STATE OF MAINE

Department of Environmental Protection

Paul R. LePage
GOVERNOR

Patricia Aho
ACTING COMMISSIONER

September 12, 2011

Mr. Willis T. Emmons
District Manager
Kennebunk Sewer District
P.O. Box 648, 71 Water Street
Kennebunk, ME. 04043-0648

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0100935
Maine Waste Discharge License (WDL) #W002585-6D-E-R
Final Permit

Dear Mr. Emmons:

Enclosed please find a copy of your **final** MEPDES permit and Maine WDL (permit hereinafter) which was approved by the Department of Environmental Protection. Please read the permit and its attached conditions carefully. You must follow the conditions in the order to satisfy the requirements of law. Any discharge not receiving adequate treatment is in violation of State Law and is subject to enforcement action.

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled "*Appealing a Commissioner's Licensing Decision*."

If you have any questions regarding the matter, please feel free to call me at 287-7693.

Sincerely,

Gregg Wood
Division of Water Quality Management
Bureau of Land and Water Quality

Enc.
cc: Matt Hight, DEP/SMRO
Sandy Mojica, USEPA

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

DEPARTMENT ORDER

IN THE MATTER OF

KENNEBUNK SEWER DISTRICT)	MAINE POLLUTANT DISCHARGE
KENNEBUNK, YORK COUNTY, MAINE)	ELIMINATION SYSTEM PERMIT
PUBLICLY OWNED TREATMENT WORKS)	AND
ME0100935)	WASTE DISCHARGE LICENSE
W002585-6D-E-R **APPROVAL**)	**RENEWAL**

Pursuant to the provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251, et seq., and Maine law, 38 M.R.S.A., Section 414-A et seq., and applicable regulations, the Department of Environmental Protection (Department hereinafter) has considered the application of the KENNEBUNK SEWER DISTRICT (KSD/permittee hereinafter)**,** with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

The KSD has filed a timely and complete application with the Department to renew combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0100935/Maine Waste Discharge License (WDL) #W002585-5L-D-R (permit hereinafter) which was issued by the Department on September 18, 2006, and is due to expire on September 18, 2011. The 9/18/06 permit approved the monthly average discharge of up to 1.31 million gallons per day (MGD) of secondary treated waste water from the District's municipal waste water treatment facility to the tidal portion of the Mousam River, Class SB, in Kennebunk, Maine.

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions of the 9/18/06 permit except that this permit is;

1. Eliminating the monthly average and or daily maximum water quality based mass and concentration limits for bis(2-ethylhexyl)phthalate and total copper. A statistical evaluation conducted on the most current 60-months of test results on file at the Department for said parameters indicates none of the test results exceed or have a reasonable potential to exceed applicable ambient water quality criteria (AWQC).

2. Establishing an acute no observed effect level (A-NOEL) of 12% for the sea urchin and a chronic no observed effect level (C-NOEL) of 8.4% for the sea urchin. A statistical evaluation conducted on the most current 60-months of WET test results on file at the Department for said WET species indicates one test result for each species has a reasonable potential to exceed the critical water quality based thresholds based on the applicable dilution factors.

CONCLUSIONS

BASED on the findings in the Fact Sheet dated July 11, 2011, 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 MRSA 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) The standards of classification of the receiving water body are met or, 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

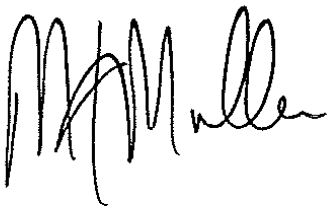
THEREFORE, the Department APPROVES the above noted application of the KENNEBUNK SEWER DISTRICT to discharge secondary treated waste waters to the Mousam River, Class SB, in Kennebunk, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

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 thereafter. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of the this permit, the terms and conditions of the 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) (effective April 1, 2003)].

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES



This permit is digitally signed by Michael Mullen on behalf of Acting Commissioner Patricia Aho. It is digitally signed pursuant to 10 M.R.S.A. § 9418. It has been filed with the Board of Environmental Protection as of the signature date.
2011.09.12 10:17:49 -04'00'

Date of initial receipt of application June 24, 2011 .
Date of application acceptance June 30, 2011 .

This order prepared by Gregg Wood, Bureau of Land and Water Quality.
ME0100935 2011 9/9/11

SPECIAL CONDITIONS
A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS – OUTFALL #001

1. The permittee is authorized to discharge secondary treated waste waters from **Outfall 001A** (existing outfall) or **Outfall 001B** (proposed alternate outfall) to the Mousam River. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	**Discharge Limitations**						**Minimum Monitoring Requirements**	
	Monthly Average	**Weekly Average**	**Daily Maximum**	**Monthly Average**	**Weekly Average**	**Daily Maximum**	**Measurement Frequency**	**Sample Type**
Flow, MGD *[50050]*	Report MGD *[03]*	---	Report MGD *[03]*	---	---	---	Continuous *[99/99]*	Recorder *[RC]*
BOD_5 *[00310]*	328 #/Day *[26]*	492 #/Day *[26]*	546 #/Day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	2/Week *[02/07]*	Composite *[24]*
BOD_5 % Removal (1) ***[81010]***	---	---	---	85 % ***[23]***	---	---	1/Month ***[01/30]***	Calculate ***[CA]***
TSS *[00530]*	328 #/Day *[26]*	492 #/Day *[26]*	546 #/Day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	2/Week *[02/07]*	Composite *[24]*
TSS *[00530]* (*Annual Average)*	186 #/Day(2) *[26]*	---	---	---	---	---	1/Year *[01/YR]*	Calculate ***[CA]***
TSS % Removal (1) ***[81011]***	---	---	---	85 % ***[23]***	---	---	1/Month ***[01/30]***	Calculate ***[CA]***
Settleable Solids *[00545]*	---	---	---	---	---	0.3 ml/L *[25]*	5/Week *[05/07]*	Grab *[GR]*
Fecal Coliform Bacteria(3) *(Year round)* *[31616]*	---	---	---	15/100 ml(4) *[13]*	---	50/100 ml *[13]*	3/Week *[03/07]*	Grab *[GR]*
Total Residual Chlorine (5) *[50060]*	---	---	---	0.09 mg/L *[19]*	---	0.13 mg/L *[19]*	1/Day *[01/01]*	Grab *[GR]*
pH *[00400]*	---	---	---	---	---	6.0-9.0 S.U. *[12]*	1/Day *[01/01]*	Grab *[GR]*
Dissolved oxygen *[00300]* *(June 1st – October 15th)*	---	---	---	---	≥8.0 mg/L(6) *[19]*	---	Continuous *[99/99]*	Recorder *[RC]*

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

***SURVEILLANCE LEVEL TESTING* – Beginning upon permit issuance and lasting through 12 months prior to permit expiration.**

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity[7] **Acute – NOEL** *Mysidopsis bahia* [TDM3E] *(Mysid Shrimp)*	---	---	---	12 % [23]	2/Year [02/YR]	Composite [24]
Chronic – NOEL *Arbacia punctulata* [TBH3A] *(Sea urchin)*	---	---	---	8.4 % [23]	2/Year [02/YR]	Composite [24]
Analytical chemistry[8,9] [51168]	---	---	---	Report ug/L [28]	1/Year [01/YR]	Composite/Grab [24]
Ammonia (as N) [61574] *(June 1st – October 15th)*	---	76 #/Day [26]	---	7.0 mg/L [19]	1/Month [01/30]	Composite [24]

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

SCREENING LEVEL TESTING **- Beginning 12 months prior to and lasting through permit expiration and every five years thereafter.**

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	**Daily Maximum**	**Monthly Average**	**Daily Maximum**	**Measurement Frequency**	**Sample Type**
Whole Effluent Toxicity[7] **Acute – NOEL** *Mysidopsis bahia* [TDM3E] *(Mysid Shrimp)*	---	---	---	Report % [23]	1/Quarter [01/90]	Composite [24]
Chronic – NOEL *Arbacia punctulata* [TBH3A] *(Sea urchin)*	---	---	---	Report % [23]	1/Quarter [01/90]	Composite [24]
Analytical chemistry[8,9] [51168]	---	---	---	Report ug/L [28]	1/Quarter [01/90]	Composite/Grab [24]
Priority pollutant[9] [50008]	---	---	---	Report ug/L [28]	1/Year [01/YR]	Composite/Grab [24]
Ammonia (as N) [61574] *(June 1st – October 15th)*	---	76 #/Day [26]	---	7.0 mg/L [19]	1/Month [01/30]	Composite [24]

SPECIAL CONDITIONS

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

Footnotes:

Sampling Locations:

Influent sampling for BOD_5 and TSS shall be conducted before the parshall flume.

Effluent sampling shall be conducted after dechlorination. Dissolved oxygen measurements shall be taken in the surge tank.

Any change in sampling location(s) must be reviewed and approved by the Department in writing.

Sampling and analysis must be conducted in accordance with; a) methods approved in 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 shall be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services. Samples that are sent to another POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S.A. § 413 or laboratory facilities that analyze compliance samples in-house 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).

All analytical test results shall be reported to the Department including results which are detected below the respective reporting limits (RLs) specified by the Department or as specified by other approved test methods. See **Attachment A** of this permit for a list the Department's RLs. If a non-detect analytical test result is below the respective RL, the concentration result shall be reported as <Y where Y is the RL achieved by the laboratory for each respective parameter. Reporting a value of <Y that is greater than an established RL or reporting an estimated value ("J" flagged) is not acceptable and will be rejected by the Department. Reporting analytical data and its use in calculations must follow established Department guidelines specified in this permit or in available Department guidance documents.

1. **Percent removal** – For secondary treated waste waters, the facility shall maintain a minimum of 85 percent removal of both BOD_5 and TSS. The percent removal shall be based on a monthly average calculation using influent and effluent concentrations. The percent removal shall be waived when the monthly average influent concentration is less than 200 mg/L. For instances when this occurs, the facility shall report "*NODI-9*" on the monthly Discharge Monitoring Report.

SPECIAL CONDITIONS

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

Footnotes:

2. **TSS -** The TSS limitation of 186 #/Day is an annual average limitation and is applicable January 1st – December 31st of each year.

3. **Fecal coliform bacteria -** Limits and monitoring requirements are in effect on a year-round basis.

4. **Fecal coliform bacteria** – The monthly average limitation is a geometric mean limitation and values shall be calculated and reported as such.

5. **Total residual chlorine (TRC)** – Monitoring for TRC is only required when elemental chlorine or chlorine-based compounds are in use for effluent disinfection. The permittee shall utilize approved test methods that are capable of bracketing the TRC limitation in this permit.

6. **Dissolved Oxygen** – The limitation is a minimum weekly average limitation and is seasonal (June 1st – October 15th) and is only applicable when the Mousam River is <150 cfs at the point of discharge.

7. **Whole Effluent Toxicity (WET) Testing** – Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions bracketing the critical acute and chronic water quality thresholds of 12% and 8.4%, respectively), which provides a point estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOEC. A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level with survival, reproduction and growth as the end points.

    a. **Surveillance level testing -** Beginning upon permit issuance and lasting through 12 months prior to permit expiration, the permittee shall conduct surveillance level WET testing. Acute tests shall be conducted on the mysid shrimp (Mysidopsis bahia) and chronic tests shall be conducted on the sea urchin (Arbacia punctulata) at a frequency of 2/Year. Tests are to be conducted in a different calendar quarter of each year such that tests are conducted in all four calendar quarters in the first four years of the term of this permit.

    b. **Screening level testing -** Beginning 12 months prior to and lasting through permit expiration and every five years thereafter, the permittee shall conduct screening level WET testing at a minimum frequency of once per calendar quarter (1/Quarter) for four consecutive calendar quarters.

