STATE OF MAINE
DEPARTMENT OF
ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

September 11, 2017

Jonathan Carmen
Unity Utilities District
P.O. Box 231
Unity, ME 04988
joncarman@uninets.net

Sent via electronic mail
Delivery confirmation requested

RE: *Maine Pollutant Discharge Elimination System (MEPDES) Permit # ME0101150*
Maine Waste Discharge License (WDL) Application # W000478-6C-G-R
Proposed Draft MEPDES Permit Renewal

Dear: Jonathan Carmen

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

By copy of this letter, the Department is requesting comments on the proposed draft permit from various state and federal agencies, as required by our new regulations, and from any other parties who have notified the Department of their interest in this matter. If you have any questions regarding the matter, please feel free to call me.

All comments must be received in the Department of Environmental Protection office on or before the close of business **Tuesday, October 10, 2017.** Failure to submit comments in a timely fashion will result in the final document being issued as drafted.

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

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

Sincerely,

Aaron Dumont
Division of Water Quality Management
Bureau of Water Quality
Aaron.A.Dumont@maine.gov
Phone: 207-592-7161

Enclosure

Cc:

Denise Behr, DEP/CMRO
Lori Mitchell, DEP/CMRO
Alex Rosenberg, EPA
David Webster, EPA
Ellen Weitzler, EPA
Olga Vergara, EPA
Richard Carvalho, EPA
Sandy Mojica, EPA
IF&W Environmental Review
DMR Environmental Review

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

DEPARTMENT ORDER

IN THE MATTER OF

UNITY UTILITIES DISTRICT	)	MAINE POLLUTANT DISCHARGE
UNITY, WALDO, MAINE	)	ELIMINATION SYSTEM PERMIT
PUBLICLY OWNED TREATMENT WORKS	)	AND
ME0101150	)	WASTE DISCHARGE LICENSE
W000478-6C-G-R **APPROVAL**	)	**RENEWAL**

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

APPLICATION SUMMARY

On November 9, 2016, the Department accepted as complete for processing a timely and complete application from the UUD for the renewal of Waste Discharge License (WDL) W000478-6C-E-R /Maine Pollutant Discharge Elimination System (MEPDES) permit ME0101150, which was issued on June 12, 2012, for a five-year term. The 6/12/12 MEPDES permit authorized the UUD to discharge up to 0.5 million gallons per day (MGD) of secondary treated municipal wastewater from a publicly owned treatment works (POTW) to Twentyfive Mile Stream, Class B, in Unity, Maine.

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions of the previous permitting action and subsequent minor revisions except that this permitting action is:

1. Establishing a requirement for the permittee to conduct an Industrial Waste Survey (IWS) any time a new industrial user proposes to discharge within its jurisdiction; an existing user proposes to make a significant change in its discharge; or at an alternative minimum, once every permit cycle, and submit the results to the Department;

2. Reducing the monitoring frequency for pH from 5/Week down to 3/Week based upon a statistical evaluation of the test results for the past five-year period; and

3. Amends the Percent Removal footnote to eliminate the waiver for percent removal requirements for biochemical oxygen demand (BOD_5) and total suspended solids (TSS) when influent strength is less than 200 milligrams per liter (mg/L) as the facility uses an assumed influent value of 286 mg/L.

4. Screening level Analytical Chemistry testing need only be performed when the permittee is discharging.

PERMIT SUMMARY (cont'd)

CONCLUSIONS

Based on the findings summarized in the attached **draft** Fact Sheet dated September 11, 2017, and subject to the special and standard conditions that follow, the Department makes the following CONCLUSIONS:

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

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

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

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

   b. Where high quality waters of the State constitute an outstanding natural resource, that water quality will be maintained and protected;

   c. Where the standards of classification of the receiving waterbody are not met, the discharge will not cause or contribute to the failure of the waterbody to meet the standards of classification;

   d. Where the actual quality of any classified receiving waterbody exceeds the minimum standards of the next highest classification that higher water quality will be maintained and protected; and

   e. Where a discharge will result in lowering the existing water quality of any waterbody, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.

4. The discharge will be subject to effluent limitations that require application of best practicable treatment as defined in *Conditions of licenses,* 38 M.R.S. § 414-A(1)(D).

This space intentionally left blank

ACTION

Based on the findings and conclusions as stated above, the Department APPROVES the above noted application of the UNITY UTILITIES DISTRICT to discharge a monthly average of 0.5 MGD of secondary treated wastewater to Twentyfive Mile Stream, Class B, in Unity, Maine, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

1. *Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable to All Permits*, revised July 1, 2002, copy attached.

2. The attached Special Conditions, including any effluent limitations and monitoring requirements.

3. This permit and the authorization to discharge become effective upon the date of signature below and expire at midnight five (5) years from the effective date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the authorization to discharge and the terms and conditions of this permit and all modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [*Maine Administrative Procedure Act*, 5 M.R.S. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(21)(A) (amended October 19, 2015)].

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

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

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
PAUL MERCER, Commissioner

Date filed with Board of Environmental Protection_____

Date of initial receipt of application: November 8, 2016
Date of application acceptance: November 9, 2016

This Order prepared by Aaron Dumont, BUREAU OF WATER QUALITY

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. **Between the period of March 16 through December 15 of each year** when the dilution factor associated with the discharge is at least 100:1 or **between the period of December 16 through March 15** when the dilution factor associated with the discharge is at least 150:1, the permittee is authorized to discharge **secondary treated municipal wastewater via Outfall #001A** to Twentyfive Mile Stream[(1)]. There must be no discharge from Outfall #001A when the flow in Twentyfive Mile Stream is less than 15 cubic feet per second at the point of discharge. Such discharges must be limited and monitored by the permittee as specified below[(2)]:

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Flow *[50050]*	0.5 MGD *[03]*	---	Report MGD *[03]*	---	---	---	Daily When Discharging *[WH/DS]*	Recorder *[RC]*
BOD_5 *[00310]*	125 lbs./day *[26]*	188 lbs./day *[26]*	209 lbs./day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Week *[01/07]*	Composite *[24]*
BOD_5 Percent Removal[(3)] *[81010]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
TSS *[00530]*	125 lbs./day *[26]*	188 lbs./day *[26]*	209 lbs./day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Week *[01/07]*	Composite *[24]*
TSS Percent Removal[(3)] *[81011]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Settleable Solids *[00545]*	---	---	---	---	---	0.3 ml/L *[25]*	1/Week *[01/07]*	Grab *[GR]*
***E. coli* Bacteria[(4)] (May 15 – Sept. 30)** *[31633]*	---	---	---	64/100 ml[(5)] *[13]*	---	427/100 ml[(5)] *[13]*	1/Week *[01/07]*	Grab *[GR]*
Total Residual Chlorine[(6)] *[50060]*	---	---	---	---	---	1.0 mg/L *[19]*	1/Day *[01/01]*	Grab *[GR]*
Mercury (Total)[(7)] *[71900]*	---	---	---	4.5 ng/L *[3M]*	---	6.8 ng/L *[3M]*	1/Year *[01/YR]*	Grab *[GR]*
pH[(8)] *[00400]*	---	---	---	---	---	6.0 – 9.0 SU *[12]*	3/Week *[03/07]*	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 Pages 6 – 10 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

2. ***SCREENING LEVEL*** **-** Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement.

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type[3]
Whole Effluent Toxicity [9]						
Acute – NOEL						
Ceriodaphnia dubia (Water flea) *[TDA3B]*	---	---	---	Report % *[23]*	1/Year *[01/YR]*	Composite *[24]*
Salvelinus fontinalis (Brook trout) *[TDA6F]*	---	---	---	Report % *[23]*	1/Year *[01/YR]*	Composite *[24]*
Chronic – NOEL						
Ceriodaphnia dubia (Water flea) *[TBP3B]*	---	---	---	Report % *[23]*	1/Year *[01/YR]*	Composite *[24]*
Salvelinus fontinalis (Brook trout) *[TBQ6F]*	---	---	---	Report % *[23]*	1/Year *[01/YR]*	Composite *[24]*
Analytical Chemistry **[10,12]** *[51477]*	---	---	---	Report ug/L *[28]*	1/Quarter *[01/90]*	Composite/Grab *[24]*
Priority Pollutant **[11,12]** *[50008]*	---	---	---	Report ug/L *[28]*	1/Year *[01/YR]*	Composite/Grab *[24]*

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

FOOTNOTES: See Pages 6 – 10 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

Footnotes:

1. **Minimum Dilution Required for Discharge** – The permittee is not authorized to discharge wastewater between the period of March 16 through December 15 of each year when the dilution factor associated with the discharge is less than 100:1 or between the period of December 16 through March 15 when the dilution factor associated with the discharge is less than 150:1. There must be no discharge from Outfall #001A when the flow in Twentyfive Mile Stream is less than 15 cubic feet per second at the point of discharge. Effluent dilution ratios must be calculated by the permittee each day using the following formula:

   $$\text{Dilution Ratio} = \frac{[(0.6464)(Q_s) + Q_e]}{Q_e}$$

   Where,
   Q_s = stream flow in cfs as measured with a survey rod at the reference mark consisting of a lag bolt set in the upstream concrete bridge railing by the U.S. Geological Survey (USGS); and
   Q_e = effluent flow in units of MGD.

2. **Sampling** – The permittee must conduct all effluent sampling and analysis in accordance with; a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis must be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services for wastewater. Samples that are analyzed by laboratories operated by waste discharge facilities 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). Laboratory facilities that analyze compliance samples in-house are subject to the provisions and restrictions of 10-144 CMR 263. If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR).

This space intentionally left blank

SPECIAL CONDITIONS

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

Footnotes:

3. **Percent Removal** – The treatment facility must maintain a minimum of 85% removal of both BOD_5 and TSS for all flows receiving secondary treatment during all months that the facility discharges. Compliance with the limitation must be based on a twelve-month rolling average. Calendar monthly average percent removal values must be calculated based on an assumed influent concentration value of 286 mg/L and measured effluent concentrations. For the purposes of this permitting action, the twelve-month rolling average calculation is based on the most recent twelve-month period.

4. **Bacteria Limits –** *E. coli* bacteria limits and monitoring requirements are seasonal and apply between May 15 and September 30 of each year. The Department reserves the right to impose year-round bacteria limitations 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 must be reported as such.

6. **Total residual chlorine (TRC)** – Limitations and monitoring requirements are applicable whenever elemental chlorine or chlorine based compounds are being used to disinfect the discharge. The permittee must utilize approved test methods that are capable of bracketing the limitations in this permit. For instances when a facility has not disinfected with chlorine-based compounds *for* an entire reporting period, the facility must report "N9" for this parameter on the monthly DMR.

7. **Mercury** – The permittee must conduct all mercury monitoring required by this permit or required to determine compliance with interim limitations established pursuant to 06-096 CMR 519 in accordance with the USEPA's "clean sampling techniques" found in USEPA Method 1669, *Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels*. All mercury analysis must be conducted in accordance with USEPA Method 1631, *Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry*. See **Attachment A** of this permit for a Department report form for mercury test results. Compliance with the monthly average limitation established in Special Condition A of this permit will be based on the cumulative arithmetic mean of all mercury tests results that were conducted utilizing sampling Method 1669 and analysis Method 1631E on file with the Department for this facility.

This space intentionally left blank

SPECIAL CONDITIONS

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

Footnotes:

8. **pH** − The pH value of the effluent must not be lower than 6.0 Standard Units (SU) nor higher than 9.0 SU at any time unless these limitations are exceeded due to natural causes. The permittee must provide oral notification of any exceedance within 24 hours from the time the permittee becomes aware of the circumstances and must submit a written explanation of the exceedance within 5 days of the time the permittee becomes aware of the circumstances.

9. **Whole Effluent Toxicity (WET)** – Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions bracketing the critical acute and chronic thresholds of 1.0% respectively), which provides a point estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOELC. A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level with survival and reproduction for the water flea, survival and growth for the trout, and fertilization for the sea urchin as the end points. The critical acute and chronic thresholds were derived as the mathematical inverse of the applicable acute and chronic dilution factors of 100:1. See **Attachment B** of this permit for a copy of the Department's WET reporting form.

   a. **Surveillance level testing** – Surveillance level testing is waived pursuant to *Surface Water Toxics Control Program,* 06-096 CMR 530(2)(D)(3)(b) (effective March 12, 2012).

   b. **Screening level testing** – Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee must conduct screening level WET testing at a minimum frequency of once per year (1/Year). Acute tests must be conducted on the water flea *(Ceriodaphnia dubia)*; chronic tests must be conducted on the Brook trout *(Salvelinus fontinalis).*

   WET test results must be submitted to the Department not later than the next DMR required by the permit, provided, however, that the permittee may review the toxicity reports for up to 10 business days of their availability before submitting them. The permittee must evaluate test results being submitted and identify to the Department possible exceedances of the critical acute and chronic water quality thresholds of 1%.

This space intentionally left blank

SPECIAL CONDITIONS

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

Footnotes:

Toxicity tests must be conducted by an experienced laboratory approved by the Department. The laboratory must follow procedures as described in the following United States Environmental Protection Agency (USEPA) methods manuals a modified by Department protocol for the salmonids. See **Attachment D** of this permit for the Department protocol.

a. U.S. Environmental Protection Agency. 2002. *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organism*s, 5th ed. USEPA 821-R-02-012. U.S. Environmental Protection Agency, Office of Water, Washington, D.C., October 2002 (the acute method manual);

b. U.S. Environmental Protection Agency. 2002. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organism*s, 4rd ed. EPA 821-R-02-013. U.S. Environmental Protection Agency, Office of Water, Washington, D.C., October 2002 (the freshwater chronic method manual).

Results of WET tests must be reported on the "*Whole Effluent Toxicity Report Fresh Waters*" form included as **Attachment B** of this permit each time a WET test is performed. Each time a WET test is performed, the permittee must sample and analyze for the parameters in the WET Chemistry and the Analytical Chemistry sections of the Department form entitled, *Maine Department of Environmental Protection, WET and Chemical Specific Data Report Form* included as **Attachment C** of this permit.

