STATE OF MAINE
DEPARTMENT OF
ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

June 1, 2016

Mr. Frank Gaynor
GEM Hospitality Group, LLC
P.O. Box 240
Southport Maine, ME 04576
frgaynor@oceangateinn.com

Sent via electronic mail
Delivery confirmation requested

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit # ME0036862
Maine Waste Discharge License (WDL) Application # W001013-5C-D-R
Proposed Draft MEPDES Permit Renewal

Dear Frank Gaynor:

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

By copy of this letter, the Department is requesting comments on the proposed draft permit from various state and federal agencies, as required by our new regulations, and from any other parties who have notified the Department of their interest in this matter.
If you have any questions regarding the matter, please feel free to call me.

All comments must be received in the Department of Environmental Protection office on or before the close of business **Friday, July 1, 2016.** Failure to submit comments in a timely fashion will result in the final document being issued as drafted.

Comments in writing should be submitted to my attention at the following address:

Maine Department of Environmental Protection
Bureau of Water Quality
Division of Water Quality Management
17 State House Station
Augusta, ME 04333-0017
Aaron.A.Dumont@maine

If you have any questions regarding the matter, please feel free to call me at (207)-592-7161.

Sincerely,

Aaron Dumont
Division of Water Quality Management
Bureau of Water Quality
Aaron.A.Dumont@maine.gov
Phone: 207-592-7161

Enclosure

cc: Bill Johnson, DEP/CMRO
Lori Mitchell, DEP/CMRO
Alex Rosenberg, EPA
David Webster, EPA
David Pincumbe, EPA
Olga Vergara, EPA
Marelyn Vega, EPA
Richard Carvalho, EPA
DMR Environmental Review
IF&W Environmental Review

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

DEPARTMENT ORDER

IN THE MATTER OF

GEM HOSPITALITY GROUP, LLC.		)	MAINE POLLUTANT DISCHARGE
d/b/a/ OCEAN GATE MOTOR INN		)	ELIMINATION SYSTEM PERMIT
SOUTHPORT, LINCOLN COUNTY, MAINE		)	
OVERBOARD DISCHARGE		)	AND
ME0036862		)	WASTE DISCHARGE LICENSE
W001013-5C-D-R	**APPROVAL**	)	**RENEWAL**

In compliance with the provisions of the *Federal Water Pollution Control Act*, Title 33 U.S.C. § 1251, *Conditions of licenses,* 38 M.R.S. § 414-A, and applicable regulations, the Department of Environmental Protection (Department) has considered the application of the GEM HOSPITALITY GROUP, LLC, d/b/a the OCEAN GATE MOTOR INN (GEM/OCEAN GATE MOTOR INN), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On May 11, 2016, the Department accepted as complete for processing an application from the permittee for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit ME0036862/Maine Waste Discharge License (WDL) W001013-5C-C-R (permit) which was issued by the Department on December 05, 2011, for a five year term. The permit issued on December 05, 2011, authorized the seasonal discharge (May 15th – September 30th) of no more than 5,000 gallons per day (gpd) of secondary treated wastewater from GEM HOSPITALITY GROUP, LLC d/b/a the OCEAN GATE MOTOR INN to Townsend Gut, Class SB water, in Southport, Maine.

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions of the December 5, 2011, permit except that this permit is;

1. Reducing the monitoring frequency for total residual chlorine from 2/week to 1/month based on a statistical evaluation of the monitoring results for the previous 5 year period.

2. Modifying the discharge season to April 1st to November 30th to coincide with the motel's operational season.

CONCLUSIONS

BASED on the findings in the attached DRAFT **Fact Sheet** dated June 1, 2016, 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, *Classification of Maine waters,* 38 M.R.S. § 464(4)(F), will be met, in that:

   (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;

   (b) Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;

   (c) Where the standards of classification of the receiving waterbody are not met, the discharge will not cause or contribute to the failure of the waterbody to meet the standards of classification;

   (d) Where the actual quality of any classified receiving waterbody 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 waterbody, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.

4. The discharges will be subject to effluent limitations that require application of best practicable treatment as defined in *Conditions of licenses,* 38 M.R.S. § 414-A(1)(D) and 414-A(1-B).

5. The overboard discharge system was in continuing existence for the 12 months preceding June 1, 1987.

6. The Department finds that there are no technologically proven alternative methods of wastewater disposal consistent with the plumbing code adopted by the Department of Health and Human Services pursuant to Title 22, section 42 that will not result in an overboard discharge.

CONCLUSIONS (cont'd)

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 however connection to the existing infrastructure is not practicable.

