ME0100102

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAWN R. GALLAGHER
COMMISSIONER

Mr. Leonard Blanchette
Brunswick Sewer District 10 Pine Tree Road
Brunswick, Maine 04011-1671

May 26, 2004

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0100102
Maine Waste Discharge License (WDL) Application #W002600-5L-D-R
Final License

Dear Mr. Blanchette:

Enclosed please find a copy of your **final** Maine WDL which was approved by the Department of Environmental Protection. Please read the license 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.*"

We would like to make you aware of the fact that your monthly Discharge Monitoring Reports (DMR) may not reflect the revisions in this licensing action for several months however, you are required to report applicable test results for parameters required by this licensing action that do not appear on the DMR. Please see the attached April 2003 O&M Newsletter article regarding this matter.

If you have any questions regarding this matter, please feel free to call me at 287-7658.

Sincerely,

For David Silver
Division of Water Resource Regulation
Bureau of Land and Water Quality

Enc. Matt Hight, DEP/SMRO
Ted Lavery, USEPA

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688
RAY BLDG., HOSPITAL ST.

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

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

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 764-1507

web site: www.state.me.us/dep

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DMR Lag

(reprinted from April 2003 O&M Newsletter)

When the Department renews discharge permits, the parameter limits may change or parameters may be added or deleted. In some cases, it is merely the replacement of the federally issued NPDES permit with a state-issued MEPDES permit that results in different limits. When the new permit is finalized, a copy of the permit is passed to our data entry staff for coding into EPA's Permits Compliance System (PCS) database. PCS was developed in the 1970's and is not user-friendly. Entering or changing parameters can take weeks or even months. This can create a lag between the time your new permit becomes effective and the new permit limits appearing on your DMRs. If you are faced with this, it can create three different situations that have to be dealt with in different ways.

1. If the parameter was included on previous DMRs, but only the limit was changed, there will be a space for the data. Please go ahead and enter it. When the changes are made to PCS, the program will have the data and compare it to the new limit.

2. When a parameter is eliminated from monitoring in your new permit, but there is a delay in changing the DMR, you will have a space on the DMR that needs to be filled. For a parameter that has been eliminated, please enter the space on the DMR for that parameter only with "NODI-9" (No Discharge Indicator Code #9). This code means monitoring is conditional or not required this monitoring period.

3. When your new permit includes parameters for which monitoring was not previously required, and coding has not caught up on the DMRs, there will not be any space on the DMR identified for those parameters. In that case, please fill out an extra sheet of paper with the facility name and permit number, along with all of the information normally required for each parameter (parameter code, data, frequency of analysis, sample type, and number of exceedances). Each data point should be identified as monthly average, weekly average, daily max, etc. and the units of measurement such as mg/L or lb/day. Staple the extra sheet to the DMR so that the extra data stays with the DMR form. Our data entry staff cannot enter the data for the new parameters until the PCS coding catches up. When the PCS coding does catch up, our data entry staff will have the data right at hand to do the entry without having to take the extra time to seek it from your inspector or from you.

   EPA is planning significant improvements for the PCS system that will be implemented in the next few years. These improvements should allow us to issue modified permits and DMRs concurrently. Until then we appreciate your assistance and patience in this effort.

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

DEPARTMENT ORDER

IN THE MATTER OF

BRUNSWICK SEWER DISTRICT	)	MAINE POLLUTANT DISCHARGE
BRUNSWICK, CUMBERLAND COUNTY, ME.	)	ELIMINATION SYSTEM
ME0100102	)	WASTE DISCHARGE LICENSE
W002600-5L-D-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 (the Department) has considered the application of the BRUNSWICK SEWER DISTRICT (Brunswick), with its supportive data, agency review comments, and other related material on file and finds the following facts:

APPLICATION SUMMARY

The applicant has applied to the Department for renewal of Department Waste Discharge License (WDL) #W002600-5L-C-R which was issued on October 1, 1999 and is due to expire on October 1, 2004. The October 1, 1999, WDL authorized a monthly average flow discharge of up to 3.85 million gallons per day (MGD) of secondary treated sanitary waste waters from a municipal waste water treatment facility to the Androscoggin River, Class C, in Brunswick, Maine. The October 1, 1999, WDL also authorized the treatment of septage wastes received by truck in the amount of 10,000 gallons per day and the seasonal (May 15th to September 30th of each year) disinfection of the treated effluent. The applicant has requested an increase in the amount of septage wastes that are authorized to be treated from 10,000 to 25,000 gallons per day, or less than 1% of the design flow in accordance with Department Regulations Chapter 555.

PERMIT SUMMARY

This permitting action is:

1. Requiring the permittee to develop and periodically update a Operation and Maintenance (O&M) Plan and Wet Weather Management Plan for the waste water treatment facility and pump stations.

2. Carrying forward the monthly average, weekly average and daily maximum limits for biochemical oxygen demand (BOD_5) and total suspended solids (TSS).

3. Carrying forward the daily maximum technology based concentration limit for settleable solids.

4. Carrying forward the monthly average and daily maximum water quality based concentration limits for *E. coli* bacteria.

5. Carrying forward the daily maximum water quality based concentration limit for total residual chlorine.
6. Carrying forward the screening level whole effluent toxicity (WET) and chemical specific (priority pollutant) testing requirements.
7. Carrying forward the daily maximum technology based pH range limit of 6.0 – 9.0 standard units.
8. Increasing the quantity of septage the facility is authorized to receive and treat from 10,000 gpd to 25,000 gpd.
10. Establishing a requirement for achieving a minimum of 85% removal for BOD and TSS.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated April 7, 2004 and subject to the Conditions listed below, the Department makes the following CONCLUSION:

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 natural 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 discharges will be subject to effluent limitations that require application of best practicable treatment.

ACTION

THEREFORE, the Department APPROVES the application of the BRUNSWICK SEWER DISTRICT, to discharge up to a monthly average flow of 3.85 million gallons per day (MGD) of secondary treated sanitary waste waters from a municipal waste water treatment facility to the Androscoggin River, Class C, in Brunswick. The discharges shall be 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 expires five (5) years from the date of signature below.

DONE AND DATED AT AUGUSTA, MAINE, THIS 26TH DAY OF MAY, 2004.

COMMISSIONER OF ENVIRONMENTAL PROTECTION

BY: _____, FOR
Dawn Gallagher, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application December 19, 2003.

Date of application acceptance December 22, 2003.

FILED
MAY 28 2004
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE

Date filed with Board of Environmental Protection _____

This Order prepared by DAVID SILVER, BUREAU OF LAND & WATER QUALITY

W26005LD 5/26/04

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning the effective date of the permit and lasting through permit expiration, the permittee is authorized to discharge secondary treated waste waters to the Androscoggin River. Such treated waste water discharges shall be limited and monitored by the permittee as specified below. OUTFALL #001A

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Flow *[50050]*	3.85 MGD *[03]*	---	Report (MGD)	---	---	---	Continuous *[CN]*	Recorder *[RC]*
Biochemical Oxygen Demand (BOD_5) *[00310]*	963 lbs/Day *[26]*	1445 lbs/Day *[26]*	1605 lbs/Day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	3/Week *[03/07]*	Composite *[24]*
BOD_5 % Removal[1] *[81010]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Total Suspended Solids (TSS) *[00530]*	963 lbs/Day *[26]*	1445 lbs/Day *[26]*	1605 lbs/Day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	3/Week *[03/07]*	Composite *[24]*
TSS % Removal[1] *[81011]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Settleable Solids *[00545]*	---	---	---	---	---	0.3 ml/L *[25]*	1/Day *[01/01]*	Grab *[GR]*
E. coli Bacteria[2] *[31633]*	---	---	---	142/100 ml[3] *[13]*	---	949/100 ml *[13]*	3/Week *[03/07]*	Grab *[GR]*
Total Residual Chlorine *[50060]*	---	---	---	---	---	0.86 mg/L *[19]*	2/Day *[02/01]*	Grab *[GR]*
pH (Std. Units) *[00400]*	---	---	---	---	---	6.0-9.0 *[12]*	1/Day *[01/01]*	Grab *[GR]*

The italicized bracketed numeric values in the table above and tables that follow are not limitations but are code numbers used by Department personnel to code the Discharge Monitoring Reports (DMR)

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd) – OUTFALL #001A

SCREENING LEVEL TESTING – Beginning twelve months prior to permit expiration.