10. Analytical chemistry – Refers to a suite of chemicals in **Attachment C** of this permit.

a. **Surveillance level testing** – Surveillance level testing is not required pursuant to 06-096 CMR 530(2)(D)(3)(b).

b. **Screening level testing** – Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee must conduct screening level analytical chemistry testing at a minimum frequency of once per calendar quarter (1/Quarter) for four consecutive quarters or when the permittee is discharging.

This space intentionally left blank

SPECIAL CONDITIONS

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

Footnotes:

11. Priority pollutant testing – Priority pollutants are those parameters listed in **Attachment C** of this permit.

a. **Surveillance level testing** – Surveillance level testing is not required pursuant to 06-096 CMR 530(2)(D)(3)(b).

b. **Screening level testing** – Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee must conduct screening level priority pollutant testing at a minimum frequency of once per year (1/Year).

12. Analytical chemistry and priority pollutant – Testing must be conducted on samples collected at the same time as those collected for whole effluent toxicity tests when applicable. Priority pollutant and analytical chemistry testing must be conducted using methods that permit detection of a pollutant at existing levels in the effluent or that achieve minimum reporting levels of detection as specified by the Department.

Test results must be submitted to the Department not later than the next DMR required by the permit, provided, however, that the permittee may review the toxicity reports for up to 10 business days of their availability before submitting them. The permittee must evaluate test results being submitted and identify to the Department, possible exceedances of the acute, chronic or human health Ambient Water Quality Criteria (AWQC) as established in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (effective October 9, 2005). For the purposes of DMR reporting, enter a "1" for yes, testing done this monitoring period or "0" **(zero)** monitoring not required this period.

This space intentionally left blank

SPECIAL CONDITIONS

B. NARRATIVE EFFLUENT LIMITATIONS

1. The permittee must not discharge effluent that contains a visible oil sheen, foam or floating solids at any time which would impair the uses designated by the classification of the receiving waters.

2. The permittee must not discharge effluent that contains materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the uses designated by the classification of the receiving waters.

3. The permittee must not discharge effluent that causes visible discoloration or turbidity, in the receiving waters or otherwise impairs the uses designated for the classification of the receiving waters.

4. The permittee must not discharge effluent that lowers the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

C. TREATMENT PLANT OPERATOR

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

D. LIMITATIONS FOR INDUSTRIAL USERS

Pollutants introduced into the waste water collection and treatment system by a non-domestic source (user) must not pass through or interfere with the operation of the treatment system. The permittee must conduct an Industrial Waste Survey (IWS) at any time a new industrial user proposes to discharge within its jurisdiction, an existing user proposes to make a significant change in its discharge, or, at an alternative minimum, once every permit cycle and report the results to the Department. See **Attachment E** of the Fact Sheet for Department Guidance on conducting a IWS. The IWS must identify, in terms of character and volume of pollutants, any Significant Industrial Users discharging into the POTW subject to Pretreatment Standards under section 307(b) of the federal Clean Water Act, 40 CFR Part 403 (general pretreatment regulations) or *Pretreatment Program*, 06-096 CMR 528 (last amended March 17, 2008).

SPECIAL CONDITIONS

E. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on November 9, 2016; 2) the terms and conditions of this permit; and 3) only from Outfall #001A. Discharges of wastewater from any other point source(s) are not authorized under this permit, and must be reported in accordance with Standard Condition D(1)(f), *Twenty-four hour reporting*, of this permit.

F. NOTIFICATION REQUIREMENT

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

1. Any introduction of pollutants into the wastewater collection and treatment system from an indirect discharger in a primary industrial category discharging process wastewater; and

2. Any substantial change (increase or decrease) in the volume or character of pollutants being introduced into the wastewater collection and treatment system by a source introducing pollutants to the system at the time of permit issuance.

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

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

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

G. WET WEATHER MANAGEMENT PLAN

The treatment facility staff must have a current written Wet Weather Flow Management Plan to direct the staff on how to operate the facility effectively during periods of high flow. The Department acknowledges that the existing collection system may deliver flows in excess of the monthly average design capacity of the treatment plant during periods of high infiltration and rainfall.

The plan must conform to Department guidelines for such plans and must include operating procedures for a range of intensities, address solids handling procedures (include septic wastes and other high strength wastes if applicable) and provide written operating and maintenance procedures during the events. Operating procedures for a range of intensities address solids handling procedures (including septic waste and other high strength wastes if applicable) and provide written operating and maintenance procedures for before, during and after the events.

SPECIAL CONDITIONS

G. WET WEATHER MANAGEMENT PLAN (cont'd)

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

H. OPERATIONS AND MAINTENANCE (O&M) PLAN

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

By December 31 of each year, **or within 90 days of any process changes or minor equipment upgrades,** the permittee must evaluate and modify the O&M Plan including site plan(s) and schematic(s) for the wastewater treatment facility to ensure that it is up-to-date. The O&M Plan must be kept on-site at all times and made available to Department and USEPA personnel upon request.

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

I. STREAM FLOW MONITORING/DILUTION

When the treatment facility is discharging, the flow in Twentyfive Mile Stream must be monitored daily, and the dilution of the effluent in the receiving water must be calculated daily. Copies of the stream flow monitoring data and the effluent dilution data must be submitted monthly with the Discharge Monitoring Report (DMR). Also, the permittee must keep copies of the stream flow monitoring data and effluent dilution data on file for a period of at least five years.

The stream flow must be measured with a survey rod at the reference mark consisting of a lag bolt set in the upstream concrete bridge railing by the USGS.

The UUD contracts with the USGS to calibrate the rating table used in calculating the stream flow. Annually, the USGS conducts 2-3 low flow measurements at the site of interest and runs levels to verify the stability of the control points. **Within 30 days of any proposed modifications to this procedure, the permittee must notify the Department and receive approval before implementing any proposed modifications.** The permittee must retain copies of the stream gage rating table calibrations for a period of at least 3 years.

This space intentionally left blank

SPECIAL CONDITIONS

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

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

a. Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge;

b. Changes in the operation of the treatment works that may increase the toxicity of the discharge;

c. Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge;

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

d. Changes in stormwater collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge; and

e. Increases in the type or volume of transported (hauled) wastes accepted by the facility.

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

K. 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 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.

SPECIAL CONDITIONS

K. MONITORING AND REPORTING (cont'd)

An electronic copy of the Toxsheet reporting document must be submitted to your Department compliance inspector as an attachment to an email. In addition, a hardcopy form of this sheet must be signed and submitted to your 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.

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 (13th) 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 (15th) 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
Bureau of Water Quality
Division of Water Quality Management
17 State House Station
Augusta, Maine 04330

L. REOPENING OF PERMIT FOR MODIFICATION

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

M. SEVERABILITY

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

This space intentionally left blank

ATTACHMENT A

Maine Department of Environmental Protection

Effluent Mercury Test Report

Name of Facility: _____ Federal Permit # ME _____

Purpose of this test:
- ☐ Initial limit determination
- ☐ Compliance monitoring for: year _____ calendar quarter _____
- ☐ Supplemental or extra test

SAMPLE COLLECTION INFORMATION

Sampling Date: ___ ___ _____ (mm dd yy) Sampling time: _____ AM/PM

Sampling Location:

Weather Conditions: _____

Please describe any unusual conditions with the influent or at the facility during or preceding the time of sample collection:

Optional test - not required but recommended where possible to allow for the most meaningful evaluation of mercury results:

Suspended Solids _____ mg/L Sample type: _____ Grab (recommended) or _____ Composite

ANALYTICAL RESULT FOR EFFLUENT MERCURY

Name of Laboratory: _____

Date of analysis: _____ **Result:** _____ **ng/L (PPT)**

Please Enter Effluent Limits for your facility

Effluent Limits: **Average =** _____ ng/L **Maximum =** _____ ng/L

Please attach any remarks or comments from the laboratory that may have a bearing on the results or their interpretation. If duplicate samples were taken at the same time please report the average.

CERTIFICATION

I certifiy that to the best of my knowledge the foregoing information is correct and representative of conditions at the time of sample collection. The sample for mercury was collected and analyzed using EPA Methods 1669 (clean sampling) and 1631 (trace level analysis) in accordance with instructions from the DEP.

By: _____ Date: _____

Title: _____

PLEASE MAIL THIS FORM TO YOUR ASSIGNED INSPECTOR

ATTACHMENT B

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
WHOLE EFFLUENT TOXICITY REPORT
FRESH WATERS

Facility Name _____ MEPDES Permit # _____

Pipe # _____

Facility Representative _____ Signature _____

By signing this form, I attest that to the best of my knowledge that the information provided is true, accurate, and complete.

Facility Telephone # _____ Date Collected _____ Date Tested _____

mm/dd/yy mm/dd/yy

Chlorinated? _____ Dechlorinated? _____

Results	**% effluent**	
	trout	**water flea**
A-NOEL		
C-NOEL		

Effluent Limitations	
A-NOEL	
C-NOEL	

Data summary	**water flea**			**trout**		
		% survival	**no. young**	**% survival**		**final weight (mg)**
QC standard	**A>90**	**C>80**	**>15/female**	**A>90**	**C>80**	**> 2% increase**
lab control						
receiving water control						
conc. 1 (%)						
conc. 2 (%)						
conc. 3 (%)						
conc. 4 (%)						
conc. 5 (%)						
conc. 6 (%)						
stat test used						

place * next to values statistically different from controls

for trout show final wt and % incr for both controls

Reference toxicant	water flea		trout	
	A-NOEL	C-NOEL	A-NOEL	C-NOEL
toxicant/date				
limits (mg/L)				
results (mg/L)				

Comments _____

Laboratory conducting test

Company Name _____ Company Rep. Name (Printed) _____

Mailing Address _____ Company Rep. Signature _____

City, State, ZIP _____ Company Telephone # _____

Report WET chemistry on DEP Form "ToxSheet (Fresh Water Version), March 2007."

ATTACHMENT C

Maine Department of Environmental Protection
WET and Chem
This form is for reporting laboratory data and facility information. Official compliance reviews will be done by DEP.

Facility Name _____ **MEPDES #** _____ **Pipe #** _____ Facility Representative Signature _____
To the best of my knowledge this information is true, accurate and complete.

Licensed Flow (MGD)		**Flow for Day (MGD)[1]**	**Flow Avg. for Month (MGD)[2]**
Acute dilution factor			
Chronic dilution factor		**Date Sample Collected**	**Date Sample Analyzed**
Human health dilution factor			
Criteria type: M(arine) or F(resh)	f		

Laboratory _____ Telephone _____
Address _____
_____
Lab Contact _____ Lab ID # _____

Last Revision - July 1, 2015

ERROR WARNING ! Essential facility information is missing. Please check required entries in bold above.

FRESH WATER VERSION

Please see the footnotes on the last page.

			Effluent Limits, %			Receiving Water or Ambient	**Effluent Concentration (ug/L or as noted)**		**Possible Exceedence [7]**		
			Acute	Chronic			WET Result, % Do not enter % sign	Reporting Limit Check	Acute	Chronic	
	WHOLE EFFLUENT TOXICITY										
	Trout - Acute										
	Trout - Chronic										
	Water Flea - Acute										
	Water Flea - Chronic										
	WET CHEMISTRY										
	pH (S.U.) (9)										
	Total Organic Carbon (mg/L)					(8)					
	Total Solids (mg/L)										
	Total Suspended Solids (mg/L)										
	Alkalinity (mg/L)					(8)					
	Specific Conductance (umhos)										
	Total Hardness (mg/L)					(8)					
	Total Magnesium (mg/L)					(8)					
	Total Calcium (mg/L)					(8)					
	ANALYTICAL CHEMISTRY [3]										
	Also do these tests on the effluent with WET. Testing on the receiving water is optional	Reporting Limit	Effluent Limits, ug/L Acute[6]	Chronic[6]	Health[6]			Reporting Limit Check	**Possible Exceedence [7]** Acute	Chronic	Health
	TOTAL RESIDUAL CHLORINE (mg/L) (9)	0.05				NA					
	AMMONIA	NA				(8)					
M	ALUMINUM	NA				(8)					
M	ARSENIC	5				(8)					
M	CADMIUM	1				(8)					
M	CHROMIUM	10				(8)					
M	COPPER	3				(8)					
M	CYANIDE, TOTAL	5				(8)					
	CYANIDE, AVAILABLE [3a]	5				(8)					
M	LEAD	3				(8)					
M	NICKEL	5				(8)					
M	SILVER	1				(8)					
M	ZINC	5				(8)					

Maine Department of Environmental Protection
WET and Chem
This form is for reporting laboratory data and facility information. Official compliance reviews will be done by DEP.

