.015 \text{ MGD}} = 26{:}1$

Footnote:

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

06-096 CMR 530(4)(B)(1) states that analyses using numeric acute criteria for aquatic life must be based on ¼ of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone. 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.

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

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

Department rule Chapter 523, *Waste Discharge License Conditions*, Section 6, *Calculating NPDES permit conditions*, sub-section f(1) states that, *"all pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass…."* This permitting action is carrying forward, monthly average, weekly average and daily maximum BOD_5 and TSS mass limitations based on calculations using the design flow for the facility of 15,000 gpd (0.015 MGD) and the applicable concentration limits as follows:

Monthly Average Mass Limit: (30 mg/L)(8.34 lbs./gallon)(0.015 MGD) = 3.75 lbs/day
Weekly Average Mass Limit: (45 mg/L)(8.34 lbs./day)(0.015 MGD) = 5.6 lbs/day
Daily Maximum Mass Limit: (50 mg/L)(8.34 lbs./day)(0.015MGD) = 6.2 lbs/day

This permitting action is carrying forward a minimum year-round monitoring frequency requirement of every other month for BOD_5 and TSS (except for monthly during June, July, August, and September). This permitting action is continuing the requirement to sample every two months (year-round) in order to provide representative samples throughout the discharge year and is based on Department guidance for the MEPDES permit program for dischargers permitted to discharge between 10,000 and 20,000 GPD.

This permitting action is also carrying forward the requirement for a minimum of 85% removal of BOD5 and TSS pursuant to Chapter 525(3)(III)(a)(3) and (b)(3) of the Department's rules. MMS's waste water treatment system does not have an influent sampling port location that is representative of raw waste water 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*" a reasonable influent value for BOD5 and TSS may be assumed to be 286 mg/L. 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 until such time that the infrastructure is modified or replaced such that collection of a representative raw influent sample is practical.

This permitting action establishes a monitoring and reporting frequency for 85% removal of BOD_5 and TSS of 1/Two Months to be consistent with monitoring and reporting for BOD_5 & TSS.

For BOD_5 and TSS, a review of the monthly average effluent concentration data as reported on the DMRs submitted to the Department for the period January 2014 – December 2017 indicates the following:

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

BOD_5 Concentration (n=23)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	30	2.0 – 4.1	2.3
Daily Maximum	50	2.0 – 4.1	2.3

TSS concentration (n=23)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	30	2.50 – 18.0	4.8
Daily Maximum	50	2.50 – 18.0	4.8

BOD_5 Mass (n=23)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	3.8	0 – 0	0
Daily Maximum	6.2	0 – 6.2	6.2

TSS Mass (n=23)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	3.8	0 – 0	0
Daily Maximum	6.2	0 – 6.2	6.2

e. Settleable Solids: The previous licensing action established concentration limitation but did not set monitoring frequencies for settleable solids. This licensing action is carrying forward the daily maximum BPT concentration limitation of 0.3 ml/L and, is establishing a regular monitoring frequency of 1/YR pursuant to 40 CFR §122.44 (i)(2), which states in part; *requirements to report monitoring results shall be established on a case-by-case basis with a frequency dependent on the nature and effect of the discharge, but in no case less than once a year.*

f. *Escherichia coli* Bacteria: This licensing action carries forward the seasonal (May 15 – September 30) monthly average and daily maximum concentration limits for *E. coli* bacteria of 64 colonies/100 ml (geometric mean) and 427 colonies/100 ml (instantaneous level), respectively, which were based on the State of Maine Water Classification Program criteria for Class B waters found at 38 M.R.S. §465(3)(B), and a minimum monitoring frequency requirement of once every two months. However, 38 M.R.S. §465(3)(B) effective August 2, 2018, has been revised to expand the season from May 15 – September 30 to April 15 – October 31. Subsequent to issuance of the 12/04/95 license, the State Legislature adopted more stringent AWQC for *E. coli* bacteria. The newer criteria for Class B water are 64 colonies/100 ml as a monthly average and 236 colonies/100 ml as a daily maximum. The Department has made the determination that after taking into consider the dilution associated with the discharge, the BPT limits established in the previous licensing action are protective of the newer AWQC for bacteria and are therefore being carried forward in this permitting action. Although *E. coli* bacteria limits are seasonal, the Department reserves the right to impose year-round bacteria limits if deemed necessary to protect the health, safety and welfare of the public.