Effluent Characteristic	Discharge Limitations						Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity (WET) (4)								
A-NOEL								
Ceriodaphnia dubia [TDA3B]	---	---	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
Salvelinus fontinalis [TDA6F]	---	---	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
C-NOEL								
Ceriodaphnia dubia [TBP3B]	---	---	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
Salvelinus fontinalis [TBQ6F]	---	---	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
Chemical Specific(5) [50008]	---	---	---	---	---	Report ug/L [28]	1/Quarter [01/90]	Composite/ Grab [24/GR]

SPECIAL CONDITIONS

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

Footnotes:

Sampling Locations: Influent sampling for flow, BOD_5 and TSS shall be sampled at the downstream end of the aerated grit chamber. **Effluent receiving secondary treatment** (Outfall #001A) shall be sampled for all parameters after the chlorine contact chamber on a year-round basis. Any change in sampling location(s) other than those specified above must be reviewed and approved by the Department in writing.

Sampling – 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 Human Services.

1. **Percent removal** - The treatment 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. Influent and effluent values collected during bypass conditions shall not be used in calculating the BOD_5 and TSS percent removal rates.

2. ***E. coli* bacteria** - Limits are seasonal and apply between May 15 and September 30 of each calendar year. The Department reserves the right to require disinfection on a year-round basis to protect the health and welfare of the public.

3. ***E. coli* bacteria** – The monthly average limitation is a geometric mean limitation and shall be calculated and reported as such.

4. **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 dilution of 2.21% and 0.3% 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.

   Since this permit is being issued prior to the expiration of the Waste Discharge License, screening level testing required in that license has not been completed. Screening level testing must be completed as required in WDL #W002600-5L-C-R issued on October 1, 1999.

Beginning twelve months prior to the expiration date of the permit, the permittee shall initiate screening level WET tests at a frequency of once per year (any calendar quarter). Testing shall be conducted on the water flea (*Ceriodaphnia dubia*) and the brook trout (*Salvelinus fontinalis*). Results shall be submitted to the Department within thirty (30) days of the permittee receiving the data report from the laboratory conducting the testing. Toxicity tests must be conducted by an experienced laboratory approved by the Department. The laboratory must follow procedures as described in the following U.S.E.P.A. methods manuals.

a. Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Water to Freshwater Organisms, 4th Edition, October 2002, EPA-821-R-02-013.

b. Methods for Measuring the Acute Toxicity of Effluent and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, 3rd Edition, October 2002, EPA-821-R-02-012.

The permittee is also required to analyze the effluent for the parameters specified in the analytic chemistry report form in Attachment A of this permit every time a WET test is performed.

5. Priority pollutant - (chemical specific testing pursuant to Department rule Chapter 530.5) testing are those parameters listed by the USEPA pursuant to Section 307(a) of the Clean Water Act and published in 40 CFR Part 122, Appendix D, Tables II and III.

Since this permit is being issued prior to the expiration of the Waste Discharge License, screening level testing required in that license has not been completed. Screening level testing must be completed as required in WDL #W002600-5L-C-R issued on October 1, 1999.

Beginning twelve months prior to the expiration date of the permit, screening level chemical specific testing shall be conducted at a frequency of four per year (four consecutive calendar quarters). Chemical specific testing shall be conducted on samples collected at the same time as those collected for whole effluent toxicity tests, where applicable. Chemical specific testing 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. Results shall be submitted to the Department within thirty (30) days of the permittee receiving the data report from the laboratory conducting the testing. **For the purposes of DMR reporting, enter a "NODI-9" for *no testing done this monitoring period* or "1" for *yes, testing done this monitoring period.***

All mercury sampling 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.

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 usages 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 usages designated by the classification of the receiving waters.

3. The discharges shall not cause visible discoloration or turbidity in the receiving waters which would impair the usages designated 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. DISINFECTION

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

D. TREATMENT PLANT OPERATOR

The treatment facility must be operated by a person holding at a minimum a **Grade IV** certificate pursuant to Title 32 M.R.S.A., Section 4171 et seq. All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

E. 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.

SPECIAL CONDITIONS

F. 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 (13th) day of the month or hand-delivered to a Department Regional Office such that the DMR's are received by the Department on or before the fifteenth (15th) day of the month** following the completed reporting period. A signed copy of the DMR and all other reports required herein shall be submitted to the following address:

Department of Environmental Protection
Southern Maine Regional Office
Bureau of Land and Water Quality
Division of Compliance, Engineering & Technical Assistance
312 Canco Road
Portland, Maine 04103

G. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from Outfall 001A. Discharges of waste water from any other point source are not authorized under this permit, but shall be reported in accordance with Standard Condition B(5) (Bypass) of this permit.

H. 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 water; and

2. Any substantial change in the volume or character of pollutants being introduced into the waste water collection and treatment system by a source introducing pollutants into the system at the time of permit issuance. For the purposes of this section, notice regarding substantial change shall include information on:

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

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

I. WET WEATHER FLOW MANAGEMENT PLAN

The treatment facility staff shall develop and maintain a 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.

Within 90 days of completion of new and or substantial upgrades of the waste water treatment facility, the permittee shall submit to the Department for review and approval, a new or revised Wet Weather Management Plan which conforms to Department guidelines for such plans. The revised plan shall include operating procedures for a range of intensities, address solids handling procedures (including septic waste and other high strength wastes if applicable) and provide written operating and maintenance procedures during the events.

Once the Wet Weather Management Plan has been approved, the permittee shall review their plan annually and record any necessary changes to keep the plan up to date.

J. OPERATION & MAINTENANCE (O&M) PLAN

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

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

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

K. DISPOSAL OF SEPTAGE WASTE IN WASTE WATER 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 up to **a maximum of 25,000 gallons per day** of septage, subject to the following terms and conditions:

1. This approval is limited to methods and plans described in the application and supporting documents. Any variations are subject to review and approval prior to implementation.

2. At no time shall the addition of septage cause or contribute to effluent quality violations. If such conditions do exist, the introduction of septage into the treatment process or solids handling stream shall be suspended until effluent quality can be maintained.

3. The permittee shall maintain records which shall include, as a minimum, the following by date: volume of septage received, source of the septage (name of municipality), the hauler transporting the septage, the dates and volume of septage added to the waste water treatment influent and test results.

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

5. Septage known to be harmful to the treatment processes shall not be accepted. Wastes which contain heavy metals, toxic chemicals, extreme pH, flammable or corrosive materials in concentrations harmful to the treatment operation shall be refused.

6. Holding tank waste water shall not be recorded as septage but should be reported in the treatment facility's influent flow.

L. CHAPTER 530.5(B)(7)(c)(iii) CERTIFICATION

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:

1. Increases in the number, types and flows of industrial, commercial or domestic discharges to the facility that in the judgment of the Department may cause the receiving water to become toxic.

2. Changes in the condition or operations of the facility that may increase the toxicity of the discharge.

L. CHAPTER 530.5(B)(7)(c)(iii) CERTIFICATION (cont'd)

3. Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge.

