



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

Mr. Michael Harris
Ellsworth Pollution Control Facility
One City Hall Plaza
Ellsworth, Maine 04605
mharris@ellsworthmaine.gov

January 13, 2015

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0102593
Maine Waste Discharge License Application #W003801-6A-E-R
Shore Road Pollution Control Facility
Cooks Lane Pollution Control Facility
Preliminary Draft Permit

Dear Mr. Harris:

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

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

All comments must be received in the Department of Environmental Protection office on or before the close of business Thursday, February 12, 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) 287-3901 FAX: (207) 287-3435
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
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 04769-2094
(207) 764-6477 FAX: (207) 764-1507

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

Sincerely,

A handwritten signature in black ink, appearing to read "Rodney Robert", enclosed in a thin black rectangular border.

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

Enc.

cc: Clarissa Trask DEP/ERMO
Barry Mower, DEP/CMRO
Lori Mitchell, DEP/CMRO
Oliver Cox, DMR
Environmental Review, DMR
Environmental Review, DIFW
Kathleen Leyden, DACF
David Webster, USEPA
David Pincumbe, USEPA
Alex Rosenberg, USEPA
Olga Vergara, USEPA
Ivy Frignoca, CLF



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

DEPARTMENT ORDER

IN THE MATTER OF

CITY OF ELLSWORTH) MAINE POLLUTANT DISCHARGE.
ELLSWORTH, HANCOCK COUNTY, MAINE) ELIMINATION SYSTEM PERMIT
PUBLICLY OWNED TREATMENT WORKS) AND
ME0102593) WASTE DISCHARGE LICENSE
W003801-6A-E-R) **RENEWAL**) **APPROVAL**

In compliance with the provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251, Conditions of Licenses, Maine Law 38 M.R.S.A. Section 414-A, *et seq.*, and applicable regulations, the Department of Environmental Protection (Department) has considered the application of CITY OF ELLSWORTH (permittee), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On September 09, 2014, the Department accepted as complete for processing an application from the permittee for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit ME0102593/Maine Waste Discharge License (WDL) W003801-6A-D-R (permit) which was issued by the Department on September 24, 2009, for a five-year term. The 9/24/09 permit authorized the year round, average monthly discharge of 1,900 gallons per day (gpd) of secondary treated waste waters from two sand filter systems to the Union River, Class B, in Ellsworth, Maine. It is noted the City of Ellsworth has one additional waste water treatment facility that is permitted/licensed by the Department (ME0102865/W009082-6D-A-N) to discharge up to 1.65 MGD of secondary treated waste water to a Class SB section of the Union River, approximately 2 miles downstream of the sand filter systems. See **Attachment A** of the Fact Sheet of this permit for a location map.

PERMIT SUMMARY

This permitting action is similar to the previous permitting action, **Except** that it is:

1. Revising the permittee's chlorination requirement from year round chlorination to seasonal (May 15 – September 30) chlorination.
2. Adding a once per year (1/YR) monitoring requirement for flow, BOD, TSS and pH pursuant to 40 CFR 122.44(i)(2) and 06-096 CMR 523(5)(i)(2).

CONCLUSIONS

BASED on the findings in the attached **Proposed Draft Fact Sheet** dated January 13, 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.
3. The provisions of the State's antidegradation policy, 38 M.R.S.A., Section 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 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 discharge will be subject to effluent limitations that require application of best practicable treatment.

ACTION

THEREFORE, the Department APPROVES the application of CITY OF ELLSWORTH to discharge a monthly average of 1,900 gpd of secondary treated sanitary waste water from two sand filter systems to the Union River, Class B, in Ellsworth, Maine. The waste waters discharged from the facility will be SUBJECT TO ALL APPLICABLE STANDARDS AND REGULATIONS AND THE FOLLOWING CONDITIONS:

1. *“Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable to All Permits,”* revised July 1, 2002, copy attached.
2. The attached Special Conditions, including any effluent limitations and monitoring requirements.
3. This permit becomes effective upon the date of signature below and expires at midnight five (5) years after that date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the terms and conditions of this permit and all subsequent modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [Maine Administrative Procedure Act, 5 M.R.S.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 _____ 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
PATRICIA W. AHO, Commissioner

Date of initial receipt of application 09/08/14 .

Date of application acceptance 09/09/14 .

