



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE  
GOVERNOR

AVERY DAY  
ACTING COMMISSIONER

September 18, 2015

Mr. Greg Hedrich  
15 Industrial Street  
Presque Isle, Maine 04769  
[gjhedrich@mainerr.com](mailto:gjhedrich@mainerr.com)

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0036765  
Maine Waste Discharge License (WDL) Application #W003641-5C-D-R  
**Proposed Draft Permit**

Dear Mr. Hedrich:

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

By copy of this letter, the Department is requesting comments on the proposed draft permit from various state and federal agencies, as required by our new regulations, and from any other parties who have notified the Department of their interest in this matter.

All comments must be received in the Department of Environmental Protection office on or before the close of business **Monday, October 19, 2015**. 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

AUGUSTA  
17 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0017  
(207) 287-7688 FAX: (207) 287-7826

BANGOR  
106 HOGAN ROAD, SUITE 6  
BANGOR, MAINE 04401  
(207) 941-4570 FAX: (207) 941-4584

PORTLAND  
312 CANCO ROAD  
PORTLAND, MAINE 04103  
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE  
1235 CENTRAL DRIVE, SKYWAY PARK  
PRESQUE ISLE, MAINE 04679  
(207) 764-0477 FAX: (207) 760-3143

If you have any questions regarding the matter, please feel free to call me at 446-1875.

Sincerely,



Rodney Robert  
Division of Water Quality Management  
Bureau of Land and Water Quality

Enc.

cc: Bill Sheehan, DEP/NMRO  
Lori Mitchell, DEP/CMRO  
Oliver Cox, DMR  
Environmental Review, DMR  
Environmental Review, DIFW  
Kathleen Leyden, DACF  
David Webster, USEPA  
David Pincumbe, USEPA  
Alex Rosenburg, USEPA  
Olga Vergara, USEPA  
Ivy Frignoca, CLF



DEPARTMENT ORDER

IN THE MATTER OF

PHOENIX ENTERPRISES, INCORPORATED	)	MAINE POLLUTANT DISCHARGE
d/b/a TOWN AND COUNTRY APARTMENTS	)	ELIMINATION SYSTEM PERMIT
PRESQUE ISLE, AROOSTOOK COUNTY, ME	)	AND
ME0036765	)	WASTE DISCHARGE LICENSE
W003641-5C-D-R	)	<b>RENEWAL</b>
		<b>APPROVAL</b>

In compliance with the provisions of the Federal Water Pollution Control Act, Title 33 U.S.C. § 1251, Conditions of licenses, 38 M.R.S.A. § 414-A, and applicable regulations, the Department of Environmental Protection (Department) has considered the application of PHOENIX ENTERPRISES INC. with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

**APPLICATION SUMMARY**

On June 1, 2015 the Department accepted as complete for processing an application from PHOENIX ENTERPRISES INC. for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit ME0036765/Maine Waste Discharge License (WDL) W003641-5C-C-R which was issued by the Department on August 11, 2010, and expired on August 11, 2015. The WDL authorized a year-round daily maximum discharge of up to 12,300 gallons per day (gpd) of secondary treated wastewater to the Aroostook River, Class C, in Presque Isle, Maine. See Attachment A of the Fact Sheet for a location map of the facility.

**PERMIT SUMMARY**

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

**CONCLUSIONS**

BASED on the findings in the attached Fact Sheet dated September 18, 2015, and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