4. Increases in the type or volume of hauled wastes accepted by the facility.

5. 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.

M. REOPENING OF PERMIT FOR MODIFICATIONS

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

Attachment A

FRESHWATER WHOLE EFFLUENT TOXICITY (WET) TEST REPORT

Facility _____ DEP License No _____ NPDES permit No _____

Contact person _____ Telephone No _____

Date initially sampled _____ (mm/dd/yy) Date tested _____ (mm/dd/yy) Chlorinated? _____

Test type screening _____ surveillance _____ Dechlorinated? _____

Results % effluent

Test required by: DEP/EPA

	Water flea	Trout	Fathead
LC50			
A-NOEL			
C-NOEL			

Receiving Water Concentration

A-NOEL	
C-NOEL	

Data summary

	water flea			tro ut			fat head		
	% survival		no. young	% survival		final wt (mg)	% survival		final wt (mg)
QC standard	A>90	C>80	>15/female	A>90	C>80	>2% increase	A>89	C>79	>0.25
lab control									
river water control									
conc. 1 (%)									
conc. 2 (%)									
conc. 3 (%)									
conc. 4 (%)									
conc. 5 (%)									
conc. 6 (%)									
stat test used									

place * next to values statistically different from controls for trout show final wt and % incr for both controls

Reference toxicant

	water flea		tro ut		fat head	
	LC50/A-NOEL	C-NOEL	LC50/A-NOEL	C-NOEL	LC50/A-NOEL	C-NOEL
toxicant / date						
limits (mg/l)						
results (mg/l)						

Comments _____

Laboratory Conducting Test. To the best of my knowledge this information is true, accurate, and complete

signature _____ company _____

printed name _____ address _____

tel. no. _____

Report analytical chemistry on reverse side.

ANALYTICAL CHEMISTRY RESULTS
FRESHWATER TESTS

Date collected _____ mm/dd/yy

Date analyzed _____ mm/dd/yy

Lab ID No. _____

Analyte	Report Units	Results receiving water	Results effluent	Detection level	Method
Alkalinity	mg/L			mg/L	
Ammonia nitrogen	µg/L			µg/L	
Specific conductance	µmhos			µmhos	
Total residual chlorine	mg/L			mg/L	
Total organic carbon	mg/L			mg/L	
Total solids	mg/L			mg/L	
Total suspended solids	mg/L			mg/L	
Total aluminum	µg/L			µg/L	
Total cadmium	µg/L			µg/L	
Total calcium	mg/L			mg/L	
Total chromium	µg/L			µg/L	
Total copper	µg/L			µg/L	
Total hardness	mg/L			mg/L	
Total lead	µg/L			µg/L	
Total magnesium	µg/L			µg/L	
Total nickel	µg/L			µg/L	
Total zinc	µg/L			µg/L	
other (pH)	S.U.			S.U.	
other ( )					

Comments _____

Laboratory conducting test. To the best of my knowledge this information is true, accurate, and complete

signature _____ lab name _____

printed name _____ address _____

tel. no. _____

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

AND

MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: **April 7, 2004**

PERMIT NUMBER: **ME0100102**
LICENSE NUMBER: **W002600-5L-D-R**

NAME AND ADDRESS OF APPLICANT:

Brunswick Sewer District
10 Pine Tree Road
Brunswick, Maine 04011

COUNTY: **Cumberland County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

8 Pine Tree Road
Brunswick, Maine 04011

RECEIVING WATER/CLASSIFICATION: **Androscoggin River/Class C**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER:

Mr. Leonard Blanchette
Assistant General Manager
(207) 729-0148 Ext. 15

1. APPLICATION SUMMARY

Application: The applicant has applied to the Department for renewal of Department Waste Discharge License (WDL) #W002600-5L-C-R which was issued on October 1, 1999 and is due to expire on October 1, 2004. The October 1, 1999 WDL authorized a monthly average flow discharge of up to 3.85 million gallons per day (MGD) of secondary treated sanitary waste waters from a municipal waste water treatment facility to the Androscoggin River, Class C, in Brunswick, Maine. The October 1, 1999 WDL also authorized the treatment of septage wastes received by truck in the amount of 10,000 gallons per day and the seasonal (May 15th to September 30th of each year) disinfection of the treated effluent. The applicant has requested an increase in the amount of septage wastes that are authorized to be treated from 10,000 to 25,000 gallons per day, or less than 1% of the design flow in accordance with Department Regulations Chapter 555.

2. PERMIT SUMMARY

a. Regulatory: On January 12, 2001, the Department received authorization from the U.S. Environmental Protection Agency (EPA) to administer the National Pollutant Discharge Elimination System (NPDES) permit program in Maine. From this point forward, the program will be referenced as the Maine Pollutant Discharge Elimination System (MEPDES) permit program that will utilize a permit number of #ME0100102 (same as NPDES permit) as the primary reference number for the Brunswick Sewer District's MEPDES permit. NPDES permit #ME0100102 last issued by the EPA on September 29, 1999 will be replaced by the final MEPDES permit upon issuance. Once replaced, all terms and conditions of the NPDES become null and void.

b. History: The most current relevant licensing/permitting and other actions include the following:

October 1, 1999 – The Department issued WDL#W002600-5L-C-R, for a five-year term.

June 7, 2000 – The Department established interim effluent limits for mercury of 58.9 parts per trillion (ng/L) (average concentration) and 88.4 ng/L (maximum concentration).

January 12, 2001 – The Department received authorization from the EPA to administer the NPDES program.

December 19, 2003 – Brunswick submitted an application for renewal of its Waste Discharge License which was accepted for processing on December 22, 2003.

c. Source Description: The facility is located at 8 Pine Tree Road and treats domestic and commercial waste waters from the towns of Brunswick, Topsham, and substantial flows from the Brunswick Naval Air Station (included remediated groundwater). There are no industrial users contributing greater than 10% of the volume of wastewater received by the treatment plant. Brunswick Sewer District maintains separated sewer collection system with the stormwater runoff collection system maintained by the Town of Burnswick. There are no combined sewer overflows in the system.

d. Waste Water Treatment:

The District's facility was upgraded from primary treatment to secondary treatment in 1991. Influent waste water screenings and grit are removed at the headworks. The waste water receives primary treatment in three rectangular clarifiers before the primary effluent is pumped to two trickling filters where secondary treatment is achieved. The waste water is then directed to two secondary clarifiers where it receives secondary clarification followed by seasonal disinfection in dual chlorine contact chambers. The waste water is discharged to the Androscoggin River via a twenty-four inch diameter outfall pipe (without diffusers) located on the bank of the River (at low tide the outfall is exposed). Sludge dewatering is accomplished by two 2-meter belt filter presses and dewatered sludge is lime stabilized and hauled to field spreading and stacking sites operated by the District, or to the "Hawk Ridge Compost Facility" for composting. Refer to Attachment A of this Fact Sheet for a schematic of the treatment process.

3. CONDITIONS OF PERMITS

Maine law, 38 M.R.S.A. Section 414-A, requires that the effluent limitations prescribed for discharges require application of best practicable treatment, 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, Maine law, 38 M.R.S.A., Section 420, and Department Regulation Chapter 530.5, *Surface Water Toxics Control Program* requires the regulation of toxic substances at the levels set forth for Federal Water Quality Criteria as published by the U.S. Environmental Protection Agency pursuant to the Clean Water Act.

4. RECEIVING WATER STANDARDS

Maine law, 38 M.R.S.A., Section 467(1)(A)(2) indicates the Androscoggin River at the point of discharge is classified as a Class C waterway. Maine law, 38 M.R.S.A., Section 465(3) describes standards for classification of Class C waters.