SPECIAL CONDITIONS

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

Footnotes:

The permittee is also required to analyze the effluent for the parameters specified in the analytical chemistry on the form in **Attachment A** of this permit each time a WET test is performed. WET test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit, provided however, that the permittee may review the laboratory reports for up to 10 business days of their availability before submitting them. The permittee shall evaluate test results being submitted and identify to the Department possible exceedences of the critical acute and chronic water quality thresholds of 12% and 8.4%, respectively.

See **Attachment B** of this permit for the Department's WET report form.

Toxicity tests must be conducted by an experienced laboratory approved by the Department. The laboratory must follow procedures as described in the following USEPA methods manuals.

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

b. U.S. Environmental Protection Agency. 2002. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organism*s, 3rd ed. EPA 821-R-02-014. U.S. Environmental Protection Agency, Office of Water, Washington, D.C., October 2002 (the marine chronic method manual)

8. **Analytical chemistry** – Refers to a suite of chemical tests in **Attachment A** of the permit.

   a. **Surveillance level testing** – Beginning upon permit issuance and lasting through 12 months prior to permit expiration, the permittee shall conduct analytical chemistry testing at a minimum frequency of once per year (1/Year). Tests are to be conducted in a different calendar quarter of each year such that tests are conducted in all four calendar quarters in the first four years of the term of this permit.

   b. **Screening level testing** – Beginning 12 months prior to and lasting through permit expiration and every five years thereafter, the permittee shall conduct analytical chemistry testing at a minimum frequency of once per calendar quarter (1/Quarter) for four consecutive calendar quarters.

SPECIAL CONDITIONS

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

Footnotes:

9. **Priority pollutant testing** – Refers to a suite of chemical tests in **Attachment A** of the permit.

   a. **Screening level testing** - Beginning 12 months prior to permit expiration and lasting through permit expiration, the permittee shall conduct screening level priority pollutant testing at a minimum frequency of once per year (1/Year). It is noted Department rule Chapter 530 does not establish routine surveillance level priority pollutant testing.

   Analytical chemistry and priority pollutant testing shall be conducted on samples collected at the same time as those collected for whole effluent toxicity tests, when applicable, and shall be conducted using methods that permit detection of a pollutant at existing levels in the effluent or that achieve minimum reporting levels of detection as specified by the Department. See **Attachment A** of this permit for a list of the Department's reporting limits.

   Analytical chemistry and priority pollutant test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit, provided, however, that the permittee may review the laboratory reports for up to 10 business days of their availability before submitting them. The permittee shall evaluate test results being submitted and identify to the Department, possible exceedences of the acute, chronic or human health AWQC as established in Chapter 584. For the purposes of DMR reporting, enter a "1" for yes, testing done this monitoring period or "NODI-9" monitoring not required this period.

SPECIAL CONDITIONS

B. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent shall not contain a visible oil sheen, foam or floating solids at any time which would impair the usage's designated by 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 usage's designated by the classification of the receiving waters.

3. The discharge shall not cause visible discoloration or turbidity in the receiving waters which would impair the usages 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 treatment facility must be operated by a person holding a minimum of a **Grade III** certificate (or Registered Maine Professional Engineer) pursuant to *Sewerage Treatment Operators,* 32 M.R.S.A. §§ 4171-4182 and *Regulations for Wastewater Operator Certification,* 06-096 CMR 531 (effective May 8, 2006). All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

D. LIMITATIONS FOR INDUSTRIAL USERS

Pollutants introduced into the waste water collection and treatment system by a non-domestic source (user) shall not pass through or interfere with the operation of the treatment system.

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 30, 2011; 2) the terms and conditions of this permit; and 3) only from Outfall #001A. 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 introduction of pollutants into the waste water collection and treatment system from an indirect discharger in a primary industrial category discharging process waste waters; and;

2. Any substantial change in the volume or character of pollutants being introduced into the waste water collection and treatment system.

3. For the purposes of this section, adequate notice shall include information on:

   (a) the quality and quantity of waste water introduced to the waste water collection and treatment system; and

   (b) any anticipated impact of the change in the quantity or quality of the waste water to be discharged from the treatment system.

G. WET WEATHER FLOW MANAGEMENT PLAN

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

The plan 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.

SPECIAL CONDITIONS

H. OPERATION & MAINTENANCE (O&M) PLAN

The permittee 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 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 other regulatory 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.

I. DISPOSAL OF TRANSPORTED WASTES IN WASTEWATER TREATMENT FACILITY

During the effective period of this permit, the permittee is authorized to receive and introduce into the treatment process or solids handling stream **a daily maximum of 6,000 gallons per day** of transported wastes, subject to the following terms and conditions.

1. **“**Transported wastes" means any liquid non-hazardous waste delivered to a wastewater treatment facility by a truck or other similar conveyance that has different chemical constituents or a greater strength than the influent described on the facility’s application for a waste discharge license. Such wastes may include, but are not limited to septage, industrial wastes or other wastes to which chemicals in quantities potentially harmful to the treatment facility or receiving water have been added.

2. The character and handling of all transported wastes received must be consistent with the information and management plans provided in application materials submitted to the Department.

3. At no time shall the addition of transported wastes cause or contribute to effluent quality violations. Transported wastes may not cause an upset of or pass through the treatment process or have any adverse impact on the sludge disposal practices of the wastewater treatment facility.

SPECIAL CONDITIONS

I. DISPOSAL OF TRANSPORTED WASTES IN WASTEWATER TREATMENT FACILITY (cont'd)

Wastes that contain heavy metals, toxic chemicals, extreme pH, flammable or corrosive materials in concentrations harmful to the treatment operation must be refused. Odors and traffic from the handling of transported wastes may not result in adverse impacts to the surrounding community. If any adverse effects exist, the receipt or introduction of transported wastes into the treatment process or solids handling stream shall be suspended until there is no further risk of adverse effects.

4. The permittee shall maintain records for each load of transported wastes in a daily log which shall include at a minimum the following.
   (a) The date;
   (b) The volume of transported wastes received;
   (b) The source of the transported wastes;
   (d) The person transporting the transported wastes;
   (e) The results of inspections or testing conducted;
   (f) The volumes of transported wastes added to each treatment stream; and
   (g) The information in (a) through (d) for any transported wastes refused for acceptance.

   These records shall be maintained at the treatment facility for a minimum of five years.

5. The addition of transported wastes into the treatment process or solids handling stream shall not cause the treatment facility's design capacity to be exceeded. If, for any reason, the treatment process or solids handling facilities become overloaded, introduction of transported wastes into the treatment process or solids handling stream shall be reduced or terminated in order to eliminate the overload condition.

6. Holding tank wastewater from domestic sources to which no chemicals in quantities potentially harmful to the treatment process have been added shall not be recorded as transported wastes but should be reported in the treatment facility's influent flow.

7. During wet weather events, transported wastes may be added to the treatment process or solids handling facilities only in accordance with a current Wet Weather Flow Management Plan approved by the Department that provides for full treatment of transported wastes without adverse impacts.

8. In consultation with the Department, chemical analysis is required prior to receiving transported wastes from new sources that are not of the same nature as wastes previously received. The analysis must be specific to the type of source and designed to identify concentrations of pollutants that may pass through, upset or otherwise interfere with the facility's operation.

SPECIAL CONDITIONS

I. DISPOSAL OF TRANSPORTED WASTES IN WASTEWATER TREATMENT FACILITY (cont'd)

9. Access to transported waste receiving facilities may be permitted only during the times specified in the application materials and under the control and supervision of the person responsible for the wastewater treatment facility or his/her designated representative.

10. The authorization is subject to annual review and, with notice to the permittee and other interested parties of record, may be suspended or reduced by the Department as necessary to ensure full compliance with Chapter 555 of the Department's rules and the terms and conditions of this permit.

J. 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 ***[PCS Code 95799]***: See **Attachment F** 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 exceedences of ambient water quality criteria/thresholds.

SPECIAL CONDITIONS

K. MERCURY

All mercury sampling (1/Year) required by this permit or required to determine compliance with interim limitations established pursuant to Department rule Chapter 519, shall be conducted in accordance with EPA's "clean sampling techniques" found in EPA Method 1669, Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels. All mercury analysis shall be conducted in accordance with EPA Method 1631, Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry. See **Attachment C,** *Effluent Mercury Test Report*, of this permit for the Department's form for reporting mercury test results.

L. 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.

M. 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^{th}) 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^{th}) 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:

Department of Environmental Protection
Southern Maine Regional Office
Bureau of Land and Water Quality
Division of Water Quality Management
312 Canco Road
Portland, Maine 04103

SPECIAL CONDITIONS

M. MONITORING AND REPORTING (cont'd)

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 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.

N. 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.

ATTACHMENT A

Printed 7/14/2009

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

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

Licensed Flow (MGD)	
Acute dilution factor	
Chronic dilution factor	
Human health dilution factor	
Criteria type: M(arine) or F(resh)	**M**

Flow for Day (MGD)[1] _____ **Flow Avg. for Month (MGD)[2]** _____

Date Sample Collected _____ Date Sample Analyzed _____

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

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

MARINE AND ESTUARY VERSION

Please see the footnotes on the last page.

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

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

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

Maine Department of Environmental Protection
WET and Chemical Specific Data Report Form
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V	ACROLEIN	NA									
V	ACRYLONITRILE	NA									
V	BENZENE	5									
V	BROMOFORM	5									
V	CARBON TETRACHLORIDE	5									
V	CHLOROBENZENE	6									
V	CHLORODIBROMOMETHANE	3									
V	CHLOROETHANE	5									
V	CHLOROFORM	5									
V	DICHLOROBROMOMETHANE	3									
V	ETHYLBENZENE	10									
V	METHYL BROMIDE (Bromomethane)	5									
V	METHYL CHLORIDE (Chloromethane)	5									
V	METHYLENE CHLORIDE	5									
V	TETRACHLOROETHYLENE (Perchloroethylene or Tetrachloroethene)	5									
V	TOLUENE	5									
V	TRICHLOROETHYLENE (Trichloroethene)	3									
V	VINYL CHLORIDE	5									

Notes:

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

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

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

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

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

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

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

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

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

Comments:

ATTACHMENT B

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
WHOLE EFFLUENT TOXICITY REPORT
MARINE WATERS

Facility Name _____ MEPDES Permit # _____

Pipe # _____

Facility Representative _____ Signature _____

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

Facility Telephone # _____ Date Collected _____ Date Tested _____

mm/dd/yy mm/dd/yy

Chlorinated? _____ Dechlorinated? _____

Results **% effluent**

	mysid shrimp	**sea urchin**
A-NOEL		
C-NOEL		

Effluent Limitations

A-NOEL	
C-NOEL	

Data summary

	mysid shrimp	**sea urchin**
	% survival	**% fertilized**
QC standard	**>90**	**>70**
lab control		
receiving water control		
conc. 1 (%)		
conc. 2 (%)		
conc. 3 (%)		
conc. 4 (%)		
conc. 5 (%)		
conc. 6 (%)		
stat test used		

place * next to values statistically different from controls

Salinity Adjustment

brine	
sea salt	
other	

Reference toxicant

	mysid shrimp A-NOEL	sea urchin C-NOEL
toxicant / date		
limits (mg/L)		
results (mg/L)		

