# AGENCY OF NATURAL RESOURCES DEPARTMENT OF ENVIRONMENTAL CONSERVATION WATERSHED MANAGEMENT DIVISION ONE NATIONAL LIFE DRIVE, MAIN BUILDING, 2<sup>nd</sup> FLOOR MONTPELIER, VT 05620-3522

Permit No.: 3-1209

PIN: EJ95-0375.01

NPDES No.: VT0020702

Name of Applicant: PBM Nutritionals, LLC

PO Box 2109

Georgia, VT 05468

Expiration Date: June 30, 2023

#### DISCHARGE PERMIT

In compliance with the provisions of the Vermont Water Pollution Control Act as amended (10 V.S.A. chapter 47), the Vermont Water Pollution Control Permit Regulations as amended (Environmental Protection Rules, Chapter 13), and the federal Clean Water Act as amended (33 U.S.C. § 1251 *et seq.*), and implementing federal regulations, PBM Nutritionals (hereinafter referred to as the "Permittee") is authorized by the Secretary of the Agency of Natural Resources ("Secretary") to discharge from the PBM Nutritionals Wastewater Treatment Facility (WWTF) to Arrowhead Mountain Lake in accordance with the following conditions.

Date: June 29, 2018

This permit shall become effective on August 1, 2018.

Emily Boedecker, Commissioner Department of Environmental Conservation

By: Jessica Bulan

Jessica Bulova, Wastewater Section Supervisor Watershed Management Division

# I. SPECIAL CONDITIONS

# A. EFFLUENT LIMITS

1. During the term of this permit, the Permittee is authorized to discharge from outfall serial number S/N 001 of the PBM Nutritionals Wastewater Treatment Facility (WWTF) to Arrowhead Mountain Lake, an effluent for which the characteristics shall not exceed the values listed below:

	DISCHARGE LIMITATIONS								
EFFLUENT CHARACTERISTICS	Annual Average	Annual Limitation	Monthly Average	Weekly Average	Max Day	Monthly Average	Weekly Average	Max Day	Instantaneous Maximum
		Mass (lbs/yr)	Mass (lbs/day)		Concentration (mg/L)				
	0.425	1			0.450				1
Flow <sup>1</sup>	0.425 MGD		Monitor Only		0.460 MGD				
Biochemical Oxygen Demand (5-day, 20° C) (BOD <sub>5</sub> ) <sup>2</sup>			35		57	10		15	
Total Suspended Solids (TSS) <sup>2</sup>			35		57	10		15	
Total Phosphorus (TP) <sup>2,3</sup>		776	Monitor Only			0.8		Monitor Only	
Ultimate Oxygen Demand <sup>4</sup>			83						
Total Kjeldahl Nitrogen (TKN)								Monitor Only	
Total Ammonia (NH <sub>3</sub> -N)								Monitor Only	
Chloride								Monitor Only	
Whole Effluent Toxicity NOEC-A <sup>5</sup>									≥10%
Settleable Solids									1 ml/L
pH						Between	6.5 – 8.5 Stan	dard Units	

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Edit to effluent flow dated 11-2-2018.

<sup>&</sup>lt;sup>1</sup> Monthly average flow calculated by summing daily effluent flow for each day in the given month and dividing the sum by the number of days of discharge in that month.

<sup>&</sup>lt;sup>2</sup> The Permittee shall operate the facility to meet the concentration limitations or pounds limitation, whichever is more restrictive.

<sup>&</sup>lt;sup>3</sup> Total Phosphorus shall be reported as Total Monthly Pounds, Running Total Annual Pounds, and Percentage of Running Total Annual Pounds to Annual Permit Limitation. See Condition I.B.4

<sup>&</sup>lt;sup>4</sup> Ultimate Oxygen Demand (UOD) shall be analyzed June 1 through September 30.

<sup>&</sup>lt;sup>5</sup> Whole Effluent Toxicity: NOEC-A is the concentration of effluent on a sample that causes No Observed (Acute) Effect (i.e. mortality to the test population at a 48-hour exposure interval of observation).

## I. SPECIAL CONDITIONS

## A. EFFLUENT LIMITS

1. During the term of this permit, the Permittee is authorized to discharge from outfall serial number S/N 001 of the PBM Nutritionals Wastewater Treatment Facility (WWTF) to Arrowhead Mountain Lake, an effluent for which the characteristics shall not exceed the values listed below:

CHARACTERISTICS  Average Limit Average Average Day Average Average Day Maximus (lbs/yr)  Mass (lbs/day)  Flow 0.425 MGD  Monitor Only  Riochemical Ovygen Demand	aneous						
CHARACTERISTICS  Average Limit Average Average Day Average Average Day Maximus (lbs/yr)  Mass (lbs/day)  Flow 0.425 MGD  Monitor Only  Biochemical Overage Demand  Average Average Day Average Day Maximus (lbs/day)  O.460 MGD							
Mass (lbs/day)   Concentration (mg/L)	num						
Piochemical Ovygen Demand 0.425 MGD Only							
Piochemical Ovygen Demand 0.425 MGD Only							
Biochemical Oxygen Demand							
(5-day, 20° C) (BOD <sub>5</sub> ) <sup>2</sup> 35 57 10							
Total Suspended Solids (TSS) <sup>2</sup> 35 57 10 15							
Total Phosphorus (TP) <sup>2,3</sup> 776  Monitor Only  0.8  Monitor only							
Ultimate Oxygen Demand <sup>4</sup> 83							
Total Kjeldahl Nitrogen (TKN) Monitor only							
Total Ammonia (NH <sub>3</sub> -N) Monitor only							
Chloride Monitor only							
Whole Effluent Toxicity	10/_						
NOEC-A <sup>5</sup>	1/0						
Settleable Solids 1 m	I/L						
pH Between 6.5-8.5 Standard Units							

<sup>1</sup> Monthly average flow calculated by summing daily effluent flow for each day in the given month and dividing the sum by the number of days of discharge in that month.