Date filed with Board of Environmental Protection _____

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge secondary treated sanitary waste waters to the Union River. Such discharges shall be limited and monitored by the permittee as specified below:

OUTFALL #001 - COOKS LANE FACILITY

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>
Flow [50050]	1,086 GPD [07]	---	---	---	---	---	1/Year [01/365]	Measure [MS]
Biochemical Oxygen Demand (BOD) [00310]	0.3 lbs/day [26]	0.4 lbs/day [26]	0.5 lbs/day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	1/Year [01/365]	Grab [GR]
BOD₅ Percent Removal [81010]	---	---	---	≥85% ⁽¹⁾ [23]	---	---	1/Year [01/365]	Calculate [CA]
TSS [00530]	0.3 lbs/day [26]	0.4 lbs/day [26]	0.5 lbs/day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	1/Year [01/365]	Grab [GR]
TSS Percent Removal [81011]	---	---	---	≥85% ⁽¹⁾ [23]	---	---	1/Year [01/365]	Calculate [CA]
<u>E. Coli Bacteria</u> ⁽¹⁾ ([31633])	---	---	---	64/100 mL ⁽²⁾ [13]	---	236/100 mL [13]	1/Week [01/07]	Grab [GR]
Total Residual Chlorine (May 15 – September 30) [50060]	---	---	---	---	---	1.0 mg/L [19]	1/Week [01/07]	Grab [GR]
pH (Std. Unit) [00400]	---	---	---	---	---	6.0 – 9.0 SU [12]	1/Year [01/365]	Grab [GR]

Footnotes See Page 6 of this permit for applicable footnotes.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge secondary treated sanitary waste waters to the Union River. Such discharges shall be limited and monitored by the permittee as specified below:

OUTFALL #002 - SHORE ROAD FACILITY

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow [50050]	814 gpd [07]	---	---	---	---	---	1/Year [01/365]	Measure [MS]
Biochemical Oxygen Demand (BOD) [00310]	0.2 lbs/day [26]	0.3 lbs/day [26]	0.3 lbs/day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	1/Year [01/365]	Grab [GR]
BOD % Removal [81010]	---	---	---	≥85% ⁽¹⁾	---	---	1/Year [01/365]	Calculate [CA]
Total Suspended Solids (TSS) [00530]	0.2 lbs/day [26]	0.3 lbs/day [26]	0.3 lbs/day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	1/Year [01/365]	Grab [GR]
TSS % Removal [81011]	---	---	---	≥85% ⁽¹⁾	---	---	1/Year [01/365]	Calculate [CA]
<u>E. Coli Bacteria</u> ⁽²⁾ [31633]	---	---	---	64/100 ml ⁽³⁾ [13]	---	236/100 ml [13]	1/Week [01/07]	Grab [GR]
Total Residual Chlorine (May 15 – September 30) [50060]	---	---	---	---	---	1.0 mg/L [19]	1/Week [01/07]	Grab [GR]
pH (Std. Unit) [00400]	---	---	---	---	---	6.0 – 9.0 SU [12]	1/Year [01/365]	Grab [GR]

SPECIAL CONDITIONS

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

Footnotes

Sampling – Sampling shall be conducted after the last treatment process such that samples are representative of what is actually being discharged to the receiving waters. Sampling shall be conducted in accordance with federally approved methods for sampling, handling and preservation. Samples shall be analyzed by a laboratory certified by the State of Maine’s Department of Human Services and in accordance with methods approved by 40 Code of Federal Regulations (CFR) Part 136. Samples that are sent to a POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S.A. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (last amended February 13, 2000).

1. **Percent Removal** - The permittee must achieve a minimum of 85 percent removal of both total suspended solids and biochemical oxygen demand for all flows receiving secondary treatment. The percent removal is calculated based on influent and effluent concentration values. For influent concentrations an assumed value of 290 mg/L will be used for total suspended solids and biochemical oxygen demand.
2. ***E. coli* bacteria** – Limitations and monitoring requirements are in effect from May 15th to September 30th of each year
3. ***E. coli* bacteria** - This is a geometric mean limitation and results shall be reported as such.

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 effluent shall not contain a visible oil sheen, foam or floating solids at any time which would impair the usages designated for the classification of the receiving waters.
2. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usages designated for the classification of the receiving waters.
3. The discharges shall not cause visible discoloration or turbidity in the receiving waters which would impair the usages designated for the classification of the receiving waters.
4. Notwithstanding specific conditions of this permit, the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

D. TREATMENT PLANT OPERATOR

The 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.