Comments _____

Laboratory conducting test

Company Name _____ Company Rep. Name (Printed) _____

Mailing Address _____ Company Rep. Signature _____

City, State, ZIP _____ Company Telephone # _____

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

ATTACHMENT C

Maine Department of Environmental Protection

Effluent Mercury Test Report

Name of Facility: _____ Federal Permit # ME _____

Pipe # _____

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

SAMPLE COLLECTION INFORMATION

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

Sampling Location:

Weather Conditions: _____

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

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

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

ANALYTICAL RESULT FOR EFFLUENT MERCURY

Name of Laboratory: _____

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

Please Enter Effluent Limits for your facility

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

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

CERTIFICATION

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

By: _____ Date: _____

Title: _____

PLEASE MAIL THIS FORM TO YOUR ASSIGNED INSPECTOR

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: July 11, 2011

PERMIT NUMBER: **ME0100935**
LICENSE NUMBER: **W002585-6D-E-R**

NAME AND ADDRESS OF APPLICANT:

KENNEBUNK SEWER DISTRICT
P.O. Box 648, 71 Water Street
Kennebunk, ME. 04043-0648

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

71 Water Street
Kennebunk, Maine

RECEIVING WATER/CLASSIFICATION: **Mousam River / Class SB**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Willis T. Emmons**
District Manager
(207) 985-4741 x28
E-mail: ksdistrict@gwi.net

1. APPLICATION SUMMARY

a. Application: The KSD has filed a timely and complete application with the Department to renew combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0100935/Maine Waste Discharge License (WDL) #W002585-5L-D-R (permit hereinafter) which was issued by the Department on September 18, 2006, and is due to expire on September 18, 2011. The 9/18/06 permit approved the monthly average discharge of up to 1.31 million gallons per day (MGD) of secondary treated waste water from the District's municipal waste water treatment facility to the tidal portion of the Mousam River, Class SB, in Kennebunk, Maine. See **Attachment A** of this Fact Sheet for an aerial photograph showing the location and the layout of the waste water treatment facility.

1. APPLICATION SUMMARY (cont'd)

b. Source Description: The facility located at 71 Water Street in the Town of Kennebunk treats domestic, industrial, and commercial waste waters generated by approximately 3,100 users within the District's boundaries. There are no significant industrial users (contributing more than 10% of the volume of waste water received by the treatment facility) currently contributing to the waste stream treated at the facility.
```

The KSD maintains a 99% separated sewage collection system that is approximately 40 miles in length with 28 pump stations. All pump stations have back-up power via on-site emergency generators or are fitted with receptacles such that a portable generator can be used to supply power in the event of a power failure.

The previous permit authorized the District to receive up to 6,000 gallons per day (gpd) of septage. See Section 6(K) of this Fact Sheet.

c. Waste Water Treatment: Waste waters conveyed to the treatment facility receive a preliminary level of treatment via a step-screen and grit removal followed by flow measurement via a 9-inch Parshall flume. After flow measurement, waste waters receive a primary level of treatment via two primary clarifiers measuring 45 feet in diameter with sidewall depths of 12 feet. The primary clarifiers are operated in parallel. After primary treatment, water receives a secondary level of treatment via three trains of three high density rotating biological contactors (RBC's), each being approximately 12 feet in diameter, 23 feet long and having a surface area of approximately 100,000 square feet After biological treatment waste water is conveyed to two secondary clarifiers each measuring 45 feet in diameter with sidewall depths of 14 feet. As part of a recent upgrade to the facilities, a recycle stream from the secondary clarifiers was added so that the RBC basins also act as activated sludge tanks. Therefore, a hybrid secondary system that contains both attached growth (on the RBCs) and suspended growth (in the RBC basins) has been created. This was done with the intent to improve the treatment performance of the former system. Also included in the facility improvements was the addition of chlorine contact tanks. The permittee disinfects the waste water with sodium hypochlorite and dechlorinates with sodium bisulfite prior to being discharged to the Mousam River. Control of the system is aided by an oxidation reduction potential (ORP) meter and continuous monitoring of chlorine residual levels. The outfall pipe measures 18 inches in diameter and extends out into the receiving water such that there is approximately 1.0 foot of water over the crown of the pipe at mean low water. See **Attachment B** of this Fact Sheet for a schematic of the waste water treatment process.

The facility also has sludge storage tanks for processing sludge generated on site. The sludge is dewatered by two Huber Rotamat® ROS3 Q440 Inclined screw presses and shipped offsite for composting.
```

1. APPLICATION SUMMARY (cont'd)

During precipitation events of 3 inches or more in a 24-hour period of time along with excessive inflow/infiltration conditions, the facility receives flows greater than the capacity of the secondary treatment components of the treatment facility. Peak hourly flows greater the 2.31 MGD are rerouted to a dedicated treatment line that consists of a storm water clarifier for settling. The wet weather flows then enter the chlorine contact chamber where it is commingled with secondary treated effluent. Sodium hypochlorite is utilized to disinfect and sodium bisulfite is used to dechlorinate the waste stream. Secondary treated waste waters are then discharged to the Mousam River via Outfall #001.

2. PERMIT SUMMARY

a. History: The most current relevant licensing/permitting actions for the KSD facility included the following:

June 20, 1994 – The Department issued WDL #W002585-46-B-R for a five-year term.

October 2, 1996 - The U.S. Environmental Protection Agency (EPA) issued a renewal of National Pollutant Discharge Elimination System (NPDES) permit #ME0100935 for a five-year term.

November 3, 1997 – The Department administratively modified the 6/20/94 WDL by establishing revised monthly average (geometric mean) and daily maximum technology based limitations for fecal coliform bacteria.

April 30, 1999 – The Department issued WDL modification W002585-5L-C-M. The modification established limitations and monitoring requirements for whole effluent toxicity (WET) species as well as monthly average and or daily maximum water quality based limits for ammonia, copper, cyanide, lead and nickel.

May 23, 2000 – The Department administratively modified the 6/20/94 WDL by establishing interim average and maximum concentration limits for mercury.

January 12, 2001 – The State of Maine received authorization from the EPA to administer the NPDES permitting program. From that date forward, the permitting program has been referred to as the MEPDES permit program and permit #ME0100935 (same as the NPDES permit number) has been used as the primary reference number for the KSD facility.

2. PERMIT SUMMARY

March 11, 2002 – The Department administratively modified the 6/20/94 WDL by requiring year-round disinfection as opposed to seasonal (May 15th – September 30th) disinfection.

November 2005 – The Department issued a document entitled Draft Mousam River Estuary Modeling Report, November 2005, for public review and comment.

April 10, 2006 – The Department administratively modified 6/20/94 WDL by establishing limitations and monitoring requirements for whole effluent toxicity (WET) and chemical specific parameters pursuant to a new Department rules Chapter 530, *Surface Water Toxics Control Program* and Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants.*

September 18, 2006 – The Department issued combination MEPDES permit #ME0100935/WDL #W002585-5L-D-R for a five-year term.

June 24, 2011 – The KSD submitted a timely and complete application to the Department for the renewal of the MEPDES permit for the waste water treatment facility.

b. Terms and Conditions This permitting action is carrying forward all the terms and conditions of the 9/18/06 permit except that this permit is;

1. Eliminating the monthly average and or daily maximum water quality based mass and concentration limits for bis(2-ethylhexyl)phthalate and total copper. A statistical evaluation conducted on the most current 60-months of test results on file at the Department for said parameters indicates none of the test results exceed or have a reasonable potential to exceed applicable ambient water quality criteria (AWQC).

2. Establishing an acute no observed effect level (A-NOEL) of 12% for the sea urchin and a chronic no observed effect level (C-NOEL) of 8.4% for the sea urchin. A statistical evaluation conducted on the most current 60-months of WET test results on file at the Department for said WET species indicates one test result for each species has a reasonable potential to exceed the critical water quality based thresholds based on the applicable dilution factors.

3. CONDITIONS OF PERMITS

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., Section 469 states that the Mousam River at and below the KSD's discharge is classified as a Class SB waterway. Maine law 38 M.R. S.A. Section 465(B)(2) describes the standards for this classification.

Class SB waters must be of such quality that they are suitable for the designated uses of recreation in and on the water, fishing, aquaculture, propagation and harvesting of shellfish, industrial process and cooling water supply, hydroelectric power generation, navigation and as habitat for fish and other estuarine and marine life. The habitat must be characterized as unimpaired.

The dissolved oxygen content of Class SB waters must be not less than 85% of saturation. Between May 15th and September 30th, the numbers of enterococcus bacteria of human and domestic animal origin in these waters may not exceed a geometric mean of 8 per 100 milliliters or an instantaneous level of 54 per 100 milliliters. In determining human and domestic animal origin, the department shall assess licensed and unlicensed sources using available diagnostic procedures. The numbers of total coliform bacteria or other specified indicator organisms in samples representative of the waters in shellfish harvesting areas may not exceed the criteria recommended under the National Shellfish Sanitation Program, United States Food and Drug Administration.

Discharges to Class SB waters may not cause adverse impact to estuarine and marine life in that the receiving waters must be of sufficient quality to support all estuarine and marine species indigenous to the receiving water without detrimental changes in the resident biological community. There may be no new discharge to Class SB waters that would cause closure of open shellfish areas by the Department of Marine Resources. For the purpose of allowing the discharge of aquatic pesticides approved by the department for the control of mosquito-borne diseases in the interest of public health and safety, the

4. RECEIVING WATER QUALITY STANDARDS

department may find that the discharged effluent will not cause adverse impact to estuarine and marine life as long as the materials and methods used provide protection for non-target species. When the department issues a license for the discharge of aquatic pesticides authorized under this paragraph, the department shall notify the municipality in which the application is licensed to occur and post the notice on the department's publicly accessible website.

5. RECEIVING WATER QUALITY CONDITIONS

The Mousam River Estuary is located in the south coastal area of Maine in York County. The drainage area of the Mousam River is 113 mi.^{2} at its mouth. In 1995, the Department established a study area extending from head of tide in Kennebunk downstream to the Rt. 9 bridge, a distance of approximately 2.8 river miles. Currently, the KSD is permitted to discharge to the Mousam River Estuary at the approximate location of head of tide. The estuary is classified as a Class SB waterway.

Fresh water river flow in the Mousam River is regulated by Estes Lake and Old Falls dams. Current operation is store and release mode. Estes Lake Dam and Old Falls Dam have been declared non-jurisdictional by FERC and consequently no minimum flow can be required by the Department through the FERC licensing process. Currently the operator has agreed to pass a minimum flow from these dams of 26 cfs or inflow whichever is less. Three additional dams are located below Old Falls dam and are operated as run-of-river by Kennebunk Light and Power. Of these, Kesslen Dam is the most downstream dam located 1000' above the KSD outfall. Formerly, the Kesslen Dam operated under an agreement with KSD for a minimum flow of 15 cfs. However, since 1997, the Kesslen Dam has also been operated as a run-of-river project.

In response to a request from KSD, intensive water quality surveys were made by Department staff on the Mousam River Estuary during 1995 and again during 1996. Some previous years' data from 1992 and 1994 are also available. Additional data (river flow, TSS, tributary data) were also provided by KSD. The data from the major surveys as well as brief discussions are included in data reports: Mousam River Estuary Data Report, January 1996 and Mousam River Estuary Data Report, February 1998. This work resulted in three independent intensive survey data sets: July 1995, August 1995 and August 1996. Each data set represents a three consecutive day data collection event.