<sup>&</sup>lt;sup>2</sup> The Permittee shall operate the facility to meet the concentration limitations or pounds limitation, whichever is more restrictive.

<sup>&</sup>lt;sup>3</sup> Total Phosphorus shall be reported as Total Monthly Pounds, Running Total Annual Pounds, and Percentage of Running Total Annual Pounds to Annual Permit Limitation. See Condition I.B.4

<sup>&</sup>lt;sup>4</sup> Ultimate Oxygen Demand (UOD) shall be analyzed June 1 through September 30.

<sup>&</sup>lt;sup>5</sup> Whole Effluent Toxicity: NOEC-A is the concentration of effluent on a sample that causes No Observed (Acute) Effect (i.e. mortality to the test population at a 48-hour exposure interval of observation).

- 2. The effluent shall not have concentrations or combinations of contaminants including oil, grease, scum, foam, or floating solids which would cause a violation of the Vermont Water Quality Standards.
- **3.** The effluent shall not cause visible discoloration of the receiving waters.
- **4.** If the effluent discharged for a period of 90 consecutive days exceeds 80 percent of the permitted flow limitation, the Permittee shall submit to the Secretary projected loadings and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.
- 5. Any action on the part of the Secretary in reviewing, commenting upon or approving plans and specifications for the construction of WWTFs shall not relieve the Permittee from the responsibility to achieve effluent limitations set forth in this permit and shall not constitute a waiver of, or act of estoppel against any remedy available to the Secretary, the State of Vermont or the federal government for failure to meet any requirement set forth in this permit or imposed by state or federal law.

## **B. TOTAL PHOSPHORUS**

# 1. Wasteload Allocation for Phosphorus

This permit includes a total phosphorus (TP) water quality based effluent limitation of 776 lbs./yr., consistent with the waste load allocation (WLA) for TP of 0.352 metric tons per year, established by the U.S. Environmental Protection Agency (U.S. EPA) in the 2016 "Phosphorus TMDLs for Vermont Segments of Lake Champlain" (LC TMDL). The Secretary reserves the right to reopen and amend this permit, pursuant to Condition II.B.4 of this permit, to include an alternate TP limitation or additional monitoring requirements based on the monitoring data, the results of phosphorus optimization activities, or a reallocation of phosphorus wasteload allocations between the Permittee and another WWTF pursuant to the requirements of TMDL and Vermont's "Wasteload Allocation Process" Rule (Environmental Protection Rule, Chapter 17).

# 2. Phosphorus Optimization Plan

- a) Within 120 days of the permit issuance date, the Permittee shall develop or update (as appropriate) and submit to the Secretary a Phosphorus Optimization Plan (POP) to increase the WWTF's phosphorus removal efficiency by implementing optimization techniques that achieve phosphorus reductions using primarily existing facilities and equipment. The POP shall:
  - **i.** Be developed by a qualified professional with experience in the operation and design of WWTFs in consultation with the WWTF;
  - **ii.** Evaluate alternative methods of operating the existing WWTF, including operational, process, and equipment changes designed to enhance phosphorus removal. The techniques to be evaluated may include operational process changes

to enhance biological and/or chemical phosphorous removal, incorporation of anoxic/anaerobic zones, septage receiving policies and procedures, and side stream management;

- **iii.** Determine which alternative methods of operating the existing WWTF, including operational, process, and equipment changes will be most effective at increasing phosphorus removal; and
- iv. Include a proposed implementation schedule for those methods of operating the WWTF determined to be most effective at increasing phosphorus removal.
- b) The Secretary shall review the POP. The Permittee shall commence implementation of the POP 60 days after submittal to the Secretary, unless the Secretary rejects the POP prior to that date for failure to meet the requirements of subsection (a) of this section.
- c) The Permittee shall annually submit a report to the Secretary as an attachment to the monthly electronic Discharge Monitoring Reporting (DMR) form WR-43 that documents:
  - **i.** The optimization techniques implemented under the POP during the previous year.
  - **ii.** Whether the techniques are performing as expected.
  - **iii.** The phosphorus discharge trends relative to the previous year.

The first annual report shall include data collected during 2019 and shall be attached to the December 2019 DMR form WR-43.

## 3. Phosphorus Elimination/Reduction Plan

- **a)** The facility shall have 12 months from the permit issuance date to optimize removal of TP.
- b) If, after the optimization period, the WWTF's actual, TP loads reach or exceed 80% of the LC TMDL WLA for the WWTF, based on the WWTF's 12-month running annual load calculated using the Running Total Annual Pounds Calculation (Condition I.B.4.), the Permittee shall, within 90 days of reaching or exceeding 80% of the LC TMDL WLA for the WWTF, develop and submit to the Secretary a projection based on the WWTF's current operations and expected future loadings of whether it will exceed its WLA during the permit term.
- c) If the facility is not projected to exceed its WLA within the permit term, the WWTF shall reassess when it is projected to reach its WLA prior to permit renewal and submit that information with its next permit application.
- **d)** If the facility is projected to exceed its WLA during the permit term, the Permittee shall submit a Phosphorus Elimination/Reduction Plan (PERP) within 6 months from

the date of submittal of the projection submitted under Condition I.B.3.b. The PERP shall be submitted to the Secretary to ensure the WWTF continues to comply with its WLA.

e) The PERP shall be developed by qualified professionals in consultation with the WWTF.

