



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

DEPARTMENT ORDER

IN THE MATTER OF

TOWN OF WHITNEYVILLE)	MAINE POLLUTANT DISCHARGE
PUBLICLY OWNED TREATMENT WORKS)	ELIMINATION SYSTEM PERMIT
WHITNEYVILLE, WASHINGTON COUNTY)	
ME0102181)	AND
W006551-6A-F-R)	
CANAL ROAD FACILITY)	WASTE DISCHARGE LICENSE
APPROVAL)	RENEWAL

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 the TOWN of WHITNEYVILLE, with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On March 16, 2015, the Department accepted as complete for processing an application from the TOWN OF WHITNEYVILLE for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit ME0102181/Maine Waste Discharge License (WDL) #W006551-5L-C-R (permit hereinafter), which was issued by the Department on April 21, 2010 for a five year term. The April 21, 2010 permit authorized the monthly average discharge of no more than 2,100 gallons per day (GPD) of secondary treated sanitary wastewater from a publicly owned treatment works (POTW) known as the **Canal Road** facility to the Machias River, Class B, in Whitneyville, Maine.

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions of the April 21, 2010 permitting action.

SPECIAL CONDITIONS

CONCLUSIONS

BASED on the findings in the *attached PROPOSED DRAFT* Fact Sheet dated June 29, 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. §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 Conditions of licenses, 38 M.R.S.A. § 414-A(1)(D) and 414-A(1-B).

SPECIAL CONDITIONS

ACTION

THEREFORE, the Department APPROVES the application of the TOWN OF WHITNEYVILLE to discharge a monthly average of 2,100 GPD of secondary treated sanitary wastewater from the Town's Canal Road facility to the Machias River, Class B, in Whitneyville, Maine, 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 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: _____
PATRICIA W. AHO, Commissioner

Date of initial receipt of application March 11, 2015

Date of application acceptance March 16, 2015

Date filed with Board of Environmental Protection _____

This Order prepared by Rod Robert, Bureau of Land and Water Quality

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge secondary treated sanitary wastewater **from Outfall #001A** to the Machias River in Whitneyville. The permittee shall treat the wastewater to meet the discharge limitations for each effluent characteristic specified in the chart below⁽¹⁾:

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Mass			Concentration				
	<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]	2,100 GPD [03]	---	---	---	---	---	1/Month [01/30]	Estimate [ES]
BOD₅ [00310]	0.5 lbs./day [26]	0.8 lbs./day [26]	0.9 lbs./day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	1/Quarter [01/90]	Grab [GR]
BOD₅ Percent Removal ⁽²⁾ [81010]	---	---	---	85% [23]	---	---	---	---
TSS [00530]	0.5 lbs./day [26]	0.8 lbs./day [26]	0.9 lbs./day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	1/Quarter [01/90]	Grab [GR]
TSS Percent Removal ⁽²⁾ [81011]	---	---	---	85% [23]	---	---	---	---
Settleable Solids [00545]	---	---	---	---	---	0.3 ml/L [25]	1/Quarter [01/90]	Grab [GR]
<i>E. coli</i> Bacteria ⁽³⁾ [31633] (May 15 th – September 30 th)	---	---	---	64/100 ml ⁽⁴⁾ [13]	---	427/100 ml [13]	2/Month [02/30]	Grab [GR]
Total Residual Chlorine ⁽⁵⁾ [00665]	---	---	---	---	---	1.0 mg/L [19]	5/Week [05/07]	Grab [GR]
pH [00400]	---	---	---	---	---	6.0 – 9.0 SU [12]	1/Month [01/30]	Grab [GR]

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

FOOTNOTES: See Page 5 and 6 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. **BOD₅ and TSS Percent Removal** - The treatment facility shall maintain a minimum of 85 percent removal of both biochemical oxygen demand (BOD₅) and total suspended solids (TSS) for all flows receiving secondary treatment. The percent removal must be based on a monthly average calculation using influent and effluent concentrations. Because primary treatment occurs at multiple individual users sites, the Department assumes the influent concentration to be 290 mg/L (see fact sheet for more specifications on this parameter).
3. ***E. coli* bacteria** – *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 require year-round disinfection 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 shall be reported as such.
5. **Total Residual Chlorine** – 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.

SPECIAL CONDITIONS

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

Footnotes cont'd:

6. The limitation in the monthly average column in table Special Condition A of this permit is defined as the arithmetic mean of all the mercury tests ever conducted for the facility utilizing sampling Methods 1669 and analysis Method 1631E.

B. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent must not contain a visible oil sheen, foam or floating solids at any time that would impair the uses designated by the classification of the receiving waters.
2. The effluent must not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the uses designated by the classification of the receiving waters.
3. The discharges must not cause visible discoloration or turbidity in the receiving waters that would impair the uses designated by 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.

