



JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



GERALD D. REID
COMMISSIONER

March 13, 2019

Mr. Sean Foorman
Running Tide Technologies, Inc.
P.O. Box 10304
Portland, ME. 04104
sfoorman@gmail.com

*Sent via electronic mail
Delivery confirmation requested*

RE: *Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0037524
Maine Waste Discharge License (WDL) Application #W00009203-6G-A-N
Proposed Draft MEPDES Permit - NEW*

Dear Mr. Foorman:

Attached 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 special and standard conditions. 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 and from any other parties who have notified the Department of their interest in this matter.

The comment period begins on March 13, 2019 and ends on April 15, 2019. All comments on the proposed draft permit must be received in the Department of Environmental Protection office on or before the close of business Monday, April 15, 2019. Failure to submit comments in a timely fashion will result in the proposed draft/license permit document being issued as drafted.

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

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

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

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

Running Tide Technologies, Inc.
March 13, 2019
Page 2 of 2

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
Cindy.L.Dionne@maine.gov

If you have any questions regarding the matter, please feel free to contact me.

Sincerely,



Cindy L. Dionne
Division of Water Quality Management
Bureau of Water Quality
ph: 207-287-7823

Enc.

cc: Barry Mower, DEP
Pamela Parker, DEP
Stuart Rose, DEP
Lori Mitchell, DEP
Jay Clement, USACE
Sean Mahoney, CLF
Kathleen Leyden, DACF
Environmental Review, DMR
Ellen Weitzler, USEPA
Alex Rosenberg, USEPA
Solanch Pastrana-Del Valle, USEPA
Marelyn Vega, USEPA
Richard Carvalho, USEPA
Shelley Puleo, USEPA
Kirk F. Mohny, MHPC
Anna Harris, USFWS



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

RUNNING TIDE TECHNOLOGIES, INC.) MAINE POLLUTANT DISCHARGE
HARPSWELL, CUMBERLAND COUNTY, ME) ELIMINATION SYSTEM PERMIT
OYSTER AQUACULTURE) AND
ME0037524) WASTE DISCHARGE LICENSE
W-009203-6G-A-N) **APPROVAL**) **NEW**

In compliance with the applicable provisions of *Pollution Control*, 38 M.R.S. §§ 411 – 424-B, *Water Classification Program*, 38 M.R.S. §§ 464 – 470 and *Federal Water Pollution Control Act*, Title 33 U.S.C. § 1251, and applicable rules of the Department of Environmental Protection (Department) has considered the application of RUNNING TIDE TECHNOLOGIES, INC. (Running Tide/permittee), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On December 22, 2018, the Department accepted as complete for processing, a new application from Running Tide for the daily maximum discharge of 43,200 gallons per day (gpd) (or 0.0432 million gallons per day (MGD)) of wastewater associated with the culture of American oysters (*Crassostrea virginica*). The application was assigned Waste Discharge License (WDL) W009203-6G-A-N/Maine Pollutant Discharge Elimination System (MEPDES) permit ME0037524.

Running Tide has demonstrated that it has title, right or interest in the subject property by way of a lease agreement between itself and the property owner. Running Tide has provided evidence that it is a duly organized business corporation under the laws of the State and has indicated that it has the technical and financial capacity to comply with all terms and conditions of the applicable permit and to satisfy all applicable statutory or regulatory criteria.

This permit authorizes Running Tide to discharge 43,200 gpd of treated oyster wastewater to the tidewaters of Middle Bay, Class SB in Harpswell, Maine.

CONCLUSIONS

BASED on the findings in the attached and incorporated Fact Sheet dated March 13, 2019, 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 discharge will be subject to effluent limitations that require application of best practicable treatment as defined in 38 M.R.S. § 414-A(1)(D).

ACTION

THEREFORE, the Department APPROVES the application of RUNNING TIDE TECHNOLOGIES, INC. to discharge a daily maximum of 0.0432 MGD of oyster culture wastewater to Middle Bay, Class SB, in Harpswell, 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*, 5 M.R.S. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(21)(A) (amended June 9, 2018)].

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS ____ DAY OF _____ 2019.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
GERALD D. REID, Commissioner

Date of initial receipt of application December 22, 2018
Date of application acceptance December 22, 2018

Date filed with Board of Environmental Protection _____

This Order prepared by Cindy L. Dionne, Bureau of Water Quality

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- The permittee is authorized to discharge **oyster culture wastewater from Outfall #001A** to Middle Bay. Such discharges are limited and must be monitored by the permittee as specified below ⁽¹⁾:

Effluent Characteristic	Discharge Limitations					Minimum Monitoring Requirements
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow <i>[50050]</i>	Report gpd <i>[07]</i>	43,200 gpd <i>[07]</i>	---	---	1/Month <i>[01/30]</i>	Measure <i>[MS]</i>
TSS <i>[00530]</i>	2.2 lbs./day <i>[26]</i>	3.6 lbs./day <i>[26]</i>	6 mg/L <i>[19]</i>	10 mg/L <i>[19]</i>	1/Month <i>[01/30]</i>	Composite ⁽²⁾ <i>[CP]</i>
TRC ⁽³⁾ <i>[50060]</i>	---	---	0.23 mg/L <i>[19]</i>	0.39 mg/L <i>[19]</i>	1/Day <i>[01/01]</i>	Grab <i>[GR]</i>
Temperature <i>[00111]</i>	---	77°F <i>[15]</i>	---	---	1/Month <i>[01/30]</i>	Measure <i>[MS]</i>
Nitrate + Nitrite (as N) <i>[00630]</i> <i>(May 1 through Oct. 31)</i>	Report lbs./day <i>[26]</i>	Report lbs./day <i>[26]</i>	Report mg/L <i>[19]</i>	Report mg/L <i>[19]</i>	2/Month <i>[02/30]</i>	24-Hour Composite <i>[24]</i>
Total Kjeldahl Nitrogen (as N) <i>[00625]</i> <i>(May 1 through Oct. 31)</i>	Report lbs./day <i>[26]</i>	Report lbs./day <i>[26]</i>	Report mg/L <i>[19]</i>	Report mg/L <i>[19]</i>	2/Month <i>[02/30]</i>	24-Hour Composite <i>[24]</i>
pH (Std. Units) <i>[00400]</i>	The pH must not be less than 6.0 or greater than 9.0 at any time.				1/Week <i>[01/07]</i>	Grab <i>[GR]</i>