SPECIAL CONDITIONS

E. DISINFECTION

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

F. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on September 9, 2014; 2) the terms and conditions of this permit; and 3) only from Outfalls listed in this permit. 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)(*Bypass*) of this permit.

G. NOTIFICATION REQUIREMENT

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

1. Any substantial change 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.

H. NON-DOMESTIC USERS

This permit specifically prohibits the introduction of waste waters into the treatment facility or discharge outfall from any other source other than domestic users.

SPECIAL CONDITIONS

I. SEPTIC MAINTENANCE

To ensure that the individual septic tanks for the two sand filter systems are providing best practicable treatment, the permittee shall adhere to the pre-approved maintenance schedule for pumping out the solids in all of the tanks. The City of Ellsworth shall maintain a log that documents the date and quantity of septage removed from each septic tank and any written comments on the individual systems. The logs shall be kept current and made available to Department personnel for inspection during normal business hours.

J. MONITORING AND REPORTING

Monitoring results 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 (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.

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:

Compliance Inspector
Department of Environmental Protection
Eastern Maine Regional Office
Bureau of Land and Water Quality
Division of Water Quality Management
106 Hogan Road,
Bangor, Maine 04401

Alternatively, if submitting an electronic DMR (eDMR), the completed eDMR must be electronically submitted to the Department by a facility authorized DMR Signatory not later than close of business on the 15th day of the month following the completed reporting period. Hard Copy documentation submitted in support of the eDMR must be postmarked on or before the thirteenth (13th) day of the month or hand-delivered to the Department's Regional Office such that it is received by the Department on or before the fifteenth (15th) day of the month following the completed reporting period. Electronic documentation in support of the eDMR must be submitted not later than close of business on the 15th day of the month following the completed reporting period.

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**

INTERNAL DRAFT FACT SHEET

Date: **January 13, 2015**

MEPDES PERMIT: **ME0102593**
WASTE DISCHARGE LICENSE: **W003801-6A-E-R**

NAME AND ADDRESS OF APPLICANT:

**CITY OF ELLSWORTH
P.O. Box 586, 33 Water Street
Ellsworth, ME. 04605**

COUNTY: **Hancock County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

**Cooks Lane / Shore Road
Ellsworth, Maine**

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

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Michael Harris
Superintendent
(207)667-7315
mharris@ellsworthmaine.gov**

1. APPLICATION SUMMARY

- a. Application – On September 09, 2014, the Department accepted as complete for processing an application from the permittee for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit ME0102593/Maine Waste Discharge License (WDL) W003801-6A-D-R (permit) which was issued by the Department on September 24, 2009, for a five-year term. The 9/24/09 permit authorized the year round, average monthly discharge of 1,900 gallons per day (gpd) of secondary treated waste waters from two sand filter systems to the Union River, Class B, in Ellsworth, Maine. It is noted the City of Ellsworth has one additional waste water treatment facility that is permitted/licensed by the Department (ME0102865/W009082-6D-A-N) to discharge up to 1.65 MGD of secondary treated waste water to a Class SB section of the Union River, approximately 2 miles downstream of the sand filter systems. See **Attachment A** of this Fact Sheet for a location map.

1. APPLICATION SUMMARY (cont'd)

- b. Source description: The existing treatment systems consist of two separate sand filter systems. One is referred to as the Cooks Lane facility and the other is referred to as the Shore Road facility. There are four houses connected to the Cooks Lane facility and each has a 1,000 gallon septic tank for settling prior to being conveyed to a sand filter bed measuring 42 feet by 26 feet followed by disinfection with chlorine. There are three houses connected to the Shore Road facility. Each house has a 1,000 gallon septic tank for settling prior to being conveyed to a sand filter bed measuring 28.5 feet by 26.5 feet followed by disinfection with chlorine and each sand filter system has its own discharge pipe that discharges to the fresh water segment of the Union River. See **Attachment B** of this Fact Sheet for a site plan for each system.

2. PERMIT SUMMARY

- a. Terms and Conditions: This permitting action is similar to the previous permitting action **Except** that it is:
1. Revising the permittee's chlorination requirement from year round to seasonal (May 15 – September 30).
 2. Adding a once per year (1/YR) monitoring requirement for Flow, BOD, TSS and pH pursuant to 40 CFR 122.44(i)(2) and 06-096 CMR 523(5)(i)(2).
- b. History: The most current and relevant regulatory actions include the following:

August 22, 1997 - The U.S. EPA issued NPDES permit #ME0100889 for a five-year term.