C. 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.

D. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the permittee shall 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 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.

SPECIAL CONDITIONS

E. LIMITATIONS FOR INDUSTRIAL USERS

The permittee cannot allow the introduction of pollutants into the wastewater collection and treatment system by a non-domestic source (user) that would pass through or otherwise interfere with the operation of the treatment system.

F. AUTHORIZED DISCHARGES

The Department authorizes the permittee to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on March 16, 2015; 2) the terms and conditions of this permit; and 3) only from Outfall #001A. Discharges of wastewater 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. WET WEATHER FLOW MANAGEMENT PLAN

The treatment facility staff shall maintain a current written Wet Weather Flow Management Plan to direct the staff 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.

Within 90 days of completion of new and or substantial upgrades of the wastewater treatment facility, the permittee shall submit to the Department for review and approval, a new or revised Wet Weather Management Plan that conforms to Department guidelines for such plans. The revised plan shall include 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 during the events. **The permittee shall review their plan annually** and record any necessary changes to keep the plan up to date.

H. OPERATION & MAINTENANCE (O&M) PLAN

This facility shall maintain 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 transport, 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 wastewater treatment facility, the permittee shall submit the updated O&M Plan to their Department inspector for review and comment.

SPECIAL CONDITIONS

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

By December 31 of each calendar year, the permittee shall 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 C** of the Fact Sheet 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; and
- 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 shall provide the Department with statements describing;

- d. Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge.
- e. Increases in the type or volume of hauled wastes accepted by the facility.

The Department reserves the right to reinstate annual (surveillance level) testing or other toxicity testing if new information becomes available that indicates the discharge may cause or have a reasonable potential to cause exceedances of ambient water quality criteria/thresholds.

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 anytime 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 and or ambient water quality monitoring if results on file are inconclusive; or
- (3) change monitoring requirements or limitations based on new information.

SPECIAL CONDITIONS

K. MONITORING AND REPORTING

The permittee shall summarize monitoring results obtained during the previous month and report said results on separate Discharge Monitoring Report (DMR) forms provided by the Department. The permittee shall submit the results so that they are postmarked on or before the thirteenth (13th) day of the month or hand-delivered to a Department Regional Office such that the DMRs 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 following address:

Department of Environmental Protection
Bureau of Land and Water Quality
106 Hogan Road
Bangor, Maine 04401

Alternatively, if you are submitting an electronic DMR (eDMR), the completed eDMR must be electronically submitted to the Department by a facility authorized DMR Signatory no later than the close of business on the 15th day of the month following the completed reporting period. Paper 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 no later than the close of business on the 15th day of the month following the completed reporting period.

L. 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 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**

Date: **July 23, 2015**

MEPDES PERMIT: **ME0102181**
WASTE DISCHARGE LICENSE: **W006551-6A-F-R**

NAME AND ADDRESS OF APPLICANT:
TOWN OF WHITNEYVILLE
Attn: Nate Pennell
42 South Main Street
Whitneyville, ME 04654

COUNTY: **Washington County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:
Canal Road
Whitneyville, ME 04692

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

COGNIZANT OFFICIAL:
Mr. Nate Pennell
Town of Whitneyville
42 South Main Street
Whitneyville, ME 04654
Telephone: (207) 255-4662

FACILITY CONTRACT OPERATOR: **Jon Carman**
JMC Wastewater Services
46 Fisher Road
Unity, Maine 04988
Telephone: (207) 948-2422
e-mail: joncarman@uninet.net

1. APPLICATION SUMMARY

- a. Application: On March 16, 2015, the Department accepted as complete for processing an application from the TOWN OF WHITNEYVILLE for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit ME0102181/Maine Waste Discharge License (WDL) #W006551-5L-C-R (permit hereinafter), which was issued by the Department on April 21, 2010 for a five year term. The April 21, 2010 permit authorized the monthly average discharge of no more than 2,100 gallons per day (GPD) of secondary treated sanitary wastewater from a publicly owned treatment works (POTW) known as the Canal Road facility to the Machias River, Class B, in Whitneyville, Maine. See **Attachment A** of this Fact Sheet for a location map of the facility.