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

**CONCLUSIONS (cont'd)**

3. The provisions of the State's antidegradation policy, 38 M.R.S.A. §464(4)(F), will be met, in that:
  - (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;
  - (b) Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;
  - (c) Where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;
  - (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification that higher water quality will be maintained and protected; and
  - (e) Where a discharge will result in lowering the existing water quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.
4. The discharges will be subject to effluent limitations that require application of best practicable treatment as defined in Maine law, 38 M.R.S.A., §414-A(1)(D) and 414-A(1-B).
5. The overboard discharge system was in continuing existence for the 12 months preceding June 1, 1987.
6. The Department finds that there are no technologically proven alternative methods of wastewater disposal consistent with the plumbing code adopted by the Department of Health and Human Services pursuant to Title 22, section 42 that will not result in an overboard discharge. A subsurface wastewater disposal system can not be installed in compliance with the Maine Subsurface Waste Water Disposal Rules at the time the renewal
7. A publicly owned sewer line is not located on or abutting land owned or controlled by the permittee or is not available for the permittee's use.
8. The discharge is not located within the boundaries of a sanitary district or sewer district and connecting to infrastructure is not practicable as none exists.

**ACTION**

THEREFORE, the Department APPROVES the above noted application of the PHOENIX ENTERPRISES INC. to discharge a year round daily maximum flow of 12,300 gpd of secondary treated sanitary waste water to the Aroostook River, Class C, in Presque Isle, 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 becomes effective upon the date of signature below and expires at midnight five (5) years after that date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the terms and conditions of this permit and all subsequent modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. *Maine Administrative Procedure and Services*, 5 M.R.S.A. § 10002 and Rules Concerning the *Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(21)(A) (amended August 25, 2013).

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS \_\_\_\_ DAY OF \_\_\_\_\_ 2015.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
For Avery Day, Acting Commissioner

Date of initial receipt of application \_\_ May 21, 2015.

Date of application acceptance \_\_\_\_\_ June 1 2015.

Date filed with Board of Environmental Protection \_\_\_\_\_.

This Order prepared by Rod Robert, Bureau of Water Quality

**SPECIAL CONDITIONS**

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

- The permittee is authorized to discharge a year round daily maximum of 12,300 GPD of **secondary treated sanitary wastewater from Outfall #001** to the Aroostook River, Class C in Presque Isle, Maine. Such discharges shall be limited and monitored by the permittee as specified below<sup>(1)</sup>

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u> <sup>(6)</sup>
<b>Flow</b> <i>May 1 – October 31</i> [50050]	Report GPD [07]	---	12,300 GPD [07]	---	---	---	1/Day [01/01]	Metered [MT]
<b>Flow</b> <i>November 1 – April 30</i> [50050]	Report GPD [07]	---	12,300 GPD [07]	---	---	---	1/Week [01/07]	Metered [MT]
<b>BOD<sub>5</sub></b> [00310]	3.1 lbs/day [26]	4.6 lbs/day [26]	5.1 lbs/day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	Quarterly [01/90]	Grab [GR]
<b>BOD<sub>5</sub> Percent Removal</b> <sup>(2)</sup> [81010]	---	---	---	85% [23]	---	---	Quarterly [01/90]	Calculate [CA]
<b>TSS</b> [00530]	3.1 lbs/day [26]	4.6 lbs/day [26]	5.1 lbs/day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	Quarterly [01/90]	Grab [GR]
<b>TSS Percent Removal</b> <sup>(2)</sup> [81011]	---	---	---	85% [23]	---	---	Quarterly [01/90]	Calculate [CA]
<b><i>E. coli</i></b> <sup>(3)</sup> [31633]	---	---	---	126/100 mL <sup>(4)</sup> [13]	---	949/100 mL [13]	Quarterly [01/90]	Grab [GR]
<b>Total Residual Chlorine</b> <sup>(5)</sup> [50060]	---	---	---	---	---	1.0 mg/L [19]	1/Week [01/07]	Grab [GR]
<b>pH</b> [00400]	---	---	---	---	---	6.0 – 9.0 SU [12]	1/Week [01/07]	Grab [GR]
<b>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.</b>								