ACTION

THEREFORE, the Department APPROVES the application of GEM HOSPITALITY GROUP, LLC. d/b/a the OCEAN GATE MOTOR INN to seasonally discharge (April 1- November 30) no more than 5,000 gallons per day of secondary treated sanitary wastewater (Outfall #001) from the OCEAN GATE MOTOR INN to the Townsend Gut, Atlantic Ocean, Class SB, in Southport, Maine, SUBJECT TO ALL APPLICABLE STANDARDS AND REGULATIONS AND THE FOLLOWING CONDITIONS:

1. "*Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable to All Permits*," revised July 1, 2002, copy attached.

2. The attached Special Conditions, including any effluent limitations and monitoring requirements.

3. This permit becomes effective upon the date of signature below and expires at midnight five (5) years after that date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the terms and conditions of this permit and all subsequent modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. *Maine Administrative Procedure Act*, 5M.R.S.. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matter*s, 06-096 CMR 2(21)(A) (amended August 25, 2013).

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS _____ DAY OF _____ 2016.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
PAUL MERCER, Commissioner

Date of initial receipt of application May 10, 2016
Date of application acceptance May 11, 2016

Date filed with Board of Environmental Protection _____

This Order prepared by Aaron Dumont, Bureau of Land and Water Quality

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge secondary treated sanitary wastewater from **Outfall #001** to Townsend Gut, Atlantic Ocean, Class SB. Such discharges are limited and must be monitored by the permittee as specified below[(1)]:

April 1st- November 30th

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow ***[50050]***	Report gpd *[07]*	---	5,000 gpd *[07]*	---	---	---	Continuous *[99/99]*	Measure *[MS]*
BOD_5 ***[00310]***	1.3 lbs/day *[26]*	1.9 lbs/day *[26]*	2.1 lbs/day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Month *[01/30]*	Grab *[GR]*
BOD_5 Percent Removal[(2)] ***[81010]***	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
TSS ***[00530]***	1.3 lbs/day *[26]*	1.9 lbs/day *[26]*	2.1 lbs/day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Month *[01/30]*	Grab *[GR]*
TSS Percent Removal[(2)] ***[81011]***	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Fecal Coliform Bacteria[(3)(4)] ***[31633]*** ***(May 15 – September 30)***	---	---	---	15/100 ml *[13]*	---	50/100 ml *[13]*	1/Month *[01/30]*	Grab *[GR]*
Total Residual Chlorine[(5)] ***[50060]***	---	---	---	---	---	1.0 mg/L *[19]*	1/Month *[02/30]*	Grab *[GR]*
pH (Standard Unit) ***[00400]***	---	---	---	---	---	6.0 – 9.0 SU *[12]*	1/Month *[01/30]*	Grab *[GR]*

The italicized numeric values bracketed in the table and in subsequent text are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports.
Footnotes: See Page 6 of this permit for applicable footnotes.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Footnotes

1. **Sampling** – 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. 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 Health and Human Services for waste water testing. Samples that are sent to another POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S. § 413 or laboratory facilities that analyze compliance samples in-house are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (last amended April 1, 2010). If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report.

2. **Percent Removal** – The permittee must maintain a minimum of 85 percent removal of both BOD_5 and TSS for all flows receiving secondary treatment. The percent removal must be calculated based on influent and effluent concentration values. The permittee's wastewater treatment system does not contain an influent sampling location that is representative of raw wastewater conditions. Therefore, this permitting action authorizes the permittee to assume an influent BOD_5 and TSS concentration value of 286 mg/L for purposes of calculating the monthly percent removal value. See page 5 of fact sheet for a basis statement.

3. **Bacteria Limits** – Fecal coliform bacteria limits and monitoring requirements are in effect between May 15th and September 30th of each year. The Department reserves the right to require year-round disinfection to protect the health, safety, and welfare of the public.

4. **Bacteria Reporting** – The monthly average fecal coliform bacteria limitation is a geometric mean limitation and sample results must be reported as such.

5. **Total residual chlorine** (**TRC)** – Limitations and monitoring requirements are applicable whenever elemental chlorine or chlorine-based compounds are being used to disinfect the discharge. The permittee shall utilize approved test methods that are capable of bracketing the TRC limitation in this permit. There shall be at least 14 days between sampling events.

SPECIAL CONDITIONS

B. ANNUAL DISCHARGE FEES

Pursuant to *Annual waste discharge license fees,* 38 M.R.S. § 353(B), the permittee is required to pay an applicable annual fee for discharges authorized by this permit. Failure to pay an annual fee within 30 days of the billing date of a permit is sufficient grounds for accruing interest charges, penalties or revocation of the permit.