	PRIORITY POLLUTANTS [4]		Effluent Limits						Possible Exceedence [7]		
		Reporting Limit	Acute[6]	Chronic[6]	Health[6]			Reporting Limit Check	Acute	Chronic	Health
M	ANTIMONY	5									
M	BERYLLIUM	2									
M	MERCURY (5)	0.2									
M	SELENIUM	5									
M	THALLIUM	4									
A	2,4,6-TRICHLOROPHENOL	5									
A	2,4-DICHLOROPHENOL	5									
A	2,4-DIMETHYLPHENOL	5									
A	2,4-DINITROPHENOL	45									
A	2-CHLOROPHENOL	5									
A	2-NITROPHENOL	5									
A	4,6 DINITRO-O-CRESOL (2-Methyl-4,6-dinitrophenol)	25									
A	4-NITROPHENOL	20									
A	P-CHLORO-M-CRESOL (3-methyl-4-chlorophenol)+B80	5									
A	PENTACHLOROPHENOL	20									
A	PHENOL	5									
BN	1,2,4-TRICHLOROBENZENE	5									
BN	1,2-(O)DICHLOROBENZENE	5									
BN	1,2-DIPHENYLHYDRAZINE	20									
BN	1,3-(M)DICHLOROBENZENE	5									
BN	1,4-(P)DICHLOROBENZENE	5									
BN	2,4-DINITROTOLUENE	6									
BN	2,6-DINITROTOLUENE	5									
BN	2-CHLORONAPHTHALENE	5									
BN	3,3'-DICHLOROBENZIDINE	16.5									
BN	3,4-BENZO(B)FLUORANTHENE	5									
BN	4-BROMOPHENYLPHENYL ETHER	5									
BN	4-CHLOROPHENYL PHENYL ETHER	5									
BN	ACENAPHTHENE	5									
BN	ACENAPHTHYLENE	5									
BN	ANTHRACENE	5									
BN	BENZIDINE	45									
BN	BENZO(A)ANTHRACENE	8									
BN	BENZO(A)PYRENE	5									
BN	BENZO(G,H,I)PERYLENE	5									
BN	BENZO(K)FLUORANTHENE	5									
BN	BIS(2-CHLOROETHOXY)METHANE	5									
BN	BIS(2-CHLOROETHYL)ETHER	6									
BN	BIS(2-CHLOROISOPROPYL)ETHER	6									
BN	BIS(2-ETHYLHEXYL)PHTHALATE	10									
BN	BUTYLBENZYL PHTHALATE	5									
BN	CHRYSENE	5									
BN	DI-N-BUTYL PHTHALATE	5									
BN	DI-N-OCTYL PHTHALATE	5									
BN	DIBENZO(A,H)ANTHRACENE	5									
BN	DIETHYL PHTHALATE	5									
BN	DIMETHYL PHTHALATE	5									
BN	FLUORANTHENE	5									

Maine Department of Environmental Protection
WET and Chem
This form is for reporting laboratory data and facility information. Official compliance reviews will be done by DEP.

BN	FLUORENE	5									
BN	HEXACHLOROBENZENE	5									
BN	HEXACHLOROBUTADIENE	5									
BN	HEXACHLOROCYCLOPENTADIENE	10									
BN	HEXACHLOROETHANE	5									
BN	INDENO(1,2,3-CD)PYRENE	5									
BN	ISOPHORONE	5									
BN	N-NITROSODI-N-PROPYLAMINE	10									
BN	N-NITROSODIMETHYLAMINE	5									
BN	N-NITROSODIPHENYLAMINE	5									
BN	NAPHTHALENE	5									
BN	NITROBENZENE	5									
BN	PHENANTHRENE	5									
BN	PYRENE	5									
P	4,4'-DDD	0.05									
P	4,4'-DDE	0.05									
P	4,4'-DDT	0.05									
P	A-BHC	0.2									
P	A-ENDOSULFAN	0.05									
P	ALDRIN	0.15									
P	B-BHC	0.05									
P	B-ENDOSULFAN	0.05									
P	CHLORDANE	0.1									
P	D-BHC	0.05									
P	DIELDRIN	0.05									
P	ENDOSULFAN SULFATE	0.1									
P	ENDRIN	0.05									
P	ENDRIN ALDEHYDE	0.05									
P	G-BHC	0.15									
P	HEPTACHLOR	0.15									
P	HEPTACHLOR EPOXIDE	0.1									
P	PCB-1016	0.3									
P	PCB-1221	0.3									
P	PCB-1232	0.3									
P	PCB-1242	0.3									
P	PCB-1248	0.3									
P	PCB-1254	0.3									
P	PCB-1260	0.2									
P	TOXAPHENE	1									
V	1,1,1-TRICHLOROETHANE	5									
V	1,1,2,2-TETRACHLOROETHANE	7									
V	1,1,2-TRICHLOROETHANE	5									
V	1,1-DICHLOROETHANE	5									
V	1,1-DICHLOROETHYLENE (1,1-dichloroethene)	3									
V	1,2-DICHLOROETHANE	3									
V	1,2-DICHLOROPROPANE	6									
V	1,2-TRANS-DICHLOROETHYLENE (1,2-trans-dichloroethene)	5									
V	1,3-DICHLOROPROPYLENE (1,3-dichloropropene)	5									
V	2-CHLOROETHYLVINYL ETHER	20									
V	ACROLEIN	NA									
V	ACRYLONITRILE	NA									
V	BENZENE	5									

Maine Department of Environmental Protection
WET and Chem
This form is for reporting laboratory data and facility information. Official compliance reviews will be done by DEP.

V	BROMOFORM	5									
V	CARBON TETRACHLORIDE	5									
V	CHLOROBENZENE	6									
V	CHLORODIBROMOMETHANE	3									
V	CHLOROETHANE	5									
V	CHLOROFORM	5									
V	DICHLOROBROMOMETHANE	3									
V	ETHYLBENZENE	10									
V	METHYL BROMIDE (Bromomethane)	5									
V	METHYL CHLORIDE (Chloromethane)	5									
V	METHYLENE CHLORIDE	5									
V	TETRACHLOROETHYLENE (Perchloroethylene or Tetrachloroethene)	5									
V	TOLUENE	5									
V	TRICHLOROETHYLENE (Trichloroethene)	3									
V	VINYL CHLORIDE	5									

Notes:

(1) Flow average for day pertains to WET/PP composite sample day.

(2) Flow average for month is for month in which WET/PP sample was taken.

(3) Analytical chemistry parameters must be done as part of the WET test chemistry.

(3a) Cyanide, Available (Cyanide Amenable to Chlorination) is not an analytical chemistry parameter, but may be required by certain discharge permits .

(4) Priority Pollutants should be reported in micrograms per liter (ug/L).

(5) Mercury is often reported in nanograms per liter (ng/L) by the contract laboratory, so be sure to convert to micrograms per liter on this spreadsheet.

(6) Effluent Limits are calculated based on dilution factor, background allocation (10%) and water quality reserves (15% - to allow for new or changed discharges or non-point sources).

(7) Possible Exceedence determinations are done for a single sample only on a mass basis using the actual pounds discharged. This analysis does not consider watershed wide allocations for fresh water discharges.

(8) These tests are optional for the receiving water. However, where possible samples of the receiving water should be preserved and saved for the duration of the WET test. In the event of questions about the receiving water's possible effect on the WET results, chemistry tests should then be conducted.

(9) pH and Total Residual Chlorine must be conducted at the time of sample collection. Tests for Total Residual Chlorine need be conducted only when an effluent has been chlorinated or residual chlorine is believed to be present for any other reason.

Comments:

ATTACHMENT D

Salmonid Survival and Growth Test

The Salmonid survival and growth test must follow the procedures for the fathead minnow larval survival and growth tests detailed in USEPA's freshwater acute and chronic methods manuals with the following Department modifications:

Species - Brook Trout, *Salvelinus fontinalis,* or other salmonid approved by the Department.

Age - Less than six months old for the first test each year and less than twelve months for subsequent tests.

Size - The largest fish must not be greater than 150% of the smallest.

Loading Rate - < 0.5 g/l/day

Feeding rate - 5% of body weight 3 times daily (15%/day)

Temperature - 12° ± 1°C

Dissolved Oxygen - 6.5 mg/l ,aeration if needed with large bubbles (> 1 mm diameter) at a rate of <100/min

Dilution Water - Receiving water upstream of discharge (or other ambient water approved by the Department)

Dilution Series - A minimum of 5 effluent concentrations (including the instream waste concentrations bracketing acute and chronic dilutions calculated pursuant to Section D); a receiving water control; and control of known suitable water quality

Duration - Acute = 48 hours
- Chronic = 10 days minimum

Test acceptability - Acute = minimum of 90% survival in 2 days
- Chronic = minimum of 80% survival in 10 days; minimum growth of 20 mg/gm/d dry weight in controls, (individual fish weighed, dried at 100°C to constant weight and weighed to 3 significant figures)

ATTACHMENT E

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAPTER 530.2(D)(4) CERTIFICATION

MEPDES#_____Facility Name_____

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

COMMENTS:

Name (printed): _____

Signature:_____Date: _____

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

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

Scheduled Toxicity Testing for the next calendar year

Test Conducted	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
WET Testing	□	□	□	□
Priority Pollutant Testing	□	□	□	□
Analytical Chemistry	□	□	□	□
Other toxic parameters [1]	□	□	□	□

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

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
MAINE WASTE DISCHARGE LICENSE

FACT SHEET

DATE: **September 11, 2017**

PERMIT NUMBER: **ME0101150**
WASTE DISCHARGE LICENSE: **W000478-6C-G-R**

NAME AND ADDRESS OF APPLICANT: **UNITY UTILITIES DISTRICT**
P.O. BOX 231
UNITY, ME 04988

COUNTY: **WALDO**

NAME AND ADDRESS WHERE DISCHARGE(S) OCCUR(S):

PRAIRIE ROAD
UNITY, MAINE 04988

RECEIVING WATER CLASSIFICATION: **TWENTYFIVE MILE STREAM/CLASS B**

COGNIZANT OFFICIAL CONTACT INFORMATION:

JON CARMEN/ KEVIN SPIGEL
J.M.C. WASTEWATER SERVICES
(207)-948-2422
johncarman@uninets.net
kspigel@unity.edu

1. APPLICATION SUMMARY

On November 9, 2016, the Department accepted as complete for processing a timely and complete application from the UUD for the renewal of Waste Discharge License (WDL) W000478-6C-E-R /Maine Pollutant Discharge Elimination System (MEPDES) permit ME0101150, which was issued on June 12, 2012, for a five-year term. The 6/12/12 MEPDES permit authorized the UUD to discharge up to 0.5 million gallons per day (MGD) of secondary treated municipal wastewater from a publicly owned treatment works (POTW) to Twentyfive Mile Stream, Class B, in Unity, Maine.

This space intentionally left blank

2. PERMIT SUMMARY

a. Terms and Conditions: This permitting action is carrying forward all the terms and conditions of the previous permitting action and subsequent minor revisions except that it:

1. Establishing a requirement for the permittee to conduct an Industrial Waste Survey (IWS) any time a new industrial user proposes to discharge within its jurisdiction; an existing user proposes to make a significant change in its discharge; or at an alternative minimum, once every permit cycle, and submit the results to the Department;

2. Reducing the monitoring frequency for pH from 5/Week down to 3/Week based upon a statistical evaluation of the test results for the past five-year period; and

3. Amends the Percent Removal footnote to eliminate the waiver for percent removal requirements for biochemical oxygen demand (BOD_5) and total suspended solids (TSS) when influent strength is less than 200 milligrams per liter (mg/L) as the facility uses an assumed influent value.

4. Screening level Analytical Chemistry testing need only be performed when the permittee is discharging.

b. History: This section provides a summary of significant licensing/permitting actions and milestones that have been completed for the permittee.

December 31, 1986 – The U.S. Environmental Protection Agency (USEPA) issued a renewal of National Pollutant Discharge Elimination System (NPDES) permit #ME0101150 to the UUD. The 12/31/86 permit superseded the NPDES permits issued to the UUD by the USEPA on April 12, 1979 (earliest NPDES permit on file with the Department).

June 1, 2000 – Pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S. § 420 and *Waste discharge licenses*, 38 M.R.S. § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001), the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL #W000478-59-B-R by establishing interim monthly average and daily maximum effluent concentration limits of 4.5 parts per trillion (ppt) and 6.8 ppt, respectively, and a minimum monitoring frequency requirement of 4 tests per year for mercury.

January 12, 2001 – The Department received authorization from the USEPA to administer the NPDES permit program in Maine. From that point forward, the program has been referred to as the Maine Pollutant Discharge Elimination System program.

August 13, 2002 – The Department issued WDL #W000478-5L-C-R / MEPDES permit #ME0101150 to the UUD for a five-year term. The 8/13/2002 permit superseded WDL #W000478-59-B-R issued on December 16, 1996, and WDL #W000478-59-A-R issued on June 4, 1985 (earliest Order on file with the Department).

February 14, 2003 – The Department issued a letter to the UUD thereby administratively modifying the 8/13/2002 MEPDES permit to revise the sample type for BOD_5, TSS, Whole Effluent Toxicity (WET) and chemical-specific testing from 24-hour composite to grab.

2. PERMIT SUMMARY

April 10, 2006 – The Department modified the 8/13/2002 permit to incorporate testing requirements of 06-096 CMR 530.

July 27, 2007 – The Department issued combination WDL # W000478-5L-D-R / MEPDES #ME0101150 for a five-year term.

June 12, 2012 − The Department issued combination WDL # W000478-5C-E-R / MEPDES #ME0101150 for a five-year term.

February 6, 2012 − The Department issued a minor revision of the WDL # W000478-5C-F-Mthat reduced the monitoring frequency for mercury from four times per year to once per year pursuant to 38 M.R.S. § 420(1-B)(F).

November 8, 2016 – The UUD submitted a timely and complete General Application to the Department for renewal of the 6/12/2012 WDL/MEPDES permit The application was accepted for processing on November 9, 2016 and was assigned WDL # W000478-6C-G-R / MEPDES #ME0101150.

c. Source Description: The UUD commenced operation in 1974 to serve residential and light commercial wastewater generated by customers in the village area of Unity, Maine. The facility currently has 138 residential and commercial physical connections representing approximately 900 people and Unity College which has about 700 to 750 students, faculty, and staff for a total service area population of about 1,650 people. Currently there is approximately 18,000 linear feet of sewer pipe (Original 13,000 linear feet of plastic coated truss pipe and approximately 5,000 linear feet of SDR 35 pipe that has been installed during the past 20 years). Pipe diameters do range from eight to twelve inches and three pumping stations. There are no industrial users connected to the treatment system and no combined sewer overflow (CSO) points associated with the system. The UUD has not requested nor is authorized to accept septage wastes for treatment at the facility. A map showing the location of the facility and the receiving water is included as Fact Sheet **Attachment A.**

d. Wastewater Treatment: The Quaker Hill Pump Station with an original design capacity of 290,000 gallons per day (GPD) conveys wastewater from Unity College and a few homes in the area by about 550 linear feet of six inch diameter force main under Sandy Stream to a gravity sewer on western Main Street. The Main Street collection system and the remaining sewer collection systems collect residential and commercial wastewater which flows by gravity to the School Street Pump Station located on School Street next to the Sandy Stream. The School Street Pump Station has a reported design capacity of about 860,000 GPD and includes a small headworks area consisting of a grit removal trap and a comminutor, and is the location of influent monitoring. From here the wastewater is pumped through approximately 1,500 linear feet of force main to two clay-lined wastewater stabilization ponds located off the Prairie Road in Unity. Each of the two stabilization ponds has an area of 12.5 acres and a measured depth of two to nine feet with an average overall depth of six feet.