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

FOOTNOTES: See Page 5 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

Footnotes

- 1. Sampling** – All effluent monitoring must be conducted at Outfall #001A following the last treatment unit, prior to discharging to the receiving water. All monitoring must be conducted so as to be representative of end-of-pipe effluent characteristics. Any change in sampling location must be approved by the Department in writing. The permittee must conduct sampling and analysis in accordance with; a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis must be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services for wastewater. Samples that are sent to a laboratory operated by a waste discharge facility licensed pursuant to *Waste discharge licenses*, 38 M.R.S. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (effective date 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 (DMR).
- 2. Composite sampling** – Composite samples for TSS must consist of a minimum of four time-or flow-proportioned grab samples collected at equally spaced intervals over the course of an entire processing day that are combined prior to analysis, or another sample type approved by the Department in writing prior to implementation.
- 3. Total Residual Chlorine** – Monitoring for TRC is required if a chlorine-based or sodium hypochlorite-based compound is used in the process. When these compounds have not been used for an entire reporting period, the permittee must enter "NODI-9" on the monthly DMR. The permittee must utilize a USEPA-approved test method capable of bracketing the TRC limitations specified in this permitting action. Compliance will be based on the USEPA's minimum level of detection of 0.02 mg/L. Monitoring results that are detected below 0.02 mg/L must be reported as <0.02 mg/L on the monthly DMR.

SPECIAL CONDITIONS

B. 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, taste, turbidity, radioactivity or other properties 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.

C. 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 December 22, 2018; 2) the terms and conditions of this permit; and 3) only from Outfall #001A. Discharges of wastewater from any other point source are not authorized under this permit, and must be reported in accordance with Standard Condition D(1)(f), *Twenty-four-hour reporting*, of this permit.

D. 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.
2. For the purposes of this section, adequate notice must include information on:
 - a. The quality and quantity of wastewater introduced to the wastewater collection and treatment system; and
 - b. Any anticipated change in the quality and quantity of the wastewater to be discharged from the treatment system.

SPECIAL CONDITIONS

E. MONITORING AND REPORTING

Electronic Reporting

NPDES Electronic Reporting, 40 C.F.R. 127, requires MEPDES permit holders to submit monitoring results obtained during the previous month on an electronic discharge monitoring report to the regulatory agency utilizing the USEPA electronic system.

Electronic Discharge Monitoring Reports (DMRs) submitted using the USEPA NetDMR system, must be:

1. Submitted by a facility authorized signatory; and
2. Submitted no later than **midnight on the 15th day of the month** following the completed reporting period.

Documentation submitted in support of the electronic DMR may be attached to the electronic DMR. Toxics reporting must be done using the DEP toxsheet reporting form. An electronic copy of the Toxsheet reporting document must be submitted to your Department compliance inspector as an attachment to an email. In addition, a hardcopy form of this sheet must be signed and submitted to your compliance inspector, or a copy attached to your NetDMR submittal will suffice. Documentation submitted electronically to the Department in support of the electronic DMR must be submitted no later than midnight on the 15th day of the month following the completed reporting period.

Toxsheet reporting forms must be submitted electronically as an attachment to an email sent to your Department compliance inspector. In addition, a signed hardcopy of your toxsheet must also be submitted.

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

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

SPECIAL CONDITIONS

F. OPERATION & MAINTENANCE PLAN

The permittee must have a current written Operation & Maintenance (O&M) Plan for the facility. The plan must 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.

An acceptable O&M plan must ensure the following items are adequately addressed:

1. Solids Control

- a. Methods and practices to ensure efficient feed management and feeding strategies that limit feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of aquatic animal growth in order to minimize potential discharges to waters of the State.
- b. In order to minimize the discharge of accumulated solids from the settling basin, settling tanks, and production systems, identify and implement procedures for routine cleaning of rearing units and settling tanks, and procedures to minimize any discharge of accumulated solids during the inventorying, grading, and harvesting of aquatic animals in the production system.
- c. Procedure for removal and disposal of mortalities to prevent discharge to waters of the State.

2. Materials Storage

- a. Ensure proper storage of drugs¹, pesticides², feed, and any petroleum and/or hazardous waste products in a manner designed to prevent spills that may result in the discharge of drugs, pesticides, or feed to waters of the State.
- b. Implement procedures for properly containing, cleaning, and disposing of any spilled material that has the potential to enter waters of the State.

¹ **Drug.** “Drug” means any substance defined as a drug in section 201(g)(1) of the *Federal Food, Drug and Cosmetic Act* [21 U.S.C. § 321].

² **Pesticide.** “Pesticide” means any substance defined as a “pesticide” in section 2(u) of the *Federal Insecticide, Fungicide, and Rodenticide Act* [7 U.S.C. § 136 (u)].

SPECIAL CONDITIONS

F. OPERATION & MAINTENANCE PLAN (cont'd)

3. Structural Maintenance

- a. Inspect the production system and the wastewater treatment system on a routine basis in order to identify and promptly repair any damage.
- b. Conduct regular maintenance of the production system and the wastewater treatment system in order to ensure that they are properly functioning.

4. Recordkeeping

- a. Maintain records for fish rearing units documenting the feed amounts and estimates of the numbers and weight of fish.
- b. Maintain records that document the frequency of cleaning, inspections, repairs and maintenance.

5. Training

- a. In order to ensure the proper clean-up and disposal of spilled material adequately, train all relevant personnel in spill prevention and how to respond in the event of a spill.
- b. Train staff on the proper operation and cleaning of production and wastewater treatment systems including training in feeding procedures and proper use of equipment to prevent unauthorized discharges.

