STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

August 16, 2017

Mr. Donn Davis
RSU #14
Windham Raymond School District
228 Windham Center Rd
Windham, ME 04062

RE: Maine Pollutant Discharge Elimination System (MEPDES) #ME0102751
Maine Waste Discharge License (WDL) Application # W002510-5D-E-R
Proposed Draft Permit

Dear Mr. Davis:

Attached is a proposed draft MEPDES permit/WDL (permit hereinafter) which the Department proposes to issue to RSU #14 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/license and its special and standard conditions. If it contains errors or does not accurately reflect present or proposed conditions, please respond to the 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.

All comments on the proposed draft permit must be received in the Department of Environmental Protection office on or before the close of business **Friday, September 15, 2017**. Failure to submit comments in a timely fashion will result in the proposed draft/license permit 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 04333-0017
Irene.Saumur@maine.gov

If you have any questions regarding the matter, please feel free to contact me.

Sincerely,

Irene Saumur
Division of Water Quality Management
Bureau of Water Quality

Enc.

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

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

DEPARTMENT ORDER

IN THE MATTER OF

REGIONAL SCHOOL UNIT #14 (RSU #14)	)	MAINE POLLUTANT DISCHARGE
WINDHAM RAYMOND SCHOOL DISTRICT	)	ELIMINATION SYSTEM
WINDHAM, CUMBERLAND COUNTY, MAINE	)	
OVERBOARD DISCHARGE	)	AND
ME0102751	)	WASTE DISCHARGE LICENSE
W002510-5D-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 UNIT#14 (RSU #14) (RSU #14/permittee hereinafter), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

The RSU #14 has submitted a timely and complete application to the Department for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0102751/Maine Waste Discharge License (WDL) #W002510-5D-D-R, (permit hereinafter) issued on December 4, 2012, and is scheduled to expire on December 4, 2017. The December 4, 2012, permit approved the discharge of up to a monthly average flow of 25,000 gallons per day (gpd) of secondary treated waste water from a waste water treatment facility, to the Pleasant River, Class B, in Windham, Maine.

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions of the previous permit.

CONCLUSIONS

BASED on the findings in the attached **INTERNAL DRAFT** Fact Sheet dated August 27, 2017, and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

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

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

3. The provisions of the State's antidegradation policy, 38 M.R.S. §464(4)(F), will be met, in that:

   (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;

   (b) Where high quality waters of the State constitute an outstanding natural 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 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 (BPT) as defined in Maine law, 38 M.R.S. §414-A(1)(D).

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

6. The permittee has determined that there is sufficient information indicating that a subsurface wastewater disposal system can not be installed in compliance with the Maine Subsurface Waste Water Disposal Rules or alternative method of waste water disposal without the surface water discharge to the Pleasant River at the time the renewal application was accepted by the Department.

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

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 REGIONAL SCHOOL UNIT#14, to discharge up to 25,000 gallons per day of secondary treated wastewater to the Pleasant River, Class B, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

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 Act, 5 M.R.S. § 10002 and Rules Concerning the Processing of Applications and Other Administrative Matters, 06-096 CMR 2(21)(A) (effective October 19, 2015)].

DONE AND DATED AT AUGUSTA, MAINE, THIS _____ DAY OF _____, 2017.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
For Paul Mercer, Commissioner

Date of initial receipt of application: July 24, 2017
Date of application acceptance: August 11, 2017

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

Beginning the effective date of this permit and lasting through permit expiration, the permittee is authorized to discharge secondary treated sanitary wastewater from **Outfall #001** to the Pleasant River. Such discharges shall be limited and monitored by the permittee as specified below[1]:

Effluent Characteristic	Discharge Limitations (as specified)						Minimum Monitoring Requirements (as specified)	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow *[50050]*	25,000 gpd *[07]*	--	Repor`t, gpd *[07]*	--	--	--	Continuous *[99/99]*	Metered *[MT]*
Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) *[80082]*	3.1 lbs./day ***[26]***	5.0 lbs./day *[26]*	5.6 lbs./day *[26]*	25 mg/L *[19]*	40 mg/L *[19]*	45 mg/L *[19]*	2/Month *[02/30]*	8-Hour Composite[2] *[08]*
$CBOD_5$ % Removal [1] *[81010]*	---	---	---	65% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
TSS ***[00530]***	3.7 lbs./day *[26]*	5.6 lbs./day *[26]*	6.3 lbs./day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	2/Month *[02/30]*	8-Hour Composite[2] *[08]*
TSS Percent Removal[3] *[81011]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Settleable Solids *[00545]*	--	--	--	--	--	0.3 ml/L *[25]*	5/Week *[05/07]*	Grab *[GR]*
E. Coli Bacteria[4] ***May 15th- Sept 30th [31633]***	--	--	--	64/100 ml[5] *[13]*	--	427/100 ml *[13]*	2/Month *[02/30]*	Grab *[GR]*
Total Residual Chlorine[6] *[50060]*	--	--	--	0.95 mg/L *[19]*	--	1.0 mg/L *[19]*	5/Week *[05/07]*	Grab *[GR]*
pH *[00400]*	--	--	--	--	--	6.0 – 9.0 SU *[12]*	5/Week *[05/07]*	Grab *[GR]*

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. **Influent and Effluent Monitoring** – Influent and Effluent monitoring must be conducted at a location mutually agreeable to the Department and the Permittee.

   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 shall be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services. Samples that are sent to a publicly owned treatment works (POTW) licensed pursuant to *Waste discharge licenses*, 38 M.R.S. § 413 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 DMR.

2. **$CBOD_5$ and TSS Sample Type –** Eight-hour composite samples for $CBOD_5$ and TSS shall consist of a minimum of four flow-proportioned grab samples collected at equally spaced intervals over an eight-hour period which are combined prior to analysis. Other composite aliquots may be acceptable with written Department approval.

3. **Percent Removal** – The treatment facility must maintain a minimum of 65% removal of $CBOD_5$ and 85% removal of TSS for all flows receiving secondary treatment. The percent removal must be calculated based on influent and effluent concentration values. The percent removal shall be waived if the calculated % removal for $CBOD_5$ is less than 65% and the % removal for TSS is less than 85% and the monthly average influent concentration for CBOD is 167 mg/L and 200 mg/L for TSS, and the permittee shall report "NODI-9" for this parameter on the monthly Discharge Monitoring Report (DMR).

4. **Bacteria Limits** – Escherichia coliform (*E. coli*) bacteria limits and monitoring requirements are in effect on a seasonal basis (May 15th to September 30th). The Department reserves the right to require disinfection on a year-round basis to protect the health, safety and welfare of the public.

5. **Bacteria Reporting** – The monthly average *E. coli* bacteria limitation is a geometric mean limitation and sample results shall be reported as such.

SPECIAL CONDITIONS

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

Footnotes:

6. **TRC Monitoring –** Monitoring for TRC is required when elemental chlorine or chlorine-based compounds are in use for effluent disinfection. The permittee must use approved test methods that are capable of bracketing the limits established in this permit. 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.

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 anniversary 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 discharge 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. Notwithstanding specific conditions of this permit the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

D. TREATMENT PLANT OPERATOR

The treatment facility must be operated by a person holding a minimum of a Maine **Grade II** certificate (or Registered Maine Professional Engineer) pursuant to Title 32 M.R.S. §4171 *et seq*. 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.

SPECIAL CONDITIONS

E. NOTIFICATION REQUIREMENT

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

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

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

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 24, 2017; 2) the terms and conditions of this permit; and 3) only from Outfall #001. Discharges of waste water from any other point source are not authorized under this permit, and shall be reported in accordance with Standard Condition D(1)(f), *Twenty-four hour reporting*, of this permit.

G. 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.

SPECIAL CONDITIONS

H. SITE EVALUATION FOR TRANSFERRED AND RENEWED PERMITS

Prior to permit transfer or **transfer of the property** occupying the permitted overboard discharge system, a site evaluation must be performed (if not done so within the most recent five-year period) by a licensed site evaluator with experience in designing systems for the replacement of overboard discharge systems.

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

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

I. OPERATION & MAINTENANCE (O&M) PLAN

The permittee must maintain a 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 EPA personnel upon request.