## The PERP shall include:

- i. An evaluation of alternatives to ensure the WWTF's compliance with its WLA.
- **ii.** An identification of the chosen alternative or alternatives to ensure the WWTF's compliance with its WLA;
- **iii.** A proposed schedule, including an engineer approved design and construction schedule and, if the chosen alternative or alternatives require a pilot study, a schedule for testing, that shall ensure the WWTF's compliance with its WLA as soon as possible; and
- **iv.** A financing plan that estimates the costs for implementing the PERP and describes a strategy for financing the project.

The PERP shall be treated as an application to amend the permit, and therefore, shall be subject to all public notice, hearing, and comment provisions, in place at the time the plan is submitted, that are applicable to permit amendments. The WWTF shall revise the PERP, if required by the Secretary.

## 4. Running Total Annual Pounds Calculation

Compliance with the annual TP limitation (presented in Condition I.A.1. and I.B.1.) will be evaluated each month, using the Running Total Annual Pounds Calculation. In order to calculate running annual TP loading relative to the TMDL WLA:

- a) Calculate the average of results for all TP monitoring events conducted in a month (Monthly Average TP Concentration). Units = mg/L
- **b)** For flow, use the average daily flow for the month as reported on the DMR. Units = MGD
- c) Calculate Total Monthly Pounds = (Monthly Average TP Concentration)  $\times$  (average daily flow from DMR)  $\times$  8.34  $\times$  number of daily discharges in the month.
- **d)** Sum the results for the immediately preceding 12 months to derive the Running Total Annual Pounds.

## 5. Total Phosphorus Reporting

Total Phosphorus shall be reported monthly, via electronic Discharge Monitoring Report, in the following ways:

- a) Monthly Average TP Concentration. See Condition I.B.4.a.
- **b)** <u>Total Monthly Pounds</u>, meaning the total monthly pounds of TP discharged during the month. See Condition I.B.4.c.
- c) <u>Running Total Annual Pounds</u>, meaning the 12-month running annual TP load, as specified by Condition I.B.4.d.
- **d)** Comparison (%) of Running Total Annual Pounds to Annual Permit Limitation, meaning the percentage of the Running Total Annual Pounds to the Annual TP Limitation. The comparison shall be calculated as:

Percentage of Running Total Annual Pounds to Annual Permit Limitation, % = Running Total Annual Pounds / Annual TP Permit Limit  $\times$  100

## C. SPECIAL CONDITIONS

- 1. The Permittee is limited to using only chemicals which are similar in composition, concentration and toxicity to those identified in the permit application. A substantial change in the chemicals used must be reviewed by the Secretary to assure that no adverse impact will occur on either the treatment facility or the receiving water. A substantial change in chemicals shall be defined as chemicals that are not similar in composition, concentration and toxicity to those identified in the application. A change in chemical vendors will require that the Permittee, at a minimum, submit the appropriate SDS to the Secretary.
- 2. Waste Management Plan: The Permittee shall maintain on site a current facility waste management plan which includes Standard Operation Procedures for the wastewater treatment plant operations and responsibilities, and a hazardous waste contingency plan. The Permittee shall revise the plan as necessary and shall make it available to the Secretary upon request.

## D. MIXING ZONE ESTABLISHMENT

In accordance with Section 2-04 A. of the Vermont Water Quality Standards, effective July 1, 2017, this permit establishes a mixing zone encompassing an area not to exceed a 200-foot radius around the outfall of the PBM Nutritionals Wastewater Treatment Facility in Arrowhead Mountain Lake (1:40 dilution).

#### E. REAPPLICATION

If the Permittee desires to continue to discharge after the expiration of this permit, the Permittee shall reapply on the application forms then in use at least 180 days before this permit expires.

Reapply for a Discharge Permit by: December 31, 2022

#### F. OPERATING FEES

This discharge is subject to operating fees as required by 3 V.S.A. § 2822.

## G. TOXICITY TESTING

# 1. WHOLE EFFLUENT TOXICITY (WET) TESTING

Annually in **August or September**, the Permittee shall conduct a one-species (*Ceriodaphnia dubia*) modified acute/chronic WET tests (48-hour acute endpoints within a 7-day chronic test) on a composite effluent sample collected from S/N 001. Total ammonia should be measured in the highest concentration of test solution at the beginning of the test. The results shall be submitted to the Secretary by **December 31**, **of the year the test is conducted**.

The WET tests shall be conducted according to the procedures and guidelines specified in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" and "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms" (both documents U.S. EPA October 2002 or, if a newer edition is available, the most recent edition).

Based upon the results of these tests or any other toxicity tests conducted, the Secretary reserves the right to reopen and amend this permit, pursuant to Condition II.B.4 of this permit, to require additional WET testing or that Toxicity Reduction Evaluation.

## H. MONITORING AND REPORTING

## 1. Sampling and Analysis

The sampling, preservation, handling, and analytical methods used shall conform to the test procedures published in Title 40 of the Code of Federal Regulations (C.F.R.) Part 136.

The Permittee shall use sufficiently sensitive test procedures (i.e., methods) approved under 40 C.F.R. Part 136 for the analysis of the pollutants or pollutant parameters required under this Section.