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.

SPECIAL CONDITIONS

G. USE OF DRUGS FOR DISEASE CONTROL

1. **General requirements.** All drugs used for disease prevention or control must be approved or authorized by the U.S. Food and Drug Administration (FDA), and all applications must comply with applicable FDA requirements.
2. **FDA-approved drugs.** Drugs approved by the FDA for fish culture purposes may be used in accordance with label instructions.
 - a. Preventative treatments: The discharge of any approved drug administered as a preventative measure is not authorized by this permit, unless the following conditions are met: the drug must be approved by FDA, and the treatment and route of administration must be consistent with the drug's intended use.
 - b. Drugs not identified in the permittee's application: When the need to treat or control diseases requires the use of a FDA-approved drug not identified in the application, the permittee must notify the Department orally or by electronic mail prior to initial use of the drug.
 1. The notification must include a description of the drug, its intended purpose, the method of application, the amount, the concentration, the duration of the use, and information on aquatic toxicity.
 2. ***Within seven (7) days of*** the initial notification the permittee must submit a written report that includes all of the information outlined in Section G.2.c(1) above.
 3. The Department may require submission of an application for permit modification, including public notice requirements, if the drug is to be used for more than a 30-consecutive day period.
 4. If, upon review of information regarding the extralabel use of a drug pursuant to this section, the Department determines that significant adverse effects are likely to occur, it may deny, restrict or limit use of the drug.

This section intentionally left blank.

SPECIAL CONDITIONS

G. USE OF DRUGS FOR DISEASE CONTROL (cont'd)

3. **Extralabel drug use.** Extralabel drug use is not authorized by this permit, unless in accordance with a specific prescription written for that use by a licensed veterinarian.
 - a. Notification. The permittee must notify the Department orally or by e-mail prior to initial extralabel use of a drug.
 1. The notification must include a description of the drug, its intended purpose, the method of application, the amount, concentration, and duration of the use, information on aquatic toxicity, and a description of how and why the use qualifies as an extralabel drug use under FDA requirements.
 2. ***Within seven (7) days of*** the initial notification the permittee must submit a written report that includes all of the information outlined in Section G.3.a(1) above. Notice must include documentation that a veterinarian has prescribed the drug for the proposed use. A copy of the veterinarian's prescription must be maintained on-site during treatment for Department review.
 3. If, upon review of information regarding the extralabel use of a drug pursuant to this section, the Department determines that significant adverse effects are likely to occur, it may deny, restrict or limit use of the drug.
4. **Investigational New Animal Drug (INAD).** The discharge of drugs authorized by the FDA for use during studies conducted under the INAD program is not authorized by this permit, unless in accordance with specific prior consent given in writing by the Department.
 - a. Initial report. The permittee must provide a written report to the Department for the proposed use of an INAD ***within seven (7) days*** of agreeing or signing up to participate in an INAD study. The written report must identify the INAD to be used, method of use, dosage, and disease or condition the INAD is intended to treat.
 - b. Evaluation and monitoring. ***At least ninety (90) days prior to initial use*** of an INAD at a facility, the permittee must submit for Department review and approval a study plan for the use of the drug that:
 1. Indicates the date the facility agreed or signed up to participate in the INAD study.

SPECIAL CONDITIONS

G. USE OF DRUGS FOR DISEASE CONTROL (cont'd)

2. Demonstrates that the minimum amount of drug necessary to evaluate its safety, efficacy, and possible environmental impacts will be used.
 3. Includes an environmental monitoring and evaluation program that at a minimum describes sampling strategies, analytical procedures, evaluation techniques and a timetable for completion of the program. Currently available data or literature that adequately characterizes the environmental fate of the INAD and its metabolite(s) may be proposed for consideration in determinations of environmental monitoring and evaluation programs required by the Department pursuant to this section.
- c. Notification. The permittee must notify the Department orally or by electronic mail *no more than forty-eight (48) hours after* beginning the first use of the INAD under the approved plan.

H. PESTICIDES AND OTHER COMPOUNDS

1. **General requirements.** All pesticides used at the facility must be applied in compliance with federal labeling restrictions and in compliance with applicable statute, Board of Pesticides Control rules and best management practices (BMPs). Chemicals or compounds not registered as pesticides and proposed for use at the facility must be identified in the permittee's application and may only be discharged to waters of the State with express approval in this permitting action. In accordance with Special Condition D of this permit, the permittee must notify the Department of any substantial change in the volume or character of pollutants being introduced into the wastewater collection and treatment system.

I. SPILLS

In the event of a spill of drugs, pesticides, feed, petroleum and/or hazardous waste products that results in a discharge to waters of the State, the permittee must provide an oral report of the spill to the Department within 24 hours of its occurrence and a written report within 5 days to the Department. The report must include the identity and quantity of the material spilled.

J. REOPENING OF PERMIT FOR MODIFICATION

In accordance with 38 M.R.S. § 414-A(5) and upon evaluation of the tests results in the 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 monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

SPECIAL CONDITIONS

K. COMMENCEMENT OF OPERATIONS

The permittee or new owner/operator must meet with the Department's permitting and compliance inspection staff **at a minimum of ninety (90) days prior to commencing production/operations** at the facility to review the applicability of the permit limitations, monitoring requirements, and reporting requirements. Should the Department determine that the proposed production/operations are significantly different from what was presented in past application materials or subsequently revised and included in permitting actions; the Department may require the applicable party to modify this permit or to file an application for a new permit. In addition, pursuant to Department Rule, Chapter 2 Rules *Concerning the Processing of Applications and Other Administrative Matters*, Section 21, *License Renewals, Amendments and Transfers*, Sub-section C, *Transfers*, a transferee must make application to the Department no later than two (2) weeks after transfer of ownership or entering into a licensee agreement to conduct business or said property. Pending determination on the application for approval of transfer the transferee must abide by all of the conditions of this permit, and is jointly or severally liable with the permittee for any violation of the terms and conditions thereof."