1. APPLICATION SUMMARY (cont'd)

- b. Source Description: The Town owns the Canal Road municipal waste water treatment facility, which provides secondary treatment and disinfection for sanitary waste water generated by six residential users in the town. The facility is operated by a contract operator. There are no significant industrial users contributing flows to the treatment works, the facility is not required to implement a pretreatment program, and there are no combined sewer overflows (CSO) associated with the collection system. The Town is not authorized to accept septage at the Canal Road Facility.
- c. Waste Water Treatment: The waste water treatment facility owned by the Town provides secondary level of treatment via individual sand filter systems. Waste water generated by the residential users passes through individual septic tanks that provide primary treatment via settling and floatation of the heavier, and lighter-than water waste water components and secondary treatment through individual sand filters. The secondary treated wastewater from the clustered sand filter flows by pump and gravity to the central disinfection system whereby the wastewater is seasonally disinfected with chlorine compounds. The disinfected wastewater is then discharged by gravity flow to the Machias River via a six-inch diameter polyvinyl chloride (PVC) pipe that extends approximately ten feet out into the river from the riverbank. The outfall pipe has approximately two feet of water over the top of the pipe at (7Q10) low-river flow conditions. The outfall pipe is not fitted with diffusers or other mechanisms that would enhance mixing of the effluent with the receiving waters. See **Attachment B** of this Fact Sheet for a schematic of the system.

2. PERMIT SUMMARY

- a. Terms and Conditions: This permitting action is carrying forward all the terms and conditions of the 4/21/10 permitting action.
- b. Facility History: This section provides a summary of significant licensing/permitting actions and milestones that have been completed for the Canal Road Facility.

June 30, 1986 – The USEPA issued NPDES permit #ME0102181 to the Town of Whitneyville for the discharge of equivalent-to-secondary treated wastewater from two separate wastewater treatment facilities owned and operated by the Town to the Machias River in Whitneyville. In addition to authorizing the discharge from the Canal Road Facility, the permit authorized discharges from the School Street Facility.

October 21, 1986 – The Department issued WDL #W006551-45-A-N that authorized wastewater discharges from the Town's School Street and Canal Road facilities with a total maximum discharge of 8,350 gallons per day (0.00835 MGD).

June 8, 1987 – The USEPA issued permit modification #ME0102181 to the Town to revise the minimum monitoring frequency requirements for Total Residual Chlorine from once per month to five sample events per week in order to be consistent with the Maine WDL.

Summer 1987 – The Town's Canal Road Facility commenced operation.

2. PERMIT SUMMARY (continued)

November 30, 1999 – The Town submitted a complete application to the Department for renewal of the WDL. The WDL issued in 1986 authorized separate limits and monitoring requirements for the School Street and Canal Road facilities. In the 1999 WDL licensing action, the Department separated the authorizations for each of the two facilities because they are “stand-alone” facilities with separate outfall pipes and separate monitoring requirements.

February 22, 2000 – The Department issued combination MEPDES permit #ME 0102181/WDL #W006551-5L-B-R to the Town for the monthly average discharge of up to 2,100 gallons per day of equivalent-to-secondary treated wastewater from the Canal Road facility to the Machias River in Whitneyville.

June 8, 2000 – The Department administratively *modified* the 2/22/00 by establishing interim mean and daily maximum effluent limitations for mercury.

February 22, 2005 – The Department issued MEPDES permit ME0102181/WDL #W006551-5L-C-R for a five-year term.

February 17, 2010 – The Town submitted a timely and complete application to the Department for the renewal of ME0102181/WDL #W006551-5L-C-R for the Towns’ Canal Road facility.

April 21, 2010 – The Department issued MEPDES permit ME0102181/WDL #W006551-5L-D-R for a five-year term.

March 11, 2015 – The Town submitted a timely and complete application to the Department for the renewal of ME0102181/WDL #W006551-5L-D-R for the Towns’ Canal Road facility

3. CONDITIONS OF PERMIT

Conditions of licenses, 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, *Certain deposits and discharges prohibited* 38 M.R.S.A., Section 420 and *Surface Water Toxics Control Program*, 06-096 CMR Chapter 530 require the regulation of toxic substances not to exceed levels set forth in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR Chapter 584, 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.A. §467(5)(A)(2) classifies the Machias River at the point of discharge as a Class B water. Further, the Legislature finds that the free-flowing habitat of this river segment provides irreplaceable social and economic benefits and that this use must be maintained. The *Standards for the Classification of Fresh Surface Waters*, Maine law, 38 M.R.S.A. §465(3) describes the standards for Class B waters.

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 Machias River at the point of discharge (Water ID ME0105000205_510R) as, “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. The Report states, “All freshwaters are listed in Category 4A (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 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 38 M.R.S.A. § 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, *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519(1)(A)(1) states that overboard discharges licensed pursuant to 38 M.R.S.A. § 413 are not subject to the rule. 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 & MONITORING REQUIREMENTS

- a. Flow: This permitting action is carrying forward the flow limitation of 2,100 GPD and a minimum monitoring frequency requirement of once per month. A review of the month Discharge Monitoring Report (DMR) data for the period February 2010 – April 2015 indicates the facility has complied with the flow limitations for 100% of the measurements.
- b. 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. This permitting action is calculating dilution factors associated with the discharge based on the 2,100 GPD (same as 0.0021 MGD) flow limit to ensure that water quality-based limits are protective of receiving water quality on a year-round basis.