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

## **SPECIAL CONDITIONS**

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

#### **Footnotes:**

1. **Sampling** – All effluent monitoring must be conducted at a location following the last treatment unit in the treatment process as to be representative of end-of-pipe effluent characteristics. Sampling and analysis must be conducted in accordance with;
  - a) methods approved by 40 Code of Federal Regulations (CFR) Part 136,
  - b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or
  - c) as otherwise specified by the Department. Samples that are sent out for analysis must be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services.
2. **Percent Removal** – The permittee must maintain a minimum of 85 percent removal of both BOD<sub>5</sub> and TSS for all flows receiving secondary treatment. The percent removal must be calculated based on influent and effluent concentration values. For influent concentrations an assumed value of 286 mg/L will be used for total suspended solids and biochemical oxygen demand.
3. **Bacteria limits** – *E. coli* bacteria limits and monitoring requirements are seasonal and apply between May 15<sup>th</sup> and September 30<sup>th</sup> of each year. The Department reserves the right to impose bacteria limits on a year-round basis to protect the health, safety, and welfare of the public.
4. **Bacteria reporting** – The monthly average *E. coli* bacteria limitation is a geometric mean limitation and sample results must be reported as such.
5. **Total residual chlorine (TRC)** – Limitations and monitoring requirements are 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 TRC limitation in this permit.
6. **Sample Type** – Where grab sampling is specified, the applicant may choose to obtain a composite sample instead provided the alternate sampling is noted on the DMR.

## **SPECIAL CONDITIONS**

### **B. ANNUAL DISCHARGE FEES**

Pursuant to Maine law, 38 M.R.S.A. §353(B), the permittee is required to pay an applicable annual fee for discharges authorized by this permit. Failure to pay an annual fee within 30 days of the billing date of a license/permit is sufficient grounds for accruing interest charges, penalties or revocation of the license.

### **C. NARRATIVE EFFLUENT LIMITATIONS**

1. The permittee must not discharge effluent that contains a visible oil sheen, foam or floating solids at any time which would impair the uses designated for the classification of the receiving waters.
2. The permittee must not discharge effluent that contains materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the uses designated for the classification of the receiving waters.
3. The permittee must not discharge effluent that causes visible discoloration or turbidity in the receiving waters that causes those waters to be unsuitable for the designated uses and characteristics ascribed to their class.
4. The permittee must not discharge effluent that lowers the quality of any classified body of water below such classification, or lowers the existing quality of any body of water if the existing quality is higher than the classification.

### **D. TREATMENT PLANT OPERATOR**

The person who has the management responsibility over the treatment facility must hold a **Grade II** certificate (or higher) or must be a Maine Registered Professional Engineer pursuant to *Sewerage Treatment Operators*, Title 32 M.R.S.A., Sections 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.

### **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 June 1, 2015, 2) the terms and conditions of this permit; and 3) from Outfall #001A only. Discharges of waste water from any other point source are not authorized under this permit, and shall be reported in accordance with Standard Condition B(5), *Bypasses*, of this permit.

## **SPECIAL CONDITIONS**

### **F. NOTIFICATION REQUIREMENT**

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

1. Any substantial change or proposed change in the volume or character of pollutants being introduced into the wastewater collection and treatment system by a source introducing pollutants into the system at the time of permit issuance. For the purposes of this section, notice regarding substantial change shall 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.
2. For the purposes of this section, adequate notice must include information on:
  - (a) The quality and quantity of wastewater introduced to the wastewater collection and treatment system; and
  - (b) Any anticipated impact of the change in the quantity or quality of the wastewater to be discharged from the treatment system.

### **G. SITE EVALUATION FOR TRANSFER OF OWNERSHIP**

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

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

Department records contain sufficient information to conclude that there is no technologically-proven alternative to this OBD system at this time.

## **SPECIAL CONDITIONS**

### **H. OPERATION & MAINTENANCE (O&M) PLAN**

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

**By December 31 of each year, or within 90 days of any process changes or minor equipment upgrades,** the permittee shall 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 shall be kept on-site at all times and made available to Department and EPA personnel upon request.