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

SPECIAL CONDITIONS

J. DISPOSAL OF TRANSPORTED WASTES IN WASTEWATER TREATMENT FACILITY

During the effective period of this permit, the permittee is authorized to receive and introduce **a daily maximum of 5,000 gallons per day of transported wastes** into the treatment process or solids handling stream, subject to the following terms and conditions:

1. **"**Transported wastes" means any liquid non-hazardous waste delivered to a wastewater treatment facility by a truck or other similar conveyance that has different chemical constituents or a greater strength than the influent described on the facility's application for a waste discharge license. Such wastes may include, but are not limited to septage, industrial wastes or other wastes to which chemicals in quantities potentially harmful to the treatment facility or receiving water have been added.

2. The character and handling of all transported wastes received must be consistent with the information and management plans provided in application materials submitted to the Department.

3. At no time shall the addition of transported wastes cause or contribute to effluent quality violations. Transported wastes may not cause an upset of or pass through the treatment process or have any adverse impact on the sludge disposal practices of the wastewater treatment facility.

   Wastes that contain heavy metals, toxic chemicals, extreme pH, flammable or corrosive materials in concentrations harmful to the treatment operation must be refused. Odors and traffic from the handling of transported wastes may not result in adverse impacts to the surrounding community. If any adverse effects exist, the receipt or introduction of transported wastes into the treatment process or solids handling stream shall be suspended until there is no further risk of adverse effects.

4. The permittee shall maintain records for each load of transported wastes in a daily log which shall include at a minimum the following.

   (a) The date;
   (b) The volume of transported wastes received;
   (b) The source of the transported wastes;
   (d) The person transporting the transported wastes;
   (e) The results of inspections or testing conducted;
   (f) The volumes of transported wastes added to each treatment stream; and
   (g) The information in (a) through (d) for any transported wastes refused for acceptance.

   These records shall be maintained at the treatment facility for a minimum of five years.

SPECIAL CONDITIONS

J. DISPOSAL OF TRANSPORTED WASTES IN WASTEWATER TREATMENT FACILITY (cont'd)

5. The addition of transported wastes into the treatment process or solids handling stream shall not cause the treatment facility's design capacity to be exceeded. If, for any reason, the treatment process or solids handling facilities become overloaded, introduction of transported wastes into the treatment process or solids handling stream shall be reduced or terminated in order to eliminate the overload condition.

6. Holding tank wastewater from domestic sources to which no chemicals in quantities potentially harmful to the treatment process have been added shall not be recorded as transported wastes but should be reported in the treatment facility's influent flow.

7. During wet weather events, transported wastes may be added to the treatment process or solids handling facilities only in accordance with a current Wet Weather Flow Management Plan approved by the Department that provides for full treatment of transported wastes without adverse impacts.

8. In consultation with the Department, chemical analysis is required prior to receiving transported wastes from new sources that are not of the same nature as wastes previously received. The analysis must be specific to the type of source and designed to identify concentrations of pollutants that may pass through, upset or otherwise interfere with the facility's operation.

9. Access to transported waste receiving facilities may be permitted only during the times specified in the application materials and under the control and supervision of the person responsible for the wastewater treatment facility or his/her designated representative.

10. The authorization is subject to annual review and, with notice to the permittee and other interested parties of record, may be suspended or reduced by the Department as necessary to ensure full compliance with Chapter 555 of the Department's rules and the terms and conditions of this permit.

K. REOPENING OF PERMIT FOR MODIFICATIONS

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

SPECIAL CONDITIONS

L. 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. Toxics reporting must be done using the DEP Toxsheet reporting form included as **Attachment C** of this permit. An electronic copy of the Toxsheet reporting document must be submitted to the Department assigned compliance inspector as an attachment to an email. In addition, a hardcopy form of this sheet must be signed and submitted to the Department assigned compliance inspector, or a copy attached to your NetDMR submittal will suffice.

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

An electronic copy of the secondary treatment bypass reporting document must be submitted to the Department assigned compliance inspector and the CSO Coordinator as an attachment to an email. In addition, a hardcopy form of this sheet must be signed and submitted to the Department assigned compliance inspector, or a copy attached to your NetDMR submittal will suffice. Documentation submitted electronically to the Department in support of the electronic DMR must be submitted no later than midnight on the 15th day of the month following the completed reporting period.