With a monthly average flow limit of 0.0021 MGD, dilution factors associated with the discharge from the Town’s Canal Road Facility may be calculated as follows:

$$\text{Acute: } 1\text{Q}10 = 27.2 \text{ cfs} \Rightarrow \frac{(27.2 \text{ cfs})(0.6464) + 0.0021 \text{ MGD}}{0.0021 \text{ MGD}} = 8,373:1$$

$$\text{Modified Acute: } \frac{1}{4} 1\text{Q}10 = 6.8 \text{ cfs} \Rightarrow \frac{(6.8 \text{ cfs})(0.6464) + 0.0021 \text{ MGD}}{0.0021 \text{ MGD}} = 2,094:1$$

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (continued)

$$\text{Chronic: } 7Q_{10} = \frac{60 \text{ cfs} \Rightarrow (60 \text{ cfs})(0.6464) + 0.0021 \text{ MGD}}{0.0021 \text{ MGD}} = 18,470:1$$

$$\text{Harmonic Mean} = \frac{180 \text{ cfs} \Rightarrow (180 \text{ cfs})(0.6464) + 0.0021 \text{ MGD}}{0.0021 \text{ MGD}} = 54,407:1$$

06-096 CMR Chapter 530(4)(B)(1) states that, “Analyses using numerical 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, according to EPA’s Mixing Zone Policy and to ensure a Zone of Passage of at least ¾ of the cross-sectional area of any stream as required by Department rule. Where it can be demonstrated that a discharge achieves complete and rapid 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 flow, up to and including all of it, as long as the required Zone of Passage is maintained.”

- c. Biochemical Oxygen Demand (BOD₅) and Total Suspended Solids (TSS): Previously established monthly average and weekly average BOD₅ & TSS concentration limits of 30 mg/L and 45 mg/L, respectively, are based on secondary treatment requirements as defined in Department rule 06-096 CMR Chapter 525(3)(III). Daily maximum BOD₅ & TSS concentration limits of 50 mg/L are based on a Department best professional judgment (BPJ) of best practicable treatment (BPT) and a minimum monitoring frequency requirement of once quarterly.

All three technology-based concentration limits are being carried forward in this permitting action. *Waste Discharge License Conditions*, 06-096 CMR Chapter 523(6)(f) states that all pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass. Also carried forward are previously established monthly average, weekly average and daily maximum technology-based mass limits of 0.5 lbs./day, 0.8 lbs./day, and 0.9 lbs./day, respectively, which are derived using the permitted discharge flow limit of 0.0021 MGD as follows:

Mass Limit Calculations		
Monthly Average	(30 mg/L)(8.34 lbs./gallon)(0.0021 MGD) =	0.5 lbs./day
Weekly Average	(45 mg/L)(8.34 lbs./gallon)(0.0021 MGD) =	0.8 lbs./day
Daily Maximum	(50 mg/L)(8.34 lbs./gallon)(0.0021 MGD) =	0.9 lbs./day

This permitting action is also carrying forward the requirement for a minimum of 85% removal of BOD₅ & TSS pursuant to *Effluent Guidelines and Standards*, 06-096 CMR Chapter 525(3)(III)(a)(3) and (b)(3). according to the EPA’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 and TSS may be assumed to be 300 mg/L until the infrastructure is modified or replaced such that influent sample collection is practical. The Department utilizes a similar assumed influent strength of 290 mg/L.

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

A review of the monthly DMR data for the period February 2010 – April 2015 indicates the effluent has been in compliance with the BOD & TSS limitations in 100% of the reports. A statistical summary of submitted DMRs follows:

BOD Mass *

Value	Limit	N	Range (lbs/day)	Average	Exceedances
Monthly Average	0.5 lbs/day	16	0.000 – 0.1 lbs/day	0.026 lbs/day	0
Daily Maximum	0.9 lbs/day	16	0.01 – 0.1 lbs/day	0.088 lbs/day	0
*Data reflects sampling frequency of once every three months					

BOD Concentration**

Value	Limit (mg/L)	N	Range (mg/L)	Average	Exceedances
Monthly Average	30 mg/L	16	<2 - 4 mg/L	2.44 mg/L	0
Daily Maximum	50 mg/L	16	<2 - 4 mg/L	2.43 mg/L	0
**Data reflects sampling frequency of once every three months					