The three sampling events represent varying conditions of river flow (hydro operation), wastewater discharge and tidal condition. DO[1], temperature, salinity, nutrients, BOD[2], chlorophyll *a* (chl-*a*)[3], SOD[4] and point/non-point source inputs were measured at a number of locations and times. Non-attainment of Class SB DO criteria of 85% of saturation was

[1] Dissolved Oxygen
[2] Biochemical Oxygen Demand
[3] a measure of phytoplankton or algae
[4] Sediment Oxygen Demand

5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

measured during all three surveys, primarily at low tide. In general low levels of phytoplankton in the water column (as chlorophyll-*a*) were observed except for one site station (M4) at low tide.

In a document entitled, 2004 Integrated Water Quality Monitoring and Assessment Report. Published by the Department, the Mousam Estuary was listed in a table entitled, *Category 5-A: Estuary and Marine Waters Impaired by Pollutants Other Than those Listed in 5-B Through 5-D (TMDL Required),* Dissolved oxygen levels were impaired as they fall below Class SB standards seasonally. An initial draft modeling report was issued during March 2001 for comments. Comments were received and a stakeholder process for revising Class SB DO standards was established. At the same time, the Department contracted to have its WASP water quality model updated and improved. During the spring of 2004, the legislature decided not to change the DO standard for Class SB waters.

A water quality computer simulation model was set up and calibrated using data collected during the surveys. Using this model, along with other analyses, the impact of the discharge upon DO in the Mousam River Estuary was assessed. WLA loads for both point and non-point sources were determined. The Mousam River Estuary was in non-attainment of DO standards with or without the KSD discharge. The KSD discharge must not contribute to the non-attainment. By Department policy, impact is insignificant if DO consumption by the discharge is 0.2 mg/l or less. The WLA loading attributed to the KSD discharge was that which would result in a 0.2 mg/l or less impact upon estuary DO, representing an insignificant or not measurable DO impact.

For the purpose of specifying a point load WLA (waste load allocation) for KSD, the following limitations were recommended by the Department in the November 2005 modeling report:

(1) BOD5 load = current permit limits (1.31 MGD)
(2) TSS load = annual mass load equivalent to 17 mg/l at permit flow
(3) NH_3 load = 7 mg/l, summer (June 1st – October 15th)
(4) Minimum effluent DO of 8 mg/l, summer (June 1st–October 15th), when daily minimum river flow <150 cfs).

Development of nutrient criteria in the future may result in reduced nutrient loading from the discharge. In this case, the total DO impact of the discharge would have to be re-evaluated, presumably resulting in further decreases in BOD and TSS loading.

The major DO impact within the estuary is SOD (sediment oxygen demand). To achieve attainment of instantaneous DO standards (without the KSD discharge), a 68% reduction in SOD was required. Loading from the river (watershed) alone cannot account for this reduction. Assuming this reduction could be made, the addition of the KSD discharge (at recommended WLA loads and including SOD impact) would result in a DO impact (depression) of less than 0.1 mg/l. In fact, calculation of any loadings from the KSD

5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

resulting in a DO impact (depression) of less than or equal to 0.2 mg/l are insignificant and has no effect on reducing the impact of the natural and legacy pollutants in the estuary. The non-point LA (load allocation) is set at current river TSS loading based on 2005 data. Based on the information collected to date and the most current modeling, the majority of the SOD is the result of natural processes with sources including ocean boundary and tidal wetlands processes or legacy pollutants from former industry and river regulation. It is noted that during the drafting of the 2006 permit, the EPA and Department conducted additional sediment sampling in an effort to better quantify and identify the source(s) of the SOD. Results indicated SOD is almost non-existent. If future ambient water quality monitoring indicates the KSD facility is causing or contributing to non-attainment of water quality standards, this permit may be reopened pursuant to Special Condition L, *Reopening Permit for Modifications,* to establish more or less stringent limitations for applicable parameters.

Relocation of the outfall further downstream would increase dilution, decrease the impact of the discharge or allow for less restrictive permit limits with no increase in impact. The KSD has secured the proper interest in the property (in the form of easements) necessary to relocate the outfall if it chooses to do so. This permitting action authorizes the KSD to discharge from an alternate outfall (approximately 3.5 miles below the existing outfall) if KSD chooses to relocate the outfall. See **Attachment A** of this Fact Sheet for the alternate discharge location.

The 2010 Integrated Water Quality Monitoring and Assessment Report, [often referred to as the 305(b) Report] prepared by the Department pursuant to Section 305(b) of the Clean Water Act, lists the freshwater and the Mousam River Estuary in the following tables entitled:

Category 4-A: Estuarine and Marine Waters with Impaired Use, TMDL Completed (TMDL completed for listed causes and bacteria from combined sewer overflows)

Category 5-A: Estuarine and Marine Waters Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)

Category 5-D: Estuarine and Marine Waters Impaired by Legacy Pollutants

For *Category 4-A, Estuarine and Marine Waters with Impaired Use, TMDL Completed (TMDL completed for listed causes and bacteria from combined sewer overflows)* 192 acres of the estuary are impaired due to elevated fecal coliform bacteria levels. The impairment may be either recreational uses (swimming) or shellfish consumption or both. Shellfish consumption impairments only apply to waters naturally capable of supporting the shellfish harvesting use (i.e. waters of high enough salinity for propagation of shellfish). The Maine Department of Marine Resources (DMR) Pollution Area #7, (See **Attachment C** of this Fact Sheet) *Little River to Cape Arundel (Wells, Kennebunk and Kennebunkport)* is currently

5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

closed to the harvesting of shellfish. The 305(b) report indicates a statewide bacteria total maximum daily load (TMDL) was approved by the U.S. Environmental Protection Agency (EPA) in 2009. It is noted the permittee has been in compliance with the year-round limitations for fecal coliform bacteria and is therefore, not causing or contributing to the impairment. See section 6(e) of this Fact Sheet for a discussion on the compliance data for fecal colifom bacteria.

As for *Category 5-A*: *Estuarine And Marine Waters Impaired By Pollutants Other Than Those Listed In 5-B-5-D (TMDL required)* the table indicates aquatic life criteria for 192 acres of Class SB waters is impaired due to low dissolved oxygen levels from a municipal point source, non-point source and sediment oxygen demand. If future ambient water quality monitoring indicates the recommendations from the 2005 TMDL incorporated into the 9/18/06 MEPDES permit are not sufficient to address said impairment(s), this permit may be reopened pursuant to Special Condition L, *Reopening of Permit For Modifications*, to impose new or revised limitations and/or monitoring requirement to bring the waterbody into attainment.

For *Category 5-D: Estuarine and Marine Waters Impaired by Legacy Pollutants*, the report states that all estuarine and marine waters capable of supporting American lobster are listed in Category 5-D, partially supporting fishing ("shellfish consumption) due to elevated levels of PCBs and other persistent, bioaccumulating substances in lobster tomally. Pursuant to Maine law, 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."* The Department has established interim monthly average and daily maximum mercury concentration limits for this facility and has been in compliance with said limits. See the discussion in section 6(h) of this Fact Sheet.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

a. Flow: The monthly average dry-weather flow design capacity of the biological (secondary) treatment component of the waste water treatment facility is 1.31 MGD. During extended wet weather events (several weeks or months), the KSD has historically made every effort to treat (secondary level) a minimum of 2.31 MGD. Therefore, the previous permitting action established a monthly average flow reporting requirement that is being carried forward in this permitting action. Regulating the discharge in this manner in no way shall be construed to represent any change in the dry weather design capacity of 1.31 MGD.

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

A review of the monthly average flow data as reported on the monthly Discharge Monitoring Reports (DMRs) submitted to the Department for the period January 2008 – April 2011 indicates values have been reported as follows:

Flow (DMRs=40)

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	Report	0.436 – 1.272	0.8
Daily Maximum	Report	0.547 – 6.307	1.55

b. Dilution Factors - Department Regulation Chapter 530, *Surface Water Toxics Control Program*, November 2005, §4(A) states that for discharges to where tidal flow is dominant, dilution must be calculated using a method determined by the Department to be appropriate for the site conditions. Where freshwater river flow is dominant and instantaneous mixing across the width can be assumed, dilution must be calculated as in subsection §4(B) Where appropriate, other methods such as dye studies or water quality methods may be used.

The Department has made the determination that at the point of discharge, freshwater river flow is dominant. Therefore the dilution factors for the facility have been calculated based on 1.31 MGD and applicable river flows as follows:

Acute: 1Q10 = 18.7 cfs[1,2] $\Rightarrow \frac{(18.7 \text{ cfs})(0.6464) + (1.31 \text{ MGD})}{(1.31 \text{ MGD})} = 10.2{:}1$

Chronic: 7Q10 =22 cfs[3] $\Rightarrow \frac{(22 \text{ cfs})(0.6464) + (1.31 \text{ MGD})}{(1.31 \text{ MGD})} = 11.9{:}1$

Harmonic Mean: = 66 cfs[4] $\Rightarrow \frac{(66 \text{ cfs})(0.6464) + (1.31 \text{ MGD})}{(1.31 \text{ MGD})} = 33.6{:}1$

Footnotes:

(1) Estimated 1Q10 based on 85% of the 7Q10.

(2) Chapter 530, §(4)(B)(1) states that analyses using numerical acute criteria for aquatic life must be based on 1/4 of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone and to ensure a zone of passage of at least 3/4 of the cross-sectional area of any stream as required by Chapter 581. 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 flow, up to and including all of it, as long as the required zone of passage is maintained. Based on information provided by

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

Footnotes:

KSD as to the configuration, location and observed hydraulic issues associated with the outfall pipe, the Department has made the determination that the discharge does receive rapid and complete mixing with the receiving water, therefore 100% of the 1Q10 is applicable in acute statistical evaluations pursuant to Chapter 530.

(3) Based on a Department analysis of flow records for the Mousam River for the period 1999-2004. See the discussion on page 11 of a Department document entitled Draft Mousam River Estuary Modeling Report, November 2005.

(4) The harmonic mean dilution factor is approximated by multiplying the chronic dilution factor by 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.

c. Biochemical Oxygen Demand & Total Suspended Solids – The previous permitting action established technology based monthly and weekly average biochemical oxygen demand (BOD5) and total suspended solids (TSS) concentration limits of 30 mg/L and 45 mg/L respectively, pursuant to 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 best practicable treatment (BPT). All three concentration limits are being carried forward in this permitting action.

As for mass limitations, the previous permitting action established monthly average, weekly average and daily maximum BOD5 and TSS mass limitations based on the monthly average design flow capacity of 1.31 MGD and the corresponding concentration limits cited above.

BOD and TSS mass loading calculations at 1.31 MGD are as follows:

Monthly average = (30 mg/L) (1.31 MGD)(8.34) = 328 lbs/day
Weekly average = (45 mg/L) (1.31 MGD)(8.34) = 492 lbs/day
Daily maximum = (50 mg/L) (1.31 MGD)(8.34) = 546 lbs/day

In addition to the BPT based mass and concentration limits established above, the previous permitting action established an annual average water quality based TSS mass limitation based on a recommendation in the November 2005 modeling report by the Department. The limit was deemed necessary in an effort to mitigate KSD's contribution to SOD. As stated in Section 5 of this Fact Sheet, as of the date of the modeling report SOD had been identified as the primary cause of DO depletion in the lower Mousam River.