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

### **I. MONITORING AND REPORTING**

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report (DMR) forms provided by the Department and **postmarked on or before the thirteenth (13<sup>th</sup>) day of the month or hand-delivered to a Department Regional Office such that the DMR's are received by the Department on or before the fifteenth (15<sup>th</sup>) day of the month** following the completed reporting period. A signed copy of the DMR and all other reports required herein shall be submitted to the Department's compliance inspector (unless otherwise specified) at the following address:

Overboard Discharge Inspector  
Department of Environmental Protection  
Bureau of Water Quality  
1235 Central Drive  
Presque Isle, Maine 04769

## **SPECIAL CONDITIONS**

### **J. REOPENING OF PERMIT FOR MODIFICATIONS**

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

### **K. SEVERABILITY**

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

- - -

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

**FACT SHEET**

Date: **September 18, 2015**

MEPDES PERMIT: **ME0036765**  
WASTE DISCHARGE LICENSE: **W003641-5C-D-R**

NAME AND ADDRESS OF APPLICANT:

**PHOENIX ENTERPRISES, INC.  
d/b/a Town and Country Apartments  
15 Industrial Street  
Presque Isle, Maine 04769**

COUNTY: **Aroostook County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

**Reach Road  
Presque Isle, Maine 04769**

RECEIVING WATER / CLASSIFICATION: **Aroostook River, Class C**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Greg Hedrich  
(207) 764-3747 ext. 229**

**1. APPLICATION SUMMARY**

- a. Application - On June 1, 2015 the Department accepted as complete for processing an application from PHOENIX ENTERPRISES INC. for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit ME0036765/Maine Waste Discharge License (WDL) W003641-5C-C-R which was issued by the Department on August 11, 2010, and expired on August 11, 2015. The WDL authorized a year-round daily maximum discharge of up to 12,300 gallons per day (gpd) of secondary treated wastewater to the Aroostook River, Class C, in Presque Isle, Maine.

## 1. APPLICATION SUMMARY (cont'd)

- b. Source Description and Waste Water Treatment – The discharge is from the Town and Country Apartment complex. The complex is comprised of sixty-four (64) apartment units located in four buildings consisting of a total of 138 bedrooms. The potable water serving the apartments is filtered by five sand filters that contribute an estimated 500 gpd of additional wastewater during their daily backwash cycle. The filters are passive in that they do not add softening or purification agents to the water. The design flow from the 64 apartment units is 12,300 gpd. As of January 1, 2011, the permittee has replaced 500 feet of sewer line. This is in addition to the 800 feet of sewer line which was replaced prior to the previous permitting action.

## 2. PERMIT SUMMARY

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

## 3. CONDITIONS OF PERMIT

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

## 4. RECEIVING WATER QUALITY STANDARDS

Maine Law, 38 M.R.S.A., Section 467(1)(D) states that at the point of discharge, the Aroostook River is classified as a Class C water way. Maine Law, 38 M.R.S.A., Section 465(4) contains the classification standards for Class C water ways.

## 5. RECEIVING WATER QUALITY CONDITIONS

*The State of Maine 2012 Integrated Water Quality Monitoring and Assessment Report*, prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists the Aroostook River, ADB Assessment Unit Id# ME0101000413\_148R in Presque Isle, Maine as, “Category 3: Rivers and Streams with Insufficient Data or Information to Determine if Designated Uses are Attained (One or More Uses may be Impaired)”.

## 5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

The Report lists all of Maine's fresh waters as, "Category 4-A: Waters Impaired by Atmospheric Deposition of Mercury." Impairment in this context refers to a statewide fish consumption advisory due to elevated levels of mercury in some fish tissues. The Report states, "All freshwaters are listed in Category4A (TMDL Completed) due to USEPA approval of a Regional Mercury TMDL. Maine has a fish consumption advisory for fish taken from all freshwaters due to mercury. Many waters, and many fish from any given water, do not exceed the action level for mercury. However, because it is impossible for someone consuming a fish to know whether the mercury level exceeds the action level, the Maine Department of Health and Human Services decided to establish a statewide advisory for all freshwater fish that recommends limits on consumption. Maine has already instituted statewide programs for removal and reduction of mercury sources." Pursuant to *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519(1)(A)(1) (last amended October 6, 2001), imposition of mercury limitations does not apply to overboard discharges.