TSS mass ♦

Value	Limit (lbs/day)	N	Range (lbs/day)	Average	Exceedances
Monthly Average	0.5 lbs/day	16	0.00 – 0.1 lbs/day	0.03 lbs/day	0
Daily Maximum	0.9 lbs/day	16	0.01 – 0.1 lbs/day	0.092 lbs/day	0
♦ Data reflects sampling frequency of once every three months					

TSS Concentration ♦♦

Value	Limit	N	Range (mg/L)	Average	Exceedances
Monthly Average	30 mg/L	16	1.7-18 mg/L	7.87 mg/L	0
Daily Maximum	50 mg/L	16	1.7-18 mg/L	7.87 mg/L	0
♦♦ Data reflects sampling frequency of once every three months					

This permitting action is carrying forward the minimum quarterly monitoring frequency based on Department guidance for POTWs permitted to discharge up to 0.050 MGD.

- d. Settleable Solids: This permitting action carries forward the previously established daily maximum technology-based concentration limit of 0.3 ml/L and a minimum monitoring frequency requirement of once per quarter for settleable solids. The daily maximum concentration limit of 0.3 ml/L is considered by the Department to be BPT for secondary treated sanitary wastewater, and the minimum monitoring frequency requirement once per quarter (01/90) is based on a Department BPJ determination of the level of monitoring necessary to assess compliance with this parameter in consideration of the facility’s past demonstrated performance.

A summary of settleable solids data as reported on the monthly DMRs for the period of February 2010 – April 2015 (n=19) indicates the maximum settleable solids concentration discharge has been in compliance with the 0.3 ml/L limit in 100% of the samples.

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

- e. Escherichia coli bacteria: This permitting action is carrying forward the previously established seasonal (between May 15 and September 30 of each year) monthly average and daily maximum concentration limits for *E. coli* bacteria of 64 colonies/100 ml (geometric mean) and 427 colonies/100 ml (instantaneous level), respectively, based on the State of Maine Water Classification Program criteria for Class B waters found at 38 M.R.S.A. §465(3)(B) along with a minimum monitoring frequency requirement of 2/Month.

During calendar year 2005, Maine’s Legislature approved new daily maximum water quality standard of 236 colonies/100 ml (col/100ml) for water bodies designated as Class B. The Department has determined that end-of-pipe limitations for the instantaneous concentration standard of 236 colonies/100 ml will be achieved through available dilution of the effluent with the receiving waters and need not be revised in MEPDES permits for facilities with adequate dilution, as is the case with the Town’s facility. Therefore, the daily maximum bacteria limit of 427 colonies/100 ml in the previous permitting action is being carried forward in this permitting action. The bacteria limits established in this permitting action are seasonal and apply between May 15 and September 30 of each year. The Department reserves the right to impose year-round bacteria limits, if necessary, to protect the health, safety and welfare of the public.

A review of the seasonal monthly DMR data for the period May 2010 – September 2014 indicates the permittee has been in compliance with the previous permit limits and the proposed permit limits in 100% of the samples for *E. coli* bacteria. A statistical summary of results follows:

<i>E. coli</i> bacteria⁺⁺					
Value	Limit (col/100 ml)	N	Range (col/100 ml)	Mean (col/100 ml)	Exceedances
Monthly Average	64	25	1.0 – 14	2.52	0
Daily Maximum	427	20	1.0 - 200	19.16	0
++ Data reflects sampling frequency of twice each month between May 15 and September 30 of each year					

- f. Total Residual Chlorine (TRC): This permitting action carries forward the previously established respective daily maximum and monthly average BPT-based concentration limits of 1.0 mg/L for TRC, as well as a minimum monitoring frequency requirement of five times per week. 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 water quality or BPT based limits. End-of-pipe acute and chronic water quality-based concentration thresholds may be calculated as follows:

Criterion		Dilution Factors	Calculated Threshold	
Acute	0.019 mg/L	2,094:1	Acute	40 mg/L
Chronic	0.011 mg/L	18,470:1	Chronic	203 mg/L

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

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine-based compounds. For facilities that must dechlorinate the effluent in order to consistently achieve compliance with 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. The town’s wastewater treatment process does not include effluent dechlorination following disinfection. Consequently, this permitting action is carrying forward the daily maximum and monthly average BPT-based concentration limit of 1.0 mg/L as it is more stringent than the water quality-based standards of 40 mg/L (acute threshold) and 203 mg/L (chronic threshold).

This permitting action is carrying forward the minimum monitoring frequency of five times per week (5/Week) based on a Department BPJ determination of the level of monitoring necessary to assess compliance with this parameter in consideration of the facility’s past demonstrated performance. Although bacteria limitations are seasonal and apply between May 15 and September 30 of each year, TRC monitoring must be conducted during any period that chlorine-based compounds are in use at the facility as TRC is toxic at all times of the year.