SPECIAL CONDITIONS

L. MONITORING AND REPORTING (cont'd)

Non-electronic Reporting

If you have received a waiver from the Department concerning the USEPA electronic reporting rule, or are permitted to submit hardcopy DMR's to the Department, then your 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 (13^{th}) day of the month or hand-delivered to a Department Regional Office such that the DMR's are received by the Department on or before the fifteenth (15^{th}) day of the month following the completed reporting period.

Toxsheet reporting forms must be submitted electronically as an attachment to an email sent to your Department compliance inspector. In addition, a signed hardcopy of your Toxsheet must also be submitted.

A signed copy of the DMR and all other reports required herein must be submitted to the Department assigned compliance inspector (unless otherwise specified) following address:

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

M. SEVERABILITY

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
MAINE WASTE DISCHARGE LICENSE

Proposed Draft FACT SHEET

Date: **August 16, 2017**

PERMIT NUMBER: **ME0102751**
LICENSE NUMBER: **W002510-5D-E-R**

NAME AND ADDRESS OF APPLICANT:

REGIONAL SCHOOL UNIT (RSU) #14
Windham Raymond School District
228 Windham Center Road
Windham, Maine 04062

COUNTY: **Cumberland County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

406 Gray Road
Windham, Maine 04062

RECEIVING WATER/CLASSIFICATION: **Pleasant River/Class B**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER:

Mr. Donn S. Davis,
Assistant Superintendent
(207) 892-1800
e-mail: ddavis@windham.k12.me.us

1. APPLICATION SUMMARY

a. Application - The RSU #14 has submitted a timely and complete application to the Department for the renewal and transfer of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0102751/Maine Waste Discharge License (WDL) #W002510-5D-D-R, (permit hereinafter) which was issued on December 4, 2012, and is scheduled to expire on December 4, 2017. The December 4, 2012, permit approved the discharge of up to a monthly average flow of 25,000 gallons per day (gpd) of secondary treated waste water from a waste water treatment facility, to the Pleasant River, Class B, in Windham, Maine.

1. APPLICATION SUMMARY (cont'd)

b. Source Description: The facility treats wastewater from a three school campus (Primary, Middle and High Schools) that serves approximately 2,514 students, faculty and staff. The wastewater is primarily domestic, however it includes water from the cafeterias, laboratories, and shop/art classes. Septic waste from other RSU #14 facilities is added during periods when school in not in session for extended periods as a supplemental feed source to keep the microbial population healthy. The majority of the site is developed either with school buildings, parking areas, or athletic fields. The schools are served by the Portland Water District providing potable water and water for irrigation and fire protection.

c. Waste Water Treatment: All waste water flows from the different sources on the school campus are conveyed to the waste water treatment facility by gravity sewer lines. The facility treats waste water by first measuring and conveying the flow past a flow recorder and ultrasonic flow meter, then to an influent screen (CE Bauer hydrosieve) where large solids are physically removed. The waste water is then directed to the oxidation ditch where it is aerated within an oval shaped channel that is 12 feet wide and 3 feet deep with a footprint of 80 feet long and 36 feet wide (volume =36,800 gallons). The waste water is then directed to a mixed liquor transfer tank and then to a clarifier with an 11 foot depth and a capacity of 21,000 gallons. The treated, clarified waste water is then directed past a disinfection feed line (where sodium hypochlorite is added to the waste stream to disinfect the waste water) and then is conveyed to the Pleasant River by an outfall pipe that has a single port orifice near the center of the river bottom. File information indicates that the outfall pipe discharges from the river bottom to achieve rapid and complete mixing.

The applicant has indicated that no changes to the process have been made since the last permitting action. As part of ongoing maintenance, nearly all of the pumps within the facility have been replaced to eliminate suction lifts and Fernco couplings (on discharge piping). In addition, pump controls have been upgraded and SCADA communication is being updated and improved.

2. PERMIT SUMMARY

a. Terms and conditions - This permitting action is carrying forward all the terms and conditions of the previous permit.

b. Regulatory history: The most recent licensing/permitting actions include the following:

March 12, 1975 – The Department issued Waste Discharge License (WDL) #677 that authorized the discharge of up to 55,375 gallons per day (gpd) of treated sanitary wastewater from the school complex to the Pleasant River. WDL #677 had an expiration date of March 12, 1978.

