

Sandy Leo
EPA



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

April 21, 2006

DAVID P. LITTELL
COMMISSIONER

Mr. Timothy L. Watts
President
East Wind, Inc.
P.O. Box 149
Tenants Harbor, ME 04860

**RE: *Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0036765
Maine Waste Discharge License (WDL) Application #W001988-5C-B-R
Final MEPDES Permit/WDL***

Dear Mr. Watts:

Enclosed, please find a copy of your **final** MEPDES permit and Maine WDL which was approved by the Department of Environmental Protection. Please read the permit/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.*"

If you have any questions regarding the matter, please feel free to call me at 287-7659.

Sincerely,

Bill Hinkel
Division of Water Resource Regulation
Bureau of Land and Water Quality

Enc.

cc: Chris Johnson, DEP
File #1988

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
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) 760-3143



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

DEPARTMENT ORDER

IN THE MATTER OF

EAST WIND, INC.	)	MAINE POLLUTANT DISCHARGE
OVERBOARD DISCHARGE	)	ELIMINATION SYSTEM PERMIT
ST. GEORGE, KNOX COUNTY	)	AND
#ME0036765	)	WASTE DISCHARGE LICENSE
#W001988-5C-B-R APPROVAL	)	RENEWAL

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

APPLICATION SUMMARY

East Wind has applied to the Department for renewal of Waste Discharge License (WDL) #W001988-41-A-R, which was issued on December 4, 1986 and expired on December 4, 1991. The WDL authorized the monthly average, year-round discharge of up to 3,900 gallons per day (GPD) of secondary treated sanitary wastewater from the East Wind Inn's wastewater treatment system to the Atlantic Ocean at Tenants Harbor, Class SB, in St. George, Maine. In this permitting action, the applicant seeks to reduce the monthly average discharge flow limit to 3,500 GPD consistent with the design capacity of a new treatment system scheduled for installation.

On January 12, 2001, the Department received authorization from the U.S. Environmental Protection Agency (USEPA) to administer the National Pollutant Discharge Elimination System (NPDES) permit program in Maine, excluding areas of special interest to Maine Indian Tribes. From that point forward, the program has been referred to as the Maine Pollutant Discharge Elimination System (MEPDES) permit program, and permit #ME0036765 will be utilized as the primary reference number. It is noted that the previous licensing action utilized a Permit Compliance System (PCS) tracking number of MEU501988 for the management of effluent compliance data for this facility which is being replaced by the above referenced MEPDES number.

PERMIT SUMMARY

This permitting action is similar to the 12/4/86 licensing action in that it is:

1. Carrying forward the monthly average, technology-based concentration limits of 30 mg/L for biochemical oxygen demand (BOD₅) and total suspended solids (TSS);
2. Carrying forward the daily maximum, technology-based concentration limit of 1.0 mg/L for total residual chlorine (TRC); and
3. Carrying forward the requirement to maintain a valid service contract with a State certified agent to provide adequate inspection and maintenance services for the treatment system.

This permitting action is different from the 12/4/86 licensing action in that it is:

1. Establishing a new MEPDES permit number of ME0036765 for this facility and deactivating the Permit Compliance System (PCS) tracking number of MEU501988 previously associated with this facility;
2. Revising the monthly average discharge flow limit from 3,900 GPD to 3,500 GPD;
3. Revising the daily maximum concentration limit for BOD₅ and TSS from 60 mg/L to 50 mg/L;
4. Establishing weekly average, technology-based concentration limits of 45 mg/L for BOD₅ and TSS;
5. Establishing monthly average, weekly average and daily maximum technology-based mass limits for BOD₅ and TSS;
6. Establishing a requirement to achieve a minimum 30-day average of 85 percent removal for BOD₅ and TSS;
7. Revising the daily maximum, technology-based concentration limit for settleable solids from 0.1 ml/L to 0.3 ml/L;
8. Revising the daily maximum concentration limitation for fecal coliform bacteria from 15 colonies/100 ml to 50 colonies/100 ml;
9. Establishing a monthly average concentration limitation of 15 colonies/100 ml for fecal coliform bacteria;
10. Revising the pH range limitation from 6.0 – 8.5 standard units (SU) to 6.0 – 9.0 SU;
11. Establishing Special Condition L, *Chapter 530(2)(D)(4) Statement for Reduced Toxics Testing* for waived toxics testing; and
12. Revising the minimum monitoring frequency requirements for all monitored parameters.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated April 19, 2006, and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with State law.
3. The provisions of the State's antidegradation policy, 38 M.R.S.A. §464(4)(F), will be met, in that:
 - (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;
 - (b) Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;
 - (c) 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 water quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.
4. The discharges will be subject to effluent limitations that require application of best practicable treatment as defined in Maine law, 38 M.R.S.A. §414-A(1)(D).
5. The overboard discharge system was in continuing existence for the 12 months preceding June 1, 1987.
6. A subsurface wastewater disposal system could not be installed in compliance with the Maine Subsurface Waste Water Disposal Rules at the time the renewal application was accepted by the Department.
7. A publicly owned sewer line is not located on or abutting land owned or controlled by the permittee or is not available for the permittee's use.
8. The discharge is not located within the boundaries of a sanitary district or sewer district.