Samples shall be representative of the volume and quality of effluent discharged over the sampling and reporting period. All samples are to be taken during normal operating hours. The Permittee shall identify the effluent sampling location used for each discharge. A description of the effluent sample location is included in Condition I.H.2.

# 2. Effluent Monitoring

During the term of this permit, the Permittee shall monitor and record the quality and quantity of discharge(s) at outfall serial number S/N 001 of the PBM Nutritionals WWTF, according to the following schedule and other provisions:

PARAMETER	MINIMUM FREQUENCY OF ANALYSIS	SAMPLE TYPE				
Flow	Continuous	Daily Total, Max., Min.				
Biochemical Oxygen Demand (BOD <sub>5</sub> )	$1 \times month$	Composite <sup>1</sup>				
Total Suspended Solids (TSS)	$1 \times \text{month}$	Composite <sup>1</sup>				
Total Phosphorus (TP)	$1 \times month$	Composite <sup>1</sup>				
Total Kjeldahl Nitrogen (TKN)	$1 \times month$	Composite <sup>1, 2</sup>				
Ultimate Oxygen Demand	$1 \times month$	Calculated <sup>3</sup>				
Settleable Solids	$1 \times day$	Grab				
Total Ammonia	1 x quarterly	Grab				
Chloride	1 x quarterly	Composite				
рН	$1 \times day$	Grab				
Temperature	1 x year	Grab				
Dissolved Oxygen	1 x year	Grab				
Nitrate/Nitrite Nitrogen (NO <sub>x</sub> )	1 x year	Composite <sup>1</sup>				
Oil & Grease	1 x year	Grab				
Total Dissolved Solids (TDS)	1 x year	Composite <sup>1</sup>				
Whole Effluent Toxicity (WET)	1 x year	Composite <sup>4</sup>				

Samples collected in compliance with the monitoring requirements specified above shall be collected at the final effluent sump, prior to pumping to Arrowhead Mountain Lake.

UOD (lbs/day) = 1.43 \* (lbs/day BOD) + 4.57 \* (lbs/day TKN)

The UOD limit and reporting is required during the period June 1 through September 30 only.

<sup>&</sup>lt;sup>1</sup> Composite samples for BOD<sub>5</sub>, TSS, TP, TKN, NO<sub>x</sub>, and TDS shall be taken during the hours 6:00 AM to 6:00 PM, unless otherwise specified. Eight hours is the minimum period for the composite, 24 hours is the maximum for the composite.

<sup>&</sup>lt;sup>2</sup>TKN is required during the period of June 1 through September 30 only.

<sup>&</sup>lt;sup>3</sup> UOD shall be determined by the following formula using the lbs/day calculated from the BOD and TKN concentrations:

<sup>&</sup>lt;sup>4</sup> WET tests shall be conducted each year in August or September.

# 2. Effluent Monitoring

During the term of this permit, the Permittee shall monitor and record the quality and quantity of discharge(s) at outfall serial number S/N 001 of the PBM Nutritionals WWTF, according to the following schedule and other provisions:

PARAMETER	MINIMUM FREQUENCY OF ANALYSIS	SAMPLE TYPE			
Flow	Continuous	Daily Total, Max., Min.			
Biochemical Oxygen Demand (BOD5)	$1 \times month$	Composite <sup>1</sup>			
Total Suspended Solids (TSS)	1 × month	Composite <sup>1</sup>			
Total Phosphorus (TP)	1 × month	Composite <sup>1</sup>			
Total Kjeldahl Nitrogen (TKN)	1 × month	Composite <sup>1, 2</sup>			
Ultimate Oxygen Demand	1 × mønth	Composite <sup>3</sup>			
Settleable Solids	1/× day	Grab			
Total Ammonia	1 x quarterly	Grab			
Chloride	1 x quarterly	Composite			
рН	1 × day	Grab			
Temperature	1 x year	Grab			
Dissolved Oxygen	1 x year	Grab			
Nitrate/Nitrite Nitrogen (NO <sub>x</sub> )	1 x year	Composite <sup>1</sup>			
Oil & Grease	1 x year	Grab			
Total Dissolved Solids (TDS)	1 x year	Composite <sup>1</sup>			
Whole Effluent Toxicity (WET)	1 x year	Composite <sup>4</sup>			

Samples collected in compliance with the monitoring requirements specified above shall be collected at the final effluent sump, prior to pumping to Arrowhead Mountain Lake.

UOD (lbs/day) = 1.43 \* (lbs/day BOD) + 4.57 \* (lbs/day TKN)

The UOD limit and reporting is required during the period June 1 through September 30 only.

<sup>&</sup>lt;sup>1</sup> Composite samples for BOD<sub>5</sub>, TSS, TP, TKN, NO<sub>x</sub>, and TDS shall be taken during the hours 6:00 AM to 6:00 PM, unless otherwise specified. Eight hours is the minimum period for the composite, 24 hours is the maximum for the composite.

<sup>&</sup>lt;sup>2</sup> TKN is required during the period of June 1 through September 30 only.

<sup>&</sup>lt;sup>3</sup> UOD shall be determined by the following formula using the lbs/day calculated from the BOD and NKN concentrations:

<sup>&</sup>lt;sup>4</sup> WET tests shall be conducted each year in August or September.

## 3. Annual Constituent Monitoring

Annually, by December 31, the Permittee shall monitor S/N 001 and submit the results, including units of measurement, as an attachment to the DMR form WR-43 for the month in which the samples were taken for the following parameters:

Temperature
Nitrate/Nitrite Nitrogen (NO<sub>x</sub>)
Dissolved Oxygen
Oil & Grease
Total Dissolved Solids

Grab samples shall be used for Temperature, Dissolved Oxygen, and Oil & Grease. A composite sample shall be used for NO<sub>x</sub> and Total Dissolved Solids. Samples shall be representative of the seasonal variation in the discharge.