November 14, 1978 – The Department issued a renewal license to the school for the discharge of up to 55,375 gpd with a WDL number of #2510 and a term of five years.

2. PERMIT SUMMARY (cont'd)

May 24, 1984– The Department issued WDL #W002510-45-A-R, a renewal of the WDL issued in 1978 with a term of five years.

August 14, 1995 – The Department issued a renewal of the 1984 WDL with a license number of #W002510-5E-B-R. The WDL was issued for a term of ten (10) years and established a flow limitation of 15,000 gpd.

May 14, 2002 – The Department issued Site Location of Development permit that approved the construction of expansions to the existing school complex including a 122,000 square foot addition to the existing high school building, an 800-seat auditorium, tennis courts, upgrades to the existing sewage treatment plant and other ancillary improvements. The Department found that the resulting complex would accommodate 1,150 students in the existing elementary, middle, and expanded high school. The Department found that the expanded school complex is located on a 110 acre site and the cost of the expansion was $35 million.

March 10, 2006 – The Department issued combination MEPDES permit ME0102751 / WDL #W002510-5D-C-R, for a five (5) year term. Due to construction of the new school, the flow limit was established at 25,000 gpd, up from 15,000 gpd in the August 14, 1995 WDL.

December 4, 2012 – The department issued combination MEPDES permit ME0102751/WDL #W002510-5D-D-R for a five (5) year term.

July 24, 2017 – RSU #14 submitted a timely and complete application to renew combination MEPDES permit ME0102751 / WDL #W002510-5D-D-R. The application was assigned WDL #W002510-5D-E-R.

3. CONDITIONS OF PERMIT

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

4. RECEIVING WATER QUALITY STANDARDS

Maine law, 38 M.R.S. §467(9)(B)(1) classifies the Pleasant River, as a tributary to the Presumpscot River below the outlet of Sebago Lake, which includes the point of discharge, as Class B waters. Maine law, 38 M.R.S. §465(3), describes the standards for Class B waters as follows:

Class B waters must be of such quality that they are suitable for the designated uses of drinking water supply after treatment; fishing; agriculture; recreation in and on the water; industrial process and cooling water supply; hydroelectric power generation, except as prohibited under Title 12, section 403; navigation; and as habitat for fish and other aquatic life. The habitat must be characterized as unimpaired.

The dissolved oxygen content of Class B waters may not be less than 7 parts per million or 75% of saturation, whichever is higher, except that for the period from October 1st to May 14th, in order to ensure spawning and egg incubation of indigenous fish species, the 7-day mean dissolved oxygen concentration may not be less than 9.5 parts per million and the 1-day minimum dissolved oxygen concentration may not be less than 8.0 parts per million in identified fish spawning areas. Between May 15th and September 30th, the number of Escherichia coli bacteria of human and domestic animal origin in these waters may not exceed a geometric mean of 64 per 100 milliliters or an instantaneous level of 236 per 100 milliliters. In determining human and domestic animal origin, the department shall assess licensed and unlicensed sources using available diagnostic procedures.

Discharges to Class B waters may not cause adverse impact to aquatic life in that the receiving waters must be of sufficient quality to support all aquatic species indigenous to the receiving water without detrimental changes in the resident biological community.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2014 Integrated Water Quality Monitoring and Assessment Report, prepared pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists an 11.2-mile segment of the Pleasant River from Thayer Brook to its confluence with the Presumpscot River in tables entitled; *"Category 5-A: Rivers and Streams Impaired By Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required),* for Dissolved Oxygen, and, *"Category 4-A: Rivers and Streams With Impaired Use Other Than Mercury (TMDL Completed),* for *E. coli* bacteria. The report indicates Class B *E. coli* bacteria and dissolved oxygen standards are not being attained. To complete a total maximum daily load (TMDL) for this segment of the Pleasant River, the Department will need to compile more up-to-date ambient water quality data. Until the TMDL is completed this permit is carrying forward the technology based mass and concentration limits for CBOD and TSS as well as the water quality based limits for *E. coli* bacteria. Should the results of the TMDL indicate the discharge from the RSU is causing or contributing to the impairment(s), this permit may be reopened pursuant to Special Condition L, *Reopening of Permit For Modifications,* to establish more stringent limitations to bring the Pleasant River into attainment with water quality standards.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

a. Best Practicable Treatment (BPT) - Overboard discharges may be permitted only where no technologically proven alternative exists. Overboard discharge treatment systems must be capable of meeting secondary treatment standards as described in CMR Chapter 525, Section 3 unless the Department finds that alternate limits are appropriate.