A review of the DMR data for the period May 2010 – September 2014 indicates the permittee has been in compliance with both the monthly average and daily maximum concentration limits 100% and has reported values as follows:

Total residual chlorine **					
Value	Limit (mg/L)	N	Range (mg/L)	Mean (mg/L)	Exceedances
Monthly Average	1.0 mg/L	25	0.68 – 0.98mg/L	0.88 mg/L	0
Daily Maximum	1.0 mg/L	25	0.68 – 0.98mg/L	0.88 mg/L	0

- g. **pH:** The previously established a technology based BPT pH range limitation of 6.0 –9.0 standard units pursuant to 06-096 CMR Chapter 525(3)(III)(c) along with a monitoring frequency of 1/Week are being carried forward in this permitting action. Historically the facility has experienced problems where the discharge is more acidic than permitted. It is noted that the acidic discharge issues are not isolated to the Whitneyville facilities and are often experienced by similar treatment facilities in the region. A review of the DMR pH data for the period February 2010 – April 2015 indicates the permitted discharge has been in compliance with both the monthly average and daily maximum concentration limits in approximately 90% of the tests (see statistical summary below).

pH					
Value	Limit (su)	N	Range (su)	Mean (su)	Exceedances
Monthly Average	6.0 – 9.0 su	58	4.5 – 7.0	6.25	5
Daily Maximum	6.0 – 9.0 su	58	5.1- 7.0	6.27	5

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

- h. Whole Effluent Toxicity (WET), Priority Pollutant, and Analytical Chemistry Testing: 38 M.R.S.A., §414-A and *Certain deposits and discharges prohibited* 38 MRSA § 420, prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. Department rule, 06-096 CMR Chapter 530, *Surface Water Toxics Control Program* (toxics rule) sets forth effluent monitoring requirements and procedures to establish safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected and narrative and numeric water quality criteria are met. Department rule 06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants* describes ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters. Chapter 530 § (2)(A) states that “...all licensed dischargers of industrial process wastewater or domestic wastes discharging to surface waters of the State must meet the testing requirements of this section. Dischargers of other types of wastewater are subject to this subsection when and if the Department determines that toxicity of effluents may have reasonable potential to cause or contribute to exceedences of narrative or numerical water quality criteria.”

Chapter 530 § 2.A specifies the criteria for exemption of certain discharges from toxics testing as follows:

- (1) Discharges from individual discharge points licensed to discharge less than 50,000 gallons per day of solely domestic wastewater and with a chronic dilution factor of at least 50 to 1, provided no holding tank wastes containing chemicals are accepted by the facility;
- (2) Discharges from residential overboard discharge systems; or
- (3) Discharges from combined sewer overflow discharge points, provided the owner of the sewerage system is conducting or participating in a discharge abatement program.

The permittee's facility is exempt from the Chapter 530 requirements as it permitted to discharge less than 50,000 gpd, the 18,470:1 chronic dilution factor is greater than 50:1 (based on permitted flow of 0.0021) and the wastewater has domestic-like characteristics. 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 L, *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 the discharge will not cause or contribute to the failure of Machias River to meet standards for Class B classification.

8. PUBLIC COMMENTS

Public notice of this application was made in the *Machias Valley News Observer* newspaper on or about March 11, 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:

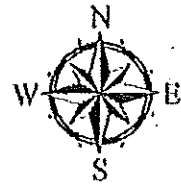
Rodney Robert
Division of Water Quality Management
Bureau of Land & Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 446-1875
e-mail: rodney.robert@maine.gov

10. RESPONSE TO COMMENTS

Reserved until the end of the formal 30 day comment period.