Collect annual constituent monitoring samples once per year. The season in which samples are collected shall change chronologically from year to year to represent the seasonal variation of effluent constituents. The sampling seasons are as follows: winter (January 1 – March 31), spring (April 1 – June 30), summer (July 1 – September 30), and fall (October 1 – December 31). The first samples under this permit should be taken during the **summer** season. For easy reference regarding the season in which sampling is recommended, please refer to the "Guidance for Annual Constituent Monitoring."

## 4. Reporting

The Permittee is required to submit monthly reports of monitoring results on Discharge Monitoring Report (DMR) form WR-43. Reports are due on the 15<sup>th</sup> day of each month, beginning with the month following the issuance date of this permit.

The Permittee shall electronically submit its DMRs via Vermont's online electronic reporting system. The Permittee shall electronically submit additional compliance monitoring data and reports specified by the Secretary. When the Permittee submits DMRs using an electronic system designated by the Secretary, which requires attachment of scanned DMRs in PDF format, it is not required to submit hard copies of DMRs. The link below shall be used for electronic submittals:

#### https://anronline.vermont.gov/

If, in any reporting period, there has been no discharge, the Permittee must submit that information by the report due date.

All reports shall be signed:

a) In the case of corporations, by a principal executive officer of at least the level of vice president, or his/her duly authorized representative, if such representative is responsible

for the overall operation of the facility from which the discharge described in the permit form originates and the authorization is made in writing and submitted to the Secretary;

- **b)** In the case of a partnership, by a general partner;
- c) In the case of a sole proprietorship, by the proprietor; or
- **d**) In the case of a municipal, State, or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

In addition to the monitoring and reporting requirements given above, daily monitoring of certain parameters for operational control shall be submitted to the Secretary on the DMR form WR-43. Operations reports shall be submitted monthly.

# 5. Recording of Results

The Permittee shall maintain records of all information resulting from any monitoring activities required, including:

- a) The exact place, date, and time of sampling or measurement;
- **b**) The individual(s) who performed the sampling or measurements;
- c) The dates and times the analyses were performed;
- **d)** The individual(s) who performed the analyses;
- e) The analytical techniques and methods used including sample collection handling and preservation techniques;
- **f)** The results of such analyses;
- **g**) The records of monitoring activities and results, including all instrumentation and calibration and maintenance records;
- **h)** The original calculation and data bench sheets of the operator who performed analysis of the influent or effluent pursuant to requirements of this permit; and
- i) For analyses performed by contract laboratories:
  - a. The detection level reported by the laboratory for each sample; and
  - b. The laboratory analytical report including documentation of the QA/QC and analytical procedures.

The results of monitoring requirements shall be reported (in the units specified) on the DMR form WR-43 or other forms approved by the Secretary.

When "non-detects" are recorded, the method detection limit shall be reported and used in calculating any time-period averaging for reporting on DMRs.

# 6. Additional Monitoring

If the Permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the DMR form WR-43. Such increased frequency shall also be indicated.

## I. OPERATION, MANAGEMENT, AND EMERGENCY RESPONSE PLANS

1. The Permittee submitted the Operation, Management, and Emergency Response Plan for the process water treatment facility to the Secretary on December 27, 2011. Through issuance of this permit the Secretary approves the inspection schedule for the plan. The permittee shall implement the plan in accordance with that schedule.

The Permittee shall revise these plans upon the Secretary's request or on its own motion to reflect equipment or operational changes.

#### II. GENERAL CONDITIONS

## A. MANAGEMENT REQUIREMENTS

# 1. Facility Modification / Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant more frequently than, or at a level in excess of, that identified and authorized by this permit shall constitute a violation of the terms and conditions of this permit. Such a violation may result in the imposition of civil and/or criminal penalties pursuant to 10 V.S.A. chapters 47, 201, and/or 211. Any anticipated facility alterations or expansions or process modifications which will result in new, different, or increased discharges of any pollutants must be reported by submission of a new permit application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the Secretary of such changes. Following such notice, the permit may be modified, pursuant to Condition II.B.4 of this permit, to specify and limit any pollutants not previously limited.

In addition, the Permittee, within 30 days of the of the date on which the Permittee is notified of such discharge, shall provide notice to the Secretary of the following:

a) Any new introduction of pollutants into the treatment works from a source which would be a new source as defined in Section 306 of the Clean Water Act if such source were discharging pollutants;

- **b)** Except for such categories and classes of point sources or discharges specified by the Secretary, any new introduction of pollutants into the treatment works from a source which would be subject to Section 301 of the Clean Water Act if such source were discharging pollutants; and
- c) Any substantial change in volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into such works at the time of issuance of the permit.

## The notice shall include:

- i. The quality and quantity of the discharge to be introduced into the system, and
- **ii.** The anticipated impact of such change in the quality or quantity of the effluent to be discharged from the WWTF.