C. NARRATIVE EFFLUENT LIMITATIONS

1. The permittee must not discharge effluent that contains a visible oil sheen, foam or floating solids at any time which would impair the uses designated for the classification of the receiving waters.

2. The permittee must not discharge effluent that contains materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the uses designated for the classification of the receiving waters.

3. The permittee must not discharge effluent that causes visible discoloration or turbidity in the receiving waters that causes those waters to be unsuitable for the designated uses and characteristics ascribed to their class.

4. The permittee must not discharge effluent that lowers the quality of any classified body of water below such classification, or lowers the existing quality of any body of water if the existing quality is higher than the classification.

D. TREATMENT PLANT OPERATOR

The person that has direct responsibility for the operation of the treatment facility must be operated by a person holding a minimum of a **Maine Grade II** certificate (or higher) or must be a Maine Registered Professional Engineer pursuant to *Sewerage Treatment Operators*, 32M.R.S.. § 4171-4182 and *Regulations for Wastewater Operator Certification*, 06-096 CMR 531 (effective May 8, 2006). All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

E. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on May 11, 2016 2) the terms and conditions of this permit; and 3) only from Outfall #001. Discharges of wastewater from any other point source(s) are not authorized under this permit, and must be reported in accordance with Standard Condition D(1)(F), *Twenty-four hour reporting*, of this permit.

SPECIAL CONDITIONS

F. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the permittee must notify the Department of the following:

1. Any substantial change in the volume or character of pollutants being introduced into the wastewater collection and treatment system by a source introducing pollutants to the system at the time of permit issuance.

2. For the purposes of this section, notice regarding substantial change must 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.

G. SITE EVALUATION FOR TRANSFER OF OWNERSHIP

Pursuant to 38 M.R.S. § 413(3-A)(B)(1), except when it has been demonstrated within 5 years prior to a transfer of ownership of the property containing an overboard discharge, or some other time period acceptable to the Department, that there is no technologically proven alternative to an overboard discharge, prior to transfer of ownership of property containing an overboard discharge, the parties to the transfer must determine the feasibility of technologically proven alternatives to the overboard discharge that are consistent with the plumbing standards adopted by the Department of Health and Human Services pursuant to Title 22, section 42.

Notwithstanding other applicable provisions of 38 M.R.S. § 413(3-A), if an alternative to the overboard discharge is identified, the alternative system must be installed within 180 days of property transfer, except that, if soil conditions are poor due to seasonal weather, the alternative may be installed as soon as soil conditions permit.

SPECIAL CONDITIONS

H. OPERATION & MAINTENANCE (O&M) PLAN

The permittee must have a current written comprehensive Operation & Maintenance (O&M) Plan. The plan shall provide a systematic approach by which the permittee must 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 must evaluate and modify the O&M Plan including site plan(s) and schematic(s) for the wastewater treatment facility to ensure that it is up-to-date. The O&M Plan must be kept on site at all times and made available to Department and USEPA personnel upon request.

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

I. SEPTIC TANKS

1. Septic tanks and other treatment tanks must be regularly inspected (at least once per calendar year) and maintained to ensure that they are providing best practicable treatment. The permittee must maintain logs of inspections/maintenance that records the date, notes on observations, repairs conducted etc. The logs must be maintained on site at all times and made available to Department personnel upon request.

2. Tank contents must be removed whenever the sludge and scum occupies one-third of the tank's liquid capacity or whenever levels approach maximum design capacity. Following pumping, the tanks must be checked for damage at key joints and the inlet and outlet baffles, and repaired promptly if damaged. The permittee must keep a pumping log including the date of pumping, quantity of material removed, name and number of licensed contractor, and pumping frequency.

J. MONITORING AND REPORTING

Monitoring results obtained during the previous month must 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 DMRs are received by the Department on or before the fifteenth (15th) day of the month** following the completed reporting period.

SPECIAL CONDITIONS

J. MONITORING AND REPORTING (cont'd)

A signed copy of the DMR and all other reports required herein must be submitted to the Department assigned inspector (unless otherwise specified by the Department) at the following address:

Overboard Discharge Compliance Inspector
Department of Environmental Protection
Bureau of Land and Water Quality
Division of Water Quality Management
17 State House Station
Augusta, Maine 04333-0017

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

K. REOPENING OF PERMIT FOR MODIFICATIONS

In accordance with 38 M.R.S. § 414-A(5) and 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.