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

A review of the monthly average and daily maximum data as reported on the DMRs submitted to the Department for the period January 2014 – December 2017 indicates the monthly (geometric mean) and daily maximum *E. coli* bacteria discharged as follows:

***E coli*. Bacteria (n=19)**

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100 ml)
Monthly Average	64	1 - 165	19
Daily Maximum	427	1 - 165	19

This permitting action carries forward the monitoring frequency of 1/Month for *E. coli* bacteria, which the Department considers sufficient to determine compliance with the seasonal water quality standards and increases the timeframe when E. Coli Bacteria limits are in effect from May 15 – September 30 to April 15 – October 31 based on a revision to Maine Law 38 M.R.S. §465(3)(B) effective August 2, 2018.

g. Total Residual Chlorine (TRC): This licensing action established a water quality based concentration limit of 0.1 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. The Department is carrying forward the daily maximum water quality based limitation of 0.1 mg/L for this facility as it disinfects the effluent with elemental chlorine or chlorine-based compounds and the acute and chronic dilution factors are limited given the small drainage area associated with Sturgeon Creek.

			Calculated	
Acute (A) Criterion	Chronic (C) Criterion	A & C Dilution Factors	Acute Threshold	Chronic Threshold
0.019 mg/L	0.011 mg/L	8.6:1(A) 9.3:1 (C)	0.16 mg/L	0.10 mg/L

This permitting action is also carrying forward the monitoring frequency of 3/Week as established in the previous licensing action given the limited dilution associated with the discharge.

A review of the daily maximum data as reported on the DMRs submitted to the Department for the period January 2014 – December 2017 indicates the maximum TRC discharged has been as follows;

Total residual chlorine (n=21)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	1.0	0.10 – 0.20	0.12

h. pH: This permitting action carries forward a pH range limit of 6.0 – 9.0 standard units (SU), considered by the Department as BPT for secondary treated waste water. The previous permitting action did not establish any monitoring frequency requirements. This permitting action is establishing a regular monitoring frequency of 1/YR pursuant to 40 CFR §122.44 (i)(2), which states in part; *requirements to report monitoring results shall be established on a case-by-case basis with a frequency dependent on the nature and effect of the discharge, but in no case less than once a year.*

i. Whole Effluent Toxicity (WET), Priority Pollutant, and Analytical Chemistry Testing: Maine law, 38 M.R.S., §414-A and §420, prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. Department rule, 06-096 CMR Chapter 530, *Surface Water Toxics Control Program* (toxics rule) sets forth effluent monitoring requirements and procedures to establish safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected and narrative and numeric water quality criteria are met. Department rule 06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants,* sets forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

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

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

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

(1) Discharges from individual discharge points licensed to discharge less than 50,000 gallons per day of solely domestic wastewater and with a chronic dilution factor of at least 50 to 1, provided no holding tank wastes containing chemicals are accepted by the facility;

(2) Discharges from residential overboard discharge systems; or

(3) Discharges from combined sewer overflow discharge points, provided the owner of the sewerage system is conducting or participating in a discharge abatement program.

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

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

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

8. PUBLIC COMMENTS

Public notice of this application was made in the Foster's Daily Democrat newspaper on or about June 28, 2018. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits shall have at least

30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

9. DEPARTMENT CONTACTS

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

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Division of Water Quality Management
Bureau of Water Quality
Department of Environmental Protection
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10. RESPONSE TO COMMENTS

Reserved until the end of the formal 30-day Public Notice period