5. RECEIVING WATER CONDITIONS

Table 4-B1, *Rivers and Streams Impaired By Pollutants, Pollution Control Requirements Reasonably Expected to Result in Attainment* of a document entitled, The State of Maine, Department of Environmental Protection, 2002 Itegrated Water Quality Monitoring and Assessment Report, published by the Department, indicates the Androscoggin River in the vicinity of the outfall between the Brunswick Dam and the Brunswick-Bath town border is attaining the standards of its assigned classification with the exception of fishing (consumption) due to presence of dioxin in fish tissue. It is noted that the Department is not aware of any dioxin related discharges from the Brunswick Waste Water Treatment Plant. Therefore, the Department concludes that the treatment plant at Brunswick does not cause or contribute to the fish consumption advisory for that segment of the Androscoggin River.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

a. Flow: The monthly average flow limitation of 3.85 MGD in the previous licensing action is being carried forward in this permitting action as it remains representative of the monthly average design capacity of the treatment facility.

b. Dilution Factors - The Department established applicable dilution factors for the discharge in accordance with freshwater protocols established in Department Rule Chapter 530.5, *Surface Water Toxics Control Program*, October 1994. With a WDL flow limit of 3.85 MGD the dilution factors are as follows:

Modified Acute[1] = 481 cfs $\Rightarrow \frac{(481\text{ cfs})(0.6464) + (3.85\text{ MGD})}{(3.85\text{ MGD})} = 45.2:1$

Acute: 1Q10[1] = 1,052 cfs $\Rightarrow \frac{(1{,}052\text{ cfs})(0.6464) + (3.85\text{ MGD})}{(3.85\text{ MGD})} = 177.8:1$

Chronic: 7Q10 =2,010 cfs $\Rightarrow \frac{(2{,}010\text{ cfs})(0.6464) + (3.85\text{ MGD})}{(3.85\text{ MGD})} = 338:1$

Harmonic Mean: = 4,399 cfs $\Rightarrow \frac{(4{,}399\text{ cfs})(0.6464) + (3.85\text{ MGD})}{(3.85\text{ MGD})} = 739.6:1$

Footnote:

(1) Chapter 530.5 (D)(4)(a) states that analyses using numeric 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. The 1Q10 is the lowest one day flow over a ten-year recurrence interval. The regulation goes on to say that where it can be demonstrated that a discharge achieves rapid and complete mixing with the receiving water by way of an efficient diffuser or other effective method, analyses may use a greater proportion of the stream design, up to including all of it. The Department has made the determination that the discharge does not receive rapid and complete mixing with the receiving water, therefore the default stream flow of ¼ of the 1Q10 is applicable in acute statistical evaluations pursuant to Chapter 530.5.

c. Biochemical Oxygen Demand (BOD5) & Total Suspended Solids (TSS): - The previous licensing established monthly and weekly average BOD5 and TSS best practicable (BPT) concentration limits of 30 mg/L and 45 mg/L respectively, that were based on secondary treatment requirements of Department rule Chapter 525(3)(III). The maximum daily BOD5 and TSS concentration limits of 50 mg/L were based on a Department best professional judgment of BPT. All three concentration limits are being carried forward in this permitting action.

As for mass limitations, this permitting action is establishing monthly average, weekly average, and daily maximum limitations based on a monthly average limit of 3.85 MGD. The limitations were calculated as follows:

Monthly average: (3.85 MGD)(8.34)(30 mg/L) = 963 lbs/day
Weekly average: (3.85 MGD)(8.34)(45 mg/L) = 1445 lbs/day
Daily maximum: (3.85 MGD)(8.34)(50 mg/L) = 1605 lbs/day

This permitting action also establishes a new requirement of 85% removal for BOD and TSS pursuant to Department rule Chapter 525(3)(III)(a&b)(3).

Monitoring frequencies for BOD and TSS of 3/Week are being carried forward from the previous licensing action and are based on Department policy for facilities with a monthly average flow greater than 1.5 MGD but less than 5.0 MGD.

d. Settleable Solids - The previous license established daily maximum technology based concentration limit of 0.3 ml/L that is being carrying forward in this permitting action.

e. Escherichia coliform bacteria: The monthly average and daily maximum water quality based *E. coli* bacteria limits of 142 colonies/100 ml and 949 colonies/100 ml in the previous licensing action are being carried forward in this permitting action and are based on the State of Maine Water Classification Program criteria for Class C waters.

f. Total Residual Chlorine - The previous licensing action established a daily maximum limit of 0.86 mg/L for the discharge. 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 Department establishes the more stringent of the water quality or technology based limits in permitting actions. End-of-pipe water quality based concentration thresholds may be calculated as follows:

Parameter	Acute Criteria	Chronic Criteria	Acute Dilution	Chronic Dilution	Acute Limit	Chronic Limit
Chlorine	19 ug/L	11 ug/L	45.2:1	338.5:1	0.86 mg/L	3.72 mg/L

Example calculation: Acute – 0.019 mg/L (45.2) = 0.86 mg/L

In the case of the Brunswick facility, the calculated acute water quality based threshold is less than 1.0 mg/L, thus the water quality based limit of 0.86 mg/L is imposed as a daily maximum limit.

g. pH Range- The previous licensing action established a pH range limitation of 6.0 - 8.5 standard units. The limits were based on Maine Board of Environmental Protection Policy regarding the certification of NPDES permits and were considered best practicable treatment limitations. This permitting action is shifting the range limit from 6.0 – 8.5 to 6.0 –9.0 standard units pursuant to a new Department rule found at Chapter 525(3)(III)(c). The new limits are considered BPT.

h. Whole Effluent Toxicity (WET) and Chemical Specific Testing Maine Law, 38 M.R.S.A., Sections 414-A and 420, prohibit the discharge of effluents containing substances in amounts which 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 EPA. Department Rules, 06-096 CMR Chapter 530.5, *Surface Water Toxics Control Program*, set forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

WET and chemical specific (priority pollutant) testing, as required by Chapter 530.5, is included 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 waste water, 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. Chemical specific, or "priority pollutant (PP)," 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.

The Chapter 530.5 regulation places the Brunswick facility in the low frequency category for WET testing as the facility had a chronic dilution factor greater than 100:1 and in the high frequency testing category for chemical specific testing as the facility is permitted to discharge greater than 1.0 MGD.

A recent review of Brunswick's data indicates that they have fulfilled the Chapter 530.5 testing requirements to date. See Attachment B of this Fact Sheet for a summary of the WET test results and Attachment C of this Fact Sheet for a summary of the chemical specific test dates.

Department Rule Chapter 530.5 and Protocol E(1) of a document entitled *Maine Department of Environmental Protection, Toxicity Program Implementation Protocols*, dated July 1998, states that statistical evaluations shall be periodically performed on the most recent 60 months of WET and chemical specific data for a given facility to determine if water quality based limitations must be included in the permit.

Chapter 530.5 §C(2) states when a discharge *"...contains pollutants at levels that have a reasonable potential to cause or contribute to an ambient excursion in excess of a numeric or narrative water quality criterion, appropriate water quality based limits must be established in the permit upon issuance."*

Chapter 530.5 §C(3) also states that if data indicates that a discharge is causing an exceedence of applicable AWQC, then: *"(1) the Department must notify the licensee of the exceedence; (2) the licensee must submit a toxicity reduction evaluation (TRE) plan for review and approval within 30 days of receipt of notice and implement the TRE after Department approval; (3) the Department must modify the waste discharge license to*

specify effluent limits and monitoring requirements necessary to control the level of pollutant and meet receiving water classification standards within 180 days of the Department's approval of the TRE."