November 3, 1997 - The Department administratively modified WDL #W003801-46-A-R by increasing the daily maximum fecal coliform bacteria limitation from 15 colonies/100 ml to 50 colonies/100 ml. The limits were based on the Water Classification Program criteria for the receiving waters at that time (including standards in the National Shellfish Sanitation Program) and require application of the best practicable treatment technology.

July 1, 1999 – The Department issued WDL W003801-5L-B-R for the discharge of 1,900 gpd of secondary treated waste water from two sand filter systems to the Union River, Class SB, in Ellsworth. The term of the WDL was five years.

January 12, 2001 – The State of Maine received authorization from the USEPA to administer the NPDES permitting program in Maine.

2. PERMIT SUMMARY (cont'd)

August 18, 2004 – The Department issued combination MEPDES permit #ME0102593/WDL W00380-5L-C-R for a five-year term.

August 21, 2009 – The City submitted a timely and complete application to the Department to renew the MEPDES permit/WDL for the sand filter systems.

September 24, 2009 – The Department issued combination MEPDES permit #ME0102593/WDL W003801-5L-D-R for a five-year term.

September 9, 2014 – The Department accepted a timely and complete application from the permittee to renew the MEPDES permit/WDL for the sand filter systems.

3. CONDITIONS OF PERMIT

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

4. RECEIVING WATER QUALITY STANDARDS

Maine law, 38 M.R.S.A., §467(18)(A)(1) classifies the Union River at the point of discharge as a Class B waterway. Maine law, 38 M.R.S.A., §465(3) contains the classification standards for Class B waterways.

5. RECEIVING WATER QUALITY CONDITIONS

The 2012 Integrated Water Quality Monitoring and Assessment Report published by the Department pursuant to Section 305(b) of the Federal Water Pollution Control Act lists the point of discharge as : Union River, main stem in Ellsworth, ID ME0105000213_519R', which is 2.94 miles long and in Category 3, "Rivers and Streams with Insufficient Data or Information to Determine if Designated Uses are Attained (One or More Uses may be Impaired)"; potential impairment is for dissolved oxygen.

5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

The point of discharge(s) are also listed in Category 4-A: Rivers and Streams with Impaired Use, TMDL Completed Waters Impaired by Atmospheric Deposition of Mercury: All freshwaters formerly listed in Category 5-C were moved to Category 4-A in the 2008 cycle due to US EPA approval of a Regional Mercury TMDL in December 2007. 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.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

- a. Flow: The previous permitting action established a monthly average flow limitation based on a prorated flow for each treatment system. For the Cooks Lane system with four houses, a monthly average flow limitation of 1,086 gpd was established and for the Shore Road system with three houses, a monthly average flow limitation of 814 gpd was established. The limitations are being carried forward in this permitting action as they are representative of the design capacity of each of the sand filter systems. This permitting action is also establishing a once per year monitoring frequency to determine on-going compliance at the facility.
- b. Biochemical Oxygen Demand (BOD5) & Total Suspended Solids (TSS): - The previous permitting action established monthly and weekly average BOD5 and TSS best practicable treatment (BPT) concentration limits of 30 mg/L and 45 mg/L respectively, that were based on secondary treatment requirements of the Clean Water Act of 1977 §301(b)(1)(B) as defined in 40 CFR 133.102 and Department rule Chapter 525(3)(III). The maximum daily BOD5 and TSS concentration limits of 50 mg/L were based on a Department best professional judgment of BPT and is consistent with all permitting actions for publicly owned treatment works (POTWs). All three concentration limits are being carried forward in this permitting action.