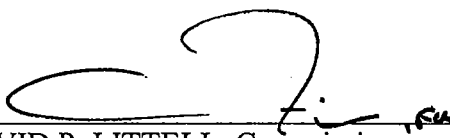
ACTION

THEREFORE, the Department APPROVES the above noted application of EAST WIND, INC. to discharge a monthly average flow of up to 3,500 gallons per day of secondary treated sanitary wastewater from the EAST WIND INN wastewater treatment system to the Atlantic Ocean at Tenants Harbor, Class SB, in St. George, Maine, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

1. "Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits," revised July 1, 2002, copy attached.
2. The attached Special Conditions, including any effluent limitations and monitoring requirements.
3. The expiration date of this permit is five (5) years from the date of signature below.

DONE AND DATED AT AUGUSTA, MAINE, THIS 20TH DAY OF April, 2006.

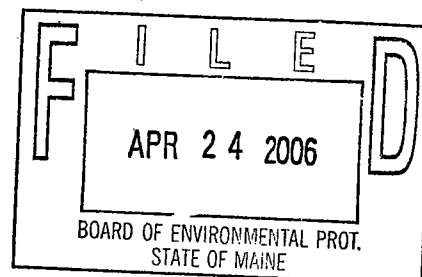
DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: 
DAVID P. LITTELL, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: December 31, 1996

Date of application acceptance: January 2, 1997



Date filed with Board of Environmental Protection: _____

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- The permittee is authorized to discharge **secondary treated sanitary wastewater via Outfall #001A** to the Atlantic Ocean at Tenants Harbor. Such discharges shall be limited and monitored by the permittee as specified below⁽¹⁾:

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
	as specified	as specified	as specified	as specified	as specified	as specified	as specified	as specified
Flow [50050]	3,500 GPD [07]	--	--	--	--	--	Quarterly ⁽²⁾ [01/90]	Estimated [ES]
BOD ₅ ⁽³⁾ [00310]	0.9 lbs./day [26]	1.3 lbs./day [26]	1.5 lbs./day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	Quarterly ⁽²⁾ [01/90]	Grab [GR]
TSS ⁽³⁾ [00530]	0.9 lbs./day [26]	1.3 lbs./day [26]	1.5 lbs./day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	Quarterly ⁽²⁾ [01/90]	Grab [GR]
Settleable Solids [00545]	--	--	--	--	--	0.3 ml/L [25]	Quarterly ⁽²⁾ [01/90]	Grab [GR]
Fecal Coliform Bacteria ⁽⁴⁾ [31616] May 15-Sept. 30	--	--	--	15/100 ml ⁽⁵⁾ [13]	--	50/100 ml [13]	1/Month ⁽⁶⁾ [01/30]	Grab [GR]
Total Residual Chlorine ⁽⁷⁾ [50060]	--	--	--	--	--	1.0 mg/L [19]	1/Week [01/07]	Grab [GR]
pH [00400]	--	--	--	--	--	6.0 – 9.0 SU [12]	Quarterly ⁽²⁾ [01/90]	Grab [GR]

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

FOOTNOTES: See Page 6 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

FOOTNOTES:

1. **Monitoring** – All effluent monitoring shall be conducted at a location following the last treatment unit in the treatment process as to be representative of end-of-pipe effluent characteristics. Effluent monitoring shall be conducted from a tank or chamber following the point of effluent disinfection, or other location specified by the Department. Any change in sampling location must be approved by the Department in writing. Sampling and analysis must be conducted in accordance with: a) methods approved by 40 Code of Federal Regulations (CFR) Part 136; b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136; or c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services.
2. **Quarterly Monitoring** – Quarterly monitoring is required for all parameters (except TRC and bacteria) during the months of **March, June, September and December**. The permittee shall also conduct effluent monitoring during the months of **July and August**.
3. **Percent Removal** – The treatment facility shall maintain a minimum of 85 percent removal of both biochemical oxygen demand and total suspended solids for all flows receiving secondary treatment.
4. **Bacteria Limits** – Fecal coliform bacteria limits and monitoring requirements are seasonal and apply between May 15 and September 30 of each year. The Department reserves the right to require year-round disinfection to protect the health, safety and welfare of the public.
5. **Bacteria Reporting** – The monthly average fecal coliform bacteria limitation is a geometric mean limitation and sample results shall be reported as such.
6. **Bacteria Monitoring Period** – Monthly monitoring for fecal coliform bacteria is required during the months of **May, June, July, August and September** only.
7. **TRC Monitoring** – Monitoring for TRC is only required when elemental chlorine or chlorine-based compounds are in use for effluent disinfection.