On January 30, 2004, the Department conducted a statistical evaluation on the aforementioned tests results in accordance with the statistical approach outlined in EPA's March 1991 document entitled *Technical Support Document (TSD) for Water Quality Based Toxics Control*, Chapter 3.3.2 and Maine Department of Environmental Protection Guidance, July 1998, entitled *Toxicity Program Implementation Protocols*. The results of the January 30, 2004, WET and chemical specific evaluation indicates that the discharge does not exceed or have a reasonable potential to exceed the critical acute or chronic WET thresholds (2.21% and 0.3% respectively – mathematical inverse of the applicable dilution factors) for any of the WET species tested to date or any of the chemical specific elements/compounds tested to date.

The Department establishes the testing frequency for WET or chemical specific parameters that exceed or have a reasonable potential to exceed ambient water quality thresholds/criteria taking into consideration the frequency, timing and severity of the tests results that are at issue. In the absence of exceedances or reasonable potential to exceed critical thresholds or ambient water quality criteria Brunswick continues to meet the reduced testing frequency criteria in Department rule Chapter 530.5(B)(7)(c)(iii). The Department has made a best professional judgment to maintain a screening level of testing, 1/Year for WET testing and 4/Year (four consecutive calendar quarters) for priority pollutants beginning twelve (12) months prior to the expiration date of the permit.

Since this permit is being issued prior to the expiration of the Waste Discharge License, screening level testing required in that license has not been completed. Screening level testing must be completed as required in WDL #W002600-5L-C-R issued on October 1, 1999.

i. Septage - The permittee has requested an increase in the amount of septage authorized to be disposed in the treatment facility from 10,000 to 25,000 gallons per day. The Department has considered the treatment facility design for BOD, TSS and flow capacity for the current and proposed loads to the system. The Department determined that excess capacity exists at the treatment plant to adequately treat septage and found that the proposed 25,000 gallon septage load would be within the design capacity of the treatment facility for adequate treatment.

The permittee is prohibited from accepting septage for disposal into any part or parts of the wastewater disposal system unless incorporated in a manner consistent with Department Chapter 555 regulations *Standards For The Addition Of Septage To Wastewater Treatment Facilities*. Septage shall mean 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. The daily volume of septage received into the treatment works shall not exceed 1% of the average daily design flow for that facility. In no case shall the quantity or concentration of septage received cause any design parameter of that wastewater treatment facility to be exceeded.

Septage which is harmful to the treatment processes or sludge disposal practices shall not be accepted. Wastes which contain heavy metals, toxic chemicals. extreme pH, flammable or corrosive materials in concentrations harmful to the treatment operation shall be refused. The Brunswick Treatment Plant has been found to be operating in compliance with the terms of its WDL when, in the past, septage has been accepted and treated at the facility. Brunswick has been authorized to accepted and treat up to 10,000 gallons per day by the previous WDL. During the effective period of this permit, the permittee is authorized to receive up to a maximum of 25,000 gallons of septage per day at the septage receiving station and holding tank.

8. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

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

9. PUBLIC COMMENTS

Public notice of this application was made in the Brunswick Times Record newspaper on or about November 21, 2003. 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.

10. DEPARTMENT CONTACTS

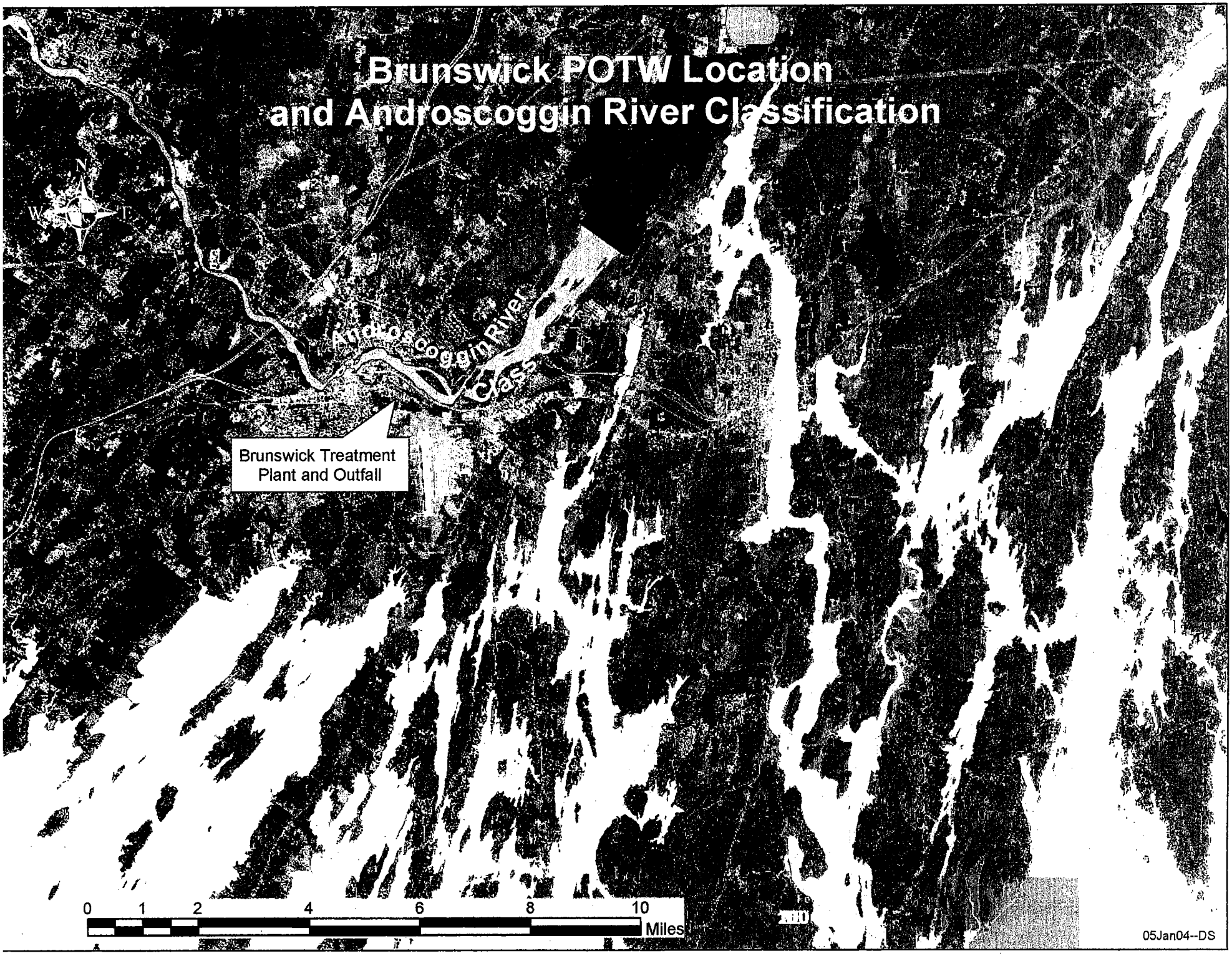
Additional information concerning this permitting action may be obtained from and written comments should be sent to:

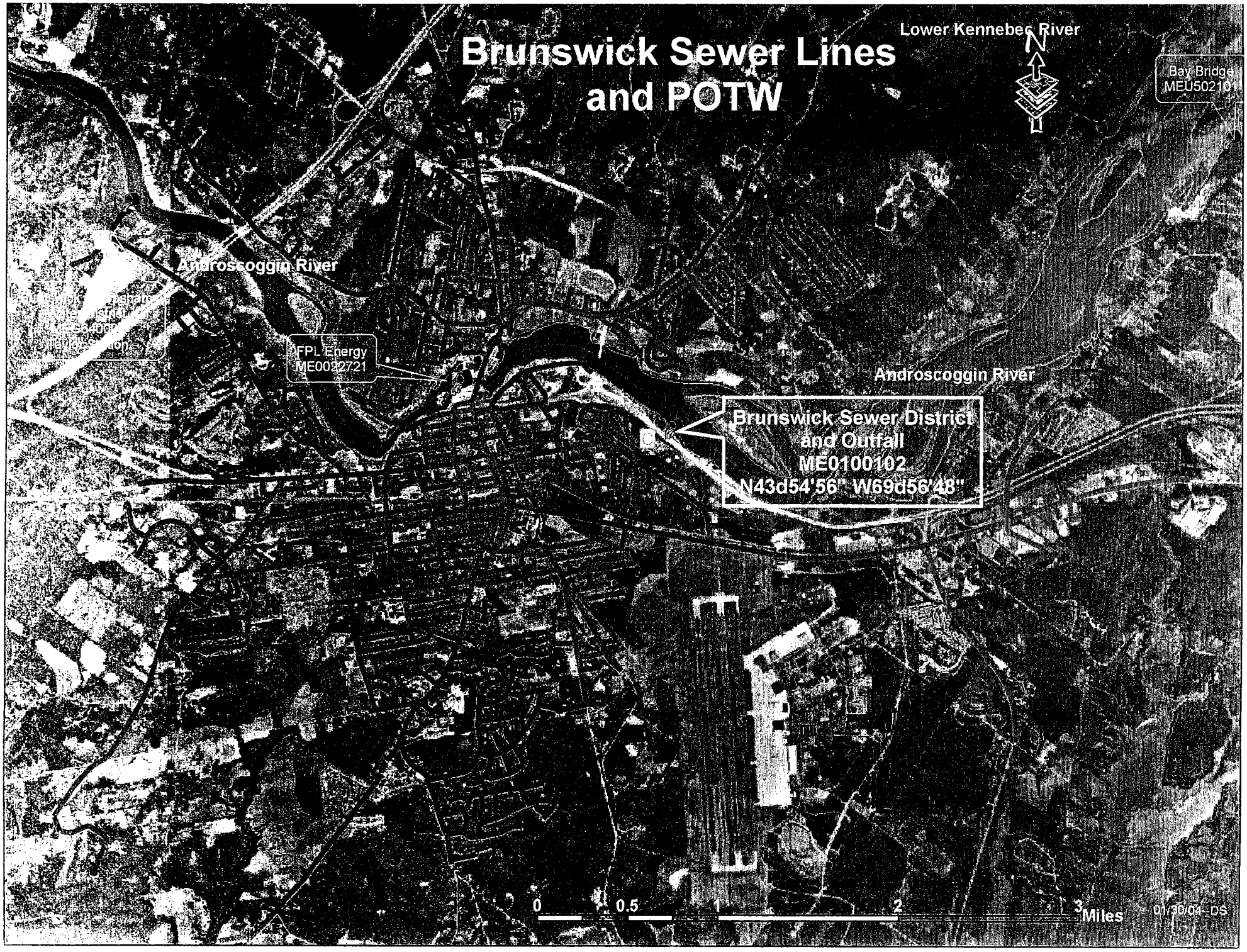
David Silver
Division of Water Resource Regulation
Bureau of Land and Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 287-7658