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

## 6 EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

- a. Best Practicable Treatment (BPT): The Department will find that the discharge meets the requirements of best practicable treatment pursuant to 38 M.R.S.A. § 414-A(1-B) for purposes of licensing when it finds that there are no technologically proven alternative methods of wastewater disposal consistent with the plumbing code adopted by the Department of Health and Human Services pursuant to Title 22, section 42 that will not result in an overboard discharge. Pursuant to *Overboard Discharges: Licensing and Abandonment*, 06-096 CMR 596(9), *Criteria and Standards for Waste Discharge Licenses* 06-096 CMR 524(2) (effective January 12, 2001) and *Effluent Guidelines and Standards*, 06-096 CMR 525(3)(III) (effective date January 12, 2001), BPT for overboard discharges is secondary treatment. The secondary treatment regulation establishes technology-based effluent limitations for BOD<sub>5</sub>, TSS, and pH which are discussed in more detail in the individual parameter sections below. Department records contain sufficient information to conclude that there is no technologically-proven alternative to this OBD system at this time.

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

- b. Flow: The previous licensing action established a monthly average discharge flow limitation of 12,300 gallons per day (gpd) based on the design flow for the treatment system and established a monitoring frequency of 1/Day between May 1 and October 31 and 1/Week between November 1 and April 30.

Department rule, 06-096 CMR Chapter 523 Section 6(b)(1), specifies, “*effluent limitations, standards, or prohibitions shall be calculated based on design flow.*” A review of the daily maximum discharge flow data as reported on the Discharge Monitoring Reports (DMRs) submitted to the Department for the period October 2010 through June 2015 indicates the following;

**Flow**

Value	Limit (gpd)	Range (gpd)	Mean (gpd)
Monthly Average	Report	7701 - 8031	7159
Daily Maximum	12,300	7200 - 8640	7697

This permitting action is carrying forward the monthly average discharge flow limit of 12,300 gpd, which is considered representative of the design flow for the facility.

- c. Dilution Factors - The Department established applicable dilution factors for the discharge in accordance with freshwater protocols established in Department Rule Chapter 530, *Surface Water Toxics Control Program*, October 2005. With a monthly average flow limit of 0.0123 MGD the dilution factors are as follows:

$$\text{Acute: } 1\text{Q}10 = 115 \text{ cfs} \Rightarrow \frac{(115 \text{ cfs})(0.6464) + (0.0123 \text{ MGD})}{(0.0123 \text{ MGD})} = 6045:1$$

$$\text{Modified Acute: } \frac{1}{4} 1\text{Q}10 = 28.8 \text{ cfs}^{(1)} \Rightarrow \frac{(28.8 \text{ cfs})(0.6464) + (0.012\text{MGD})}{(0.0123 \text{ MGD})} = 1514:1$$

$$\text{Chronic: } 7\text{Q}10 = 126 \text{ cfs} \Rightarrow \frac{(126 \text{ cfs})(0.6464) + (0.0123 \text{ MGD})}{(0.0123 \text{ MGD})} = 6623:1$$

$$\text{Harmonic Mean: } = 378 \text{ cfs}^{(2)} \Rightarrow \frac{(378 \text{ cfs})(0.6464) + (0.0123 \text{ MGD})}{(0.0123 \text{ MGD})} = 19,866:1$$