ATTACHMENT A
WHITNEYVILLE
FACILITY LOCATION MAP

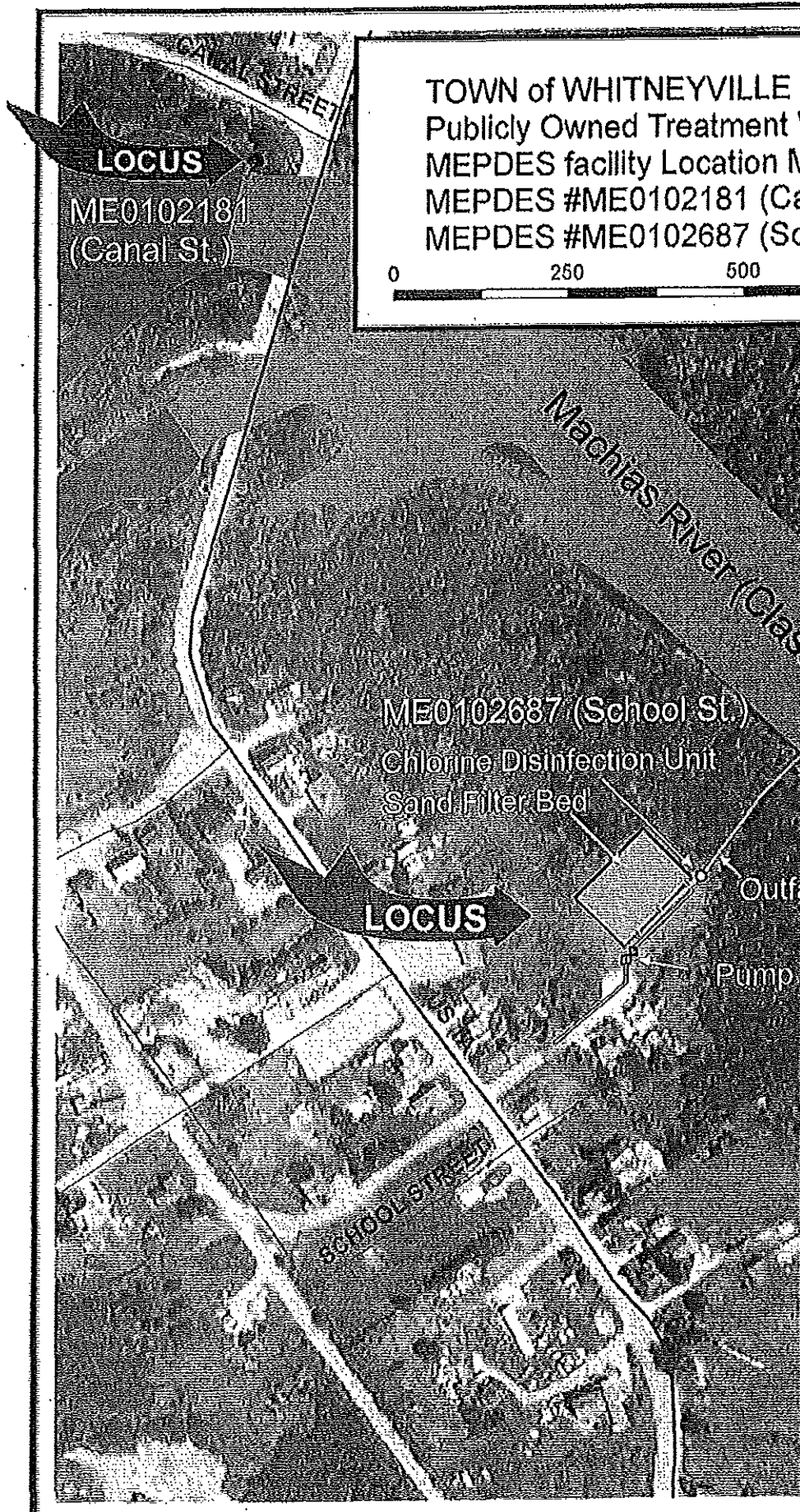
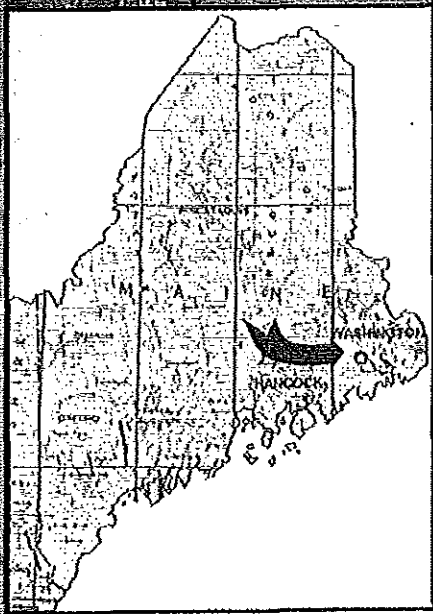
TOWN of WHITNEYVILLE
 Publicly Owned Treatment Works
 MEPDES facility Location Map
 MEPDES #ME0102181 (Canal Street)
 MEPDES #ME0102687 (School Street)