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

To be consistent with Department rule 06-096 CMR Chapter 523, previously established monthly average, weekly average and daily maximum mass limits for BOD and TSS are being carried forward in this permitting action. Additionally, the Department is establishing a once per year monitoring requirement pursuant to 40 CFR 122.44(i)(2) and 06-096 CMR 523(5)(i)(2), which in effect states that any limitation must have a monitoring requirement. The mass limits for each treatment system were derived as follows:

Cooks Lane

Monthly average: $(0.001086 \text{ MGD})(8.34)(30 \text{ mg/L}) = 0.3 \text{ lbs/day}$
Weekly average: $(0.0001086 \text{ MGD})(8.34)(45 \text{ mg/L}) = 0.4 \text{ lbs/day}$
Daily maximum: $(0.0001086 \text{ MGD})(8.34)(50 \text{ mg/L}) = 0.5 \text{ lbs/day}$

Shore Lane

Monthly average: $(0.000814 \text{ MGD})(8.34)(30 \text{ mg/L}) = 0.2 \text{ lbs/day}$
Weekly average: $(0.000814 \text{ MGD})(8.34)(45 \text{ mg/L}) = 0.3 \text{ lbs/day}$
Daily maximum: $(0.000814 \text{ MGD})(8.34)(50 \text{ mg/L}) = 0.3 \text{ lbs/day}$

The 2004 permitting action established a requirement of 85% removal for BOD and TSS pursuant to Department rule Chapter 525(3)(III)(a&b)(3). The 2009 permitting action removed the requirement because, given the nature of the treatment system whereby the BOD concentrations exiting the septic tank may be higher than the concentrations entering the tank due to solubility in the tank and that influent sampling is not practical. This permitting action is establishing a once per year requirement for the permittee to demonstrate compliance with monthly average limitation for percent removal. The Department has made a best professional judgment that with an assumed influent concentration of 290 mg/L and the permittee maintains compliance with the monthly average concentration limit of 30 mg/L for BOD and TSS, the removal rate will be met by definition:

$$\frac{290 \text{ mg/L} - 30 \text{ mg/L}}{290 \text{ mg/L}} = 90 \% \text{ removal rate}$$

Department guidance (1997) on monitoring requirements for residential overboard discharges (OBDs) does not require monitoring of systems that are permitted for flows less than 2,000 gpd unless the facility has had a history of compliance or operational problems. The previous permitting action did not require the permittee to monitor for BOD and TSS as the facility has historically been properly operated and maintained but the limitations are in effect and enforceable at all times.

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

- c. E. coli bacteria – The previous permitting action established water quality based limits of 64 colonies/100 ml as a monthly average and 427 colonies/100 ml as a daily maximum, based on the established criteria for Class B waters.

A review of the monthly average and daily maximum data as reported on the DMRs submitted to the Department for the period May 2010 – August 2014 indicates the monthly (geometric mean) and daily maximum *E. coli* bacteria discharged as follows;

Cooks Lane

***E. coli. bacteria* (n=51)**

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100 ml)
Monthly Average	64	1 - 5	1.33
Daily Maximum	427	.10 - 43	5.59

The DMR data for said period indicates the permittee has been in compliance with the monthly average and daily maximum limitations 100% of the time.

Shore Road

***E. coli. bacteria* (n=51)**

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100 ml)
Monthly Average	64	<.10 – 2	.98
Daily Maximum	236	<.10 - 7	1.53

The DMR data for said period indicates the permittee has been in compliance with the monthly average and daily maximum limitation 100% of the time.

- d. Total Residual Chlorine: Limits on total residual chlorine are specified to ensure attainment of the in-stream water quality criteria for chlorine and that BPT technology is utilized to abate the discharge of chlorine. A daily maximum, best practicable treatment (BPT) limitation of 1.0 mg/L for the facility as the effluent is disinfected with elemental chlorine or chlorine based compounds has been in effect for the last two permitting cycles. The BPT limitation of 1.0 mg/L is being carried forward in this permitting action along with the monitoring frequency of 1/Week. At the request of the facility the chlorination requirement is being changed from year round to seasonal (May 15-Sept 30). A review of the DMR data for the period May 2010 – August 2014 indicates the daily maximum concentration values have been reported as follows:

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

Cooks Lane

Total residual chlorine (n=51)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	1.0	0 – 2.29	0.4

Shore Road

Total residual chlorine (n=40)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	1.0	.01 – 2.1	0.3

- e. **pH** – The previous permitting action established a pH range limit of 6.0 –9.0 standard units pursuant to a new Department rule found at Chapter 525(3)(III)(c). The limits are considered BPT and are being carried forward in this permitting action. This permitting action is establishing a once per year monitoring frequency to determine on going compliance.

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. See Section 4 of this fact sheet for the location of classification standards for Class B waterways.

8. PUBLIC COMMENTS

Public notice of this application was made in the Ellsworth American newspaper on or about May 7, 2014. 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:

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

10. RESPONSE TO COMMENTS

Reserved until the close of the 30-day public comment period.