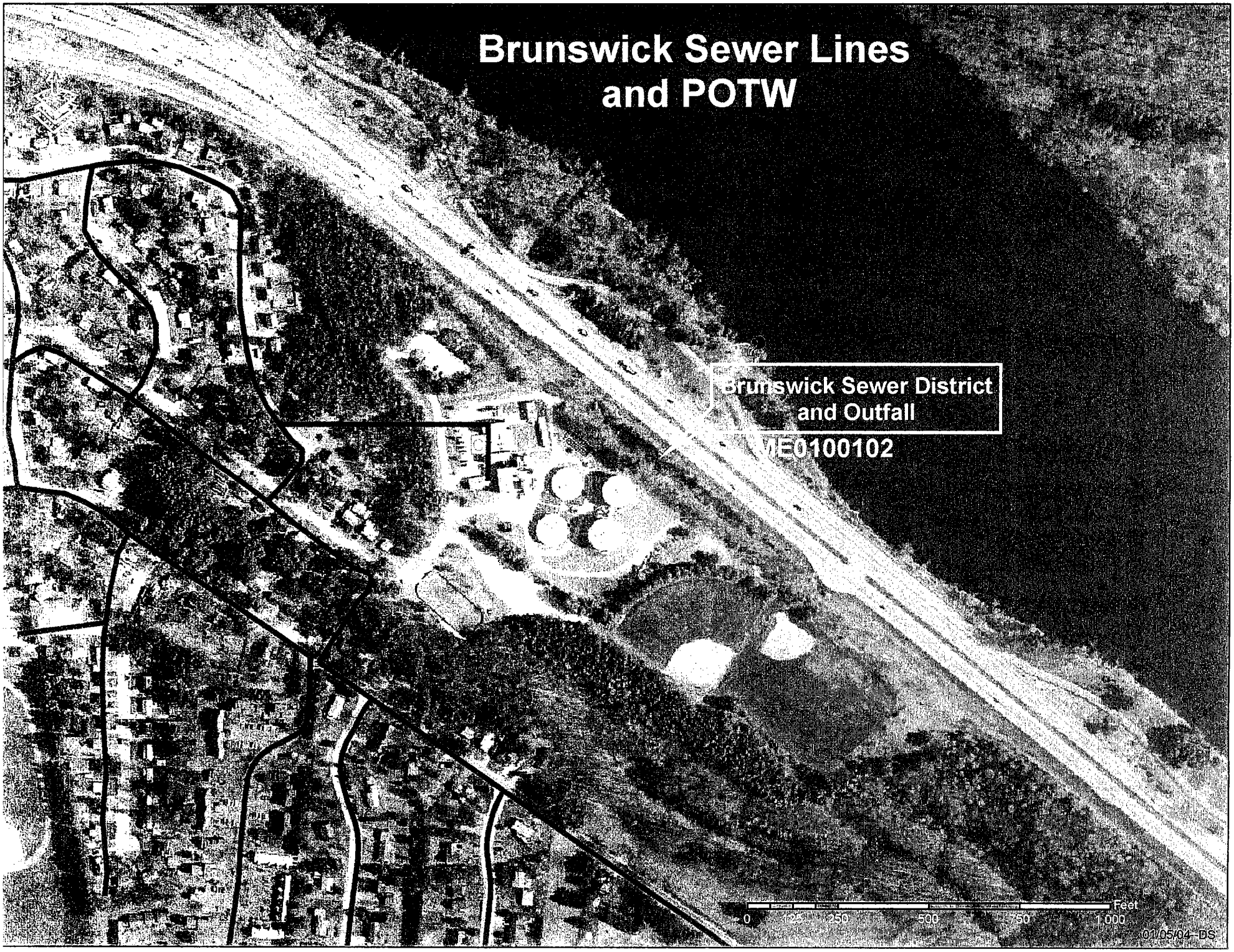
11. RESPONSE TO COMMENTS

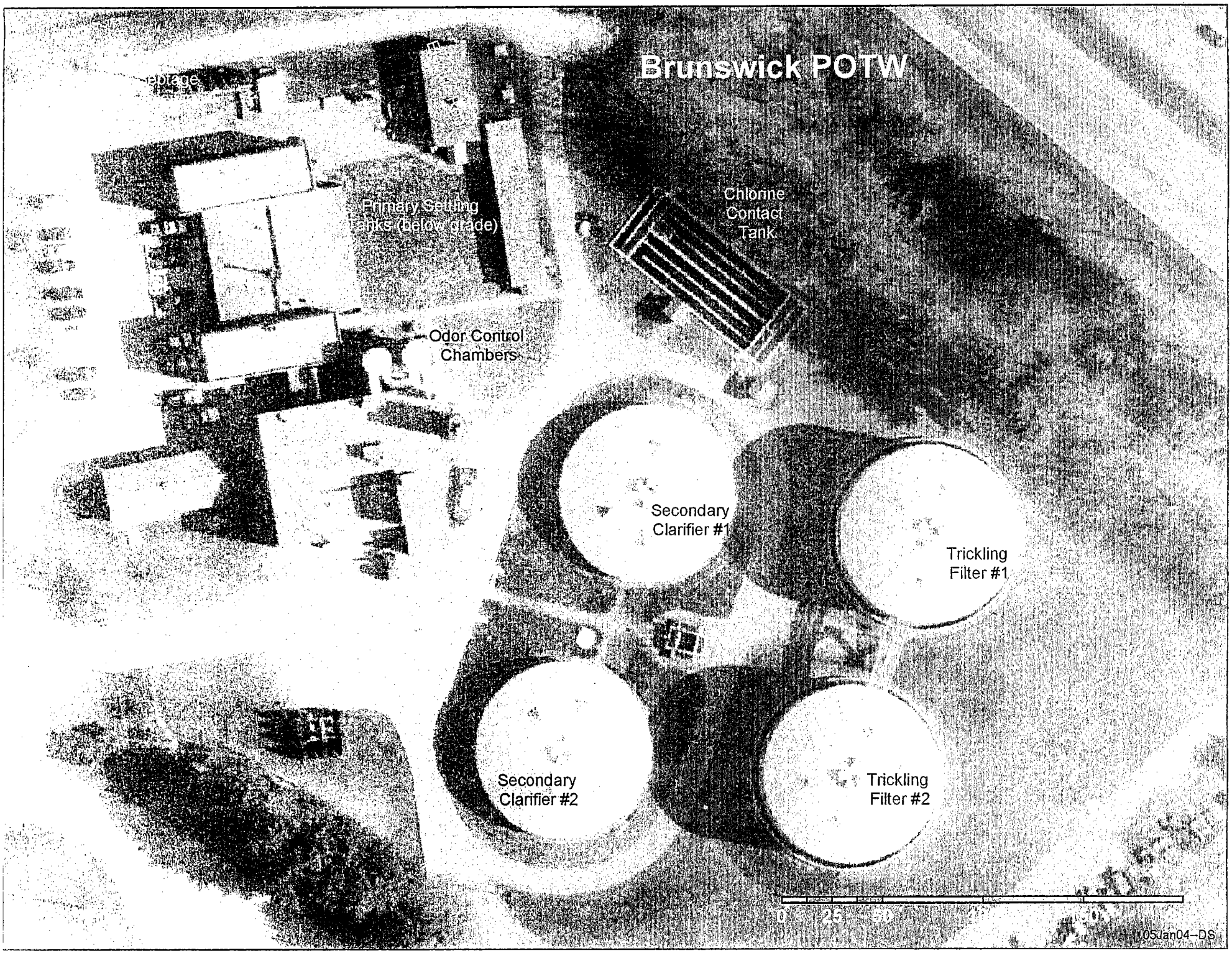
During the period of April 7, 2004 and final Department action, the Department solicited comments on the proposed draft permit to be issued to the Brunswick Sewer District for the proposed discharge. The Department did not receive comments from the permittee, state or federal agencies or interested parties that resulted in any substantive change(s) in the terms and conditions of the license. Therefore, the Department has not prepared a Response to Comments.

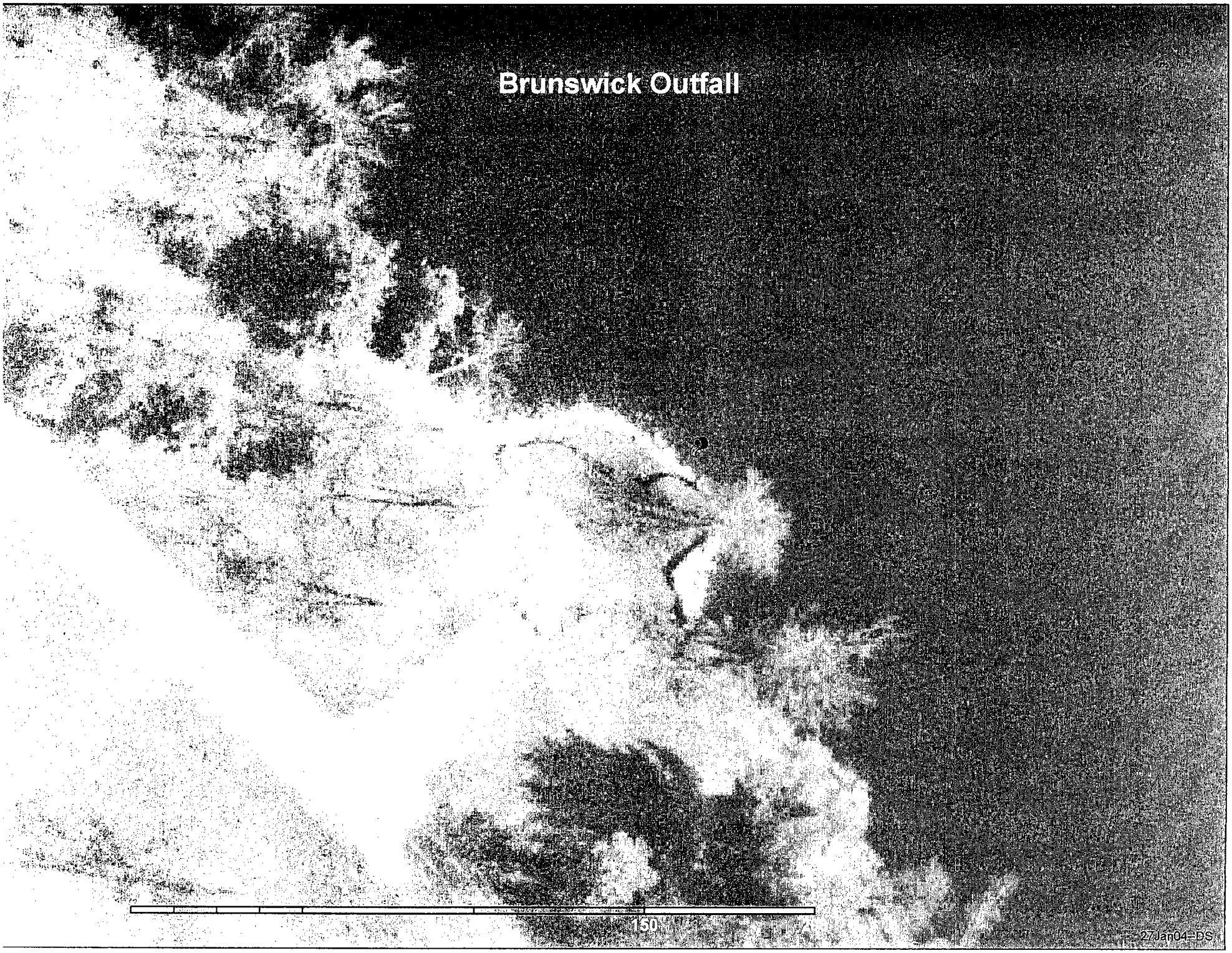
ATTACHMENT A


Brunswick POTW Location
and Androscoggin River Classification
N
W
E
Androscoggin River
Class
Brunswick Treatment
Plant and Outfall
0
1
2
4
6
8
10
Miles
05Jan04--DS