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 must remain in full force and effect, and must be construed and enforced in all aspects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

A. GENERAL PROVISIONS

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

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

- (a) They are not
 - (i) Designated as toxic or hazardous under the provisions of Sections 307 and 311, respectively, of the Federal Water Pollution Control Act; Title 38, Section 420, Maine Revised Statutes; or other applicable State Law; or
 - (ii) Known to be hazardous or toxic by the licensee.
- (b) The discharge of such materials will not violate applicable water quality standards.

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

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

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

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

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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

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

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

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

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

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

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

B. OPERATION AND MAINTENANCE OF FACILITIES

1. General facility requirements.

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

- maximize removal of pollutants unless authorization to the contrary is obtained from the Department.
- (b) The permittee shall at all times maintain in good working order and operate at maximum efficiency all waste water collection, treatment and/or control facilities.
 - (c) All necessary waste treatment facilities will be installed and operational prior to the discharge of any wastewaters.
 - (d) Final plans and specifications must be submitted to the Department for review prior to the construction or modification of any treatment facilities.
 - (e) The permittee shall install flow measuring facilities of a design approved by the Department.
 - (f) The permittee must provide an outfall of a design approved by the Department which is placed in the receiving waters in such a manner that the maximum mixing and dispersion of the wastewaters will be achieved as rapidly as possible.

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

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

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

5. Bypasses.

- (a) Definitions.
 - (i) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
 - (ii) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- (b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this section.
- (c) Notice.
 - (i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

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- (ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph D(1)(f), below. (24-hour notice).
- (d) Prohibition of bypass.
 - (i) Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
 - (A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (C) The permittee submitted notices as required under paragraph (c) of this section.
 - (ii) The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in paragraph (d)(i) of this section.

6. Upsets.

- (a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- (b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- (c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (i) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (ii) The permitted facility was at the time being properly operated; and
 - (iii) The permittee submitted notice of the upset as required in paragraph D(1)(f) , below. (24 hour notice).
 - (iv) The permittee complied with any remedial measures required under paragraph B(4).
- (d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

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C. MONITORING AND RECORDS

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

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

3. Monitoring and records.

- (a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- (b) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.
- (c) Records of monitoring information shall include:
 - (i) The date, exact place, and time of sampling or measurements;
 - (ii) The individual(s) who performed the sampling or measurements;
 - (iii) The date(s) analyses were performed;
 - (iv) The individual(s) who performed the analyses;
 - (v) The analytical techniques or methods used; and
 - (vi) The results of such analyses.
- (d) Monitoring results must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in the permit.
- (e) State law provides that any person who tampers with or renders inaccurate any monitoring devices or method required by any provision of law, or any order, rule license, permit approval or decision is subject to the penalties set forth in 38 MRSA, §349.

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D. REPORTING REQUIREMENTS

1. Reporting requirements.

- (a) Planned changes. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
 - (i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - (ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Section D(4).
 - (iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
- (b) Anticipated noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (c) Transfers. This permit is not transferable to any person except upon application to and approval of the Department pursuant to 38 MRSA, § 344 and Chapters 2 and 522.
- (d) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
 - (i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Department for reporting results of monitoring of sludge use or disposal practices.
 - (ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Department.
 - (iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Department in the permit.
- (e) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- (f) Twenty-four hour reporting.
 - (i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance

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

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

(A) Any unanticipated bypass which exceeds any effluent limitation in the permit.

(B) Any upset which exceeds any effluent limitation in the permit.

(C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours.

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

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

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

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

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

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

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

(i) One hundred micrograms per liter (100 ug/l);

(ii) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

(iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or

(iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

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- (b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
- (i) Five hundred micrograms per liter (500 ug/l);
 - (ii) One milligram per liter (1 mg/l) for antimony;
 - (iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
 - (iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

5. Publicly owned treatment works.

- (a) All POTWs must provide adequate notice to the Department of the following:
- (i) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA or Chapter 528 if it were directly discharging those pollutants.
 - (ii) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
 - (iii) For purposes of this paragraph, adequate notice shall include information on (A) the quality and quantity of effluent introduced into the POTW, and (B) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.
- (b) When the effluent discharged by a POTW for a period of three consecutive months exceeds 80 percent of the permitted flow, the permittee shall submit to the Department a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.

E. OTHER REQUIREMENTS

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

- (a) For municipal sources. During power failure, all wastewaters which are normally treated shall receive a minimum of primary treatment and disinfection. Unless otherwise approved, alternate power supplies shall be provided for pumping stations and treatment facilities. Alternate power supplies shall be on-site generating units or an outside power source which is separate and independent from sources used for normal operation of the wastewater facilities.
- (b) For industrial and commercial sources. The permittee shall either maintain an alternative power source sufficient to operate the wastewater pumping and treatment facilities or halt, reduce or otherwise control production and or all discharges upon reduction or loss of power to the wastewater pumping or treatment facilities.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Maximum daily discharge limitation means the highest allowable daily discharge.

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

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

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

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

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

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

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

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

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

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

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

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

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

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

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

PROPOSED DRAFT FACT SHEET

Date: **March 13, 2019**

MEPDES PERMIT: **ME0037524**
WASTE DISCHARGE LICENSE: **W009203-6G-A-N**

NAME AND ADDRESS OF APPLICANT:

**RUNNING TIDE TECHNOLOGIES, INC.
P.O. BOX 10304
PORTLAND, MAINE 04079**

COUNTY: **CUMBERLAND**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

**MITCHELL FIELD
HARPSWELL NECK ROAD (ROUTE 123)
HARPSWELL, MAINE 04079**

RECEIVING WATER / CLASSIFICATION: **MIDDLE BAY, CLASS SB**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Sean Foorman
sfoorman@gmail.com
(710) 660-4978**

1. APPLICATION SUMMARY

On December 22, 2018, the Department of Environmental Protection (Department) accepted as complete for processing, a new application from Running Tide Technologies, Inc. (Running Tide/permittee) for the daily maximum discharge of 43,200 gallons per day (gpd) (or 0.0432 million gallons per day (MGD)) of wastewater associated with the culture of American oysters (*Crassostrea virginica*). The application was assigned Waste Discharge License (WDL) #W009203-6G-A-N/Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0037524.