L. SEVERABILITY

In the event that any provision or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit shall remain in full force and effect, and shall be construed and enforced in all aspects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

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MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
WASTE DISCHARGE LICENSE

FACT SHEET

Date: **June 1, 2016**

MEPDES PERMIT: **ME0036862**
WASTE DISCHARGE LICENSE: **W001013-5C-D-R**

NAME AND ADDRESS OF APPLICANT:

GEM HOSPITALITY GROUP, LLC
D/B/A OCEAN GATE MOTOR INN
P.O. BOX 240
SOUTHPORT, MAINE 04576

COUNTY: **LINCOLN COUNTY**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

OCEAN GATE MOTOR INN
70 OCEAN GATE ROAD
SOUTHPORT, MAINE 04576

RECEIVING WATER/CLASSIFICATION:

TOWNSEND GUT, ATLANTIC OCEAN/Class SB

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Frank Gaynor, General Partner**
(207) 350 -5808
e-mail: frgaynor@oceangateinn.com

1. APPLICATION SUMMARY

a. Application: On May 11, 2016, the Department accepted as complete for processing an application from the permittee for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit ME0036862/Maine Waste Discharge License (WDL) W001013-5C-C-R (permit) which was issued by the Department on December 05, 2011, for a five year term. The permit issued on December 05, 2011, authorized the seasonal discharge (May 15th – September 30th) of no more than 5,000 gallons per day (gpd) of secondary treated wastewater from GEM HOSPITALITY GROUP, LLC d/b/a the OCEAN GATE MOTOR INN to Townsend Gut, Class SB water, in Southport, Maine.

2. PERMIT SUMMARY

a. Terms and conditions

This permitting action is different from the December 5, 2011, permit in that it:

1. Reducing the monitoring frequency for total residual chlorine from 2/week to 1/month based on a statistical evaluation of the monitoring results for the previous 5 year period.

2. Modifying the discharge season to April 1st to November 30th to coincide with the motel's operational season.

b. Source description: Sanitary wastewaters are generated from the 48-unit motel facility. The Ocean Gate Motor Inn is located on Southport Island, an island connected to the mainland via a vehicle bridge. See **Attachment A** of this Fact Sheet for a location map.

c. Wastewater treatment: The wastewater currently receives primary treatment from a 5,000 gallon septic tank and secondary treatment from a 55 ft. by 68 ft. (3740 sq. ft.) dual sandfilter bed. The treated wastewater is discharged into the receiving waterbody via a six-inch diameter outfall pipe without a diffuser and with approximately two feet of water over the crown of the pipe at mean low water.

d. Replacement options: Pursuant to 38 M.R.S. § 414-A(1-B), the Department finds that the discharge from an OBD meets the requirements of best practicable treatment for purposes of licensing when it finds that there are no technologically proven alternative methods of wastewater disposal consistent with the plumbing code adopted by the Department of Health and Human Services pursuant to Title 22, section 42 that will not result in an overboard discharge. The Department's finding must be based on documentation from a licensed site evaluator (LSE) having experience in designing replacement systems for overboard discharges and provided by the overboard discharge owner.

It is noted in the file that on September 2011 a site evaluation was conducted by a Licensed Site Evaluator that indicated that there were no technologically feasible replacement options for the existing system. The site was determined to be determined not to be suitable for the installation of a subsurface waste water disposal system.

3. CONDITIONS OF PERMIT

Conditions of licenses, 38 M.R.S. § 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require the application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, *Certain deposits and discharges prohibited,* 38 M.R.S. § 420 and Department rule *Surface Water Toxics Control Program,* 06-096 CMR 530 (effective March 21, 2012), require the regulation of toxic substances not to exceed levels set forth in *Surface Water*

3. CONDITIONS OF PERMIT (cont'd)

Quality Criteria for Toxic Pollutants, 06-096 CMR 584 (effective July 29, 2012), and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER QUALITY STANDARDS

Classification of estuarine and marine waters, 38 M.R.S. § 469(3-A) classifies all estuarine and marine waters lying within the boundaries of Lincoln County and that are not otherwise classified, which includes Southport at the point of discharge, as Class SB waters. *Standards for classification of estuarine and marine waters,* 38 M.R.S. § 465(B)(2) establishes classification standards for Class SB waters.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2012 Integrated Water Quality Monitoring and Assessment Report, prepared by the Department pursuant to Sections 303(d) and 305(b) of the *Federal Water Pollution Control Act* lists Southwestern Southport Island (Southport) and Boothbay as:

Category 2: *Estuarine and Marine Waters Attaining Some Designated Uses, Insufficient Information for Other Uses*. Impairment in this context is in regard to the designated use of harvesting of shellfish which is prohibited due to overboard discharges.

Currently, the Maine Department of Marine Resources (DMR) shellfish harvesting Area 22, Boothbay and vicinity (Southport, Boothbay Harbor, Boothbay) is closed to the harvesting of shellfish. See **Attachment B** of this Fact Sheet for Area 22. DMR closes or restricts areas based on ambient water quality data that indicate the area did not meet or marginally met the standards in the National Shellfish Sanitation Program. In addition, DMR closes areas by default in the vicinity of outfall pipes associated with treated sanitary wastewater discharges in the event of a failure of the disinfection system. Therefore, Area 22 remains closed as of the date of this permitting action.