This space intentionally left blank

2. PERMIT SUMMARY

Each pond is designed and constructed to have a minimum of three feet of freeboard. The water/air interface along the dikes is protected against erosion by bituminous concrete structural panels with the remainder of the dike faces covered by grass vegetation. Each dike is constructed of an eight foot wide impervious clay core that extends several feet below the bottom of each lagoon. The total estimated volume of each pond is 24.5 million gallons for a total treatment volume of 49 million gallons. While the two ponds can be run in parallel, the ponds are routinely operated in series. A chlorine contact chamber is located after the lagoons but is not typically employed in the treatment process as effluent is not discharged during the period when seasonal bacteria limits are in effect. Final effluent flow is measured with an ultrasonic device in a 15-foot stilling well and a v-notch weir before being conveyed for discharge to Twentyfive Mile Stream via a 15-inch diameter outfall pipe. A wastewater treatment schematic for the UUD is included as **Attachment B** of this Fact Sheet.

Sludge has not been removed from the lagoons since commencing operation. Approximately 43 years' worth of sludge is in the ponds. Sludge testing was conducted in November 2006, with results indicating that the arsenic level were 21 mg/kg. The sludge was last tested again in December 2011 with total arsenic levels in Lagoon #1 and Lagoon #2 at 39.7 mg/kg and 8.3 mg/kg respectively.

3. CONDITIONS OF PERMIT

Conditions of licenses, 38 M.R.S. § 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require the application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, *Certain deposits and discharges prohibited*, 38 M.R.S. § 420 and Department rule *Surface Water Toxics Control Program*, 06-096 CMR 530 (effective March 21, 2012), require the regulation of toxic substances not to exceed levels set forth in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (effective July 29, 2012), and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER QUALITY STANDARDS

Classification of major river basins, 38 M.R.S. § 467(4)(H)(2) classifies tributaries of the Sebasticook River, unless otherwise specified and which includes 25 Mile Stream at the point of discharge, as Class B. *Standards for classification of fresh surface waters*, 38 M.R.S. § 465(3) describes the standards for Class B waters.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2014 Integrated Water Quality Monitoring and Assessment Report, prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists Twentyfive Mile Stream (ABD Assessment Unit ME0103000309_326R) "Category 2: Rivers and Streams Attaining some Designated Uses – Insufficient Information for Other Uses.

The Report lists all of Maine's fresh waters as, "Category 4-A: Waters Impaired by Atmospheric Deposition of Mercury." Impairment in this context refers to a statewide fish consumption advisory due to elevated levels of mercury in some fish tissues.

5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

The Report states, "All freshwaters are listed in Category 4A Total Maximum Daily Load (TMDL) Completed due to USEPA approval of a Regional Mercury TMDL.

Maine has a fish consumption advisory for fish taken from all freshwaters due to mercury. Many fish from any given waters do not exceed the action level for mercury. However, because it is impossible for someone consuming a fish to know whether the mercury level exceeds the action level, the Maine Department of Health and Human Services (DHHS) decided to establish a statewide advisory for all freshwater fish that recommends limits on consumption. Maine has already instituted statewide programs for removal and reduction of mercury sources. Pursuant to 38 M.R.S. § 420(1-B)(B), "a facility is not in violation of the ambient criteria for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413 subsection 11." However, because it is impossible for someone consuming a fish to know whether the mercury level exceeds the action level, the Maine DHHS Services decided to establish a statewide advisory for all freshwater fish that recommends limits on consumption.

Maine has already instituted statewide programs for removal and reduction of mercury sources." Pursuant to 38 M.R.S. § 420(1-B)(B), "a facility is not in violation of the ambient criteria for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413 subsection 11." The Department has established interim monthly average and daily maximum mercury concentration limits and reporting requirements for this facility pursuant to 06-096 CMR 519.

The Department has no information that the discharge from the permittee, as conditioned, causes or contributes to non-attainment of applicable Class B water quality standards.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

a. Flow: The previous permitting action established, and this permitting action is carrying forward, a monthly average flow limitation of 0.5 MGD based on the design capacity of the facility, and a daily maximum discharge flow reporting requirement.

The Department reviewed 15 Discharge Monitoring Reports (DMRs) that were submitted for the period June 2012 – December 2016. A review of the data indicates that following:

Flow (DMRs=15)

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	0.5	0.28 – 0.49	0.42
Daily Maximum	Report	0.29 – 0.92	0.54

b. Dilution Factors: The following effluent discharge conditions are carried forward from the previous permit:

1) There must be no discharge from Outfall 001A when the flow in the Twentyfive Mile Stream is less than 15 cubic feet per second.

2) During the period March 16 through December 15 the discharge must be managed such that the dilution of the discharge in the receiving water is equal to or greater than 100:1.

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

3) During the period December 16 through March 15 the discharge must be managed such that the dilution of the discharge in the receiving water is equal to or greater than 150:1. This requirement of a dilution of 150:1 is due to the problems associated with accurately measuring the stream flow when it is covered with ice.

06-096 CMR 530(4)(A) states, *"With a non-continuous discharge (such as a lagoon which can be impounded or a continuous discharge prohibited from discharging under specified conditions), the dilution factors can be based on a guaranteed minimum stream flow or tidal stage below which a discharge will not occur. The discharger must submit a request for a license modification that reflects a different minimum stream flow. If the Department approves an alternate stream flow, the license must include a monitoring and reporting requirement, and must include an accurate means of measuring stream flow that is calibrated annually."*

Below is a table of required stream flows for a given discharge to achieve the minimum dilutions of 100:1 and 150:1:

Discharge		**At 100:1 Dilution: Required Stream flow**		**At 150:1 Dilution: Required Stream flow**	
cfs	MGD	cfs	MGD	cfs	MGD
0.100	0.065	15.00	9.69	15.00	9.69
0.150	0.098	15.00	9.69	23.10	14.60
0.155	0.1	15.32	9.90	23.35	14.90
0.232	0.15	22.97	14.85	34.57	22.35
0.309	0.2	30.64	19.80	46.04	29.80
0.387	0.25	38.31	24.75	57.66	37.25
0.464	0.3	45.94	29.70	69.14	44.7
0.541	0.35	53.56	34.65	80.61	52.15
0.619	0.4	61.28	39.60	92.23	59.6
0.696	0.45	68.90	44.55	103.70	67.05
0.774	0.5	76.63	49.50	115.33	74.5

The permittee has guaranteed a minimum dilution factor of 100:1 associated with the discharge based on the stream flow and controlled effluent discharge. Therefore, this permitting action is utilizing acute and chronic dilution factors of 100:1 for purposes of calculating water quality-based thresholds. The Department is making a best professional judgment that this manner of establishing applicable dilution factors for this facility is consistent with the provisions of 06-096 CMR 530.

This space intentionally left blank

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

c. Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS): The previous permitting action established, and this permitting action is carrying forward, monthly average and weekly average technology-based concentration limits of 30 mg/L and 45 mg/L, respectively, for BOD_5 and TSS based on the secondary treatment requirements specified at *Effluent Guidelines and Standards*, 06-096 CMR 525(3)(III) (effective January 12, 2001), and a daily maximum concentration limit of 50 mg/L, which is based on BPJ of BPT for secondary treated municipal wastewater. This permitting action is carrying forward a minimum monitoring frequency requirement of once per week for BOD_5 and TSS based on Department guidance.

BOD_5 &TSS

Monthly Average Mass Limit: (30 mg/L)(8.34 lbs./gallon)(0.5 MGD) = 125 lbs./day
Weekly Average Mass Limit: (45 mg/L)(8.34 lbs./gallon)(0.5 MGD) = 188 lbs./day
Daily Maximum Mass Limit: (50 mg/L)(8.34 lbs./gallon)(0.5 MGD) = 209 lbs./day

This permitting action is carrying forward a requirement for a minimum of 85% removal of BOD_5 and TSS as required by 06-096 CMR 525(3)(III)(a)(3) and (b)(3) of the Department's rules. Compliance with the limitation must be based on a twelve-month rolling average. The percent removal must be calculated based on an assumed influent concentration value of 286 mg/L and measured effluent concentration values.

The Department reviewed 14 Discharge Monitoring Reports (DMRs) that were submitted for the period June 2012 – December 2016. A review of the data indicates that following:

BOD_5 Mass (DMRs=14)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	125	12 – 133	37
Weekly Average	188	16 – 275	53
Daily Maximum	209	16 – 275	53

BOD_5 Concentration (DMRs=14)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	30	3 – 33	10.4
Weekly Average	45	4 – 66	14
Daily Maximum	50	4 – 66	14

TSS Mass (DMRs=14)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	125	15 – 87	44
Weekly Average	188	15 – 111	54
Daily Maximum	209	15 – 111	55

TSS Concentration (DMRs=14)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	30	4 –27	12
Weekly Average	45	4 –29	14
Daily Maximum	50	4 – 29	15

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

The previous permit established a minimum monitoring frequency for BOD_5 and TSS of once per week (1/Week) based on the Department best professional judgment. Minimum monitoring frequency requirements in MEPDES permits are prescribed by 06-096 CMR Chapter 523(5)(i). The USEPA has published guidance entitled, *Interim Guidance for Performance Based Reductions of NPDES Permit Monitoring Frequencies* (USEPA Guidance April 1996). In addition, the Department has supplemented the USEPA guidance with its own guidance entitled, *Performance Based Reduction of Monitoring Frequencies - Modification of EPA Guidance Released April 1996* (Maine DEP May 22, 2014). Both documents are being utilized to evaluate the compliance history for each parameter regulated by the previous permit to determine if a reduction in the monitoring frequencies is justified.

Although USEPA's 1996 Guidance recommends evaluation of the most current two-years of effluent data for a parameter, the Department is considering 52 months of data (June 2012 – December 2016). A review of the mass monitoring data for seasonal BOD_5 & TSS indicates the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as 30% and 34% respectively. According to Table I of the USEPA Guidance and Department Guidance, a 1/Week monitoring requirement can be reduced to 2/Month. However, the Department Guidance does not allow for greater than a fifty percent reduction. In order to better ascertain compliance the department is carrying forward 1/Week monitoring frequency for BOD_5 and TSS.

d. Settleable Solids: The previous permitting action established and this permitting action is carrying forward a daily maximum technology limit of 0.3 ml/L for settleable solids, which is considered by the Department as a best professional judgment of BPT for secondary treated wastewater, along with a minimum monitoring frequency requirement of 1/Week. The Department is considering 52 months of data (June 2012 – December 2016). During this reporting period of June 2012 − December 2016 the permittee reported no excursions that exceeded the daily maximum of 0.3 ml/L for settleable solids.

Settleable Solids Concentration (DMRs=14)

Value	Limit (ml/L)	Range (ml/L)	Average (ml/L)
Daily Maximum	0.3	<0.10	<0.10

A review of the monitoring data for settleable solids indicates the ratio (expressed in percent) of the daily maximum limits can be calculated as 33%. According to Table I of the USEPA Guidance, a 1/Week monitoring requirement can be reduced to 2/Month. However Department Guidance does not allow for greater than a fifty percent reduction. In order to better ascertain compliance the Department is this permitting action is carrying forward the existing monitoring frequency of 1/Week.

This space intentionally left blank

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

e. *Escherichia coli* bacteria: The previous permitting action established, and this permitting action carrying forward, seasonal (May 15th -September 30th of each year) monthly average and daily maximum *E. coli* bacteria concentration limits of 64 colonies/100 ml and 427 colonies/100 ml, respectively, based on the State's Water Classification Program criteria for Class B waters. Subsequent to issuance of the previous permit, the State Legislature adopted more stringent Ambient Water Quality Criteria (AWQC) for *E. coli* bacteria. The newer criteria for Class B waters are 64 colonies/100 ml as a monthly average and 236 colonies/100 ml as a daily maximum. The Department has made the determination that after taking into consider the dilution associated with the discharge, the daily maximum BPT limit established in the previous permitting action is protective of the newer AWQC for bacteria. Therefore, this permitting action is carrying the monthly average limitation of 64 colonies/100 ml and carrying forward the daily maximum limitation of 427 colonies/100 ml.

The Department reviewed zero Discharge Monitoring Reports (DMRs) for E.coli as no DMRs were submitted for E.coli during the monitoring period of June 2012 – December 2016:

***E coli*. bacteria (DMRs = 0 *No DMRs were submitted for E.coli May15th – Sept 30th)**

Value	Limit (col/100 mL)	Range (col/100 mL)	Mean (col/100 mL)
Monthly Average	64	*No data	N/A
Daily Maximum	427	*No data	N/A

The previous permit established and this permit is carrying forward a minimum monitoring frequency for *E. coli* bacteria of once per week (1/Week) based on the Department best professional judgment (BPJ). Minimum monitoring frequency requirements in MEPDES permits are prescribed by 06-096 CMR Chapter 523(5)(i). The USEPA has published guidance entitled, *Interim Guidance for Performance Based Reductions of NPDES Permit Monitoring Frequencies* (USEPA Guidance April 1996).

In addition, the Department has supplemented the USEPA guidance with its own guidance entitled, *Performance Based Reduction of Monitoring Frequencies - Modification of USEPA Guidance Released April 1996* (Maine DEP May 22, 2014). Both documents are being utilized to evaluate the compliance history for each parameter regulated by the previous permit to determine if a reduction in the monitoring frequencies is justified.