This permit authorizes Running Tide to discharge 43,200 gpd of treated oyster wastewater to the tidewaters of Middle Bay, Class SB in Harpswell, Maine.

2. PERMIT SUMMARY

- a. History: This section provides a summary of significant licensing actions and milestones that have been completed for the permittee.

December 22, 2018 – The permittee submits a new application for the discharge of 43,200 gpd of wastewater associated with the culture of oysters. The Department assigned WDL #W009203-6G-A-N /MEPDES #ME0037524.

- b. Source Description: Per their application, the permittee states:

“Running Tide Technologies looks to raise the American oyster (*Crassostrea virginica*) from egg to adult, including broodstock spawning processes. Housed safely within a state-approved quarantine facility, our broodstock will be acquired routinely from Rutgers University, held and ripened for a period of a number of weeks, and spawned. All waters in this facility will be treated according to state regulations via chlorination, neutralization with sodium thiosulfate, and subsequent discharge. Fertilized embryos will be moved to flow-through hatchery culture facilities, where incubation and larval development is accomplished under strictly controlled environmental conditions. Incoming water from Middle Bay (approximately 300 feet off the shores of Mitchell Field) will be filtered to 1-2 microns, heated to approximately 25°C, and disinfected through a variety of media, cartridge, and UV light filtering mechanisms. A small portion of water (1-5%) will be desalinated, with the resulting brine discharged and freshwater injected into the facility in order to adjust salinities to more ideal growing conditions. A smaller portion still of this desalinated water (approximately 150-200 gallons per day) is intended for rinsing culture tanks as well as a single hand-washing station (grey water), all of which will be discharged through the facility’s main discharge piping. No discharged waters will come into contact with sewage; instead, a composting toilet on site will be utilized.

2. PERMIT SUMMARY (cont'd)

Water quality will be kept pristine (as the animals depend upon it), with constant aeration throughout the process and no additives with the exception of algae-based oyster feed, and calcium carbonate as a means of buffering pH (and the aforementioned chlorination/neutralization of broodstock quarantine waters). Following filtration, disinfection and subsequent flow through culture tanks at a maximum rate of 30 gpm (.0432 MGD), outgoing waters will again be mechanically filtered down to 5 microns, and passed through a heat recovery system such that the temperature of outgoing waters is normalized to that of incoming water at ambient Middle Bay temperatures. Remedial nutrient uptake at the point of discharge in Middle Bay is planned in the form of kelp culture, suspended from lines in the water column surrounding the point of discharge.”

A location map with the facility is included as Attachment A of this Fact Sheet.

c. Influent Water: According to the application, source water for the facility

“Raw incoming seawater will be treated extensively through a series of media, cartridge, and UV filtration. Following treatment, waters will flow through culture tanks housing eastern oyster broodstock, embryos, larvae, and spat. As required by the state, waters flowing through our quarantined broodstock system will be held, treated with a sufficient hypochlorite concentration for at least 2 hours, neutralized with sodium thiosulfate, and discharged via the discharge pipe. With the exception of state-mandated chlorination of quarantine waters, no chemicals whatsoever will be added to culture water. Phytoplankton will be used as animal feed for growing oysters, using small amounts specifically measured to ensure complete consumption. Discharge waters will be filtered down to 5 microns, passed through a heat recovery system (which will lower the temperature of discharged water to a level closer to incoming ambient Middle Bay waters), routed to the sea floor off shore of the facility, below low water level and in the middle of kelp farming plots, where kelp will work to uptake any nutrients in the waste stream. A small portion of water (1-5%) will be desalinated, with the resulting brine discharged and freshwater injected into the facility’s culture waters in order to adjust salinities to more ideal growing conditions. A smaller portion still of this desalinated water (approximately 150-200 gallons per day) is intended for rinsing culture tanks as well as a single hand-washing station (grey water), all of which will be discharged through the facility’s main discharge piping. No discharged waters will come into contact with sewage; instead, a composting toilet on site will be utilized.”

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 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

Classifications of major river basins, 38 M.R.S. § 469(1) classifies “All estuarine and marine waters lying within the boundaries of Cumberland County and that are not otherwise classified are Class SB waters.” *Standards for classification of estuarine and marine waters*, 38 M.R.S. § 465-B(2) describes the standards for Class SB waters.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2016 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 Middle Bay in Harpswell under “Category 5-B-1(a): Estuarine and Marine Waters Impaired for Bacteria Only – TMDL Required.” The listing identifies the impairment cause as elevated fecal indicators.

The Maine Department of Marine Resources (MEDMR) closes shellfish harvesting areas if there are known sources of discharges with unacceptable bacteria levels (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 and current shoreline surveys. In addition, the MEDMR conditionally approves harvesting in certain areas based on precipitation events and other criteria. Shellfish harvesting area #16 (including Middle Bay) is listed as “Conditionally Approved” for shellfish harvesting. The shellfish closure area can be found at <http://www.maine.gov/dmr/shellfish-sanitation-management/closures/pollution.html>.

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 polychlorinated biphenyls (PCBs) and other persistent, bioaccumulating substances in lobster tomalley. The permittee will not cause or contribute to the failure of the receiving waters to meet the standards of its designated classification.