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

### Footnotes:

- (1) 06-096 CMR 530 (4)(B)(1) states that analyses using numeric acute criteria for aquatic life must be based on ¼ of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone. The 1Q10 is the lowest one-day flow over a ten-year recurrence interval. The regulation goes on to say that where it can be demonstrated that a discharge achieves rapid and complete mixing with the receiving water by way of an efficient diffuser or other effective method, analyses may use a greater proportion of the stream design, up to including all of it. Based on information provided by the permittee as to the configuration and location of the outfall pipe, the Department has made the determination that the discharge does not receive rapid and complete mixing with the receiving water; therefore, the default stream flow of ¼ of the 1Q10 is applicable in acute statistical evaluations pursuant to 06-096 CMR 530 (4)(B)(1).
  - (2) The harmonic mean dilution factor is approximated by multiplying the chronic receiving water flow (7Q10) by a factor of three (3). This multiplying factor is based on guidelines for estimation of human health dilution presented in the USEPA publication "*Technical Support Document for Water Quality-Based Toxics Control*" (Office of Water; EPA/505/2-90-001, page 88), and represents an estimation of harmonic mean flow on which human health dilutions are based in a riverine 7Q10 flow situation
- c. Biochemical Oxygen Demand (BOD<sub>5</sub>) and Total Suspended Solids (TSS): The previously established technology-based monthly average and daily maximum BOD<sub>5</sub> and TSS concentration limits of 30 mg/L and 50 mg/L, are being carried forward in this permitting action. The monthly average concentration limit is based on secondary treatment requirements as defined in Department rule, 06-096 CMR Chapter 525(3)(III). The daily maximum BOD<sub>5</sub> and TSS concentration limits of 50 mg/L were based on a Department best professional judgment (BPJ) of best practicable treatment (BPT). This permitting action is carrying forward both technology based and concentration limitations. In addition, pursuant to 06-096 CMR 525(3)(III), this permitting action is carrying forward the BOD<sub>5</sub> and TSS weekly average BPT concentration limits of 45 mg/L. This permitting action is continuing monthly average, weekly average and daily maximum BOD<sub>5</sub> and TSS mass limitations based on calculations using the design flow for the facility of 12,300 gpd (0.0123 MGD) and the applicable concentration limits as follows:

Monthly Average Limit:  $(30 \text{ mg/L})(8.34 \text{ lbs./gallon})(0.0123 \text{ MGD}) = 3.1 \text{ lbs/day}$   
Weekly Average Limit:  $(45 \text{ mg/L})(8.34 \text{ lbs./day})(0.0123 \text{ MGD}) = 4.6 \text{ lbs/day}$   
Daily Maximum Limit:  $(50 \text{ mg/L})(8.34 \text{ lbs./day})(0.0123 \text{ MGD}) = 5.1 \text{ lbs/day}$

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

This permitting action is carrying forward the quarterly BOD<sub>5</sub> and TSS minimum monitoring frequencies based on Department guidance for facilities discharging up to 0.1 MGD.

This permitting action carries forward the requirement for a minimum of 85% removal of BOD<sub>5</sub> and TSS pursuant to Waste Discharge License Conditions, 06-096 CMR 525(3)(III)(a)(3) and (b)(3). This permitting action establishes a minimum monitoring frequency requirement of once per month for percent removal. The permittee’s wastewater treatment system does not contain an influent sampling location that is representative of raw wastewater conditions. According to the USEPA’s Onsite Wastewater Treatment Systems Manual, dated February 2002, table 3-7 entitled “Constituent Mass Loadings and Concentrations in Typical Residential Wastewater” high end range of values, influent values for BOD<sub>5</sub> and TSS may be assumed to be 286 mg/L and 300 mg/L, respectively. Therefore, this permitting action authorizes the permittee to assume an influent BOD<sub>5</sub> and TSS concentration value of 286 mg/L for purposes of calculating the monthly percent removal value.

For BOD<sub>5</sub>, a review of the monthly average effluent concentration data as reported on the DMRs submitted to the Department for the period October 2010 through June 2015 indicates the following:

**BOD Concentration**

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	30	2 – 20	8
Daily Maximum	50	2 – 20	8

**TSS concentration**

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	30	1 – 6	15
Daily Maximum	50	1 – 6	15

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

- d. Escherichia coli Bacteria: The previous licensing action established seasonal (May 15 – September 30) monthly average and daily maximum concentration limits for *E. coli* bacteria of 126 colonies/100 ml (geometric mean) and 949 colonies/100 ml (instantaneous level), respectively, along with a quarterly monitoring frequency requirement based on the State of Maine Water Classification Program criteria for Class C waters found at 38 M.R.S.A. §465(4)(B),.