# 2. Noncompliance Notification

- a) The Permittee shall give advance notice to the Secretary of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- **b)** In the event the Permittee is unable to comply with any of the conditions of this permit due, among other reasons, to:
  - i. Breakdown or maintenance of waste treatment equipment (biological and physical-chemical systems including all pipes, transfer pumps, compressors, collection ponds or tanks for the segregation of treated or untreated wastes, ion exchange columns, or carbon absorption units);
  - ii. Accidents caused by human error or negligence;
- **iii.** Any unanticipated bypass or upset which exceeds any effluent limitation in the permit;
- iv. Violation of a maximum day discharge limitation for any of the pollutants listed by the Secretary in this permit; or
- v. Other causes such as acts of nature,
- the Permittee shall provide notice as specified in subdivisions (c) and (d) of this subsection.
- c) Pursuant to 10 V.S.A. §1295, notice for "untreated discharges," as defined.
  - i. Public notice. For "untreated discharges" an operator of a WWTF or the operator's delegate shall as soon as possible, but no longer than one hour from discovery of an untreated discharge from the WWTF, post on a publicly

accessible electronic network, mobile application, or other electronic media designated by the Secretary an alert informing the public of the untreated discharge and its location, except that if the operator or his or her delegate does not have telephone or Internet service at the location where he or she is working to control or stop the untreated discharge, the operator or his or her delegate may delay posting the alert until the time that the untreated discharge is controlled or stopped, provided that the alert shall be posted no later than four hours from discovery of the untreated discharge.

- **ii.** Secretary notification. For "untreated discharges" an operator of a WWTF shall within 12 hours from discovery of an untreated discharge from the WWTF notify the Secretary and the local health officer of the municipality where the facility is located of the untreated discharge. The operator shall notify the Secretary through use of the Department of Environmental Conservation's online event reporting system. If, for any reason, the online event reporting system is not operable, the operator shall notify the Secretary via telephone or e-mail. The notification shall include:
  - (1) The specific location of each untreated discharge, including the body of water affected. For combined sewer overflows, the specific location of each untreated discharge means each outfall that has discharges during the wet weather storm event.
  - (2) Except for discharges from a WWTF to a separate storm sewer system, the date and approximate time the untreated discharge began.
  - (3) The date and approximate time the untreated discharge ended. If the untreated discharge is still ongoing at the time of reporting, the entity reporting the untreated discharge shall amend the report with the date and approximate time the untreated discharge ended within three business days of the untreated discharge ending.
  - (4) Except for discharges from a WWTF to a separate storm sewer system, the approximate total volume of sewage and, if applicable, stormwater that was released. If the approximate total volume is unknown at the time of reporting, the entity reporting the untreated discharge shall amend the report with the approximate total volume within three business days.
  - (5) The cause of the untreated discharge and a brief description of the noncompliance, including the type of event and the type of sewer structure involved
  - (6) The person reporting the untreated discharge.
- **d)** For any non-compliance not covered under Condition II.A.2.c. of this permit, an operator of a WWTF or the operator's delegate shall notify the Secretary within 24 hours of becoming aware of such condition and shall provide the Secretary with the following information, in writing, within five days:

- i. Cause of non-compliance;
- **ii.** A description of the non-complying discharge including its impact upon the receiving water;
- **iii.** Anticipated time the condition of non-compliance is expected to continue or, if such condition has been corrected, the duration of the period of non-compliance;
- iv. Steps taken by the Permittee to reduce and eliminate the non-complying discharge; and
- **v.** Steps to be taken by the Permittee to prevent recurrence of the condition of non-compliance.

## 3. Operation and Maintenance

All waste collection, control, treatment, and disposal facilities shall be operated in a manner consistent with the following:

- a) The Permittee shall, at all times, maintain in good working order and operate as efficiently as possible all treatment and control facilities and systems (and related appurtenances) installed or used by the Permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the Permittee only when the operation is necessary to achieve compliance with the conditions of this permit.
- **b)** The Permittee shall provide an adequate operating staff which is duly qualified to carry out the operation, maintenance, and testing functions required to ensure compliance with the conditions of this permit; and
- c) The operation and maintenance of this facility shall be performed only by qualified personnel who are licensed as required by Secretary and the Director of the Vermont Office of Professional Regulation.

# 4. Quality Control

The Permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at regular intervals to ensure accuracy of measurements, or shall ensure that both activities will be conducted.

The Permittee shall keep records of these activities and shall provide such records upon request of the Secretary.

The Permittee shall demonstrate the accuracy of the effluent flow measurement device monthly and report the results on the monthly report forms. The acceptable limit of error is  $\pm 10\%$ .

For purposes of demonstrating compliance with the requirements of Condition II.A.3.a of this permit regarding adequate laboratory controls and appropriate quality assurance procedures, the Permittee shall conduct an annual laboratory proficiency test, via an accredited laboratory, for the analysis of all pollutant parameters performed within their facility laboratory and reported as required by this permit. This can be carried out as part of an EPA DMR-QA study. Results shall be submitted to the Secretary by **December 31**, **annually**.

# 5. Bypass

The bypass of facilities (including pump stations) is prohibited, except where authorized under the terms and conditions of an Emergency Pollution Permit issued pursuant to 10 V.S.A. § 1268. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the activity in order to maintain compliance with the conditions of this permit.

# 6. Duty to Mitigate

The Permittee shall take all reasonable steps to minimize or prevent any adverse impact to waters of the State, the environment, or human health resulting from non-compliance with any condition specified in this permit, including accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

## 7. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed, all calibration and maintenance of instrumentation records and all original chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained for a minimum of three years, and shall be submitted to the Secretary upon request. This period shall be extended during the course of unresolved litigation regarding the discharge of pollutants or when requested by the Secretary.