Brunswick Sewer Lines
and POTW
Lower Kennebec River
N
Bay Bridge
MEU502101
Androscoggin River
FPL Energy
ME0032721
Androscoggin River
Brunswick Sewer District
and Outfall
ME0100102
N43d54'56" W69d56'48"
0
0.5
1
2
3
Miles
01/30/04-DS


Brunswick Sewer Lines
and POTW
Brunswick Sewer District
and Outfall
ME0100102
0
125
250
500
50
1,000
Feet
01/05/04 DS


Brunswick POTW
Primary Settling Tanks (below grade)
Chlorine Contact Tank
Odor Control Chambers
Secondary Clarifier #1
Trickling Filter #1
Secondary Clarifier #2
Trickling Filter #2
0 25 50
05Jan04–DS


Brunswick Outfall
150
27Jan04-DS

Attachment B

BRUNSWICK
ANDROSCOGGIN RIVER

Flow: 3.9 MGD
Chronic dilution: 338.5:1
Acute dilution: 177.8:1

Species	Test	Test Result %	Sample Date
FATHEAD	LC50	>100	04/01/1992
WATER FLEA	LC50	>100	04/01/1992
FATHEAD	LC50	>100	12/15/1992
WATER FLEA	LC50	>100	12/15/1992
FATHEAD	LC50	>100	06/08/1993
TROUT	LC50	>100	06/08/1993
WATER FLEA	LC50	>100	06/08/1993
FATHEAD	LC50	>100	11/29/1993
WATER FLEA	LC50	>100	11/29/1993
FATHEAD	LC50	>100	06/13/1994
WATER FLEA	LC50	>100	06/13/1994
FATHEAD	LC50	>100	11/28/1994
WATER FLEA	LC50	>100	11/28/1994
FATHEAD	A_NOEL	100	07/31/1995
FATHEAD	LC50	100	07/31/1995
WATER FLEA	A_NOEL	100	07/31/1995
WATER FLEA	LC50	100	07/31/1995
FATHEAD	A_NOEL	100	08/13/1996
FATHEAD	LC50	>100	08/13/1996
WATER FLEA	A_NOEL	100	08/13/1996
WATER FLEA	LC50	>100	08/13/1996
FATHEAD	A_NOEL	100	08/03/1997
FATHEAD	LC50	>100	08/03/1997
TROUT	A_NOEL	100	08/03/1997
TROUT	C_NOEL	100	08/03/1997
WATER FLEA	A_NOEL	100	08/03/1997
WATER FLEA	C_NOEL	<5	08/03/1997
WATER FLEA	LC50	>100	08/03/1997
WATER FLEA	A_NOEL	100	09/28/1997
WATER FLEA	C_NOEL	<5	09/28/1997
WATER FLEA	LC50	>100	09/28/1997
FATHEAD	A_NOEL	100	08/03/1998
FATHEAD	LC50	>100	08/03/1998
TROUT	A_NOEL	100	08/03/1998
TROUT	C_NOEL	100	08/03/1998
TROUT	LC50	>100	08/03/1998
WATER FLEA	A_NOEL	100	08/03/1998
WATER FLEA	C_NOEL	1	08/03/1998
WATER FLEA	LC50	>100	08/03/1998
FATHEAD	A_NOEL	100	07/05/1999
FATHEAD	LC50	>100	07/05/1999

Species	Test	Test Result %	Sample Date
TROUT	A_NOEL	100	07/05/1999
TROUT	C_NOEL	100	07/05/1999
TROUT	LC50	>100	07/05/1999
WATER FLEA	A_NOEL	100	07/05/1999
WATER FLEA	C_NOEL	100	07/05/1999
WATER FLEA	LC50	>100	07/05/1999
WATER FLEA	A_NOEL	100	12/14/1999
WATER FLEA	C_NOEL	50	12/14/1999
WATER FLEA	LC50	>100	12/14/1999
WATER FLEA	A_NOEL	100	02/13/2000
WATER FLEA	C_NOEL	100	02/13/2000
WATER FLEA	LC50	>100	02/13/2000
TROUT	A_NOEL	100	04/30/2000
TROUT	C_NOEL	100	04/30/2000
TROUT	LC50	>100	04/30/2000
WATER FLEA	A_NOEL	100	04/30/2000
WATER FLEA	C_NOEL	100	04/30/2000
WATER FLEA	LC50	>100	04/30/2000
WATER FLEA	A_NOEL	100	07/16/2000
WATER FLEA	C_NOEL	100	07/16/2000
WATER FLEA	LC50	>100	07/16/2000
TROUT	A_NOEL	100	04/22/2001
TROUT	C_NOEL	50	04/22/2001
TROUT	LC50	>100	04/22/2001
WATER FLEA	A_NOEL	100	04/22/2001
WATER FLEA	C_NOEL	100	04/22/2001
WATER FLEA	LC50	>100	04/22/2001
FATHEAD	A_NOEL	100	06/13/2001
FATHEAD	LC50	>100	06/13/2001
WATER FLEA	A_NOEL	100	06/13/2001
WATER FLEA	LC50	>100	06/13/2001
TROUT	A_NOEL	100	04/15/2002
TROUT	C_NOEL	10	04/15/2002
TROUT	LC50	>100	04/15/2002
WATER FLEA	A_NOEL	100	04/15/2002
WATER FLEA	C_NOEL	100	04/15/2002
WATER FLEA	LC50	>100	04/15/2002
FATHEAD	A_NOEL	100	09/24/2002
FATHEAD	LC50	100	09/24/2002
WATER FLEA	A_NOEL	100	09/24/2002
WATER FLEA	LC50	>100	09/24/2002

Species	Test	Test Result %	Sample Date
TROUT	A_NOEL	100	04/06/2003
TROUT	C_NOEL	50	04/06/2003
TROUT	LC50	>100	04/06/2003
WATER FLEA	A_NOEL	100	04/06/2003
WATER FLEA	C_NOEL	100	04/06/2003
WATER FLEA	LC50	>100	04/06/2003
TROUT	A_NOEL	100	09/16/2003
TROUT	LC50	>100	09/16/2003
WATER FLEA	A_NOEL	8.3	09/16/2003
WATER FLEA	LC50	20.2	09/16/2003

Attachment C

Sample Date: 07/05/1999
Only chronic flow provided

Total Tests:	140	mon.(MGD)= 2.282
Missing Compounds:	1	
Tests With High DL:	0	

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 04/30/2000
Plant flows provided

Total Tests:	136	mon.(MGD)= 3.932
Missing Compounds:	0	day(MGD)= 4.096
Tests With High DL:	0	

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 04/24/2001
Plant flows provided

Total Tests:	123	mon.(MGD)= 4.301
Missing Compounds:	1	day(MGD)= 4.065
Tests With High DL:	0	

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 04/15/2002
Plant flows provided

Total Tests:	141	mon.(MGD)= 3.058
Missing Compounds:	1	day(MGD)= 3.278
Tests With High DL:	0	

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 04/06/2003
Plant flows provided

Total Tests:	136	mon.(MGD)= 2.830
Missing Compounds:	0	day(MGD)= 2.335
Tests With High DL:	0	

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 09/10/2003
Plant flows provided

Total Tests:	124	mon.(MGD)= 2.024
Missing Compounds:	0	day(MGD)= 1.886
Tests With High DL:	0	

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 10/28/2003
Plant flows provided

Total Tests:	124	mon.(MGD)= 2.500
Missing Compounds:	0	day(MGD)= 2.847
Tests With High DL:	0	

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0