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

The Department has made the determination that after taking into consider the dilution associated with the discharge, the BPT limits established in the previous licensing action are protective of AWQC for bacteria and are therefore being carried forward in this permitting action. Although *E. coli* bacteria limits are seasonal, the Department reserves the right to impose year-round bacteria limits if deemed necessary to protect the health, safety and welfare of the public.

A review of the monthly average and daily maximum data as reported on the DMRs submitted to the Department for the period October 2010 through June 2015 indicates the monthly (geometric mean) and daily maximum *E. coli* bacteria discharged as follows;

***E. coli* bacteria**

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100 ml)
Monthly Average	126	<1 – 1,120	95
Daily Maximum	949	<1 – 1,120	95

- e. **Total Residual Chlorine (TRC):** This permitting action is carrying forward the daily maximum technology based 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 permitting actions impose the more stringent of either a water quality-based or BPT-based limit.

Acute (A) Criterion	Chronic (C) Criterion	A & C Dilution Factors	Acute Limit	Chronic Limit
0.019 mg/L	0.011 mg/L	1514:1 (MOD A) 6623:1 (C)	29 mg/L	73 mg/L

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

A review of the daily maximum data as reported on the DMRs submitted to the Department for the period October 2009 through October 2014 indicates the maximum TRC discharged has been as follows;

**Total residual chlorine**

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	1.0	0.6 – 6.8	0.992

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

- f. pH: 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) along with a 1/Week monitoring frequency.
- g. Whole Effluent Toxicity (WET), Priority Pollutant, and Analytical Chemistry Testing: 38 M.R.S.A. § 414-A and 38 M.R.S.A. § 420 prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. 06-096 CMR 530 sets forth effluent monitoring requirements and procedures to establish safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected and narrative and numeric water quality criteria are met. *Surface Water Quality Criteria for Toxic Pollutants*, 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. 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." 06-096 CMR 530(2)(A) further specifies the criteria for the exemption of certain discharges from toxics testing as follows:
- (1) Discharges from individual discharge points licensed to discharge less than 50,000 gallons per day of solely domestic wastewater and with a chronic dilution factor of at least 50 to 1, provided no holding tank wastes containing chemicals are accepted by the facility;
  - (2) Discharges from residential overboard discharge systems; or
  - (3) Discharges from combined sewer overflow discharge points, provided the owner of the sewerage system is conducting or participating in a discharge abatement program.

The permittee's facility is exempt from the 06-096 CMR 530 requirements as it permitted to discharge less than 50,000 gpd or solely domestic wastewater and the chronic dilution factor is greater than 50:1. However, should there be a substantial change in the characteristics of the discharge in the future; the Department may reopen this permit pursuant to Special Condition K, Reopening of Permit for Modifications, to incorporate the applicable whole effluent toxicity (WET), priority pollutant or analytical testing requirements cited above.

## **7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY**

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

## **8. PUBLIC COMMENTS**

Public notice of this application was made in The Star Herald on or about May 20, 2015. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

## **9. DEPARTMENT CONTACTS**

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

Rod Robert  
Division of Water Quality Management  
Bureau of Water Quality  
Department of Environmental Protection  
17 State House Station  
Augusta, Maine 04333-0017 Telephone: (207) 446-1875  
e-mail: [rodney.robert@maine.gov](mailto:rodney.robert@maine.gov)