SPECIAL CONDITIONS

B. ANNUAL DISCHARGE FEES

Pursuant to Maine law, 38 M.R.S.A. §353-B, the permittee is required to pay an applicable annual fee for discharges authorized by this permit. Failure to pay an annual fee within 30 days of the billing date is sufficient grounds for revocation of the license, permit or privilege under Maine law, 38 M.R.S.A. §341-D, subsection 3.

C. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent shall not contain a visible oil sheen, foam or floating solids at any time which would impair the usages designated 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.

D. DISINFECTION

If chlorination is used as the 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 imposed total residual chlorine (TRC) limit cannot be achieved 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 provide a TRC concentration that will effectively reduce fecal coliform bacteria levels to or below those specified in Special Condition A, "*Effluent Limitation and Monitoring Requirements*," above.

E. TREATMENT PLANT OPERATOR

The treatment facility must be operated by a person holding a minimum of a **Grade II** certificate (or Maine Registered Professional Engineer) pursuant to Title 32 M.R.S.A. §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.

The permittee shall maintain a service contract for all treatment equipment and facilities with a service organization or individual acceptable to the Department. A tag showing the name of the service contractor, the date of the most recent visit by the service contractor and the initials of the person conducting the service must be attached to, or displayed near, 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 the Department's 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
Bureau of Land and Water Quality
Division of Water Resource Regulation
Overboard Discharge Inspector
17 State House Station
Augusta, ME 04333-0017

G. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the permittee shall notify the Department of any substantial change in the volume or character of pollutants being introduced into the wastewater collection and treatment system. For the purposes of this section, notice regarding substantial change shall include information on:

- (a) the quality and quantity of wastewater introduced to the wastewater collection and treatment system; and
- (b) any anticipated impact caused by the change in the quantity or quality of the wastewater to be discharged from the treatment system.

H. 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 wastewater 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

I. SITE EVALUATION FOR TRANSFERRED AND RENEWED PERMITS

Prior to permit transfer or transfer of the property occupying the permitted overboard discharge system **or renewal of this permit**, a site evaluation must be performed by a licensed site evaluator with experience in designing systems for the replacement of overboard discharge systems. The Department may not grant approval for permit transfer or renewal if the site evaluation concludes that a non-discharging wastewater disposal system designed in compliance with the Maine Subsurface Waste Water Disposal Rules administered by the Maine Department of Health and Human Services, Division of Health Engineering can be installed as a replacement system for the overboard discharge.

J. EMERGENCY BACK-UP POWER

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.

K. 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.

SPECIAL CONDITIONS

L. CHAPTER 530(2)(D)(4) STATEMENT FOR REDUCED TOXICS TESTING

On or before December 31st of each year of the effective term of this permit [*PCS Code 95799*], the permittee shall provide the Department with statements 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.

Further, the Department may require that annual WET, analytical chemistry, and priority pollutant testing be re-instituted if it determines that there have been changes in the character of the discharge or if annual certifications described above are not submitted.

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 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.

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 respects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

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

FACT SHEET

DATE: APRIL 19, 2006

MEPDES PERMIT: **#ME0036765**
WASTE DISCHARGE LICENSE: **#W001988-5C-B-R**

NAME AND ADDRESS OF APPLICANT:

**EAST WIND, INC.
P.O. BOX 149
TENANTS HARBOR, ME 04860**

COUNTY: KNOX

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

**EAST WIND INN
MECHANIC STREET
ST. GEORGE, ME 04860**

RECEIVING WATER / CLASSIFICATION: ATLANTIC OCEAN AT TENANTS HARBOR/CLASS SB

**COGNIZANT OFFICIAL AND TELEPHONE NUMBER: MR. TIMOTHY L. WATTS, PRESIDENT
(207) 372-6366**

1. APPLICATION SUMMARY

Application: East Wind, Inc. (East Wind) has applied to the Department of Environmental Protection (Department) for renewal of Waste Discharge License (WDL) #W001988-41-A-R, which was issued on December 4, 1986 and expired on December 4, 1991. The WDL authorized the monthly average discharge of up to 3,900 gallons per day (GPD) of secondary treated sanitary wastewater from the East Wind Inn wastewater treatment system to the Atlantic Ocean at Tenants Harbor, Class SB, in St. George, Maine. In this permitting action, the applicant seeks to reduce the monthly average discharge flow limit to 3,500 GPD consistent with the design capacity of a new treatment system scheduled for installation.