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

The annual average mass limitation is being carried forward in this permitting action and is based on a permitted flow of 1.31 MGD and a concentration of 17 mg/L. Therefore, this permitting action is establishing a water quality based annual average TSS limitation of 186 lbs/day based on the following calculation:

Annual Average = (17 mg/L) (1.31 MGD)(8.34) = 186 lbs/day

A review of the DMR data for the period January 2008 – April 2011 indicates the facility has been in compliance with said limitations 98% of the time as values have been reported as follows:

BOD Mass (DMRs=38)

Value	Limit (lbs/day)	Range (lbs/day)	Mean (lbs/day)
Monthly Average	328	34 – 171	69
Weekly Average	492	40 – 288	98
Daily Maximum	546	41 - 731	130

BOD Concentration (DMRs=38)

Value	Limit (mg/L)	Range (mg/L)	Mean(mg/L)
Monthly Average	30	6 – 29	12
Weekly Average	45	6 – 48	12
Daily Maximum	50	7 – 78	16

TSS mass (DMRs=38)

Value	Limit (lbs/day)	Range (lbs/day)	Mean(lbs/day)
Monthly Average	328	18 – 113	53
Weekly Average	492	25 – 568	72
Daily Maximum	546	27 - 925	97

TSS concentration (DMRs=38)

Value	Limit (mg/L)	Range (mg/L)	Mean(mg/L)
Monthly Average	30	4 – 23	8
Weekly Average	45	4 – 22	9
Daily Maximum	50	6 – 32	12

The means calculated above do not include reported values for February 2008 or March 2010 as the facility was in upset conditions and the values are not representative of normal operations at the facility.

The monitoring frequency of 2/Week in the previous permitting action is being carried forward in the permitting action and is based on long standing Department guidance for facilities permitted to discharge between 1.0 MGD and 1.5 MGD.

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

This permitting action is carrying forward a requirement of 85% removal for BOD and TSS pursuant to Department rule Chapter 525(3)(III)(a&b)(3) except in the circumstances where the monthly average influent concentration is less than 200 mg/L.

A review of the DMR data for the period January 2008 – April 2011 indicates the facility has been in compliance with said limitations 100% of the time as values have been reported as follows:

BOD % Removal (DMRs=39)

Value	Limit (%)	Range (%)	Mean
Monthly Average	85	85 – 98	95

TSS % Removal (DMRs=39)

Value	Limit (%)	Range (%)	Mean
Monthly Average	85	87 - 99	99

The monitoring frequency of 2/Week in the previous permitting action is being carried forward in the permitting action.

d. Settleable Solids - The previous permitting action established technology based daily maximum concentration limit of 0.3 ml/L along with a 5/Week monitoring requirement that are being carried forward in this permitting action.

A review of the monthly DMR data for the period January 2008 – April 2011 indicates the permittee has been in compliance with said limit(s) 100% of the time as values have been reported as follows:

Settleable solids (DMRs=40)

Value	Limit (ml/L)	Range (ml/L)	Mean(ml/L)
Daily Maximum	0.3	<0.1 – 0.1	0.05

e. Fecal Coliform Bacteria – The previous permitting action established water quality based monthly average and daily maximum limits of 15 colonies/100 ml and 50 colonies/100 ml respectively, that are being carried forward in this permitting action. The limits are based on the Water Classification Program criteria for the receiving waters (including standards in the National Shellfish Sanitation Program) and requires application of the BPT. On 3/11/02, the Department administratively modified the 6/20/94 by requiring the permitee to disinfect the discharge on a year-round basis rather than seasonally (May 15th – September 30th). The requirement for year-round disinfection came about from a request by the Maine Department of Marine Resources in an effort to protect an increasing population of fisherman actively utilizing the Mousam River outstide of the seasonal disinfection system. The limits have been and will continue to be in effect on a year-round basis.

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

A review of the monthly DMR data for the period January 2008 – April 2011 indicates the permittee has been in compliance with said limit(s) 98% of the time as values have been reported as follows:

Fecal coliform bacteria (DMRs=40)

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100 ml)
Monthly Average	15	1 – 3	1
Daily Maximum	50	2 – >240	15

A value of 8,000 col/100 ml reported on 7/31/09 was not included in the calculations of the mean as it was an extreme outlying data point as the next highest value was >240 col/100 ml.

The monitoring frequency of 3/Week in the previous permitting action is being carried forward in the permitting action and is based on long standing Department guidance for facilities permitted to discharge between 1.0 MGD and 1.5 MGD.

f. Total Residual Chlorine - Limits on total residual chlorine (TRC) are specified to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. The previous permitting action established a monthly average water quality based limit of 0.089 mg/L and a daily maximum water quality based limit of 0.13 mg/L along with a 1/Day monitoring requirement that are being carried forward in this permitting action. Water quality based limitations for TRC were calculated as based on the applicable acute and chronic dilution factors and applicable AWQC as follows:

Parameter	Acute Criteria	Chronic Criteria	Acute Dilution	Chronic Dilution	Acute Limit	Chronic Limit
Chlorine	13 ug/L	7.5 ug/L	10.2:1	11.9:1	0.13 mg/L	0.090 mg/L

Example calculation: Acute – 0.013 mg/L (10.2) = 0.132 mg/L $\Rightarrow$ 0.13 mg/L

To meet the new water quality based thresholds calculated above, the permittee has been dechlorinating the effluent prior to discharge. In April of 1999, the Department established a new daily maximum BPT limitation of 0.3 mg/L for facilities that need to dechlorinate their effluent unless calculated water quality based thresholds are lower than 0.3 mg/L. In the case of the KSD, the calculated daily maximum water quality based threshold is lower than 0.3 mg/l, thus the water quality based limit 0.13 mg/L is imposed. As for the monthly average limitation, the Department's BPT limitation is 0.1 mg/L. The calculated monthly average water quality based limit is lower than the BPT limit of 0.1 mg/L, thus the water quality based monthly average limit of 0.090 mg/L for TRC is being established in this permitting action.

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

A review of the monthly DMR data for the period January 2008 – April 2011 indicates the permittee has been in compliance with said limit(s) 99% of the time as values have been reported as follows:

Total residual chlorine (DMRs=39)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	0.089	0.01 – 0.18	0.015
Daily Maximum	0.13	0.02 – 0.51	0.094

The mean values calculated above do not include values for the month of May 2009 as the values reported for said month are significantly different than the remainder of the values in the data set and are not considered to be representative of normal operating conditions.

g. pH – The previous permitting action established a technology based pH range limitation of 6.0 – 9.0 standard units based on Department rule, Chapter 525(3)(III)(c) and is considered BPT by the Department. The DMR data for the period January 2008 to April 2011 indicates the permittee has never violated said range limit.

The monitoring frequency of 1/Day in the previous permitting action is being carried forward in the permitting action.

h. Dissolved oxygen (DO) – The previous permitting action established a seasonal water quality based (June 1st – October 15th) dissolved oxygen limitation of greater than or equal to 8 mg/L as a minimum weekly average limitation. According to the Department's November 2005 draft modeling report, the requirement for a minimum of 8 mg/L of DO in the effluent is only applicable during said timeframe and when the flow in the Mousam River at the point of discharge is less than or equal to 150 cfs.

A review of the monthly DMR data for the period June 2008 – October 2010 indicates the permittee has been in compliance with said limit(s) 100% of the time as values have been reported as follows:

Dissolved oxygen (DMRs=14)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Weekly Average	8.0	>8.0 – 10.0	8.8

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

i. Ammonia – The previous permitting action established seasonal (June – October) water quality based mass and concentration limits for ammonia based on recommendations in the Department's 2004 WLA report. The report recommended imposition of the concentration limit and the mass limit was derived based on the 1.31 MGD monthly average dry-weather flow design capacity of the biological (secondary) treatment component of the waste water treatment facility. The calculation is as follows:

(1.31 MGD(8.34 lbs/gal)(7 mg/l) = 76 lbs/day

A review of the monthly DMR data for the period June 2008 – October 2010 indicates the permittee has been in compliance with said limit(s) 50% of the time as values have been reported as follows:

Ammonia (DMRs=15)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	7.0	0.72 - 13	6

Ammonia (DMRs=15)

Value	Limit (lbs/day)	Range (lbs/day)	Mean (lbs/day)
Monthly Average	76	3.8 - 64	34

j. Mercury: Pursuant to Maine law, 38 M.R.S.A. §420 and Department rule, 06-096 CMR Chapter 519, *Interim Effluent Limitations and Controls for the Discharge of Mercury*, the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL # W002599-5L-E-R by establishing interim monthly average and daily maximum effluent concentration limits of 15.1 parts per trillion (ppt) and 22.7 ppt, respectively, and a minimum monitoring frequency requirement of four tests per year for mercury. The interim mercury limits were scheduled to expire on October 1, 2001. However, effective June 15, 2001, the Maine Legislature enacted Maine law, 38 M.R.S.A. §413, sub-§11 specifying that interim mercury limits and monitoring requirements remain in effect. It is noted that the mercury effluent limitations have not been incorporated into Special Condition A, *Effluent Limitations And Monitoring Requirements*, of this permit as the limits and monitoring frequencies are regulated separately through Maine law, 38 M.R.S.A. §413 and Department rule Chapter 519. The interim mercury limits remain in effect and enforceable and modifications to the limits and/or monitoring frequencies will be formalized outside of this permitting document pursuant to Maine law, 38 M.R.S.A. §413 and Department rule Chapter 519.

Maine law 38 M.R.S.A., §420 1-B,(B)(1) states that a facility is not in violation of the AWQC for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413, subsection 11. A review of the Department's database for the previous 60-month period indicates mercury test results reported have ranged from 0.41 ppt to 16.8 ppt with an arithmetic mean (n=18) of 4.7 ppt.

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

K. Whole Effluent Toxicity (WET), Analytical Chemistry & Priority Pollutant Testing: Maine law, 38 M.R.S.A., Sections 414-A and 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 Rules, 06-096 CMR Chapter 530, *Surface Water Toxics Control Program*, and Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants* set forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

WET, priority pollutant and analytical chemistry testing as required by Chapter 530 is included in this permit in order to fully characterize the effluent. This permit also provides for reconsideration of effluent limits and monitoring schedules after evaluation of toxicity testing results. The monitoring schedule includes consideration of results currently on file, the nature of the wastewater, existing treatment and receiving water characteristics.

WET monitoring is required to assess and protect against impacts upon water quality and designated uses caused by the aggregate effect of the discharge on specific aquatic organisms. Acute and chronic WET tests are performed on invertebrate and vertebrate species. Priority pollutant and analytical chemistry testing is required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health water quality criteria as established in Chapter 584.

Chapter 530 establishes four categories of testing requirements based predominately on the chronic dilution factor. The categories are as follows:

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

Department rule Chapter 530 (2)(D) specifies the criteria to be used in determining the minimum monitoring frequency requirements for WET, priority pollutant and analytical chemistry testing. Based on the Chapter 530 criteria, the permittee's facility falls into the Level I frequency category as the facility has a chronic dilution factor ≤20:1. Chapter 530(2)(D)(1) specifies that routine surveillance and screening level testing requirements are as follows:

Screening level testing

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

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

Surveillance level testing

Level	WET Testing	Priority pollutant testing	Analytical chemistry
I	2 per year	Not required	4 per year

A review of the data on file with the Department for the KSD indicates that to date, it has fulfilled the WET and chemical-specific testing requirements of Chapter 530. See **Attachment D** of this Fact Sheet for a summary of the WET test results and **Attachment E** of this Fact Sheet for a summary of the chemical-specific test dates.