(1) The permittee has demonstrated that connection to a municipal sewerage system is not possible because one is not located on or abutting land owned or controlled by the applicant.

(2) The permittee has demonstrated that a subsurface wastewater system is not practicable on land owned or controlled by the applicant in conformance with the State of Maine Subsurface Wastewater Disposal Rules at this time. In correspondence in the application for permit renewal, the applicant's Licensed Site Evaluator conducted an inspection of the permittee's property in October 2002 and determined that there is not a subsurface option because of the shallow depth to bedrock.

(3) The existing treatment system is capable of meeting secondary treatment standards and is appropriate technology for the wastewater being discharged.

b. Flow: The previously established monthly average discharge flow limitation of 25,000 gpd is based on the dry weather design capacity of the treatment system along with a daily maximum reporting requirement.

A review of the monthly average flow data as reported on the Discharge Monitoring Reports (DMRs) submitted to the Department for the period January 2013 – December 2016 indicates the permittee has reported values as follows:

Flow (DMRs = 48)

Value	Limit (gpd)	Range (gpd)	Mean (gpd)
Monthly Average	25,000	3,748 – 12,530	9,507
Daily maximum	Report	11,100 – 36,200	21,958

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

c. Dilution Factors - In accordance with Department Regulation Chapter 530, *Surface Water Toxics Control Program*, the Department has determined that the following dilution factors are applicable for the discharge from the RSU facility. With a permitted flow of 25,000 gpd (0.025 MGD), the dilution factors can be calculated:

$$\text{Dilution Factor} = \frac{(\text{River Flow in cfs})(\text{Conversion Factor}) + \text{Plant Flow in MGD}}{\text{Plant Flow in MGD}}$$

Acute: 1Q10 = 2.8 cfs $\Rightarrow \frac{(2.8 \text{ cfs})(0.6464) + 0.025 \text{ MGD}}{0.025 \text{ MGD}} =$ 74 : 1

Chronic: 7Q10 = 3.3 cfs $\Rightarrow \frac{(3.3 \text{ cfs})(0.6464) + 0.025 \text{ MGD}}{0.025 \text{ MGD}} =$ 87 : 1

Harmonic Mean[(1)] = 9.9 cfs $\Rightarrow \frac{(9.9 \text{ cfs})(0.6464) + 0.025 \text{ MGD}}{0.025 \text{ MGD}} =$ 259 : 1

Footnotes:

(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. The acute 1Q10 has not been quantified at this time due to a lack of empirical data, therefore the default (0.85) of the 7Q10 is used.

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

d. Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) and TSS: Typically, the Department establishes effluent limitations for BOD_5 for facilities that do not nitrify or complete the nitrification process through internal process control measures. BOD_5 is the measure of the total oxygen demand from both nitrogenous and carbonaceous components in a wastewater. Because the permittee's facility has such dramatic seasonal swings in loadings, the treatment process does not give the operator(s) of the facility the flexibility to control the nitrification process once it begins. Department rule Chapter 525(3)III authorizes the permitting authority to substitute $CBOD_5$ limitations for BOD_5 and the Department is carrying forward these limitations based on the facility-specific conditions outlined herein and BPJ.