# 8. Solids Management

Collected screenings, sludges, and other solids removed in the course of treatment and control of wastewaters shall be stored, treated, and disposed of in accordance with 10 V.S.A. chapter 159 and with the terms and conditions of any certification, interim or final, transitional operation authorization, or order issued pursuant to 10 V.S.A. chapter 159 that is in effect on the issuance date of this permit or is issued during the term of this permit.

## 9. Emergency Pollution Permits

Maintenance activities, or emergencies resulting from equipment failure or malfunction, including power outages, which result in an effluent which exceeds the effluent limitations specified herein, shall be considered a violation of the conditions of this permit, unless the Permittee's discharge is covered under an emergency pollution permit under the provisions of 10 V.S.A. § 1268. The Permittee shall notify the Secretary of the emergency situation by the next working day, unless notice is required sooner under Section II.A.2.

# 10 V.S.A. § Section 1268 reads as follows:

When a discharge permit holder finds that pollution abatement facilities require repairs, replacement or other corrective action in order for them to continue to meet standards specified in the permit, he may apply in the manner specified by the secretary for an emergency pollution permit for a term sufficient to effect repairs, replacements or other corrective action. The Secretary shall proceed in accordance with chapter 170 of this title. No emergency pollution permit shall be issued unless the applicant certifies and the secretary finds that:

- (1) there is no present, reasonable alternative means of disposing of the waste other than by discharging it into the waters of the state during the limited period of time of the emergency;
- (2) the denial of an emergency pollution permit would work an extreme hardship upon the applicant;
- (3) the granting of an emergency pollution permit will result in some public benefit;
- (4) the discharge will not be unreasonably harmful to the quality of the receiving waters;
- (5) the cause or reason for the emergency is not due to willful or intended acts or omissions of the applicant.

Application shall be made to the Secretary at the following address: Agency of Natural Resources, Department of Environmental Conservation, One National Life Drive, Main Building, 2<sup>nd</sup> Floor, Montpelier VT 05620-3522.

#### **B. RESPONSIBILITIES**

#### 1. Right of Entry

The Permittee shall allow the Secretary or authorized representative, upon the presentation of proper credentials:

- a) To enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- **b**) To have access to and copy, at reasonable times, any records required to be kept under the terms and conditions of this permit;

- c) To inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- **d)** To sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

# 2. Transfer of Ownership or Control

This permit is not transferable without prior written approval of the Secretary. All application and operating fees must be paid in full prior to transfer of this permit. In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the Permittee shall provide a copy of this permit to the succeeding owner or controller and shall send written notification of the change in ownership or control to the Secretary at least 30 days in advance of the proposed transfer date. The notice to the Secretary shall include a written agreement between the existing and new Permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them. The Permittee shall also inform the prospective owner or operator of their responsibility to make an application for transfer of this permit.

This request for transfer application must include as a minimum:

- **a)** A properly completed application form provided by the Secretary and the applicable processing fee.
- **b)** A written statement from the prospective owner or operator certifying:
  - i. The conditions of the operation that contribute to, or affect, the discharge will not be materially different under the new ownership;
  - **ii.** The prospective owner or operator has read and is familiar with the terms of the permit and agrees to comply with all terms and conditions of the permit; and
  - **iii.** The prospective owner or operator has adequate funding to operate and maintain the treatment system and remain in compliance with the terms and conditions of the permit.
- c) The date of the sale or transfer.

The Secretary may require additional information dependent upon the current status of the facility operation, maintenance, and permit compliance.

## 3. Confidentiality

Pursuant to 10 V.S.A. § 1259(b):

Any records or information obtained under this permit program that constitutes trade secrets under 1 V.S.A. § 317(c)(9) shall be kept confidential, except that such records or information may be disclosed to authorized representatives of the State and the United States when relevant to any proceedings under this chapter.

Claims for confidentiality for the following information will be denied:

- a) The name and address of any permit applicant or Permittee.
- **b)** Permit applications, permits, and effluent data.
- c) Information required by application forms, including information submitted on the forms themselves and any attachments used to supply information required by the forms.

## 4. Permit Modification, Suspension, and Revocation

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including the following:

- a) Violation of any terms or conditions of this permit;
- **b**) Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
- c) Reallocation of WLA under the LC TMDL;
- d) Development of an integrated WWTF and stormwater runoff NPDES permit; or
- e) A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance shall not stay any permit condition.

The Permittee shall provide to the Secretary, within a reasonable time, any information which the Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee shall also furnish to the Secretary upon request, copies of records required to be kept by this permit.

#### 5. Toxic Effluent Standards

If a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under section 307(a) of the Clean Water Act for a toxic pollutant which is present in the Permittee's discharge and such standard or prohibition is more stringent than any limitation upon such pollutant in this permit, then this permit shall be modified or revoked and reissued, pursuant to Condition

II.B.4 of this permit, in accordance with the toxic effluent standard or prohibition and the Permittee so notified.

# 6. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject under 10 V.S.A. § 1281.

## 7. Other Materials

Other materials ordinarily produced or used in the operation of this facility, which have been specifically identified in the application, may be discharged at the maximum frequency and maximum level identified in the application, provided:

- **a)** They are not:
  - i. Designated as toxic or hazardous under provisions of Sections 307 and 311, respectively, of the Clean Water Act, or
  - ii. Known to be hazardous or toxic by the Permittee,

except that such materials indicated in (i) and (ii) above may be discharged in certain limited amounts with the written approval of, and under special conditions established by, the Secretary or his/her designated representative, if the substances will not pose any imminent hazard to the public health or safety;

- **b**) The discharge of such materials will not violate the Vermont Water Quality Standards; and
- **c**) The Permittee is not notified by the Secretary to eliminate or reduce the quantity of such materials entering the water.