Chapter 530 §(3)(E) states "*For effluent monitoring data and the variability of the pollutant in the effluent, the Department shall apply the statistical approach in Section 3.3.2 and Table 3-2 of USEPA's "Technical Support Document for Water Quality-Based Toxics Control" (USEPA Publication 505/2-90-001, March, 1991, EPA, Office of Water, Washington, D.C.) to data to determine whether water-quality based effluent limits must be included in a waste discharge license. Where it is determined through this approach that a discharge contains pollutants or WET at levels that have a reasonable potential to cause or contribute to an exceedence of water quality criteria, appropriate water quality-based limits must be established in any licensing action.*"

Chapter 530 §4(C), states "*The background concentration of specific chemicals must be included in all calculations using the following procedures. The Department may publish and periodically update a list of default background concentrations for specific pollutants on a regional, watershed or statewide basis. In doing so, the Department shall use data collected from reference sites that are measured at points not significantly affected by point and non-point discharges and best calculated to accurately represent ambient water quality conditions." The Department shall use the same general methods as those in section 4(D) to determine background concentrations. For pollutants not listed by the Department, an assumed concentration of 10% of the applicable water quality criteria must be used in calculations.* The Department has very limited information on the background levels of metals in the water column of the Mousam River. Therefore, a default background concentration of 10% of the applicable water quality criteria is being used in the calculations of this permitting action.

Chapter 530 4(E), states "*In allocating assimilative capacity for toxic pollutants, the Department shall hold a portion of the total capacity in an unallocated reserve to allow for new or changed discharges and non-point source contributions. The unallocated reserve must be reviewed and restored as necessary at intervals of not more than five years. The water quality reserve must be not less than 15% of the total assimilative quantity*". Therefore, the Department is reserving 15% of the applicable water quality criteria in the calculations of this permitting action.

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

Chapter 530 §3 states, "*In determining if effluent limits are required, the Department shall consider all information on file and effluent testing conducted during the preceding 60 months. However, testing done in the performance of a Toxicity Reduction Evaluation (TRE) approved by the Department may be excluded from such evaluations."*

Chapter 530(2)(D)(3)(d) states in part that for Level I facilities "… *may reduce surveillance testing to one WET or specific chemical series per year provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedence as calculated pursuant to section 3(E)".*

WET test evaluation

On June 16, 2011, the Department conducted a statistical evaluation on the most recent 60 months of WET test results on file with the Department in accordance with the statistical approach in Chapter 530. The statistical evaluation indicates the discharge from the permittee's waste water treatment facility has one test result of 25% on May 5, 2008, for the mysid shrimp that has a reasonable potential to exceed the critical acute water quality threshold of 11.9 % (mathematical inverse of the acute dilution factor of 8.4:1). The statistical evaluation also indicates the facility has one test result of 11.9% on

September 9, 2009, for the sea urchin that has a reasonable potential to exceed the critical chronic water quality threshold of 8.4 % (mathematical inverse of the chronic dilution factor of 11.9:1). As a result, this permit establishes acute and chronic limits of 11.9% and 8.4% respectively, and a routine surveillance level monitoring frequency of 2/Year.

Beginning upon permit issuance and lasting through 12 months prior to permit expiration.

Level	WET Testing
I	2/Year for the mysid shrimp 2/Year for the sea urchin

Department rule Chapter 530 (2)(D)(1) specifies that screening level testing is to be established as follows:

Beginning 12 months prior to and lasting through permit expiration and every five years thereafter.

Level	WET Testing
I	4/Year for the mysid shrimp 4/Year for the sea urchin

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

Analytical chemistry & priority pollutant testing evaluation

As with WET test results, on June 16, 2011, the Department conducted a statistical evaluation on the most recent 60 months of analytical chemistry and priority pollutant test results on file with the Department in accordance with the statistical approach outlined in Chapter 530. The statistical evaluation indicates the discharge does not have any test results that exceed or have a reasonable potential to exceed the acute, chronic or human health AWQC for any parameter tested to date. Based on the results of the 6/14/11 statistical evaluation, the permittee qualifies for the Chapter 530(2)(D)(3)(d) testing reduction. Therefore, this permit action establishes routine surveillance level analytical testing requirements are as follows:

Beginning upon permit issuance and lasting through 12 months prior to permit expiration.

Level	Priority pollutant testing	Analytical chemistry
I	Not required	1/Year

Beginning 12 months prior to permit expiration, and every five years thereafter, screening level testing requirements are as follows:

Level	Priority pollutant testing	Analytical chemistry
I	1/Year	4/Year

Department rule Chapter 530 (2)(D)(1) specifies that screening level testing is to be establishes for analytical chemistry and priority pollutant testing requirements as follows:

Chapter 530 (2)(D) states:

(4) All dischargers having waived or reduced testing must file statements with the Department on or before December 31 of each year describing the following.

(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.

Special Condition J, *06-096 CMR 530(2)(D)(4) Statement For Reduced/Waived Toxics Testing* of this permitting action requires the permittee to file an annual certification with the Department.

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

k. Transported wastes– The previous permitting action authorized the KSD to accept and treat up to 6,000 gpd of septage from local septage haulers. Department rule Chapter 555, *Standards For The Addition of Transported Wastes to Wastewater Treatment Facilities*, limits the quantity of septage treated at a facility to 1% of the design capacity of treatment facility if the facility utilizes a side stream or storage method of introduction into the influent flow, or 0.5% of the design capacity of the facility if the facility does not utilize the side stream or storage method of introduction into the influent flow. A facility may receive more than 1% of the design capacity on a case-by-case basis.

In their application for permit renewal the KSD has requested the Department carry forward the daily quantity of transported waste it is authorized to accept of 6,000 gpd. With a design capacity of 1.31 MGD, 6,000 gpd only represents 0.46% of said capacity. The permittee has submitted an up-to-date Septage Management Plan as an exhibit to their July 2011 application for permit renewal. The Department has reviewed and approved said plan and determined that under normal operating conditions, the addition of 6,000 gpd of transported wastes to the facility will not cause or contribute to upset conditions of the treatment process.

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

As permitted (in accordance with the WLA specified in the Department's November 2005 Draft Modeling Report), the Department has determined the existing water uses will be maintained and protected and the discharge from the waste water treatment plant will not cause or contribute to the failure of the waterbody to meet standards for Class SB classification.

8. PUBLIC COMMENTS

Public notice of this application was made in the Journal Tribune newspaper on June 22, 2011. The Department receives public comments on an application until the date a final agency action is taken on that 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

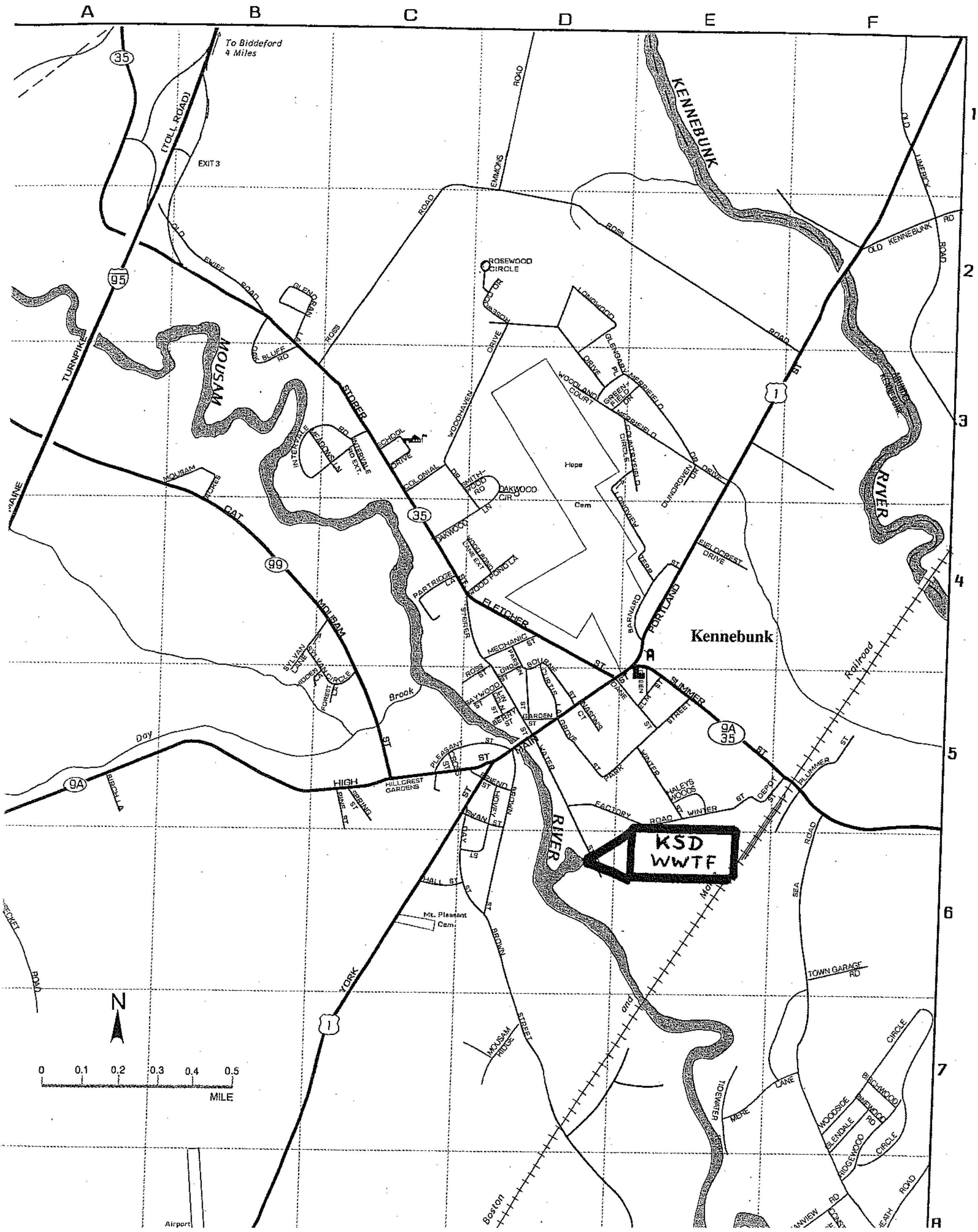
Additional information concerning this permitting action may be obtained from and written comments should be sent to:

Gregg Wood
Division of Water Quality Management
Bureau of Land and Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone (207) 287-7693
e-mail: gregg.wood@maine.gov

10. RESPONSE TO COMMENTS

During the period of July 11`, 2011, through the issuance date of the permit/license, the Department solicited comments on the proposed draft permit/license to be issued for the discharge(s) from the KSD facility. The Department did not receive comments from the permittee, state or federal agencies or interested parties that resulted in any substantive change(s) in the terms and conditions of the permit. Therefore, the Department has not prepared a Response to Comments.