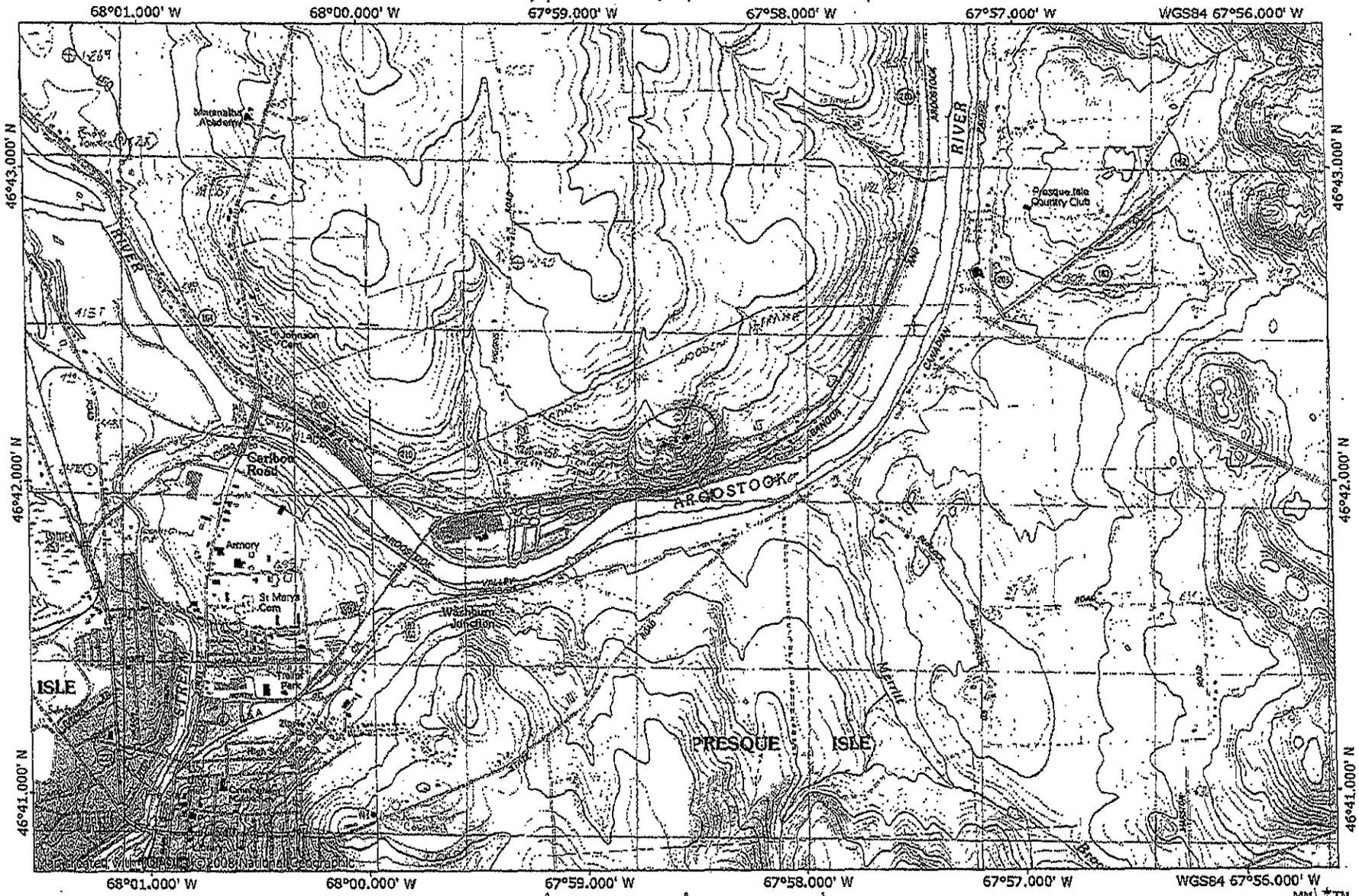
## **10. RESPONSE TO COMMENTS**

*Reserved until the end of the formal thirty (30) day comment period.*

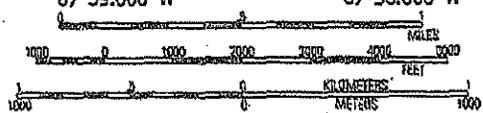
# **ATTACHMENT A**

#11

TOPO! map printed on 05/24/10 from "Untitled2.tpo"



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