5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

The Department has made a best professional judgment determination based on information gathered to date, that as permitted, the discharge will not cause or contribute the failure of the receiving water to meet the standards of its ascribed classification and the designated uses of the waterbody will continue to be maintained and protected. If future information determines that the discharge is causing or contributing to non-attainment, this permit will be re-opened per Special Condition J, *Reopening of The License For Modifications*, to impose more stringent limitations to meet water quality standards.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

- a. Applicability of National Effluent Guidelines: The USEPA has promulgated national effluent guidelines for the *Concentrated Aquatic Animal Production Point Source Category* at 40 CFR 451 Subpart A, *Flow-Through and Recirculating Systems Subcategory*. This subpart is applicable to discharges from a concentrated aquatic animal production facility that produces 100,000 lbs. or more per year of aquatic animals in a flow-through or recirculating system. The facility's estimated annual yield of 500 lbs. is less than the 100,000 lbs. per year applicable threshold, and is therefore not categorically subject to regulation under this subpart.
- b. Flow: This permitting action establishes a daily maximum flow limitation of 43,200 gpd for Outfall #001A. This permitting action is also establishing a monthly average reporting requirement.
- c. Dilution Factors: *Surface Water Toxics Control Program*, 06-096 C.M.R. ch. 530 §4(a)(2)(effective March 21, 2012) states:
 - (1) For estuaries where tidal flow is dominant and marine discharges, dilution factors are calculated as follows. These methods may be supplemented with additional information such as current studies or dye studies.
 - (a) 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.
 - (b) For discharges to estuaries, dilution must be calculated using a method such as MERGE, CORMIX or another predictive model determined by the Department to be appropriate for the site conditions.

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

- (c) In the case of discharges to estuaries where tidal flow is dominant and marine waters, the human health criteria must be analyzed using a dilution equal to three times the chronic dilution factor.

Given the details in the application materials, the Department of Environmental Assessment has calculated a minimum nearfield value of 30:1 with a Harmonic mean value of 90:1⁽¹⁾.

⁽¹⁾ Pursuant to *Surface Water Toxics Control Program* 06-096 C.M.R. ch. 530, §4(2)(c), the harmonic mean dilution factor is approximated by multiplying the chronic dilution factor by a factor of three (3).

- d. **TSS:** This permitting action establishes monthly average and daily maximum concentration limits of 6 mg/L and 10 mg/L respectively for TSS based on best professional judgement (BPJ) of best practicable treatment (BPT) for flow-through aquaculture hatchery and rearing facility wastewater.

Monthly average and daily maximum mass limits are based on the respective concentration limits, daily maximum flow limit and a standard pound/gallon conversion limit as noted below:

Daily Maximum mass limit
 $10 \text{ mg/L} \times 0.0432 \text{ MGD} \times 8.34 = 3.6 \text{ lbs.}$

Monthly Average mass limit
 $6 \text{ mg/L} \times 0.0432 \text{ MGD} \times 8.34 = 2.2 \text{ lbs.}$

- e. **Total Residual Chlorine (TRC):** The permittee is not required to monitor the effluent for TRC whenever a chlorine-based or sodium hypochlorite-based compound is used.

When either or both of the above-mentioned chemicals are in use, the minimum monitoring frequency requirement is 1/day based on best professional judgment.

Department licensing/permitting actions impose the more stringent of either a water quality-based or BPT based limit. End-of-pipe acute and chronic water quality based concentration thresholds may be calculated as follows:

Acute (A) Criterion	Chronic (C) Criterion	A & C Dilution Factors	Calculated	
			Acute Threshold	Chronic Threshold
0.013 mg/L	0.0075 mg/L	30:1 (A + C)	0.39 mg/L	0.23 mg/L

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

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that utilize chlorine or chlorine-based compounds for disinfection purposes. The technology-based limit of 1.0 mg/L is less stringent than the water quality based limits. Therefore, the water quality based limits of 0.39 mg/L and 0.23 mg/L are being established in this permitting action.

- f. pH – This permitting action establishes a pH range limitation of 6.0 – 8.5 standard units, consistent with the pH limit established in discharge license for aquaculture hatcheries and rearing facilities, and considered by the Department as a best practicable treatment standard. This permitting action establishes a once per week (1/Week) effluent pH monitoring requirement.
- g. Nitrogen – 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 in marine waters, namely dissolved oxygen (DO) and marine life support. In the absence of facility-specific hatchery effluent total nitrogen data for the Running Tide facility, the Department is using a best available value of 0.38 mg/L, calculated by summing the expected intake water total nitrogen concentration (0.27 mg/L; see below) and the expected operational concentration (0.11 mg/L). The expected operational total nitrogen concentration for the Running Tide facility is based on an oyster hatchery effluent monitoring study from Washington state, which measured an average operational nitrogen concentration of 0.11 mg/L (Table 2 in [Rensel 2013](#)).

As of the date of this permitting action, the State of Maine has not promulgated numeric ambient water quality criteria for total nitrogen. According to several studies in USEPA's Region 1, numeric total nitrogen criteria have been established for relatively few estuaries, but the criteria that have been set typically fall between 0.35 mg/L and 0.50 mg/L to protect marine life using dissolved oxygen as the indicator. While the thresholds are site-specific, nitrogen thresholds set for the protection of eelgrass habitat range from 0.30 mg/L to 0.39 mg/L. Based on studies in USEPA's Region 1 and the Department's best professional judgment of thresholds that are protective of Maine water quality standards, the Department is utilizing a threshold of 0.45 mg/L for the protection of aquatic life in marine waters using dissolved oxygen as the indicator, and 0.32 mg/L for the protection of aquatic life using eelgrass as the indicator.

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

Four known surveys have been completed within Middle Bay to document presence/absence of eelgrass. The surveys occurred in 1993 and 2001 as conducted by the Maine Department of Marine Resources (DMR), and in 2013 and 2018 as completed by the Department. Other than during 2013 when the majority of eelgrass was documented as absent from Middle Bay and adjacent embayments, eelgrass has been a conspicuous feature of the shallow subtidal shoreline along Harpswell. During June 2018, the mapping survey documented a consistent fringe of eelgrass (40-70% cover) along the shoreline in and surrounding the location of the facility intake and outflow pipes. Based on the history of eelgrass presence in the discharge vicinity, the use of 0.32 mg/L as a total nitrogen threshold value for protection of eelgrass is appropriate for this receiving water.