ATTACHMENT A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KSD WWTF
To Biddeford 4 Miles
TURNPIKE
(TOLL ROAD)
EXIT 3
KENNEBUNK
MOUSAM
RIVER
Hope Cem
Mt. Pleasant Cem
Railroad
Boston and Maine
PORTLAND
FLETCHER ST
SUMMER ST
STORER
YORK
MAIN
HIGH
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Day Brook
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MILE
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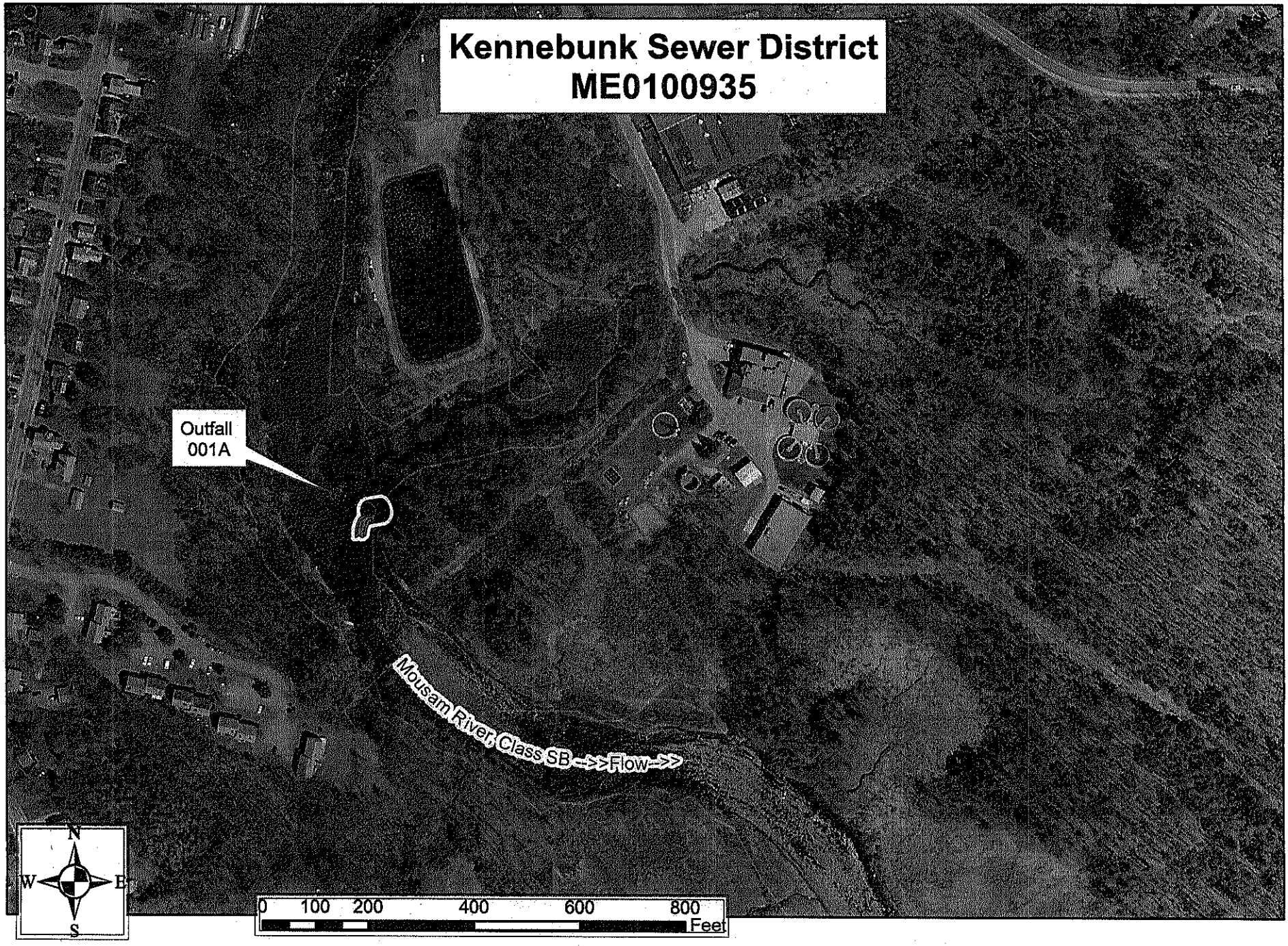
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ME0100935
Outfall
001A
Mousam River Class SB ->>Flow->>
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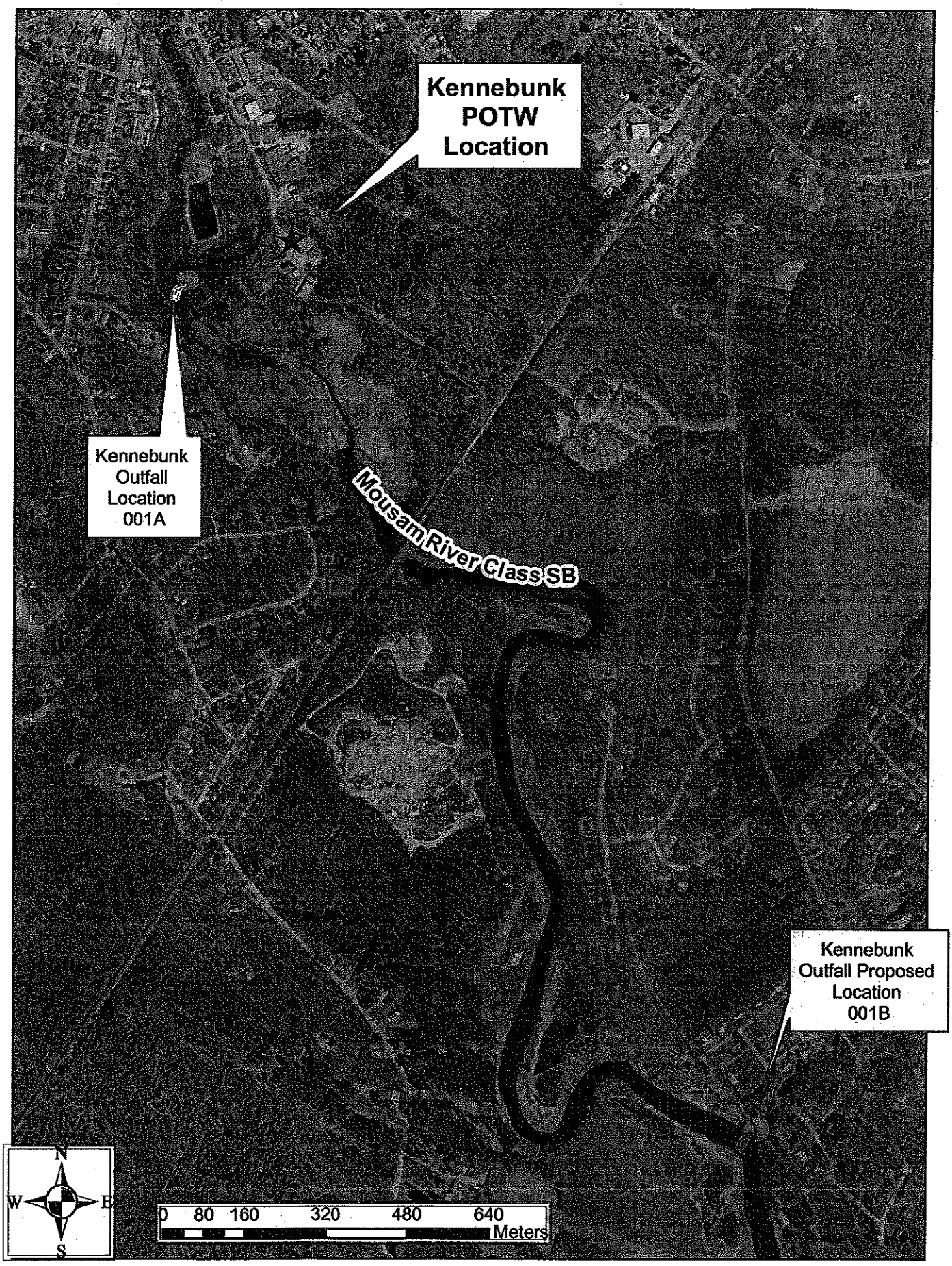
Feet


Kennebunk
POTW
Location
Kennebunk
Outfall
Location
001A
Mousam River Class SB
Kennebunk
Outfall Proposed
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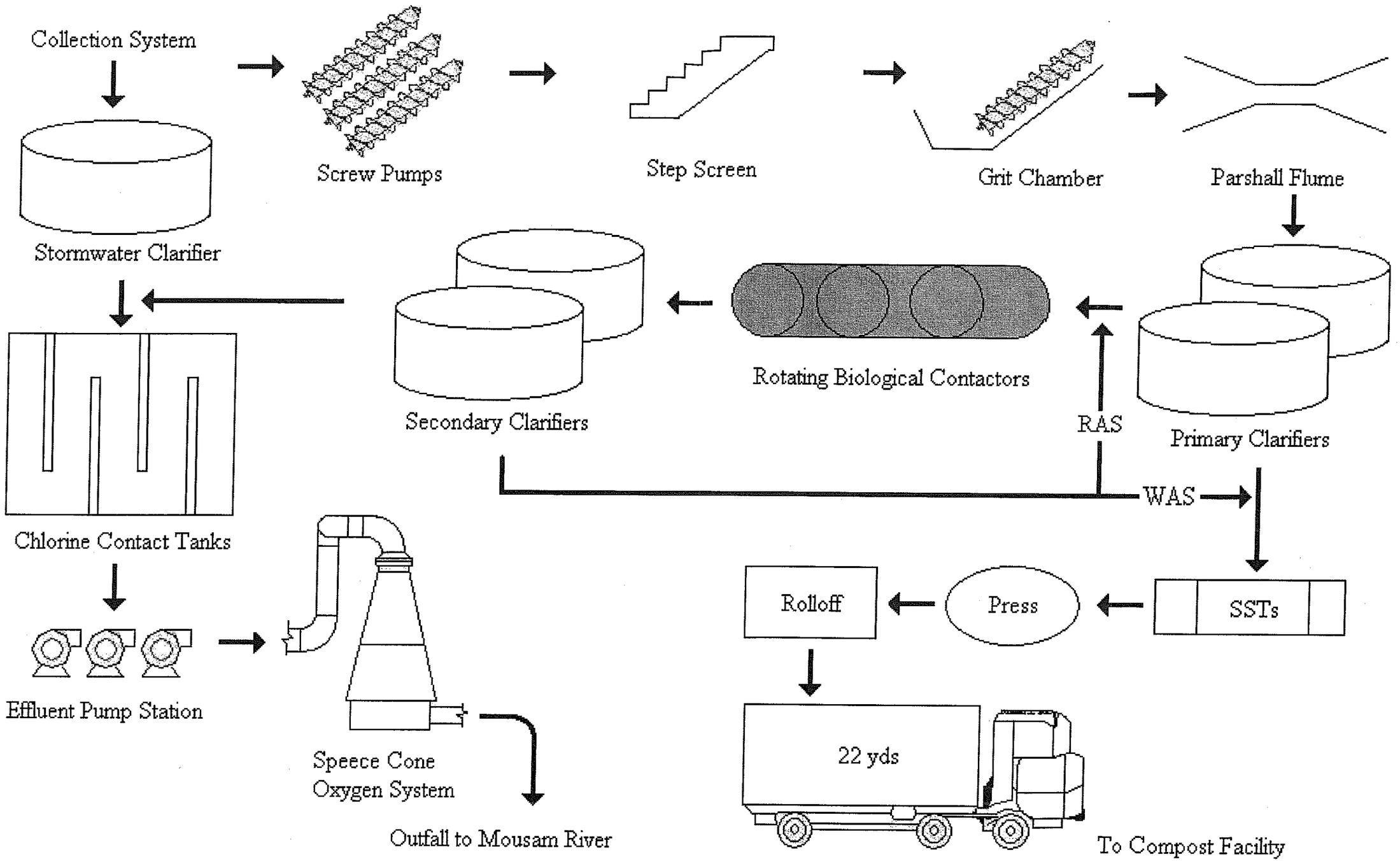
ATTACHMENT B