Category 5-D*: Estuarine and Marine Waters Impaired by Legacy Pollutants*. All estuarine and marine waters capable of supporting American lobster are listed in Category 5-D, partially supporting fishing ("shellfish" consumption) due to elevated levels of PCBs and other persistent, bioaccumulating substances in lobster tomalley.

The Department has no information that the discharge from the permittee, as conditioned, causes or contributes to non-attainment of applicable Class SB water quality standards.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

a. Best Practicable Treatment (BPT): The Department will find that the discharge meets the requirements of best practicable treatment pursuant to 38 M.R.S. § 414-A(1-B) for purposes of licensing when it finds that there are no technologically proven alternative methods of wastewater disposal consistent with the plumbing code adopted by the Department of Health and Human Services pursuant to Title 22, section 42 that will not result in an overboard discharge. Pursuant to *Overboard Discharges: Licensing and Abandonment*, 06-096 CMR 596(9), *Criteria and Standards for Waste Discharge Licenses* 06-096 CMR 524(2) (effective January 12, 2001) and 06-096 CMR 525(3)(III), BPT for overboard discharges is secondary treatment. The secondary treatment regulation establishes technology-based effluent limitations for BOD_5, TSS, and pH which are discussed in more detail in the individual parameter sections below.

b. Flow: The previous permitting action established, and this permitting action is carrying forward, a daily maximum flow limitation of 5,000 gallons per day (GPD), which is based on the design of the treatment facility, and a daily maximum discharge flow monitoring and reporting requirement.

c. Dilution Factors: 06-096 CMR 530(4)(A)(2)(a) 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 proposed Outfall #001A and daily maximum discharge flow design criterion of 5,000 GPD, the Department has made a best professional judgment that dilution factors are as follows:

Acute = 361:1 Chronic = 1,116:1 Harmonic mean[1] = 3,348:1

[1]The harmonic mean dilution factor is approximated by multiplying the chronic dilution factor by three (3). This multiplying factor is based on guidelines for estimation of human health dilution presented in the U.S. EPA publication, *"Technical Support Document for Water Quality-Based Toxics Control"* (Office of Water; EPA/505/2-90-001, page 88), and represents an estimation of harmonic mean flow on which human health dilutions are based in a riverine 7Q10 flow situation.

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

d. Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS): The previous permitting action established, and this permitting action is carrying forward a modified seasonal requirement (April 1 – November 30), monthly average and weekly average technology-based effluent limits (TBELs) of 30 mg/L and 45 mg/L. For BOD_5 and TSS pursuant to the secondary treatment regulation at 40 CFR 133.102 and 06-096 CMR 525(3)(III). The previous permit also established daily maximum TBELs of 50 mg/L for both BOD_5 and TSS based on a Department best professional judgment of best practicable treatment for secondary treated wastewater. Monthly average, weekly average and daily maximum TBELs of 1.3 lbs./day, 1.9 lbs./day, and 2.1 lbs./day, respectively, established in the previous permitting action for BOD_5 and TSS were based on the daily maximum flow design criterion of 5,000 GPD (same as 0.005 million gallons per day, MGD) and the applicable concentration limits.

The mass-based limits were calculated as follows:

Monthly Average Mass Limit: (30 mg/L)(8.34 lbs./gallon)(0.005 MGD) = 1.3 lbs./day

Weekly Average Mass Limit: (45 mg/L)(8.34 lbs./day)(0.005 MGD) = 1.9 lbs./day

Daily Maximum Mass Limit: (50 mg/L)(8.34 lbs./day)(0.005 MGD) = 2.1 lbs./day

A summary of BOD_5 and TSS data as reported on the DMRs submitted to the Department for the period of December 2011 – March 2016 is as follows:

BOD_5 Mass (DMRs = 19)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	1.3	0.01 – 0.04	0.003
Weekly Average	1.9	0.01 – 0.04	0.003
Daily Maximum	2.1	0.02 – 2.10	1.840

BOD_5 concentration (DMRs = 19)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	30	1 – 26	6.7
Weekly Average	45	1 – 26	6.7
Daily Maximum	50	1 – 26	6.7

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

TSS Mass (DMRs = 19)

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	1.3	0.01 – 0.05	0.003
Weekly Average	1.9	0.01 – 0.05	0.003
Daily Maximum	2.1	0.01 – 2.10	1.90

TSS concentration (DMRs = 19)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	30	1 – 21	9.2
Weekly Average	45	1 – 21	9.2
Daily Maximum	50	1 – 21	9.2

This permitting action carries forward the minimum monitoring frequency requirement of 1/Month for BOD_5 and TSS.