## 8. Navigable Waters

This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any navigable waters.

## 9. Civil and Criminal Liability

The Permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Except as provided in "Bypass" (Condition II.A.5) and "Emergency Pollution Permits" (Condition II.A.9), nothing in this permit shall be construed to relieve the Permittee from civil or criminal penalties for noncompliance. Civil and criminal penalties for non-compliance are provided for in 10 V.S.A. Chapters 47, 201, and 211.

#### 10. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Clean Water Act

# 11. Property Rights

Issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

#### 12. Other Information

If the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Secretary, it shall promptly submit such facts or information.

# 13. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

## 14. Authority

This permit is issued under authority of 10 V.S.A. §§1258 and 1259 of the Vermont Water Pollution Control Act, the Vermont Water Pollution Control Permit Regulation, and Section 402 of the Clean Water Act, as amended.

## 15. Definitions

For purposes of this permit, the following definitions shall apply.

**Agency** – means the Vermont Agency of Natural Resources.

**Annual Average** - means the highest allowable average of daily discharges calculated as the sum of all daily discharges (mg/L, lbs or gallons) measured during a calendar year divided by the number of daily discharges measured during that year.

**Average** - means the arithmetic means of values taken at the frequency required for each parameter over the specified period.

**Bypass** – means the intentional diversion of waste streams from any portion of the treatment facility.

**The Clean Water Act** - means the federal Clean Water Act, as amended (33 U.S.C. § 1251, *et seq.*).

**Composite Sample** - means a sample consisting of a minimum of one grab sample per hour collected during a 24-hour period (or lesser period as specified in the section on Monitoring and Reporting) and combined proportionally to flow over that same time period.

**Daily Discharge** - means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.

For pollutants with limitations expressed in pounds the daily discharge is calculated as the total pounds of pollutants discharged over the day.

For pollutants with limitations expressed in mg/L the daily discharge is calculated as the average measurement of the pollutant over the day.

**Discharge** – means the placing, depositing, or emission of any wastes, directly or indirectly, into an injection well or into the waters of the State.

**Grab Sample** – means an individual sample collected in a period of less than 15 minutes.

**Incompatible Substance** – means any waste being discharged into the treatment works which interferes with, passes through without treatment, or is otherwise incompatible with said works or would have a substantial adverse effect on the works or on water quality. This includes all pollutants required to be regulated under the Clean Water Act.

**Instantaneous Maximum** - means a value not to be exceeded in any grab sample.

**Major Contributing Industry** – means one that: (1) has a flow of 50,000 gallons or more per average work day; (2) has a flow greater than five percent of the flow carried by the municipal system receiving the waste; (3) has in its wastes a toxic pollutant in toxic amounts as defined in standards issued under Section 307(a) of the Clean Water Act; or (4) has a significant impact, either singly or in combination with other contributing industries, on a treatment works or on the quality of effluent from that treatment works.

**Maximum Day** (maximum daily discharge limitation) - The highest allowable "daily discharge" (mg/L, lbs or gallons).

**Mean** - is the arithmetic mean.

**Monthly Average** (average monthly discharge limitation) – means the highest allowable average of daily discharges (mg/L, lbs or gallons) over a calendar month, calculated as the sum of all daily discharges (mg/L, lbs or gallons) measured during a calendar month divided by the number of daily discharges measured during that month.

**NPDES** - The National Pollutant Discharge Elimination System.

**Secretary** – means the Secretary of the Agency of Natural Resources or the Secretary's duly authorized representative.

**Septage** – means the liquid and solid material pumped from a septic tank, cesspool, or similar domestic sewage treatment system, or a holding tank when the system is cleaned or maintained.

**Untreated Discharge** – means (1) combined sewer overflows from a WWTF; (2) overflows from sanitary sewers and combined sewer systems that are part of a WWTF during dry weather flows, which result in a discharge to waters of the State; (3) upsets or bypasses around or within a WWTF during dry or wet weather conditions that are due to factors unrelated to a wet weather storm event and that result in a discharge of sewage that has not been fully treated to waters of the State; and (4) discharges from a WWTF to separate storm sewer systems.

**Waste** – means effluent, sewage or any substance or material, liquid, gaseous, solid, or radioactive, including heated liquids, whether or not harmful or deleterious to waters.

**Waste Management Zone** – A specific reach of Class B waters designated by a permit to accept the discharge of properly treated wastes that prior to treatment contained organisms pathogenic to human beings. Throughout the receiving waters, water quality criteria must be achieved but increased health risks exist in a waste management zone due to the authorized discharge.

**Waters** includes all rivers, streams, creeks, brooks, reservoirs, ponds, lakes, springs, and all bodies of surface waters, artificial or natural, which are contained within, flow through, or border upon the State or any portion of it.

**Weekly average** - (average weekly discharge limitation) – means the highest allowable average of daily discharges (mg/L, lbs or gallons) over a calendar week, calculated as the sum of all daily discharges (mg/L, lbs or gallons) measured during a calendar week divided by the number of daily discharges measured during that week.

Whole Effluent Toxicity (WET) – Means the aggregate toxic effect of an effluent measured directly by a toxicity test.

**WWTF** or wastewater treatment facility shall have the same meaning as "pollution abatement facilities," as defined under 10 V.S.A. § 1251, which means municipal sewage treatment plants, pumping stations, interceptor and outfall sewers, and attendant facilities as prescribed by the Department to abate pollution of the waters of the Stat