KENNEBUNK SEWER DISTRICT--Wastewater Treatment Plant Flow Diagram



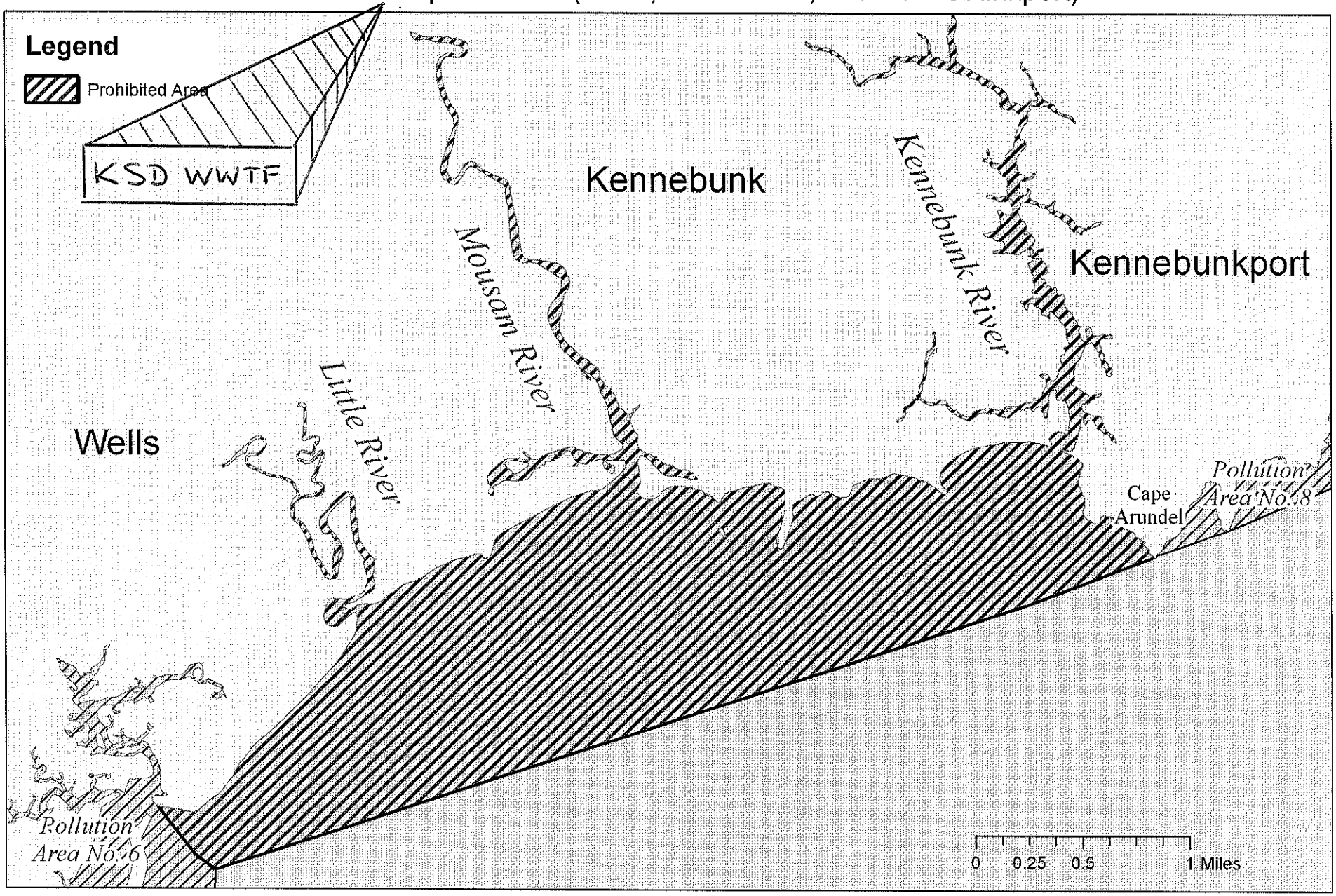
ATTACHMENT C

Maine Department of Marine Resources

Pollution Area No. 7

05.27.09

Little River to Cape Arundel (Wells, Kennebunk, and Kennebunkport)



ATTACHMENT D

FACILITY WET EVALUATION REPORT

Facility: KENNEBUNK **Permit Number:** ME0100935 **Report Date:** 6/14/2011

Receiving Water: MOUSAM RIVER **Rapidmix:** Y

Diluition Factors: 1/4 Acute: 2.850 Acute: 8.402 Chronic: 11.8558

Effluent Limits: Acute (%): 11.902 Chronic (%): 8.435 **Date range for Evaluation: From** 14/Jun/2006 **To:** 14/Jun/2011

Test Type: A_NOEL

Test Species: MYSID SHRIMP

Test Date	Result (%)	Status
08/07/2006	31.300	OK
03/12/2007	100.000	OK
05/05/2008	25.000	RP
09/08/2009	100.000	OK
07/06/2010	58.300	OK

Species Summary:

Test Number: 5 **RP:** 2.300 **Min Result (%):** 25.000 **RP factor (%):** 10.870 **Status:** RP

Test Type: C_NOEL

Test Species: SEA URCHIN

Test Date	Result (%)	Status
08/07/2006	50.000	OK
03/12/2007	50.000	OK
05/05/2008	100.000	OK
09/08/2009	11.900	RP
07/06/2010	25.000	OK

Species Summary:

Test Number: 5 **RP:** 2.300 **Min Result (%):** 11.900 **RP factor (%):** 5.174 **Status:** RP

ATTACHMENT E

PRIORITY POLLUTANT DATA SUMMARY

Date Range: 17/Jun/2006-17/Jun/2011

Facility Name: **KENNEBUNK** NPDES: **ME0100935**

Test Date	Monthly (Flow MGD)	Daily (Flow MGD)	Total Test Number	Test # By Group M	V	BN	P	O	A	Clean	Hg
08/07/2006	0.78	0.82	126	13	28	46	25	3	11	F	0
03/12/2007	0.85	0.73	16	9	0	0	0	7	0	F	0
05/05/2008	0.81	1.18	17	9	0	0	0	8	0	F	0
09/08/2009	0.63	0.67	17	9	0	0	0	8	0	F	0
07/06/2010	0.72	0.54	17	9	0	1	0	7	0	F	0
11/01/2010	0.75	0.62	129	13	28	46	25	6	11	F	0
02/08/2011	0.44	0.51	17	9	0	0	0	8	0	F	0

Key:

A = Acid O = Others P = Pesticides

BN = Base Neutral M = Metals V = Volatiles

ATTACHMENT F

CHAPTER 530(2)(D)(4) CERTIFICATION

MEPDES# _____ Facility Name _____

Since the effective date of your permit have there been:	NO	YES (Describe in Comments)
1. 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?		
2. changes in the operation of the treatment works that may **increase** the toxicity of the discharge?		
3. changes in industrial manufacturing processes contributing wastewater to the treatment works that may **increase** the toxicity of the discharge?		

COMMENTS:

Name(print) _____

Signature _____ Date _____

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

This form may be used to meet the requirements of Chap 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.

CONTENTS

A. GENERAL PROVISIONS

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

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

(a) They are not

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

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

3. Duty to comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of State law and the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

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

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

5. Permit actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

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

7. Oil and hazardous substances. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under section 311 of the Federal Clean Water Act; section 106 of the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980; or 38 MRSA §§ 1301, et. seq.

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

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

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

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

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

(a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
(c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
(d) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

B. OPERATION AND MAINTENACE OF FACILITIES

1. General facility requirements.

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

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

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

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

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

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

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

2. Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

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

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

5. Bypasses.

(a) Definitions.

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

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

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

(c) Notice.

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

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

(d) Prohibition of bypass.

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

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

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

6. Upsets.

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

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

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

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

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

C. MONITORING AND RECORDS

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

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

3. Monitoring and records.

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

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

(c) Records of monitoring information shall include:

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

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

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

D. REPORTING REQUIREMENTS

1. Reporting requirements.

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

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

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

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

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

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

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

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

(ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Department.

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

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

(f) Twenty-four hour reporting.

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

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

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

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

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

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

(h) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

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

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

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

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

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

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

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

5. Publicly owned treatment works.

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

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

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

E. OTHER REQUIREMENTS

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

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

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

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

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

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

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

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

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

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

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

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

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

Daily discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.

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

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

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

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

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

Maximum daily discharge limitation means the highest allowable daily discharge.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

DEP INFORMATION SHEET

Appealing a Commissioner's Licensing Decision

Dated: May 2004 **Contact: (207) 287-2811**

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's (DEP) Commissioner: (1) in an administrative process before the Board of Environmental Protection (Board); or (2) in a judicial process before Maine's Superior Court. This INFORMATION SHEET, in conjunction with consulting statutory and regulatory provisions referred to herein, can help aggrieved persons with understanding their rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

DEP's *General Laws*, 38 M.R.S.A. § 341-D(4), and its *Rules Concerning the Processing of Applications and Other Administrative Matters* (Chapter 2), 06-096 CMR 2.24 (April 1, 2003).

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written notice of appeal within 30 calendar days of the date on which the Commissioner's decision was filed with the Board. Appeals filed after 30 calendar days will be rejected.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, c/o Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017; faxes are acceptable for purposes of meeting the deadline when followed by receipt of mailed original documents within five (5) working days. Receipt on a particular day must be by 5:00 PM at DEP's offices in Augusta; materials received after 5:00 PM are not considered received until the following day. The person appealing a licensing decision must also send the DEP's Commissioner and the applicant a copy of the documents. All the information listed in the next section must be submitted at the time the appeal is filed. Only the extraordinary circumstances described at the end of that section will justify evidence not in the DEP's record at the time of decision being added to the record for consideration by the Board as part of an appeal.

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

The materials constituting an appeal must contain the following information at the time submitted:

1. *Aggrieved Status*. Standing to maintain an appeal requires the appellant to show they are particularly injured by the Commissioner's decision.
2. *The findings, conclusions or conditions objected to or believed to be in error.* Specific references and facts regarding the appellant's issues with the decision must be provided in the notice of appeal.
3. *The basis of the objections or challenge.* If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.

5. *All the matters to be contested.* The Board will limit its consideration to those arguments specifically raised in the written notice of appeal.

6. *Request for hearing.* The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.

7. *New or additional evidence to be offered.* The Board may allow new or additional evidence as part of an appeal only when the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process or show that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2, Section 24(B)(5).

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license file is public information made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide opportunity for photocopying materials. There is a charge for copies or copying services.

2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer questions regarding applicable requirements.

3. *The filing of an appeal does not operate as a stay to any decision.* An applicant proceeding with a project pending the outcome of an appeal runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge initiation of the appeals procedure, including the name of the DEP project manager assigned to the specific appeal, within 15 days of receiving a timely filing. The notice of appeal, all materials accepted by the Board Chair as additional evidence, and any materials submitted in response to the appeal will be sent to Board members along with a briefing and recommendation from DEP staff. Parties filing appeals and interested persons are notified in advance of the final date set for Board consideration of an appeal or request for public hearing. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision. The Board will notify parties to an appeal and interested persons of its decision.

II. APPEALS TO MAINE SUPERIOR COURT

Maine law allows aggrieved persons to appeal final Commissioner licensing decisions to Maine's Superior Court, see 38 M.R.S.A. § 346(1); 06-096 CMR 2.26; 5 M.R.S.A. § 11001; & MRCivP 80C. Parties to the licensing decision must file a petition for review within 30 days after receipt of notice of the Commissioner's written decision. A petition for review by any other person aggrieved must be filed within 40-days from the date the written decision is rendered. The laws cited in this paragraph and other legal procedures govern the contents and processing of a Superior Court appeal.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, contact the DEP's Director of Procedures and Enforcement at (207) 287-2811.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.