This permitting action carries forward technology based monthly and weekly average $CBOD_5$ concentration limitations of 25 mg/L and 40 mg/L respectively, pursuant to Department rule Chapter 525(3)III. The daily maximum $CBOD_5$ concentration limit of 45 mg/L is considered a Department BPJ of best practicable treatment (BPT) limitation. The respective mass limitations are based on the "pre-existing" flow limit of 15,000 gpd (0.015 MGD) and the applicable concentration limits, and are calculated as follows:

Monthly average: (0.015 MGD)(8.34 lbs/gal)(25 mg/L) = 3.1 lbs/day
Weekly average: (0.015 MGD)(8.34 lbs/gal)(40 mg/L) = 5.0 lbs/day
Daily maximum: (0.015 MGD)(8.34 lbs/gal)(45 mg/L) = 5.6 lbs/day

The previously established monthly average, weekly average and daily maximum best practicable treatment (BPT) concentration limits for TSS of 30 mg/L, 45 mg/L and 50 mg/L, respectively, along with a 2/Month monitoring requirement, are being carried forward in this permitting action. The monthly average TSS concentration limits are based on secondary treatment requirements of Department rule, 06-096 CMR Chapter 525(3)(III). The maximum daily TSS concentration limits of 50 mg/L are based on a Department best professional judgment of BPT.

As for mass limitations, the previously established monthly average, weekly average and daily maximum limitations based on the daily maximum flow limit of 15,000 gpd (0.015 MGD) and the applicable concentration limits. The 2006 Fact Sheet indicated that though the treatment facility was capable of accepting flows of up to 25,000 gpd, the TSS mass limits were being held to "pre-existing" levels due to the non-attainment of dissolved oxygen standards. The limitations were calculated as follows:

Monthly Average Mass Limit: (30 mg/L)(8.34 lbs./gallon)(0.015 MGD) = 3.7 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)(0.015 MGD) = 6.2 lbs./day

A review of the monthly average flow data as reported on the DMRs submitted to the Department for the period January 2013 – December 2016 indicates the permittee has reported values as follows:

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

$CBOD_5$ Mass (DMRs = 48 w/1 excursion)

Value	Limit (lbs/day)	Range (lbs/day)	Mean (lbs/day)
Monthly Average	3.1	0.0 – 3.90	1.04
Weekly Average	5.0	0.0 – 4.90	1.40
Daily Maximum	5.6	0.1 – 4.90	1.47

$CBOD_5$ Concentration (DMRs = 48 w/1 excursion)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	25	1.8 – 27.0	9.24
Weekly Average	40	2.0 – 39.0	12.38
Daily Maximum	45	2.0 – 39.0	12.88

TSS mass (DMRs = 48 w/13 excursions)

Value	Limit (lbs/day)	Range (lbs/day)	Mean (lbs/day)
Monthly Average	3.7	0.30 – 5.60	2.02
Weekly Average	5.6	0.40 – 8.70	2.74
Daily Maximum	6.3	0.40 – 8.70	2.89

TSS concentration (DMRs = 48 w/12 excursions)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	30	4.9 – 52	18.3
Weekly Average	45	6.8 – 71	24.4
Daily Maximum	50	6.8 - 71	25.5

$CBOD_5$ % Removal (DMRs=38)

Value	Limit (%)	Range (%)	Average (%)
Monthly Average	65	85 - 99	96

TSS % Removal (DMRs=46 w/1 excursion)

Value	Limit (%)	Range (%)	Average (%)
Monthly Average	85	84 - 99	97

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

f) Settleable Solids: The previously established daily maximum technology based concentration limit of 0.3 ml/L along with a monitoring frequency of 5/Week are being carried forward in this permitting action.

A review of the monthly average flow data as reported on the DMRs submitted to the Department for the period January 2013 – December 2016 indicates the permittee has reported values as follows:

Settleable Solids (DMRs=48 w/ 4 excursions)

Value	Limit (ml/L)	Range (ml/L)	Average (ml/L)
Daily maximum	0.3	0.10 – 10.0	0.54

g) *E. Coli* Bacteria - The previously established seasonal (May 15 – September 30) monthly average and daily maximum concentration limit of 64 colonies per 100 ml and 427 colonies per 100 ml, respectively along with a 2/Month monitoring requirement is being carried forward in this permitting action. The limitation and season in which they apply are consistent with Maine law 38 M.R.S. §465(3)(B). The Department reserves the right, at any time, to require year-round disinfection to protect the health, safety and welfare of the public.