2. PERMIT SUMMARY

- a. Regulatory: On January 12, 2001, the Department received authorization from the U.S. Environmental Protection Agency (USEPA) to administer the National Pollutant Discharge Elimination System (NPDES) permit program in Maine, excluding areas of special interest to Maine Indian Tribes. On October 30, 2003, after consultation with the U.S. Department of Justice, the USEPA extended Maine's NPDES program delegation to all but tribally owned lands. In those areas, the Department maintains the authority to issue WDLs pursuant to Maine law. The extent of Maine's delegated authority is under appeal at the time of this permitting action. From that point forward, the program has been referred to as the Maine Pollutant Discharge Elimination System (MEPDES) program and permit #ME0036765 will be utilized as the primary reference number for East Wind's MEPDES permit. It is noted that the previous licensing action utilized a Permit Compliance System (PCS) tracking number of MEU501988 for the management of effluent compliance data for this facility which is being replaced by the above referenced MEPDES number.
- b. Terms and Conditions: **This permitting action is similar to the 12/4/86 licensing action in that it is:**
 1. Carrying forward the monthly average, technology-based concentration limits of 30 mg/L for biochemical oxygen demand (BOD₅) and total suspended solids (TSS);
 2. Carrying forward the daily maximum, technology-based concentration limit of 1.0 mg/L for total residual chlorine (TRC); and
 3. Carrying forward the requirement to maintain a valid service contract with a State certified agent to provide adequate inspection and maintenance services for the treatment system.

This permitting action is different from the 12/4/86 licensing action in that it is:

1. Establishing a new MEPDES permit number of ME0036765 for this facility and deactivating the Permit Compliance System (PCS) tracking number of MEU501988 previously associated with this facility;
2. Revising the monthly average discharge flow limit from 3,900 GPD to 3,500 GPD;
3. Revising the daily maximum concentration limit for BOD₅ and TSS from 60 mg/L to 50 mg/L;
4. Establishing weekly average, technology-based concentration limits of 45 mg/L for BOD₅ and TSS;
5. Establishing monthly average, weekly average and daily maximum technology-based mass limits for BOD₅ and TSS;

2. PERMIT SUMMARY (cont'd)

6. Establishing a requirement to achieve a minimum 30-day average of 85 percent removal for BOD₅ and TSS;
 7. Revising the daily maximum, technology-based concentration limit for settleable solids from 0.1 ml/L to 0.3 ml/L;
 8. Revising the daily maximum concentration limitation for fecal coliform bacteria from 15 colonies/100 ml to 50 colonies/100 ml;
 9. Establishing a monthly average concentration limitation of 15 colonies/100 ml for fecal coliform bacteria;
 10. Revising the pH range limitation from 6.0 – 8.5 standard units (SU) to 6.0 – 9.0 SU;
 11. Establishing Special Condition L, *Chapter 530(2)(D)(4) Statement for Reduced Toxics Testing* for waived toxics testing; and
 12. Revising the minimum monitoring frequency requirements for all monitored parameters.
- c. Facility History: This section provides a summary of significant licensing/permitting actions that have been completed for East Wind.

December 4, 1986 – The Department issued WDL #W001988-41-A-R to East Wind for the monthly average discharge of up to 3,900 GPD of secondary treated sanitary wastewater to the Atlantic Ocean at Tenants Harbor. The 12/4/86 WDL superseded WDL #1988 issued on July 26, 1983, WDL #1988 issued on February 8, 1978 and WDL #741 issued on December 16, 1974.

December 31, 1996 – East Wind submitted a General Application to the Department for renewal of WDL #W001988-41-A-R. The application was accepted for processing on January 2, 1997, and assigned WDL #W001988-5C-B-R/MEPDES permit #ME0036765.

April 19, 2006 – East Wind submitted, as addendum to their 12/31/96 application, a site evaluation report completed by Douglas Meservey, a Licensed Site Evaluator. The report identifies inadequate soils and land area as reasons that a wastewater disposal system, designed in compliance with the Maine Subsurface Wastewater Disposal Rule, cannot be installed as a replacement system at this time.

- d. Source Description: Since 1975, East Wind, Inc. has owned and operated the East Wind Inn and its associated overboard discharge (OBD) wastewater treatment system on Mechanic Street in the Tenants Harbor village area of St. George, Maine. The East Wind Inn is open for guests and dining from April through November of each year and is available for group functions on a year-round basis. Facilities connected to the OBD system include 16 guest rooms associated with the main Inn, 1 apartment for the Inn owner, a 56-seat restaurant, 10 guest rooms associated with a building called The Meetinghouse, 1 apartment for the groundskeeper, a 30-seat conference area, and The Chandlery, a take-out food service facility. The Wheeler Cottages consist of three

2. PERMIT SUMMARY (cont'd)

cottages for housekeeping staff and are not connected to the OBD system. The permittee stated that, upon completion of the installation of a new mechanical OBD system in late 2005 or early 2006, kitchen wastewater (gray water) will be conveyed to an existing 4,000-gallon septic tank, which will serve as a grease trap. Supernatant from the grease trap will be conveyed to the new OBD system for additional biological treatment prior to discharge.

A map showing the location of the East Wind Inn is included as Fact Sheet Attachment A.