Although USEPA's 1996 Guidance recommends evaluation of the most current two-years of effluent data for a parameter, the Department is considering 42 months of data (June 2012 – December 2016). The previous permitting action established a minimum monitoring frequency of once per week for *E. coli* bacteria. A review of the *E. coli* bacteria monitoring data indicates the ratios (expressed in percent) of the monthly average limits can be calculated as 0% as the UUD did not discharge during the May 15th through September 30th due to minimum dilution and flow requirements. According to Table I of the USEPA Guidance and Department Guidance, a 1/Week monitoring requirement can be reduced to once every two months. However, the Department has determined that a reduction in the minimum monitoring frequency to 1/2Months is not sufficient to assess compliance when UUD is discharging.

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

f. Total Residual Chlorine (TRC): The previous permitting action established a technology-based daily maximum concentration limit of 1.0 mg/L for TRC. Limitations on TRC are specified to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. Department licensing/permitting actions impose the more stringent of either a water quality-based or BPT based limit.

With acute and chronic dilution factors associated with the discharge water quality-based concentration thresholds the discharge 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	100:1 (A) 100:1 (C)	1.9 mg/L	1.1 mg/L

The Department has established a daily maximum best BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine based compounds unless the calculated acute water quality based threshold is lower than 1.0 mg/L. For facilities that need to de-chlorinate the discharge to meet water quality based thresholds, the Department has established daily maximum and monthly average best practicable treatment limits of 0.3 mg/L and 0.1 mg/L respectively. The permittee does not need to dechlorinate the effluent prior to discharge in order to consistently achieve compliance with the calculated water quality-based thresholds. Therefore, this permitting action is carrying forward the daily maximum technology based concentration limit of 1.0 mg/L that is applicable whenever elemental chlorine or chlorine-based compounds are used.

The Department reviewed the Discharge Monitoring Reports (DMRs) that were submitted for the period June 2012 – December 2016. A review of the data indicates that following:

Total Residual Chlorine (DMRs= 0 *No DMRs were submitted during May15th – Sept 30th)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	0.1	No data*	N/A

Based on best professional judgment this permitting action is carrying forward the minimum monitoring frequency requirement for TRC when the facility discharges effluent between May 15th – September 30th.

g. pH: The previous permitting action established, and this permitting action is carrying forward, a technology-based pH limit of 6.0 – 9.0 standard units (SU), which is based on 06-096 CMR 525(3)(III)(c) and a minimum monitoring frequency requirement of 1/Day. The Department reviewed 52 months of Discharge Monitoring Reports (DMRs) that were submitted for the period June 2012 – December 2016. A review of the data indicates that following:

pH (DMRs=14)

Value	Limit (SU)	Range (SU)
Monthly Average	6.0 – 9.0	7.00 – 8.8

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

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

Although USEPA's 1996 Guidance recommends evaluation of the most current two-years of effluent data for a parameter, the Department is considering 52 months of data (June 2012 – December 2016). A review of the monitoring data for pH indicates that there was only one excursion during the monitoring period of October 2011- July 2016. According to Table I of the USEPA Guidance and Department Guidance, a 5/Week monitoring requirement can be reduced to 3/Week. Therefore, this permitting action is reducing the monitoring frequency for pH to 3/Week.

h. Mercury: Pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S. § 420 and *Waste Discharge Licenses*, 38 M.R.S. § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001), the Department issued an interim average and daily maximum effluent concentration limits of 4.5 parts per trillion (ppt) and 6.8 ppt, respectively, and a minimum monitoring frequency requirement of two (4) tests per year for mercury. 38 M.R.S. § 420(1-B)(B)(1) provides that a facility is not in violation of the Ambient Water Quality Criteria (AWQC) for mercury if the facility is in compliance with an interim discharge limit established by the Department. A review of the Department's data base for the period of April 1999 – December 2016, indicates the permittee has been in compliance with the interim limits for mercury as results have been reported as follows:

Mercury (DMRs=31)

Value	Limit (ng/L)	Range (ng/L)	Mean (ng/L)
Average	4.5	0.19 – 3.90	1.21
Daily Maximum	6.8		

The Department issued a minor revision on February 6, 2012, to the June 12, 2012, permit thereby revising the minimum monitoring frequency requirement from four per year to once per year given the permittee has maintained at least 5 years of mercury testing data. Pursuant to 38 M.R.S. § 420(1-B)(F), this permitting action is carrying forward the 1/Year monitoring frequency established in the February 6, 2012, permit modification.

This space intentionally left blank

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

i. Total Phosphorus: *Waste Discharge License Conditions*, 06-096 CMR 523 (effective January 12, 2001) specifies that water quality based limits are necessary when it has been determined that a discharge has a reasonable potential to cause or contribute to an excursion above any State water quality standard including State narrative criteria[1]. In addition, 06-096 CMR 523 specifies that water quality based limits may be based upon criterion derived from a proposed State criterion, or an explicit State policy or regulation interpreting its narrative water quality criterion, supplemented with other relevant information which may include: USEPA's Water Quality Standards Handbook, October 1983, risk assessment data, exposure data, information about the pollutant from the Food and Drug Administration, and current USEPA criteria documents[2].

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

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

The facility has not been conducting total phosphorus testing to date. Unity Utility District does not discharge effluent during the June 1st – September 30th window when algae growth due to excess phosphorus is a concern. However, the USEPA requested the Department evaluate the relative risk to the receiving water as a result of the discharge of phosphorus. Assuming a discharge concentration of 2.5 mg/L (2,500 ug/L) (typical from POTWs), a critical ambient water quality (AWQ) threshold of 30 ug/L, and a background concentration of total phosphorus of 10% (3.0 ug/L) of the critical AWQ threshold, the discharge from the Unity facility does not have a reasonable potential to exceed the threshold based on the following:

30 ug/L – 3.0 ug/L =26 ug/L

$$\frac{2{,}500 \text{ ug/L}}{100{:}1 \text{ dilution}} = 25 \text{ ug/L}$$

25 ug/L < 26 ug/L

Using the following calculation and criteria, the District does not exhibit a reasonable potential to exceed the USEPA's Gold Book ambient water quality goal of 0.100 mg/L (100 µg/L) or the Department's 06-096 CMR 583 draft goal of 0.030 mg/L (30 ug/L). As a result, no permit limit for total phosphorus is being established in this permit.

Footnote:

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

[2] 06-096 CMR 523(5)(d)(1)(vi)(A)

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

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

WET, priority pollutant and analytical chemistry testing, as required by 06-096 CMR 530, is included in this permit in order to characterize the effluent. WET monitoring is required to assess and protect against impacts upon water quality and designated uses caused by the aggregate effect of the discharge on specific aquatic organisms. Acute and chronic WET tests are performed on the water flea *(Ceriodaphnia dubia)* and the Brook Trout *(Salvelinus fontinalis)*. Chemical-specific monitoring is required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health water quality criteria. Priority pollutant testing refers to the analysis for levels of priority pollutants listed under "Priority Pollutants" on the form included as **Attachment C** of the permit. Analytical chemistry refers to those pollutants listed under "Analytical Chemistry" on the form included as Attachment C of the permit.

06-096 CMR 530(2)(A) specifies the dischargers subject to the rule as:

All licensed dischargers of industrial process wastewater or domestic wastes discharging to surface waters of the State must meet the testing requirements of this section. Dischargers of other types of wastewater are subject to this subsection when and if the Department determines that toxicity of effluents may have reasonable potential to cause or contribute to exceedances of narrative or numerical water quality criteria.

Unity Utility District discharges domestic (sanitary) wastewater to surface waters and is therefore subject to the testing requirements of the toxics rule.

06-096 CMR 530(2)(B) categorizes discharges subject to the toxics rule into one of four levels (Level I through IV). The four categories for dischargers are as follows:

Level I	Chronic dilution factor of <20:1
Level II	Chronic dilution factor of ≥20:1 but <100:1.
Level III	Chronic dilution factor ≥100:1 but <500:1 or >500:1 and Q ≥1.0 MGD
Level IV	Chronic dilution factor >500:1 and Q ≤1.0 MGD

This space intentionally left blank

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

Based on the Chapter 530 criteria, the permittee's facility falls into the Level III frequency category as the facility has a chronic dilution factor >100:1 but <500:1 or >500:1 and Q >1.0 MGD. 06-096 530(2)(D)(1) specifies that routine screening and surveillance level testing requirements are as follows:

Screening level testing

Level	WET Testing	Priority pollutant testing	Analytical chemistry
III	1 per year	1 per year	4 per year

Surveillance level testing

Level	WET Testing	Priority pollutant testing	Analytical chemistry
III	1 per year	None required	1 per year

This permit provides for reconsideration of effluent limits and monitoring schedules after evaluation of toxicity testing results. The monitoring schedule includes consideration of results currently on file, the nature of the wastewater, existing treatment, and receiving water characteristics.

k. Whole Effluent Toxicity (WET) Evaluation: 06-096 CMR 530(3)(E) states:

> For effluent monitoring data and the variability of the pollutant in the effluent**,** the Department must apply the statistical approach in Section 3.3.2 and Table 3-2 of USEPA's "Technical Support Document for Water Quality-Based Toxics Control" (USEPA Publication 505/2-90-001, March, 1991, EPA, Office of Water, Washington, D.C.) to data to determine whether water-quality based effluent limits must be included in a waste discharge license.
>
> Where it is determined through this approach that a discharge contains pollutants or WET at levels that have a reasonable potential to cause or contribute to an exceedance of water quality criteria, appropriate water quality-based limits must be established in any licensing action.

On November 15, 2016, the Department conducted a statistical evaluation on the most recent 52 months of WET test results on file with the Department for the District in accordance with the statistical approach outlined above. The 11/15/16 statistical evaluation indicates that none of the tests exceeded or had a reasonable potential to exceed the chronic or acute ambient water quality threshold of 1.00% for the water flea *(Ceriodaphnia dubia)* or the brook trout (*Salvelinus fontinalis)*. See **Attachment C** of the permit for a summary of the WET test results.

Based on the provisions of 06-096 CMR 530 and Department best professional judgment, this permitting action is carrying forward the reduced surveillance level WET testing requirements for this facility. Special Condition G. 06-096 CMR 530(2)(D)(4) Statement For Reduced/Waived Toxics Testing of this Permit explains the statement required by the discharger to reduce WET testing.

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

l. Analytical Chemistry & Priority Pollutant Testing Evaluation:

06-096 CMR 530(4)(C) states:

> The background concentration of specific chemicals must be included in all calculations using the following procedures. The Department may publish and periodically update a list of default background concentrations for specific pollutants on a regional, watershed or statewide basis. In doing so, the Department must use data collected from reference sites that are measured at points not significantly affected by point and non-point discharges and best calculated to accurately represent ambient water quality conditions. The Department must use the same general methods as those in section 4(D) to determine background concentrations. For pollutants not listed by the Department, an assumed concentration of 10% of the applicable water quality criteria must be used in calculations.

06-096 CMR 530(3)(E) states, "Where it is determined through [the statistical approach referred to in USEPA's Technical Support Document for Water Quality-Based Toxics Control] that a discharge contains pollutants or WET at levels that have a reasonable potential to cause or contribute to an exceedance of water quality criteria, appropriate water quality-based limits must be established in any licensing action."

06-096 CMR 530(3)(D) states, "Where the need for effluent limits has been determined, limits derived from acute water quality criteria must be expressed as daily maximum values. Limits derived from chronic or human health criteria must be expressed as monthly average values."

Chemical specific evaluation

As with WET test results, the Department conducted a statistical evaluation on November 15, 2016, for the most current 52 months of analytical chemistry and priority pollutant test results on file. The evaluation indicates the discharge did not exceed the acute AWQC for any parameter. See **Attachment D** of this Fact Sheet for the individual test results. Therefore, this permitting action carrying forward screening level reporting and monitoring frequency for analytical chemistry at 1/Year during the screening level year to 06-096 CMR 530(2)(D)(3)(c). As with reduced WET testing, the permittee must file an annual certification with the Department pursuant to Chapter 530 §2(D)(3) and Special Condition K of this permit.

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

As permitted, the Department has determined the existing water uses will be maintained and protected and the discharge will not cause or contribute to the failure of Twentyfive Mile Stream to meet standards for Class B classification.

8. PUBLIC COMMENTS

Public notice of this application was made in *Kennebec Journal/Morning Sentinel* newspaper on or about November 3, 2016. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits must have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to *Application Processing Procedures for Waste Discharge Licenses*, 06-096 CMR 522 (effective January 12, 2001).