Legend

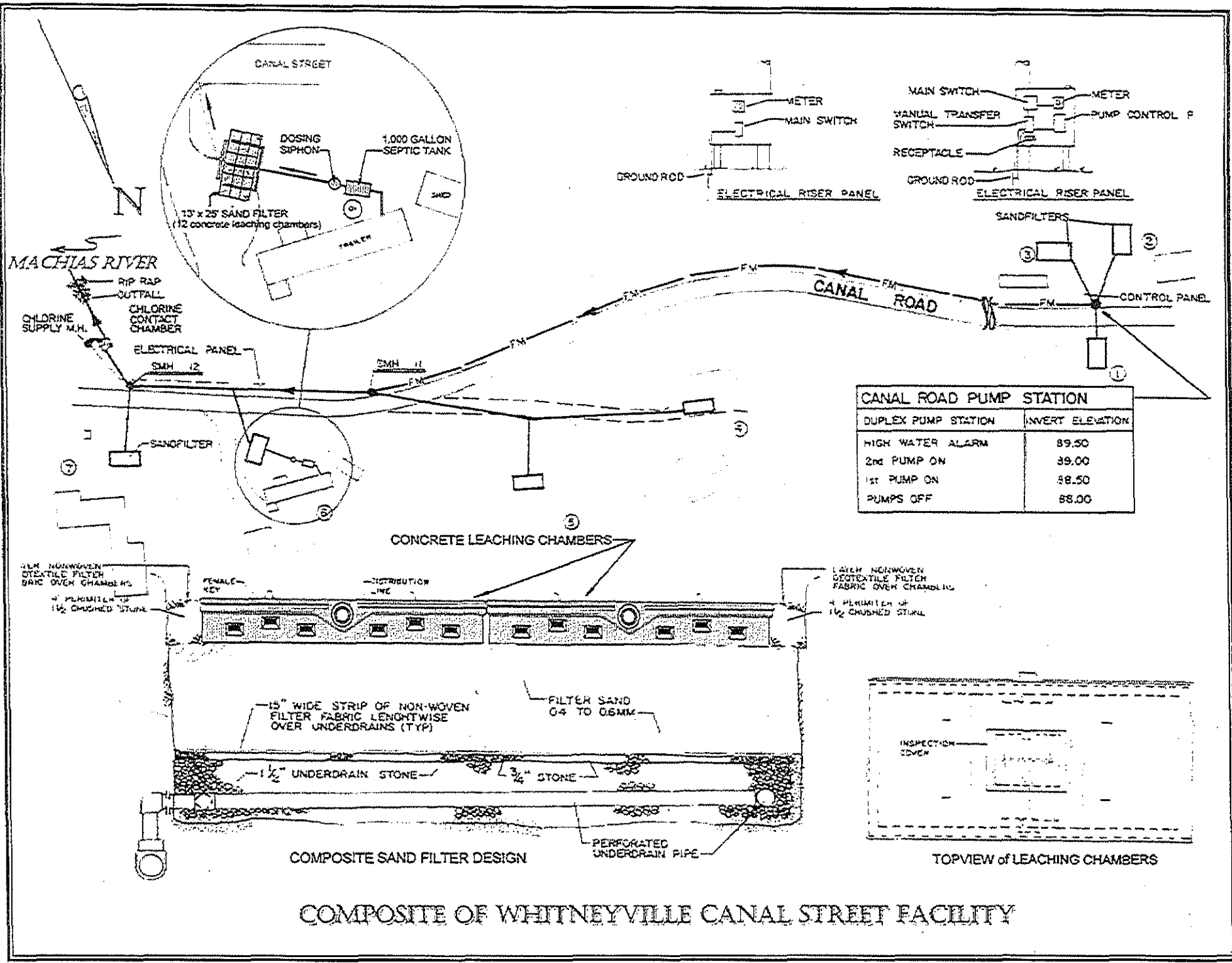
- Wastewater Outfalls
- Roads**
- JURISDICTION**
- Private
- Park Road
- Seasonal pathway
- State aided
- State hwy
- Town Road - summer
- Town Road - winter
- Toll highway
- Town Road
- RIVER CLASSIFICATION**
- AA
- A
- B
- C

ME0102687 (School St.)
 Chlorine Disinfection Unit
 Sand Filter Bed
 Outfall Pipe
 Pump Station



ATTACHMENT B

Sewer System Layout



CANAL ROAD PUMP STATION	
DUPLEX PUMP STATION	INVERT ELEVATION
HIGH WATER ALARM	89.50
2nd PUMP ON	89.00
1st PUMP ON	88.50
PUMPS OFF	88.00

COMPOSITE OF WHITNEYVILLE CANAL STREET FACILITY

ATTACHMENT C



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAPTER 530.2(D)(4) CERTIFICATION

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
Commissioner

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?	<input type="checkbox"/>	<input type="checkbox"/>
2	Changes in the condition or operations of the facility that may increase the toxicity of the discharge?	<input type="checkbox"/>	<input type="checkbox"/>
3	Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge?	<input type="checkbox"/>	<input type="checkbox"/>
4	Increases in the type or volume of hauled wastes accepted by the facility?	<input type="checkbox"/>	<input type="checkbox"/>

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	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
WET Testing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Priority Pollutant Testing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analytical Chemistry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other toxic parameters ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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.

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AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

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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 04769-2094
(207) 764-0477 FAX: (207) 760-3143