This permitting action carries forward the requirement for a minimum of 85% removal of BOD_5 and TSS pursuant to 06-096 CMR 525(3)(III)(a)(3) and (b)(3). This permitting action establishes a minimum monitoring frequency requirement of once per month for percent removal. The permittee's wastewater treatment system does not contain an influent sampling location that is representative of raw wastewater conditions. According to the USEPA's *Onsite Wastewater Treatment Systems Manual*, dated February 2002, table 3-7 entitled "Constituent Mass Loadings and Concentrations in Typical Residential Wastewater" high end range of values, influent values for BOD_5 and TSS may be assumed to be 286 mg/L and 300 mg/L, respectively. This permitting action also is carrying forward authorization for the Ocean Gate Motor Inn to assume a midrange influent BOD5 and TSS concentration value of 286 mg/L for the purpose of calculating the monthly percent removal value until such time that the infrastructure is modified or replaced such that collection of a representative raw influent sample is practical.

e. Fecal Coliform Bacteria: The previous permitting action established, and this permitting action is carrying forward, seasonal monthly average and daily maximum concentration limits of 15 colonies/100 ml and 50 colonies/100 ml, respectively, for fecal coliform bacteria, which are consistent with the National Shellfish Sanitation Program. Bacteria limits are seasonal and apply between May 15 and September 30 of each year. However, the Department reserves the right to require year-round disinfection to protect the health, safety and welfare of the public.

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

A summary of effluent fecal coliform bacteria data as reported on the DMRs for the period January 2012 through December 2016 (applicable months only) follows:

Fecal coliform bacteria (DMR = 19)

Value	Limit (col/100 mL)	Range (col/100 mL)	Mean (col/100 mL)
Monthly Average	15	1 – 3	0.26
Daily Maximum	50	1 – 3	0.26

During this time period, the permittee reported a total of no excursions from the numeric bacteria limits.

g. Total Residual Chlorine (TRC): The previous permitting action established a daily maximum water quality-based concentration limit of 1.0 mg/L for TRC with 2/Week monitoring requirement. Limitations on TRC are specified to ensure that ambient water quality standards are maintained at all times of the year 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 in Section 6(c) of this Fact Sheet, end-of-pipe (EOP) water quality-based concentration thresholds for TRC may be calculated as follows:

Acute (A) Criterion	Chronic (C) Criterion	A & C Dilution Factors	Calculated Acute Limit	Chronic Limit
0.013 mg/L	0.0075 mg/L	364:1(A) 1,116:1(C)	4.73 mg/L	8.37 mg/L

The water quality-based acute threshold of 1.0 mg/L is more stringent than either calculated water quality-based threshold above, and is therefore being carried forward in this permitting action. The Department is identifying that dechlorination may be required to comply with this water quality-based threshold.

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

A summary of the effluent TRC data as reported on the DMRs submitted to the Department for the period of June 2012 – September 2016 is as follows;

Total residual chlorine (DMRs = 20)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	1.0	0.20 – 1.00	0.85

Given the significant dilution associated with the discharge a statistical evaluation conducted by the Department indicates the discharge does not exceed of have reasonable potential to exceed the critical acute and Chronic ambient water quality thresholds of 4.73 mg/L and 8.37 mg/L respectively. Therefore, the permit is reducing the monitoring frequency to 2/month with at least 14 days between sampling events.

h. pH: The previous permitting action established, and this permitting action is carrying forward, a technology-based pH limit of 6.0 – 9.0 standard units (SU), which is based on 06-096 CMR 525(3)(III).

A summary of the effluent TRC data as reported on the DMRs submitted to the Department for the period of January 2012 – December 2016 is as follows;

pH (DMRs = 20)

Value	Limit (mg/L)	Range (mg/L)	Maximum
Range	6.0 – 9.0	6.0 – 7.40	7.40

i. Whole Effluent Toxicity (WET), Priority Pollutant, and Analytical Chemistry Testing: 38 M.R.S. § 414-A and 38 M.R.S. § 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. 06-096 CMR 530 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. 06-096 CMR 584 sets forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

06-096 CMR 530(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 exceedances of narrative or numerical water quality criteria."*

06-096 CMR 530(2)(A) further specifies the criteria for the exemption of certain discharges from toxics testing as follows:

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

(1) Discharges from individual discharge points licensed to discharge less than 50,000 gallons per day of solely domestic wastewater and with a chronic dilution factor of at least 50 to 1, provided no holding tank wastes containing chemicals are accepted by the facility;

(2) Discharges from residential overboard discharge systems; or

(3) Discharges from combined sewer overflow discharge points, provided the owner of the sewerage system is conducting or participating in a discharge abatement program.