- e. Wastewater Treatment: Currently, East Wind provides a secondary level of wastewater treatment via a mechanical, package treatment system manufactured by JET, Inc. The existing JET system is scheduled to be removed and replaced with a new mechanical, package wastewater treatment system manufactured by Cromaglass Corporation by late autumn (weather and ground conditions permitting) of calendar year 2005 or spring of calendar year 2006. The JET system was installed in 1986 and replaced a sand filter OBD system.

Existing JET System Description

The existing JET treatment system has a design capacity rated at 5,000 gallons per day. All raw wastewater generated at the East Wind Inn facility is conveyed to a 4,000-gallon septic tank for primary treatment (solids settling and retention). Primary effluent (septic tank supernatant) is pumped to the JET system for additional (secondary) biological treatment. Secondary treated effluent flows to a chamber containing a wastewater disinfection tablet feed system for seasonal (May through September) disinfection using chlorine tablets.

Final effluent is conveyed for discharge to the Atlantic Ocean at Tenants Harbor via a 4-inch diameter outfall pipe that extends out into the receiving water approximately 200 feet to a depth of approximately 2 feet below the surface of the water at mean low water.

Proposed Cromaglass System Description

The proposed Cromaglass mechanical system has a design capacity of 3,500 gallons per day. Following successful installation of the new Cromaglass system, raw wastewater, excluding kitchen wastewater, will flow to a pump station and will be pumped to the new treatment system. The Cromaglass process directs raw wastewater into a solids retention chamber, which serves to retain inorganic solids behind a non-corrosive screen, while breaking down organic solids through the forced introduction of "mixed liquor." Liquid and small organic solids pass through the screen into an aeration chamber where air and mixing are provided by submersible pumps to create mixed liquor. Treated mixed liquor is pumped to a clarification chamber. The transfer period overfills the clarifier with the excess spilling through overflow weirs back into the main aeration chamber. Transfer ceases, the clarifier is isolated, and solids separation occurs under quiescent conditions. After settling, effluent is pumped out of the clarifier for discharge. Sludge is returned from the bottom of the clarifier back into the main aeration chamber using a submersible pump, or sludge can be wasted to a sludge processing tank. Secondary treated effluent will be disinfected, as described above, using chlorine tablets and discharged, as described above, to Tenants Harbor.

3. CONDITIONS OF PERMIT

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

4. RECEIVING WATER QUALITY STANDARDS

Maine law, 38 M.R.S.A. §469 classifies all estuarine and marine waters lying within the boundaries of the State that are not otherwise classified, which includes the Atlantic Ocean at Tenants Harbor at the point of discharge, as Class SB waters. Maine law, 38 M.R.S.A. §465-B(2) describes the standards for Class SB waters.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2004 Integrated Water Quality Monitoring and Assessment Report, prepared pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists the marine waters of Tenants Harbor to Mosquito Head in St. George (Waterbody #722-2) as, "Category 5-B-1: *Estuarine and Marine Waters Impaired Only by Bacteria (TMDL required)*." (TMDL is an acronym for Total Maximum Daily Load.) Impairment in this context refers to the designated use of recreation in and on the water and shellfish harvesting, and the Report lists overboard discharges, non-point source pollution as sources of elevated fecal coliform bacteria content of the receiving water.

The Maine Department of Marine Resources (DMR) assesses information on shellfish growing areas to ensure that shellfish harvested are safe for consumption. The DMR has authority to close shellfish harvesting areas wherever there is a pollution source, a potential pollution threat, or poor water quality. The DMR traditionally closes shellfish harvesting areas if there are known sources of discharges with unacceptable bacteria levels (instream thresholds established in the National Shellfish Sanitation Program) or maintains shellfish harvesting closure areas due to lack of updated information regarding ambient water quality conditions. In addition, the DMR prohibits shellfish harvesting in the immediate vicinity of all wastewater treatment outfall pipes as a precautionary measure in the event of a failure in the treatment plant's disinfection system. Thus, shellfish harvesting area #C-28 is closed to the harvesting of shellfish due to insufficient or limited ambient water quality data to determine that the area meets the standards in the National Shellfish Sanitation Program. The shellfish closure area is identified on the map included as Fact Sheet Attachment A.

The Department is making the determination that compliance with the fecal coliform bacteria and other secondary wastewater treatment limits established in this permitting action ensure that the discharge of secondary treated wastewater from East Wind will not cause or contribute to the failure of the receiving waters to meet the standards of its designated classification.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

- a. Flow: The previous permitting action established a daily maximum discharge flow limitation of 3,900 GPD based on the quantity of wastewater generated by the Inn and related facilities. The existing package treatment system is scheduled to be replaced with a mechanical treatment system with a design capacity of 3,500 GPD. Therefore, this permitting action is revising the monthly average discharge flow limit to 3,500 GPD consistent with the design capacity of the new system. This permitting action is establishing a quarterly, estimated discharge flow monitoring requirement to reflect that effluent flows are based on quarterly potable water meter readings.
- b. Dilution Factors: Department rule, 06-096 CMR Chapter 530(4)(A)(2)(a), *Surface Water Toxics Control Program*, states that, "For discharges to the ocean, dilution must be calculated as near-field or initial dilution, or that dilution available as the effluent plume rises from the point of discharge to its trapping level, at mean low water level and slack tide for the acute exposure analysis, and at mean tide for the chronic exposure analysis using appropriate models determined by the Department such as MERGE, CORMIX or another predictive model." Based on the configuration of the outfall structure and a discharge flow limit of 3,500 GPD, dilution factors associated with the discharge are as follows:

Acute: 393:1

Chronic: 1,572:1

Harmonic Mean: 4,716:1

- c. Biochemical Oxygen Demand (BOD₅) and Total Suspended Solids (TSS): The previous licensing action established monthly average and daily maximum BOD₅ and TSS concentration limits of 30 mg/L and 60 mg/L, respectively. The monthly average limit of 30 mg/L was based on secondary treatment requirements of the Clean Water Act of 1977 §301(b)(1)(B), as defined in 40 CFR 133.102, and Department rule, 06-096 CMR Chapter 525(3)(III). The origin of the daily maximum limit of 60 mg/L is not known and is not consistent with the Department's long-standing standard of 50 mg/L, which is based on Department best professional judgment (BPJ) of best practicable treatment (BPT). Therefore, this permitting action is revising the daily maximum BOD₅ and TSS concentration limits from 60 mg/L to 50 mg/L for consistency with the limits established in permits for other sanitary wastewater treatment facilities. This permitting action is further establishing new weekly average, technology-based concentration limits of 45 mg/L for BOD₅ and TSS based on the secondary treatment requirements as cited above.

Department rule 06-096 CMR Chapter 523(6)(f) states that all pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass. With a monthly average discharge flow limit of 3,500 GPD (0.0035 million gallons per day, MGD), this permitting action is establishing monthly average, weekly average and daily maximum technology-based mass limits for BOD₅ and TSS, which were derived as follows:

Monthly Average Mass Limit: $(30 \text{ mg/L})(8.34 \text{ lbs./gallon})(0.0035 \text{ MGD}) = 0.9 \text{ lbs./day}$

Weekly Average Mass Limit: $(45 \text{ mg/L})(8.34 \text{ lbs./day})(0.0035 \text{ MGD}) = 1.3 \text{ lbs./day}$

Daily Maximum Mass Limit: $(50 \text{ mg/L})(8.34 \text{ lbs./day})(0.0035 \text{ MGD}) = 1.5 \text{ lbs./day}$

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

This permitting action is also establishing a new requirement for a minimum of 85% removal of BOD₅ and TSS pursuant to Chapter 525(3)(III)(a)(3) and (b)(3) of the Department's rules.

This permitting action is revising the minimum monitoring frequency requirement from once per quarter on a year-round basis to once per quarter (1/Quarter) during the months of March, June, September and December. Additional monthly monitoring is required during the summer season months of July and August.

- d. Settleable Solids: The previous licensing action established a daily maximum concentration limit of 0.1 ml/L for settleable solids. The Department has since reconsidered the limits for settleable solids and has concluded that a daily maximum concentration limit of 0.3 ml/L provides sufficient information to assess whether the treatment facility is providing BPT. Therefore, this permitting action is revising the daily maximum limit from 0.1 ml/L to 0.3 ml/L. This permitting action is revising the minimum monitoring frequency requirement from once per quarter on a year-round basis to once per quarter (1/Quarter) during the months of March, June, September and December. Additional monthly monitoring is required during the summer season months of July and August.
- e. Fecal Coliform Bacteria: The previous licensing action established a year-round daily maximum concentration limit of 15 colonies/100 ml (instantaneous level) to ensure bacteria levels in the discharge were consistent with the intent of the National Shellfish Sanitation Program. Currently, the Department establishes instantaneous and geometric mean (monthly average) bacteria limits in MEPDES permits consistent with the National Shellfish Sanitation Program. The previous licensing action, however, established the geometric mean limit as a daily maximum rather than a monthly average limitation. For Class SB waters, the Department establishes a monthly average limit of 15 colonies/100 ml and a daily maximum limit of 50 colonies/100 ml. In this permitting action, the Department is correctly establishing monthly average and daily maximum concentration bacteria limits for the discharge. Therefore, this permitting action is revising the daily maximum limit from 15 colonies/100 ml to 50 colonies/100 ml (instantaneous level), and is establishing a monthly average limit of 15 colonies/100 ml (geometric mean).

The bacteria limits established in this permitting action are seasonal and apply between May 15 and September 30, inclusive, of each year. However, the Department reserves the right to require year-round disinfection to protect the health, safety and welfare of the public.

This permitting action is carrying forward the minimum monitoring frequency requirement for fecal coliform bacteria of once per month (1/Month) during the months of May through September, inclusive, based on a Department BPJ determination of the appropriate monitoring frequency for this treatment system.