The Department and external partners have been collecting ambient total nitrogen data along Maine's coast. Although no total nitrogen data are known to exist from immediate proximity to the facility discharge point, two long term monitoring sites maintained by the Friends of Casco Bay (FOCB) bracket the discharge point at either end of the embayment, and cumulatively offer representative total nitrogen conditions for the Middle Bay location during May-October (Figure 1; Table 1). From these two sites, the Department has calculated a mean background concentration of 0.27 ± 0.08 mg/L (n=79), which captures multiple tidal and weather scenarios. Accompanying total nitrogen values from the two sites are discrete water quality data collected annually since 1993, which demonstrate an embayment occasionally influenced at its surface by less saline water, characterized by vertical stratification, and subject to wind-driven sediment resuspension in shallower water near the head of the embayment. Dissolved oxygen profiles indicate attainment of the 85% saturation threshold for Class SB waters, with somewhat regular supersaturation in surface values likely accounted for by phytoplankton-driven production.

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

Figure 1. Numbered Monitoring Sites, each approximately 4 miles lateral to Running Tide Technologies, Inc. Discharge location (Yellow Symbol). green polygons show 2018 mapped eelgrass.

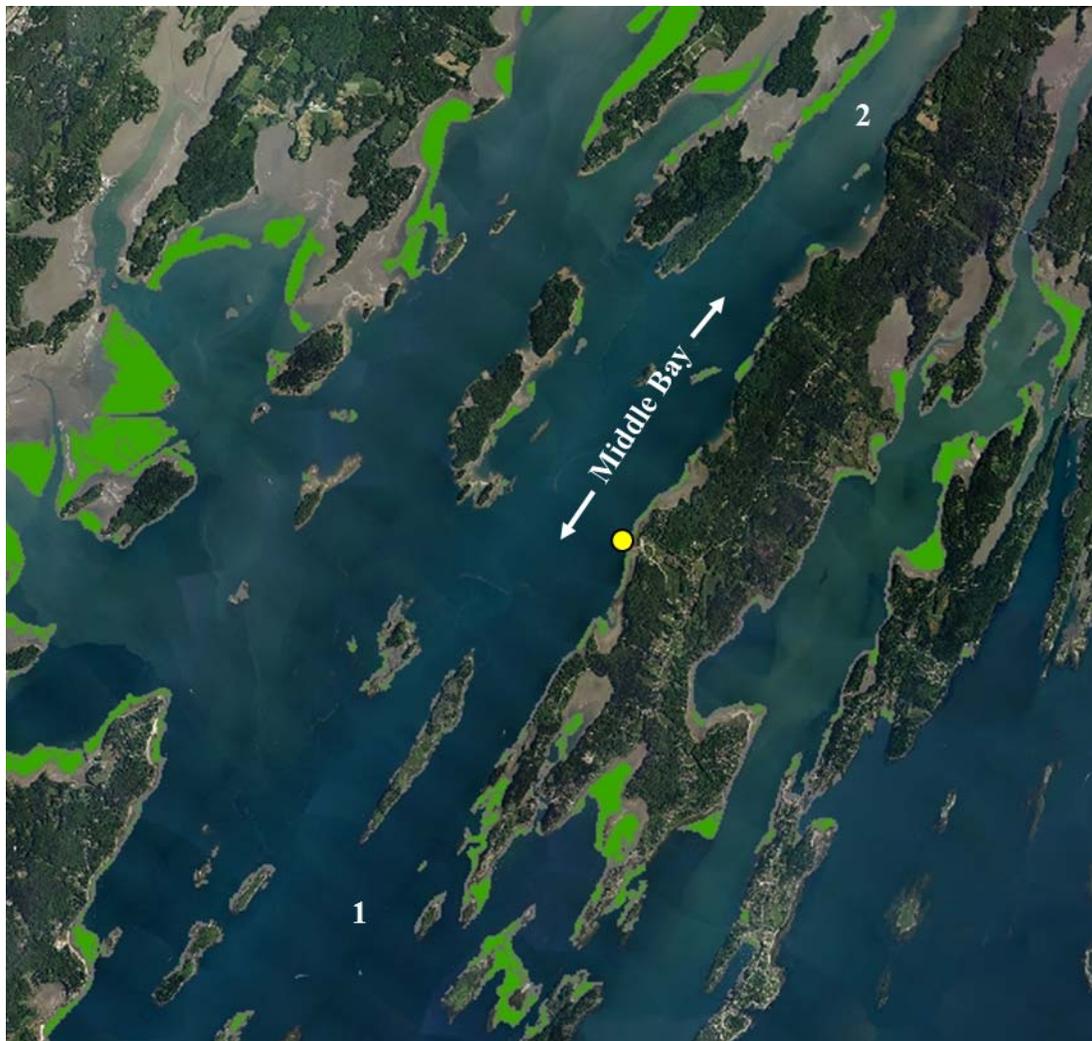


Table 1. Middle Bay monitoring sites used for calculation of background total nitrogen mean, with summary statistics.

Site #	Site Name (Monitoring Organization)	Data Collection Years	Total Nitrogen (mg/L)			
			n	min.	max.	mean
1	Broad Sound – P5BSD (FOCB)	2007-2017	48	0.14	0.60	0.27
2	Little Iron Island – P10LI (FOCB)	2007-2015	31	0.17	0.38	0.28

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

Based on the calculated ambient value for this receiving water, the estimated increase in ambient total nitrogen after reasonable opportunity for mixing in the far-field is $0.27 \text{ mg/L} + 0.01 \text{ mg/L} = 0.28 \text{ mg/L}$. The in-stream concentration value of 0.28 mg/L is less than the Department and USEPA's best professional judgment based total nitrogen threshold of 0.32 mg/L for the protection of aquatic life using eelgrass as an indicator. Furthermore, the scope, scale and nature of this discharge is so minimal in relation to the resource that there is no expectation to be able to detect any persistent far-field related influences. The discharge area will be inundated by tidal fluctuations twice daily, such that any highly localized influences will be relatively brief and will not persist on time scales that are meaningful for consideration of potential far-field influences. Far-field related dilutions are expected to be significantly greater than 100:1.