A review of the DMRs for the period June 2013 – September 2016 indicates values have been reported as follows:

***E. coli.* bacteria (DMRs=20 w/15 excursions)**

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100 ml)
Monthly Average	64	1 –2,419	364
Daily Maximum	427	1 – 2,419	862

h) Total Residual Chlorine (TRC): The previously established water quality-based monthly average limit of 0.95 mg/L and a technology based daily maximum concentration limit of 1.0 mg/L for TRC are being carried forward in this permitting action. Limitations on TRC are specified to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. Department permitting actions impose the more stringent of either a water quality-based or BPT-based limit. With dilution factors as determined in Section 6(c) of this Fact Sheet, end-of-pipe (EOP) water quality-based concentration thresholds for TRC may be calculated as follows:

			Calculated	
Acute (A) Criterion	Chronic (C) Criterion	A / C Dilution Factors	Acute Threshold	Chronic Threshold
0.019 mg/L	0.011 mg/L	74 : 1 (A) 87 : 1 (C)	1.4 mg/L	0.95 mg/L

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

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine-based compounds. For facilities that dechlorinate the discharge in order to meet water quality based thresholds, the Department has established daily maximum and monthly average BPT limits of 0.3 mg/L and 0.1 mg/L, respectively. RSU #14 currently does not dechlorinate the effluent prior to discharge.

The chronic water quality based threshold of 0.95 mg/L is more stringent than the technology-based standards and therefore the water quality based limit of 0.95 mg/L is established as a monthly average limit and 1.0 mg/L is established as a daily maximum limit.

A review of the monthly DMR data for the period January 2013 – December 2016 indicates the permittee has reported values as follows:

Total residual chlorine (DMRs=20 w/ 8 excursions)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly average	0.95	0.16 – 0.81	0.53
Daily Maximum	1.0	0.16 – 2.20	1.10

i) pH: The previously established pH range limit of 6.0 – 9.0 standard units (SU), considered by the Department at the time as BPT for secondary treated wastewater pursuant to Department rule found at Chapter 525(3)(III)(c) along with the 5/Week monitoring requirement is being carried forward in this permitting action.

A review of the monthly DMR data for the period January 2013 – December 2016 indicates the permittee has reported values as follows:

pH (DMRs=48 w/ 20 excursions)

Value	Limit (su)	Low (su)	High (su)
Range	6.0 – 9.0	4.6	7.8

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

j. Whole Effluent Toxicity (WET), Priority Pollutant, and Analytical Chemistry Testing: The previous permitting action did not establish whole effluent toxicity (WET) testing or chemical specific testing requirements pursuant to Chapter530. Maine law, 38 M.R.S.A., §414-A and §420, prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. Department rule, 06-096 CMR Chapter 530, *Surface Water Toxics Control Program* (toxics rule) sets forth effluent monitoring requirements and procedures to establish safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected and narrative and numeric water quality criteria are met. Department rule 06-096 CMR Chapter 584, Surface *Water Quality Criteria for Toxic Pollutants*, sets forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

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

Chapter 530(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.

This permitting action limits the discharge to 25,000 gpd of solely domestic wastewater and has a chronic dilution factor of 87:1. Therefore, the facility qualifies for an exemption from toxics testing and this permitting action is not establishing toxics testing requirements.

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

k. Transported Wastes – On October 1, 2012, the permittee amended their January 2011 application to request the Department approve authorization to accept and treat up to 5,000 gpd of transported wastes. *Standards For The Addition of Transported Wastes to Wastewater Treatment Facilities*, 06-096 CMR 555 (effective March 9, 2009), limits the quantity of transported wastes received at a facility to 1% of the design capacity of the treatment facility if the facility utilizes a side stream or storage method of introduction into the influent flow, or 0.5% of the design capacity of the facility if the facility does not utilize the side stream or storage method of introduction into the influent flow. A facility may receive more than 1% of the design capacity on a case-by-case basis. The permittee does not utilize a side stream storage method as transported wastes are introduced into the wetwell of the facility. With a design capacity of 25,000 gpd, 5,000 gpd represents 20% of said capacity. The Department has reviewed and approved the permittee's most current Septage Management Plan and determined that under normal operating conditions, the addition of 5,000 gpd via metered conditions of transported wastes into the facility will not cause or contribute to upset conditions of the treatment process.

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 Portland Press Herald, a newspaper with a circulation in the vicinity of the facility, on or about July 15, 2017. 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
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10. RESPONSE TO COMMENTS

Reserved until the end of the formal notice period