The permittee's facility is exempt from the 06-096 CMR 530 requirements as the characteristics of the wastewater are considered to be similar to that of a residential overboard discharge. Additionally, the permit authorizes a discharge of less than 50,000 gpd of solely domestic wastewater and the chronic dilution factor is greater than 50:1. However, should there be a substantial change in the characteristics of the discharge in the future; the Department may reopen this permit pursuant to Special Condition K, *Reopening of Permit for Modifications*, to incorporate the applicable whole effluent toxicity (WET), priority pollutant or analytical testing requirements cited above.

j. Nitrogen: The permittee has not been conducting total nitrogen testing on its discharge to date. However, the USEPA requested the Department evaluate the reasonable potential for the discharge of total nitrogen to cause or contribute to non-attainment of applicable water quality standards, namely algal blooms, in marine waters. As of the date of this permitting action, the State of Maine has not promulgated numeric ambient water quality criteria for any of the nitrogen compounds. The Department has 50 total nitrogen data results collected on effluent from five municipally-owned treatment works and one industrial facility that discharge to Casco Bay. The mean discharge concentration was calculated to be 14.3 mg/L and is being considered by the Department as being representative of the total nitrogen concentration from a municipal wastewater treatment facility in the absence of facility specific effluent data. Therefore, with an arithmetic mean total nitrogen discharge concentration of 14.3 mg/L and a near field dilution factor of 1,116:1 for the Ocean Gate Motor Inn facility, an in-stream concentration can be calculated as follows:

Total nitrogen concentrations in effluent = 14.3 mg/L
Chronic dilution factor = 1,116:1

In-stream concentration after dilution: $\frac{14.3 \text{ mg/L}}{1{,}116} = 0.013$ mg/L

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

Because nitrogen is not acutely toxic, the Department is considering a far-field dilution to be more appropriate when evaluating impacts of total nitrogen to a marine environment. Far field dilutions are significantly higher than the near-field dilution, ranging from 100 – 10,000 times higher depending on the location of the outfall pipe. With outfalls located in protected coves or small embayments without significant flushing, the far field dilutions factors would tend to be on the order of 100 – 1,000 times higher. With open ocean discharges, far field dilutions would tend to be 1,000 – 10,000 times higher.

The discharge from the permittee's facility to Atlantic Ocean in Southport would be consider a discharge to the open ocean. Thus, the far field dilution would likely be 1,000 – 10,000 times higher. As a result, the far-field dilution may be as high as 1,116,000:1, thereby limiting the increase in the ambient total nitrogen to 0.0000128 mg/L based on the following calculation:

Total nitrogen concentrations in effluent = 14.3 mg/L
Chronic dilution factor = 1,116,000:1

In-stream concentration after dilution: $\frac{14.3 \text{ mg/L}}{1{,}116{,}000} = 0.0000128$ mg/L

The in-stream concentration is less than the Department and USEPA's best professional judgment based total nitrogen threshold of 0.45 mg/L considered necessary to protect aquatic life in the receiving water, using dissolved oxygen as the indicator of whether this designated use is achieved. Therefore, the Department is making a best professional judgment determination that the discharge of total nitrogen from the permittee's facility does not exhibit a reasonable potential to exceed applicable water quality standards for Class SB waters.

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 waterbody to meet standards for Class SB waters.

8. PUBLIC COMMENTS

Public notice of this application was made in the *Boothbay Register* newspaper on or about May 12, 2016. 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 *Application Processing Procedures for Waste Discharge Licenses*, CMR 522 (effective January 12, 2001).