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

- f. Total Residual Chlorine (TRC): The previous licensing action established a technology-based daily maximum concentration limit of 1.0 mg/L for TRC. Limitations on TRC are specified to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. Department permitting actions impose the more stringent of either a water quality-based or BPT-based limit. With dilution factors as determined above, end-of-pipe (EOP) water quality-based concentration thresholds for TRC may be calculated as follows:

Acute (A) Criterion	Chronic (C) Criterion	A & C Acute Dilution Factors	Calculated	
			Chronic Threshold	Threshold
0.013 mg/L	0.0075 mg/L	393:1 (A) 1,572:1 (C)	5.1 mg/L	11.8 mg/L

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine-based compounds. For facilities that dechlorinate the discharge in order to meet water quality based thresholds, the Department has established daily maximum and monthly average BPT limits of 0.3 mg/L and 0.1 mg/L, respectively. East Wind currently does not dechlorinate the effluent prior to discharge.

The technology-based daily maximum concentration limit of 1.0 mg/L is more stringent than either the calculated acute or chronic water quality-based thresholds and is therefore being carried forward in this permitting action. This permitting action is carrying forward the "grab" sample type and the minimum monitoring frequency of once per week (1/Week) based on a Department BPJ determination of the appropriate monitoring frequency for this treatment system.

It is noted that fecal coliform bacteria limits are seasonal, however, weekly TRC monitoring is required any time chlorine-based compounds are in use for effluent disinfection. For instances when the chlorine-based compounds have not been utilized for effluent disinfection for an entire reporting period, the permittee shall report "NODI-9" for this parameter on the monthly discharge monitoring report (DMR).

- g. pH: The previous licensing action established a pH range limit of 6.0 – 8.5 standard units (SU), considered by the Department at the time as BPT for secondary treated wastewater and a minimum monitoring frequency requirement of once per day. Pursuant to a new Department rule found at Chapter 525(3)(III)(c), the pH range limitation is being revised to 6.0 – 9.0 SU, which is now considered BPT for secondary treated wastewater. This permitting action is revising the minimum monitoring frequency requirement from once per quarter on a year-round basis to once per quarter (1/Quarter) during the months of March, June, September and December. Additional monthly monitoring is required during the summer season months of July and August.

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

- h. Whole Effluent Toxicity (WET), Priority Pollutant, and Analytical Chemistry Testing: Maine law, law, 38 M.R.S.A., §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 rule, 06-096 CMR Chapter 530, *Surface Water Toxics Control Program* (toxics rule) sets forth effluent monitoring requirements and procedures to establish safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected and narrative and numeric water quality criteria are met. Department rule 06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, sets forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

The previous licensing action neither established nor addressed WET or priority pollutant testing requirements of the toxics rule. Chapter 530 Section (2)(A) specifies the dischargers subject to the rule as, *"all licensed dischargers of industrial process wastewater or domestic wastes discharging to surface waters of the State must meet the testing requirements of this section. Dischargers of other types of wastewater are subject to this subsection when and if the Department determines that toxicity of effluents may have reasonable potential to cause or contribute to exceedences of narrative or numerical water quality criteria."*

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

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

The East Wind wastewater discharge is considered a commercial overboard discharge and therefore does not qualify for an exemption from Chapter 530 requirements. Department rule Chapter 530(2)(C) categorizes facilities into one of four levels based on the relative risk of toxic contamination of receiving water by a discharge. Dilution of the discharge in the receiving water is the primary variable used to determine the testing frequency. The chronic dilution factor associated with the East Wind facility is 1,572 to 1. The rule specifies that facilities which have a chronic dilution factor of at least 500 to 1 and a permitted flow of less than 1 million gallons per day are categorized as a Level IV discharger. Routine testing requirements for Category IV facilities are waived, except that the Department shall require an individual discharger to conduct testing if the discharger's permit application or other information available to the Department indicate that toxic compounds may be present in toxic amounts or if previous testing indicates that toxic compounds may be present in toxic amounts. The Department has no information at this time that the discharge from East Wind contains toxic compounds in toxic amounts.

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

Therefore, the Department is making a best professional judgment determination in this permitting action to waive Level IV whole effluent toxicity, priority pollutant, and analytical chemistry testing at this time. The rule further states, *"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."*

This permitting action establishes Special Condition L, *Chapter 530(2)(D)(4) Statement for Reduced Toxics Testing*, with the requirement to submit annually a statement as described in sections a through c of this section. In accordance with Special Condition M of this permit, the Department reserves the right to reopen this permit at any time and with notice to the permittee to establish toxics testing requirements pursuant to Chapter 530 based on new information regarding the sources or characterization of wastewater discharged via Outfall #001A.