9. DEPARTMENT CONTACTS

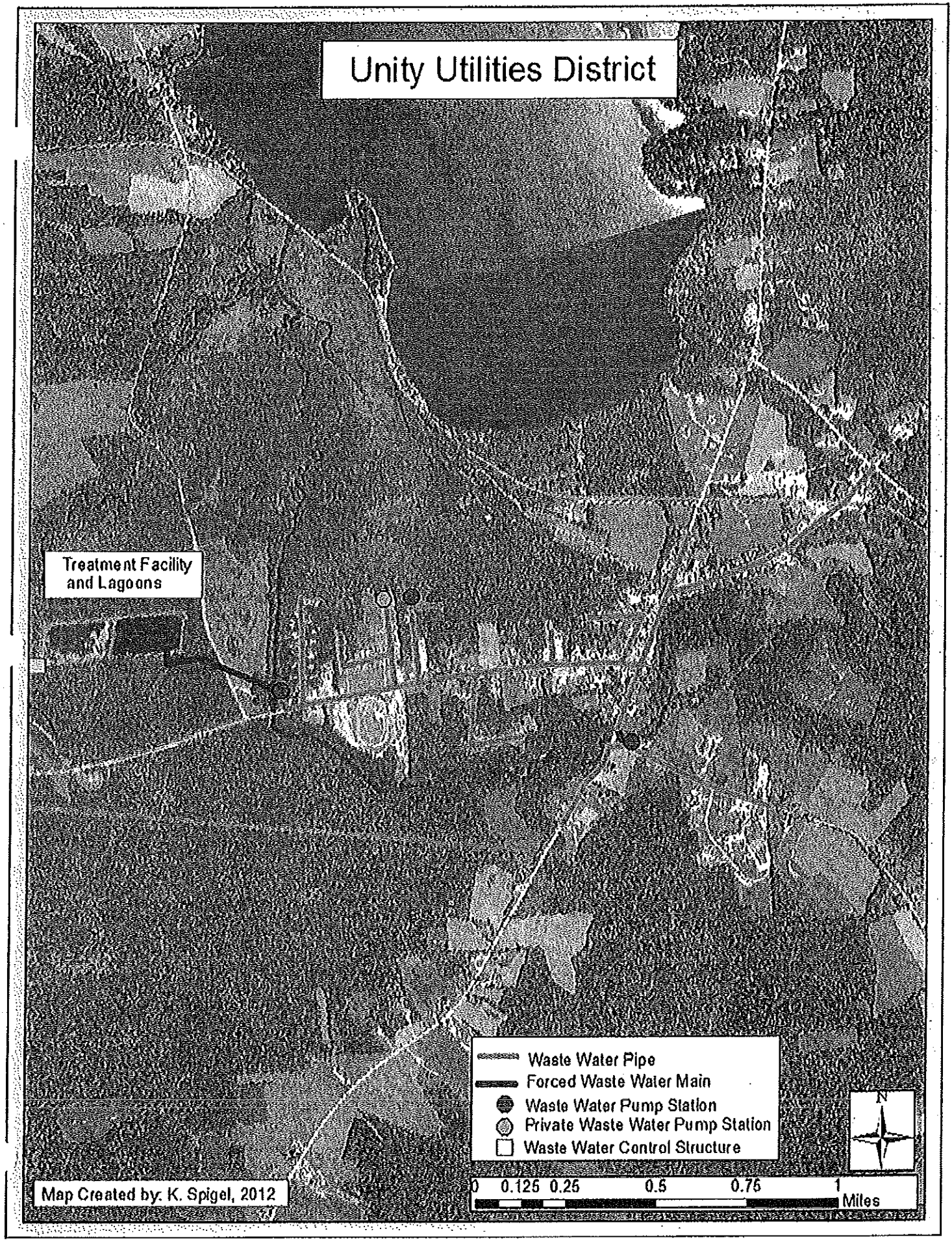
Additional information concerning this permitting action may be obtained from, and written comments sent to:

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

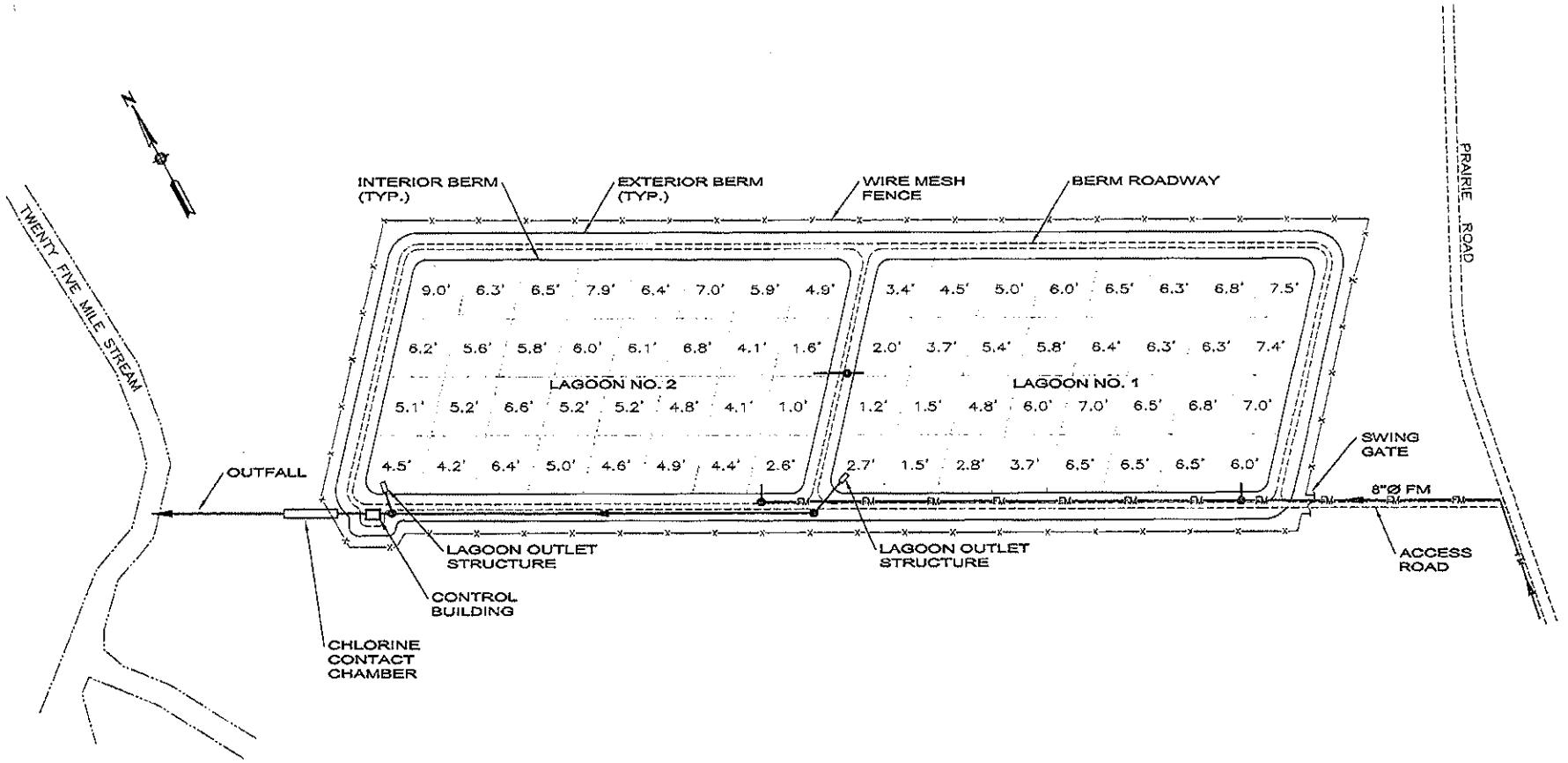
10. RESPONSE TO COMMENTS

Reserved until the end of the comment period.

ATTACHMENT A


Unity Utilities District
Treatment Facility and Lagoons
Waste Water Pipe
Forced Waste Water Main
Waste Water Pump Station
Private Waste Water Pump Station
Waste Water Control Structure
N
0 0.125 0.25 0.5 0.75 1
Miles
Map Created by: K. Spigel, 2012

ATTACHMENT B



UNITY UTILITIES DISTRICT
UNITY, MAINE

LAGOON CONFIGURATION AND DEPTH PLAN

FIGURE 1

OLVER ASSOCIATES INC.
ENVIRONMENTAL ENGINEERS
200 MAIN STREET WINTERPORT, MAINE

ATTACHMENT C

FACILITY WET EVALUATION REPORT

Facility: UNITY **Permit Number:** ME0101150 **Report Date:** 1/31/2017

Receiving Water: TWENTY FIVE MILE STREAM **Rapidmix:** Y

Diluition Factors: 1/4 Acute: N/A Acute: 100.030 Chronic: 100.0304

Effluent Limits: Acute (%): 1.000 Chronic (%): 1.000 **Date range for Evaluation: From** 31/Jan/2012 **To:** 31/Jan/2017

Test Type: **A_NOEL**

Test Species:	Test Date	Result (%)	Status
TROUT	04/09/2016	100.000	OK

Species Summary:

Test Number: 1 **RP:** 6.200 **Min Result (%):** 100.000 **RP factor (%):** 16.129 **Status:** OK

Test Type: **C_NOEL**

Test Species:	Test Date	Result (%)	Status
TROUT	04/09/2016	100.000	OK

Species Summary:

Test Number: 1 **RP:** 6.200 **Min Result (%):** 100.000 **RP factor (%):** 16.129 **Status:** OK

Test Type: **A_NOEL**

Test Species:	Test Date	Result (%)	Status
WATER FLEA	04/09/2016	100.000	OK

Species Summary:

Test Number: 1 **RP:** 6.200 **Min Result (%):** 100.000 **RP factor (%):** 16.129 **Status:** OK

Test Type: **C_NOEL**

Test Species:	Test Date	Result (%)	Status
WATER FLEA	04/09/2016	100.000	OK

Species Summary:

Test Number: 1 **RP:** 6.200 **Min Result (%):** 100.000 **RP factor (%):** 16.129 **Status:** OK

ATTACHMENT D

COMBINED WET AND PRIORITY POLLUTANTS REPORT
Data entered into Toxscan for the period

31/Jan/2012-31/Jan/2017

Facility name: **UNITY UTILITY DISTRICT** Permit Number: ME0101150 Effluent Limit: Acute (%) = 1.00 Chronic (%) = 1.00

CHEMICAL TEST REPORT

Showing all data - *(Mercury results are in ng/L)

1,1,1-TRICHLOROETHANE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
1,1,2,2-TETRACHLOROETHANE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
1,1,2-TRICHLOROETHANE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
1,1-DICHLOROETHANE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
1,1-DICHLOROETHYLENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	3.0000	Y
1,2-(O)DICHLOROBENZENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
1,2,4-TRICHLOROBENZENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
1,2-DICHLOROETHANE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	3.0000	Y
1,2-DICHLOROPROPANE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
1,2-DIPHENYLHYDRAZINE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	19.0000	Y
1,2-TRANS-DICHLOROETHYLENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
1,3-(M)DICHLOROBENZENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
1,3-DICHLOROPROPYLENE	**Test date**	**Result (ug/l)**	**Lsthan**

COMBINED WET AND PRIORITY POLLUTANTS REPORT
Data entered into Toxscan for the period

31/Jan/2012-31/Jan/2017

Facility name: **UNITY UTILITY DISTRICT** Permit Number: ME0101150 Effluent Limit: Acute (%) = 1.00 Chronic (%) = 1.00

CHEMICAL TEST REPORT

Showing all data - *(Mercury results are in ng/L)

1,3-DICHLOROPROPYLENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
1,4-(P)DICHLOROBENZENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
2,4,6-TRICHLOROPHENOL	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
2,4-DICHLOROPHENOL	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
2,4-DIMETHYLPHENOL	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
2,4-DINITROPHENOL	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	24.0000	Y
2,4-DINITROTOLUENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
2,6-DINITROTOLUENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
2-CHLOROETHYLVINYL ETHER	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	10.0000	Y
2-CHLORONAPHTHALENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
2-CHLOROPHENOL	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
2-NITROPHENOL	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
3,3'-DICHLOROBENZIDINE	**Test date**	**Result (ug/l)**	**Lsthan**

COMBINED WET AND PRIORITY POLLUTANTS REPORT
Data entered into Toxscan for the period

31/Jan/2012-31/Jan/2017

Facility name: **UNITY UTILITY DISTRICT** Permit Number: ME0101150 Effluent Limit: Acute (%) = 1.00 Chronic (%) = 1.00

CHEMICAL TEST REPORT

Showing all data - *(Mercury results are in ng/L)

3,3'-DICHLOROBENZIDINE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
3,4-BENZO(B)FLUORANTHENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
4,4'-DDD	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.0500	Y
	01/02/2016	0.0200	Y
4,4'-DDE	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.0500	Y
	01/02/2016	0.0200	Y
4,4'-DDT	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.0500	Y
	01/02/2016	0.0200	Y
4,6-DINITRO-O-CRESOL	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	24.0000	Y
4-BROMOPHENYLPHENYL ETHER	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
4-CHLOROPHENYL PHENYL ETHER	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
4-NITROPHENOL	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	19.0000	Y
A-BHC	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.2000	Y
	01/02/2016	0.0100	Y
ACENAPHTHENE	**Test date**	**Result (ug/l)**	**Lsthan**

COMBINED WET AND PRIORITY POLLUTANTS REPORT
Data entered into Toxscan for the period

31/Jan/2012-31/Jan/2017

Facility name: **UNITY UTILITY DISTRICT** Permit Number: ME0101150 Effluent Limit: Acute (%) = 1.00 Chronic (%) = 1.00

CHEMICAL TEST REPORT

Showing all data - *(Mercury results are in ng/L)

ACENAPHTHENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
ACENAPHTHYLENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
ACROLEIN	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	10.0000	Y
ACRYLONITRILE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	25.0000	Y
A-ENDOSULFAN	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.0500	Y
	01/02/2016	0.0100	Y
ALDRIN	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.1500	Y
	01/02/2016	0.0100	Y
ALUMINUM	**Test date**	**Result (ug/l)**	**Lsthan**
	05/08/2012	100.0000	N
	10/05/2015	60.0000	Y
	01/02/2016	60.0000	Y
	04/09/2016	60.0000	Y
	12/04/2016	439.0000	N
AMMONIA	**Test date**	**Result (ug/l)**	**Lsthan**
	05/08/2012	200.0000	N
	10/05/2015	170.0000	N
	01/02/2016	125.0000	Y
	04/09/2016	340.0000	N
	12/04/2016	2,200.0000	N

COMBINED WET AND PRIORITY POLLUTANTS REPORT
Data entered into Toxscan for the period

31/Jan/2012-31/Jan/2017

Facility name: **UNITY UTILITY DISTRICT** Permit Number: ME0101150 Effluent Limit: Acute (%) = 1.00 Chronic (%) = 1.00

CHEMICAL TEST REPORT

Showing all data - *(Mercury results are in ng/L)

ANTHRACENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
ANTIMONY	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	0.2000	Y
ARSENIC	**Test date**	**Result (ug/l)**	**Lsthan**
	05/08/2012	5.0000	Y
	10/05/2015	2.1000	N
	01/02/2016	3.1000	N
	04/09/2016	3.0000	N
	12/04/2016	4.5000	N
B-BHC	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.0500	Y
	01/02/2016	0.0100	Y
B-ENDOSULFAN	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.0500	Y
	01/02/2016	0.0200	Y
BENZENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
BENZIDINE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	24.0000	Y
BENZO(A)ANTHRACENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
BENZO(A)PYRENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
BENZO(G,H,I)PERYLENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y

COMBINED WET AND PRIORITY POLLUTANTS REPORT
Data entered into Toxscan for the period

31/Jan/2012-31/Jan/2017

Facility name: **UNITY UTILITY DISTRICT** Permit Number: ME0101150 Effluent Limit: Acute (%) = 1.00 Chronic (%) = 1.00

CHEMICAL TEST REPORT

Showing all data - *(Mercury results are in ng/L)

BENZO(K)FLUORANTHENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
BERYLLIUM	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	0.2000	Y
BIS(2-CHLOROETHOXY)METHANE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
BIS(2-CHLOROETHYL)ETHER	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
BIS(2-CHLOROISOPROPYL)ETHER	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
BIS(2-ETHYLHEXYL)PHTHALATE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
BROMOFORM	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
BUTYLBENZYL PHTHALATE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
CADMIUM	**Test date**	**Result (ug/l)**	**Lsthan**
	05/08/2012	0.2000	Y
	10/05/2015	0.2000	Y
	01/02/2016	0.2000	Y
	04/09/2016	0.2000	Y
	12/04/2016	0.2000	Y
CARBON TETRACHLORIDE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
CHLORDANE	**Test date**	**Result (ug/l)**	**Lsthan**

Facility name: **UNITY UTILITY DISTRICT** Permit Number: ME0101150 Effluent Limit: Acute (%) = 1.00 Chronic (%) = 1.00

CHEMICAL TEST REPORT

Showing all data - *(Mercury results are in ng/L)

CHLORDANE	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.1000	Y
	01/02/2016	0.0900	Y
CHLOROBENZENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
CHLORODIBROMOMETHANE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	3.0000	Y
CHLOROETHANE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
CHLOROFORM	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
CHROMIUM	**Test date**	**Result (ug/l)**	**Lsthan**
	05/08/2012	5.0000	Y
	10/05/2015	1.0000	Y
	01/02/2016	1.0000	Y
	04/09/2016	1.0000	Y
	12/04/2016	1.0000	Y
CHRYSENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
COPPER	**Test date**	**Result (ug/l)**	**Lsthan**
	05/08/2012	41.0000	N
	10/05/2015	0.6000	Y
	01/02/2016	0.6000	Y
	04/09/2016	0.8000	N
	12/04/2016	112.0000	N
CYANIDE	**Test date**	**Result (ug/l)**	**Lsthan**

Facility name: **UNITY UTILITY DISTRICT** Permit Number: ME0101150 Effluent Limit: Acute (%) = 1.00 Chronic (%) = 1.00

CHEMICAL TEST REPORT

Showing all data - *(Mercury results are in ng/L)

CYANIDE	**Test date**	**Result (ug/l)**	**Lsthan**
	05/08/2012	10.0000	Y
	10/05/2015	5.0000	Y
CYANIDE TOTAL	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
	04/09/2016	5.0000	Y
	12/04/2016	5.0000	Y
D-BHC	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.0500	Y
	01/02/2016	0.0100	Y
DIBENZO(A,H)ANTHRACENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
DICHLOROBROMOMETHANE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	3.0000	Y
DIELDRIN	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.0500	Y
	01/02/2016	0.0200	Y
DIETHYL PHTHALATE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
DIMETHYL PHTHALATE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
DI-N-BUTYL PHTHALATE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
DI-N-OCTYL PHTHALATE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y

Facility name: **UNITY UTILITY DISTRICT** Permit Number: ME0101150 Effluent Limit: Acute (%) = 1.00 Chronic (%) = 1.00

CHEMICAL TEST REPORT

Showing all data - *(Mercury results are in ng/L)

ENDOSULFAN SULFATE	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.1000	Y
	01/02/2016	0.0200	Y
ENDRIN	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.0500	Y
	01/02/2016	0.0200	Y
ENDRIN ALDEHYDE	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.0500	Y
	01/02/2016	0.0200	Y
ETHYLBENZENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
FLUORANTHENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
FLUORENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
G-BHC	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.1500	Y
	01/02/2016	0.0100	Y
HEPTACHLOR	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.1500	Y
	01/02/2016	0.0100	Y
HEPTACHLOR EPOXIDE	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.1000	Y
	01/02/2016	0.0100	Y
HEXACHLOROBENZENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y

Facility name: **UNITY UTILITY DISTRICT** Permit Number: ME0101150 Effluent Limit: Acute (%) = 1.00 Chronic (%) = 1.00

CHEMICAL TEST REPORT

Showing all data - *(Mercury results are in ng/L)

HEXACHLOROBUTADIENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
HEXACHLOROCYCLOPENTADIENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
HEXACHLOROETHANE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
INDENO(1,2,3-CD)PYRENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
ISOPHORONE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
LEAD	**Test date**	**Result (ug/l)**	**Lsthan**
	05/08/2012	3.0000	Y
	10/05/2015	0.2000	Y
	01/02/2016	0.2000	Y
	04/09/2016	0.2000	Y
	12/04/2016	1.2400	N
MERCURY	**Test date**	**Result (ng/l)**	**Lsthan**
	11/18/2012	0.19	N
	11/12/2013	1.67	N
	05/13/2014	0.59	N
	11/24/2015	1.02	N
	12/05/2016	0.33	N
METHYL BROMIDE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
METHYL CHLORIDE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y

Facility name: **UNITY UTILITY DISTRICT** Permit Number: ME0101150 Effluent Limit: Acute (%) = 1.00 Chronic (%) = 1.00

CHEMICAL TEST REPORT

Showing all data - *(Mercury results are in ng/L)

METHYLENE CHLORIDE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
NAPHTHALENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
NICKEL	**Test date**	**Result (ug/l)**	**Lsthan**
	05/08/2012	3.0000	Y
	10/05/2015	0.5100	N
	01/02/2016	0.5000	N
	04/09/2016	0.6300	N
	12/04/2016	1.3200	N
NITROBENZENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
N-NITROSODIMETHYLAMINE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
N-NITROSODI-N-PROPYLAMINE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
N-NITROSODIPHENYLAMINE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
PCB-1016	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.3000	Y
	01/02/2016	0.0900	Y
PCB-1221	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.3000	Y
	01/02/2016	0.0900	Y
PCB-1232	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.3000	Y

Facility name: **UNITY UTILITY DISTRICT** Permit Number: ME0101150 Effluent Limit: Acute (%) = 1.00 Chronic (%) = 1.00

CHEMICAL TEST REPORT

Showing all data - *(Mercury results are in ng/L)

PCB-1232	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	0.0900	Y
PCB-1242	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.3000	Y
	01/02/2016	0.0900	Y
PCB-1248	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.3000	Y
	01/02/2016	0.0900	Y
PCB-1254	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.3000	Y
	01/02/2016	0.0900	Y
PCB-1260	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	0.2000	Y
	01/02/2016	0.0900	Y
P-CHLORO-M-CRESOL	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
PENTACHLOROPHENOL	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	19.0000	Y
PHENANTHRENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
PHENOL	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
PYRENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	4.8000	Y
SELENIUM	**Test date**	**Result (ug/l)**	**Lsthan**

COMBINED WET AND PRIORITY POLLUTANTS REPORT
Data entered into Toxscan for the period

31/Jan/2012-31/Jan/2017

Facility name: **UNITY UTILITY DISTRICT** Permit Number: ME0101150 Effluent Limit: Acute (%) = 1.00 Chronic (%) = 1.00

CHEMICAL TEST REPORT

Showing all data - *(Mercury results are in ng/L)

SELENIUM	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	1.0000	Y
SILVER	**Test date**	**Result (ug/l)**	**Lsthan**
	05/08/2012	1.0000	Y
	10/05/2015	0.2000	Y
	01/02/2016	0.2000	Y
	04/09/2016	0.2000	Y
	12/04/2016	0.2000	Y
SPECIFIC CONDUCTANCE (UMHOS)	**Test date**	**Result (ug/l)**	**Lsthan**
	04/09/2016	462.0000	N
TETRACHLOROETHYLENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
THALLIUM	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	0.2000	Y
TOLUENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
TOXAPHENE	**Test date**	**Result (ug/l)**	**Lsthan**
	04/29/2012	1.0000	Y
	01/02/2016	0.1900	Y
TRICHLOROETHYLENE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	3.0000	Y
VINYL CHLORIDE	**Test date**	**Result (ug/l)**	**Lsthan**
	01/02/2016	5.0000	Y
ZINC	**Test date**	**Result (ug/l)**	**Lsthan**
	05/08/2012	5.0000	Y
	10/05/2015	2.0000	Y

COMBINED WET AND PRIORITY POLLUTANTS REPORT
Data entered into Toxscan for the period

31/Jan/2012-31/Jan/2017

Facility name: **UNITY UTILITY DISTRICT** Permit Number: ME0101150 Effluent Limit: Acute (%) = 1.00 Chronic (%) = 1.00

CHEMICAL TEST REPORT

Showing all data - *(Mercury results are in ng/L)

ZINC

Test date	Result (ug/l)	Lsthan
01/02/2016	2.0000	Y
04/09/2016	2.0000	Y
12/04/2016	4.3700	N

WET TEST REPORT

Species	Test	Percent	Sample date	Critical %	Exception	RP
TROUT	A_NOEL	100	04/09/2016	1.000		
TROUT	C_NOEL	100	04/09/2016	1.000		
WATER FLEA	A_NOEL	100	04/09/2016	1.000		
WATER FLEA	C_NOEL	100	04/09/2016	1.000		

ATTACHMENT E

Limitations for Industrial Users – How to conduct an Industrial Waste Survey

The National Pretreatment Program is scaled to cities and towns that are generally more developed than those in Maine. Small towns around here tend to wonder what the fuss is about – we know (or at least are pretty sure we know) everything that's going on in our collection systems. A lot can happen, and a lot can change in areas like Portland, Bangor, Lewiston/Auburn, let alone bigger places like Boston or NY. Regardless of community size, or whether or not you have any new facilities (or existing facilities that have changed what they're doing), the Industrial Waste Survey (IWS) is a federal requirement that has been adopted into Maine's MEPDES wastewater licensing program.

Step 1: For a small community, the quickest, easiest thing to do is take a day when not much is going on at the plant, get in the vehicle, & drive the entire extent of your collection system. Take the attached logsheet with you & make a list of every industrial or significant commercial facility that discharges to your system. The IWS list is basically a summary of the dischargers in your system that may have wastewater with different characteristics than the wastewater discharge from the sinks, toilets, bathtub, dishwasher and washing machine at your typical home or commercial building.

(Note: Do not include homes, rentals, restaurants, delis & fast food joints. You may need a FOG/grease trap program for those kinds of places, but that's a different consideration than an IWS and most small-scale commercial activity. Even some larger-scale places, like schools, cafeterias, managed care homes, etc., generally have wastewater that is similar in characteristics to residential wastewater, just more of it.)

Step 2 – Take your logsheet and compare each facility to this set of conditions:

► Does the facility discharge a monthly average of >25,000 gallons a day of **process** wastewater?

► Does the facility's **process** wastewater discharge make up 5% or more of your daily influent flow?

► Does the facility's **process** wastewater discharge make up 5% or more of your daily influent BOD?

► Does the facility's **process** wastewater discharge make up 5% or more of your daily influent TSS?

► Does the facility's **process** wastewater have a reasonable potential to adversely affect your POTW operations, cause a problem with your discharge, or cause a problem with your sludge disposal?

If "yes" to any of the above, then the facility is a potential **Significant Industrial User** of your system. Put a check in that column on the spreadsheet.

Step 3 - Indicate on the spreadsheet if any of the facilities fall under one of the National Categorical Standards, 40 CFR 405 through 471 (Use the attached list of Categorical Industrial Users to determine if any of the facilities on your list are included).

*If yes to this consideration, then the facility may be a **Categorical Industrial User** of your system. Put a check in that column also.*

See next page

Step 4 - If any of the facilities on your list meet one or more of those conditions, then you're going to want to go back and take a closer look at them; find out more detail on their process(es), wastewater characteristics, discharge pattern. You will likely find that most facilities are not a problem. Only a few will need closer scrutiny.

(Note – having industries within your collection system does not automatically require increased regulatory activity on your part; the only uniform requirement is that you know what you have.) The first time through the IWS process takes some time but after that it is relative easy to update it on an as-needed basis.

Though this requirement has only recently explicitly appeared in MEPDES permits, it has actually been a federal requirement all along. Again, the first time through will be a bit of a project, but from then on, it shouldn't be difficult.

If you have questions regarding whether a particular discharger is a **Significant Industrial User** or **Categorical Industrial User contact your assigned MeDEP wastewater treatment system inspector or the MEDEP Pretreatment coordinator.**

James R. Crowley
Compliance Supervisor, State Pretreatment Coordinator
Department of Environmental Protection
Division of Water Quality Management
207-287-8898
james.r.crowley@maine.gov

Industrial User Survey

Date:_____

Surveyor:_____

	Facility name/Address/ Contact	Type of business	Wastewater flow (GPD)	Wastewater characteristics, conc., constituents, etc	Comments	Onsite Pretreatment?	Significant Industrial User?	Categorical Industrial User?