9. DEPARTMENT CONTACTS

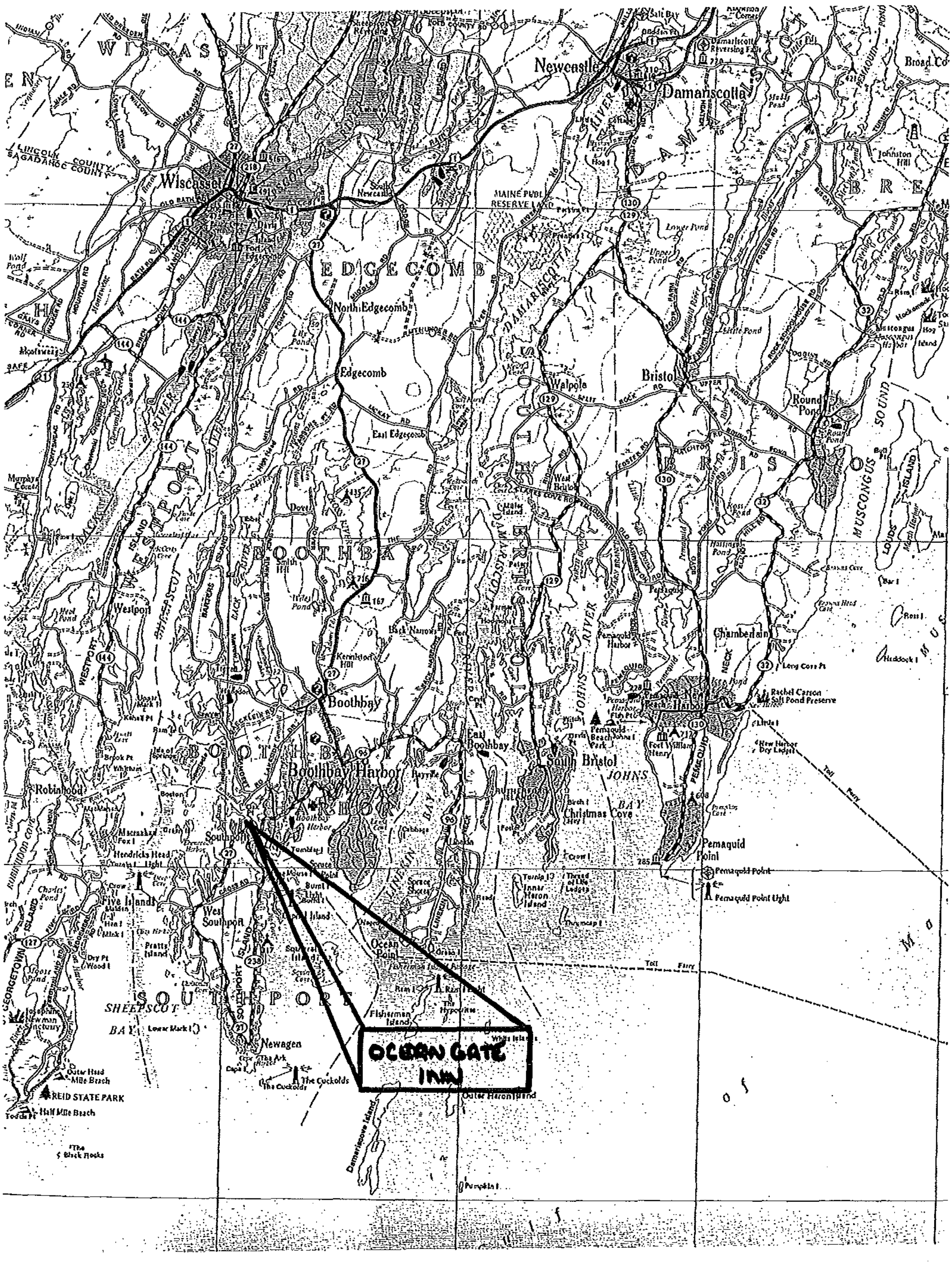
Additional information concerning this permitting action may be obtained from, and written comments sent to:

Aaron Dumont
Division of Water Quality Management
Bureau of Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 592-7161
e-mail: Aaron.A.Dumont@maine.gov

10. RESPONSE TO COMMENTS

Reserved until end of comment period.

ATTACHMENT A


OCEAN GATE INN
Wiscasset
Newcastle
Damariscotta
EDGECOMB
North Edgecomb
Edgecomb
East Edgecomb
Walpole
Bristol
Round Pond
Westport
BOOTHBAY
Boothbay
Boothbay Harbor
East Boothbay
South Bristol
Christmas Cove
Pemaquid Point
Pemaquid Point Light
Chamberlain
Rachel Carson Salt Pond Preserve
Southport
West Southport
SOUTHPORT
Newagen
The Cuckolds
Ocean Point
Fisherman Island
Damariscove Island
Outer Heron Island
Five Islands
Robinhood
REID STATE PARK
Half Mile Beach
Josephine Newman Sanctuary
Hendricks Head Light
SHEEPSCOT BAY
JOHNS BAY
LINCOLN COUNTY
SAGADAHOC COUNTY
MAINE PUBLIC RESERVE LAND
Damariscotta Reversing Falls
Johnston Hill
Muscongus Harbor
Murphys Corner
Fort William Henry
Pemaquid Beach Park
New Harbor
Toll Ferry

ATTACHMENT B

Maine Department of Marine Resources

Pollution Area No. 22

Booth Bay and vicinity (Southport, Boothbay Hbr, Boothbay)

3/27/08