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

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

8. PUBLIC COMMENTS

Public notice of this application was made in a local newspaper on or about December 30, 1996. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

9. DEPARTMENT CONTACTS

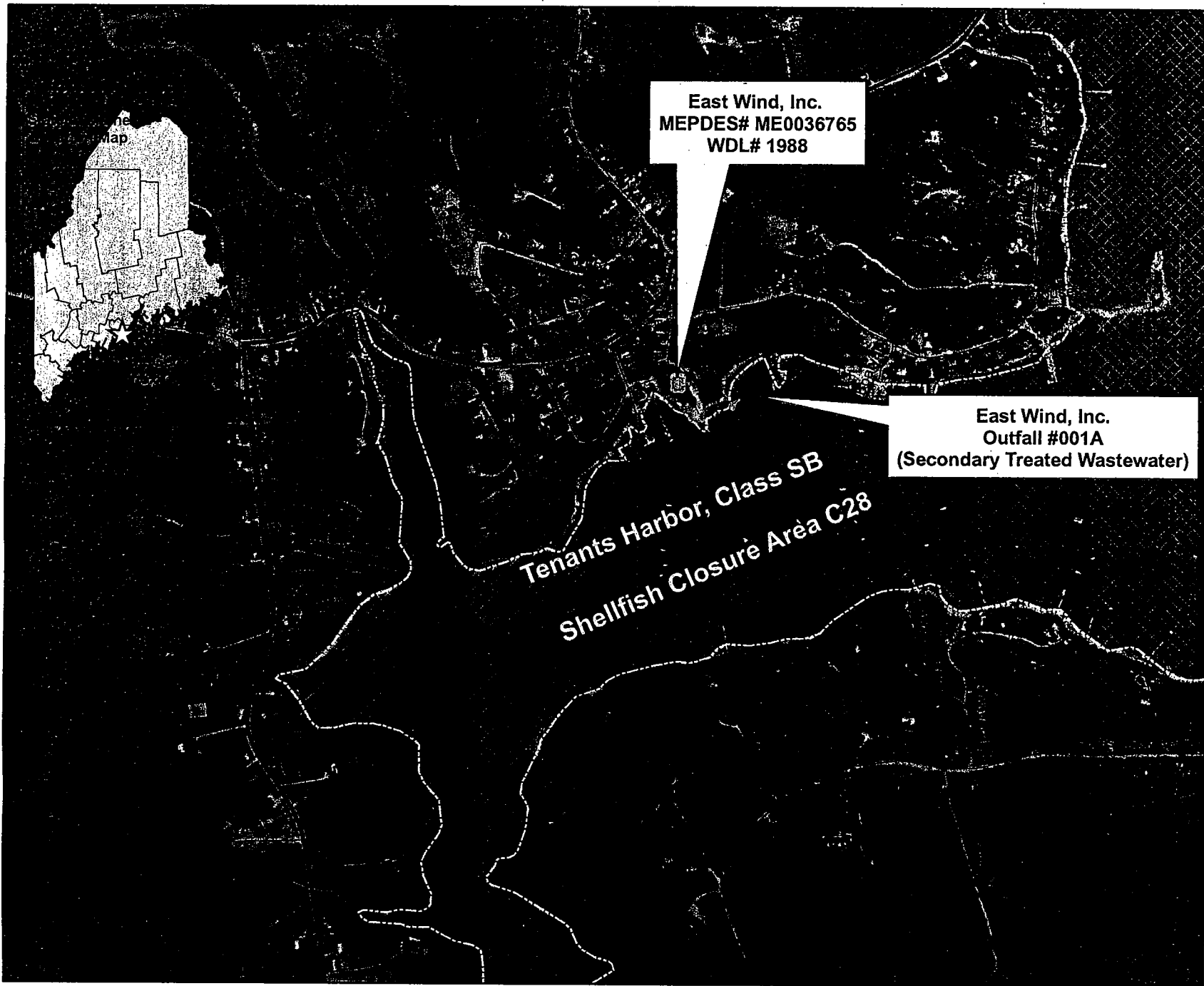
Additional information concerning this permitting action may be obtained from, and written comments sent to:

William F. Hinkel
Division of Water Resource Regulation
Bureau of Land & Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 287-7659

10. RESPONSE TO COMMENTS

During the period of November 9, 2005 through December 9, 2005, the Department solicited comments on the proposed draft Maine Pollutant Discharge Elimination System Permit to be issued to East Wind, Inc. for the proposed discharge. The Department received no significant comments on the proposed draft permit; therefore, a response to comments was not prepared.

ATTACHMENT A



Legend

Wastewater_Facilities

Wastewater_Outfalls

Rivers

Class

AA

A

B

C

SB

Shellfish_Bed_Closures

CLASS

Approved (within another classification)

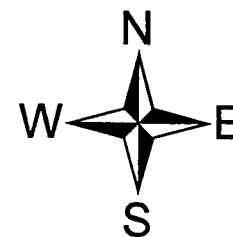
Conditionally Approved

Restricted

Conditionally Restricted

Prohibited

Roads E911



0 0.125 0.25 0.5
Miles

Map created by Bill Hinkel
Division of Water Resource Regulation
Maine Department of Environmental Protection
October 26, 2005

St. George, Maine