Categorical Industrial Users (from 40 CFR Sections 403-471)

	5	Dairy Products		26	Glass Manu.		46	Paint formulating
	6	Grain Mill		27	Asbestos manu.		47	Ink formulating
	7	Canned/preserv fruits& vegs		28	Rubber manu.		49	Airport deicing
	8	Canned/preserved seafood		29	Timber products processing		50	Construction & Development
	9	Sugar processing		30	Pulp/paper/paperboard		51	Conc. aquatic animal prod.
	10	Textile mill		32	Meat & Poultry products		54	Gum & Wood chemicals
	11	Cement manufacturing		33	Metal Finishing		55	Pesticide Chemicals
	12	Conc. animal feeding ops.		34	Coal mining		57	Explosives
	13	Electroplating		35	Oil& Gas extraction		58	Carbon Black Manu.
	14	Organic chemicals, plastics & syn. fiber		36	Mineral mining/processing		59	Photographic
	15	Inorganic chemicals		37	Centralized waste treatment		60	Hospital
	17	Soap & Detergent Manu.		38	Metal products		61	Battery manufacturing
	18	Fertilizer manu.		39	Pharmaceutical Manu		63	Plastics molding/forming
	19	Petroleum refining		40	Ore mining/processing		64	Metal molding/casting
	20	Iron & Steel manu.		42	Transportation equip. cleaning		64	Coil coating
	21	Non-Ferrous metals		43	Paving & roofing materials		66	Porcelain
	22	Phosphate		44	Waste combustors		67	Aluminum forming
	23	Steam Electric power		45	Landfill		68	Copper forming
	24	Ferroalloy manu.					69	Electrical & electronic components
	25	Leather tanning/finishing					71	Nonferrous metals forming/Metals powders

CONTENTS

A. GENERAL PROVISIONS

1. **General compliance**. All discharges shall be consistent with the terms and conditions of this permit; any changes in production capacity or process modifications which result in changes in the quantity or the characteristics of the discharge must be authorized by an additional license or by modifications of this permit; it shall be a violation of the terms and conditions of this permit to discharge any pollutant not identified and authorized herein or to discharge in excess of the rates or quantities authorized herein or to violate any other conditions of this permit.

2. 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 the provisions of Sections 307 and 311, respectively, of the Federal Water Pollution Control Act; Title 38, Section 420, Maine Revised Statutes; or other applicable State Law; or
(ii) Known to be hazardous or toxic by the licensee.

(b) The discharge of such materials will not violate applicable water quality standards.

3. Duty to comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of State law and 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.

(a) The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act, and 38 MRSA, §420 or Chapter 530.5 for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
(b) Any person who violates any provision of the laws administered by the Department, including without limitation, a violation of the terms of any order, rule license, permit, approval or decision of the Board or Commissioner is subject to the penalties set forth in 38 MRSA, §349.

4. Duty to provide information. The permittee shall furnish to the Department, within a reasonable time, any information which the Department 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 Department upon request, copies of records required to be kept by this permit.

5. Permit actions. This permit may be modified, revoked and reissued, or terminated for cause. 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 does not stay any permit condition.

6. Reopener clause. The Department reserves the right to make appropriate revisions to this permit in order to establish any appropriate effluent limitations, schedule of compliance or other provisions which may be authorized under 38 MRSA, §414-A(5).

7. Oil and hazardous substances. 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 to which the permittee is or may be subject under section 311 of the Federal Clean Water Act; section 106 of the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980; or 38 MRSA §§ 1301, et. seq.

8. Property rights. This permit does not convey any property rights of any sort, or any exclusive privilege.

9. Confidentiality of records. 38 MRSA §414(6) reads as follows. "Any records, reports or information obtained under this subchapter is available to the public, except that upon a showing satisfactory to the department by any person that any records, reports or information, or particular part or any record, report or information, other than the names and addresses of applicants, license applications, licenses, and effluent data, to which the department has access under this subchapter would, if made public, divulge methods or processes that are entitled to protection as trade secrets, these records, reports or information must be confidential and not available for public inspection or examination. Any records, reports or information may be disclosed to employees or authorized representatives of the State or the United States concerned with carrying out this subchapter or any applicable federal law, and to any party to a hearing held under this section on terms the commissioner may prescribe in order to protect these confidential records, reports and information, as long as this disclosure is material and relevant to any issue under consideration by the department."

10. Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

11. Other laws. The issuance of this permit does not authorize any injury to persons or property or invasion of other property rights, nor does it relieve the permittee if its obligation to comply with other applicable Federal, State or local laws and regulations.

12. Inspection and entry. The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the EPA Administrator), upon presentation of credentials and other documents as may be required by law, to:

(a) 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) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
(c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
(d) 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.

B. OPERATION AND MAINTENACE OF FACILITIES

1. General facility requirements.

(a) The permittee shall collect all waste flows designated by the Department as requiring treatment and discharge them into an approved waste treatment facility in such a manner as to

maximize removal of pollutants unless authorization to the contrary is obtained from the Department.

(b) The permittee shall at all times maintain in good working order and operate at maximum efficiency all waste water collection, treatment and/or control facilities.

(c) All necessary waste treatment facilities will be installed and operational prior to the discharge of any wastewaters.

(d) Final plans and specifications must be submitted to the Department for review prior to the construction or modification of any treatment facilities.

(e) The permittee shall install flow measuring facilities of a design approved by the Department.

(f) The permittee must provide an outfall of a design approved by the Department which is placed in the receiving waters in such a manner that the maximum mixing and dispersion of the wastewaters will be achieved as rapidly as possible.

2. Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. 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 a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

3. Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4. Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

5. Bypasses.

(a) Definitions.

(i) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

(ii) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this section.

(c) Notice.

(i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph D(1)(f), below. (24-hour notice).

(d) Prohibition of bypass.

(i) Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
(B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
(C) The permittee submitted notices as required under paragraph (c) of this section.

(ii) The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in paragraph (d)(i) of this section.

6. Upsets.

(a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(i) An upset occurred and that the permittee can identify the cause(s) of the upset;
(ii) The permitted facility was at the time being properly operated; and
(iii) The permittee submitted notice of the upset as required in paragraph D(1)(f) , below. (24 hour notice).
(iv) The permittee complied with any remedial measures required under paragraph B(4).

(d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

C. MONITORING AND RECORDS

1. General Requirements. This permit shall be subject to such monitoring requirements as may be reasonably required by the Department including the installation, use and maintenance of monitoring equipment or methods (including, where appropriate, biological monitoring methods). The permittee shall provide the Department with periodic reports on the proper Department reporting form of monitoring results obtained pursuant to the monitoring requirements contained herein.

2. Representative sampling. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. If effluent limitations are based wholly or partially on quantities of a product processed, the permittee shall ensure samples are representative of times when production is taking place. Where discharge monitoring is required when production is less than 50%, the resulting data shall be reported as a daily measurement but not included in computation of averages, unless specifically authorized by the Department.

3. Monitoring and records.

(a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(b) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip 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, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

(c) Records of monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;
(ii) The individual(s) who performed the sampling or measurements;
(iii) The date(s) analyses were performed;
(iv) The individual(s) who performed the analyses;
(v) The analytical techniques or methods used; and
(vi) The results of such analyses.

(d) Monitoring results must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in the permit.

(e) State law provides that any person who tampers with or renders inaccurate any monitoring devices or method required by any provision of law, or any order, rule license, permit approval or decision is subject to the penalties set forth in 38 MRSA, §349.

D. REPORTING REQUIREMENTS

1. Reporting requirements.

(a) Planned changes. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

(i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

(ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Section D(4).

(iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;

(b) Anticipated noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) Transfers. This permit is not transferable to any person except upon application to and approval of the Department pursuant to 38 MRSA, § 344 and Chapters 2 and 522.

(d) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Department for reporting results of monitoring of sludge use or disposal practices.

(ii) 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 the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Department.

(iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Department in the permit.

(e) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(f) Twenty-four hour reporting.

(i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance

has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(ii) The following shall be included as information which must be reported within 24 hours under this paragraph.

(A) Any unanticipated bypass which exceeds any effluent limitation in the permit.
(B) Any upset which exceeds any effluent limitation in the permit.
(C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours.

(iii) The Department may waive the written report on a case-by-case basis for reports under paragraph (f)(ii) of this section if the oral report has been received within 24 hours.

(g) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (d), (e), and (f) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (f) of this section.

(h) Other information. Where 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 Department, it shall promptly submit such facts or information.

2. Signatory requirement. All applications, reports, or information submitted to the Department shall be signed and certified as required by Chapter 521, Section 5 of the Department's rules. State law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan or other document filed or required to be maintained by any order, rule, permit, approval or decision of the Board or Commissioner is subject to the penalties set forth in 38 MRSA, §349.

3. Availability of reports. Except for data determined to be confidential under A(9), above, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by State law, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal sanctions as provided by law.

4. Existing manufacturing, commercial, mining, and silvicultural dischargers. In addition to the reporting requirements under this Section, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Department as soon as they know or have reason to believe:

(a) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(i) One hundred micrograms per liter (100 ug/l);
(ii) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
(iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
(iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

(b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following ``notification levels'':

(i) Five hundred micrograms per liter (500 ug/l);
(ii) One milligram per liter (1 mg/l) for antimony;
(iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
(iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

5. Publicly owned treatment works.

(a) All POTWs must provide adequate notice to the Department of the following:

(i) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA or Chapter 528 if it were directly discharging those pollutants.
(ii) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
(iii) For purposes of this paragraph, adequate notice shall include information on (A) the quality and quantity of effluent introduced into the POTW, and (B) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(b) When the effluent discharged by a POTW for a period of three consecutive months exceeds 80 percent of the permitted flow, the permittee shall submit to the Department a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.

E. OTHER REQUIREMENTS

1. Emergency action - power failure. Within thirty days after the effective date of this permit, the permittee shall notify the Department of facilities and plans to be used in the event the primary source of power to its wastewater pumping and treatment facilities fails as follows.

(a) For municipal sources. During power failure, all wastewaters which are normally treated shall receive a minimum of primary treatment and disinfection. Unless otherwise approved, alternate power supplies shall be provided for pumping stations and treatment facilities. Alternate power supplies shall be on-site generating units or an outside power source which is separate and independent from sources used for normal operation of the wastewater facilities.

(b) For industrial and commercial sources. The permittee shall either maintain an alternative power source sufficient to operate the wastewater pumping and treatment facilities or halt, reduce or otherwise control production and or all discharges upon reduction or loss of power to the wastewater pumping or treatment facilities.

2. Spill prevention. (applicable only to industrial sources) Within six months of the effective date of this permit, the permittee shall submit to the Department for review and approval, with or without conditions, a spill prevention plan. The plan shall delineate methods and measures to be taken to prevent and or contain any spills of pulp, chemicals, oils or other contaminates and shall specify means of disposal and or treatment to be used.

3. **Removed substances.** Solids, sludges trash rack cleanings, filter backwash, or other pollutants removed from or resulting from the treatment or control of waste waters shall be disposed of in a manner approved by the Department.

4. **Connection to municipal sewer.** (applicable only to industrial and commercial sources) All wastewaters designated by the Department as treatable in a municipal treatment system will be cosigned to that system when it is available. This permit will expire 90 days after the municipal treatment facility becomes available, unless this time is extended by the Department in writing.

F. DEFINITIONS. For the purposes of this permit, the following definitions shall apply. Other definitions applicable to this permit may be found in Chapters 520 through 529 of the Department's rules

Average means the arithmetic mean of values taken at the frequency required for each parameter over the specified period. For bacteria, the average shall be the geometric mean.

Average monthly discharge limitation means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. Except, however, bacteriological tests may be calculated as a geometric mean.

Average weekly discharge limitation means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best management practices ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Composite sample means a sample consisting of a minimum of eight grab samples collected at equal intervals during a 24 hour period (or a lesser period as specified in the section on monitoring and reporting) and combined proportional to the flow over that same time period.

Continuous discharge means a discharge which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

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 units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.

Discharge Monitoring Report ("DMR") means the EPA uniform national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by permittees. DMRs must be used by approved States as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the State Agency name, address, logo, and other similar information, as appropriate, in place of EPA's.

Flow weighted composite sample means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge.

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

Interference means a Discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

(1) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
(2) Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Maximum daily discharge limitation means the highest allowable daily discharge.

New source means any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

(a) After promulgation of standards of performance under section 306 of CWA which are applicable to such source, or
(b) After proposal of standards of performance in accordance with section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal.

Pass through means a discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

Permit means an authorization, license, or equivalent control document issued by EPA or an approved State to implement the requirements of 40 CFR parts 122, 123 and 124. Permit includes an NPDES general permit (Chapter 529). Permit does not include any permit which has not yet been the subject of final agency action, such as a draft permit or a proposed permit.

Person means an individual, firm, corporation, municipality, quasi-municipal corporation, state agency, federal agency or other legal entity.

Point source means any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft, from which pollutants are or may be discharged.

Pollutant means dredged spoil, solid waste, junk, incinerator residue, sewage, refuse, effluent, garbage, sewage sludge, munitions, chemicals, biological or radiological materials, oil, petroleum products or byproducts, heat, wrecked or discarded equipment, rock, sand, dirt and industrial, municipal, domestic, commercial or agricultural wastes of any kind.

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Publicly owned treatment works ("POTW") means any facility for the treatment of pollutants owned by the State or any political subdivision thereof, any municipality, district, quasi-municipal corporation or other public entity.

Septage means, for the purposes of this permit, any waste, refuse, effluent sludge or other material removed from a septic tank, cesspool, vault privy or similar source which concentrates wastes or to which chemicals have been added. Septage does not include wastes from a holding tank.

Time weighted composite means a composite sample consisting of a mixture of equal volume aliquots collected over a constant time interval.

Toxic pollutant includes any pollutant listed as toxic under section 307(a)(1) or, in the case of sludge use or disposal practices, any pollutant identified in regulations implementing section 405(d) of the CWA. Toxic pollutant also includes those substances or combination of substances, including disease causing agents, which after discharge or upon exposure, ingestion, inhalation or assimilation into any organism, including humans either directly through the environment or indirectly through ingestion through food chains, will, on the basis of information available to the board either alone or in combination with other substances already in the receiving waters or the discharge, cause death, disease, abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations in such organism or their offspring.

Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Whole effluent toxicity means the aggregate toxic effect of an effluent measured directly by a toxicity test.