Using the reasonable potential calculations above and in the absence of any information that the receiving water is not attaining standards, the Department is making a best professional judgment determination that the discharge of total nitrogen from the Running Tide facility does not exhibit a reasonable potential to exceed applicable water quality standards for Class SB waters. However, since this assessment is based on a referenced total nitrogen effluent values, the Department has established a seasonal effluent monitoring requirement for total nitrogen (TKN and $\text{NO}_3 + \text{NO}_2$).

- h. Temperature: The permittee's application information stated that influent water from Middle Bay will be heated to approximately 25°C . Once the water has passed through the culture tanks, outgoing water will be passed through a heat recovery system to reduce the temperature of the effluent water.

Regulations Relating to Temperature 06-096 C.M.R. ch. 582 (effective May 4, 1996) states that "No discharge of pollutants shall cause the monthly mean of the daily maximum ambient temperatures in any tidal body of water, as measured outside the mixing zone, to be raised more than 4 degrees Fahrenheit, nor more than 1.5 degrees Fahrenheit from June 1 to September 1. In no event shall any discharge cause the temperature of any tidal waters to exceed 85 degrees Fahrenheit at any point outside a mixing zone established by the Board."

Therefore, this permit is establishing a temperature limit of 25°C (77°F) based on information from the permittee as to the potential daily maximum temperature of the wastewater.

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

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

8. PUBLIC COMMENTS

Public notice of this application was made in the *Times Record* newspaper on or about November 13, 2018. 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 must 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*, 06-096 CMR 522 (effective January 12, 2001).

9. DEPARTMENT CONTACTS

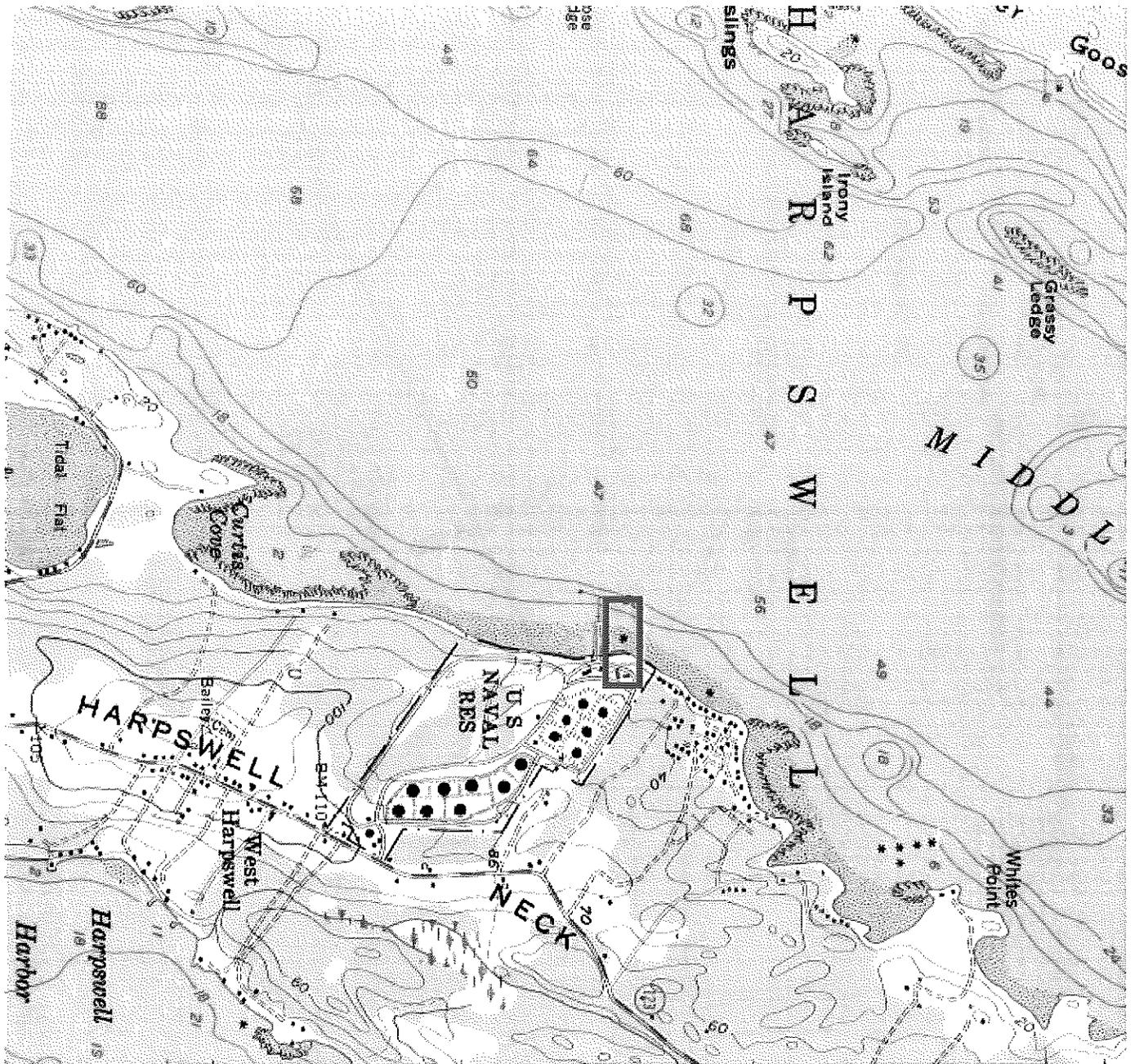
Additional information concerning this permitting action may be obtained from, and written comments sent to:

Cindy Dionne
Division of Water Quality Management
Bureau of Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 287-7823
e-mail: Cindy.L.Dionne@maine.gov

10. RESPONSE TO COMMENTS

This section reserved until after the public comment period.

ATTACHMENT A



HARPSWELL CENTER 1.6 MI.
BRUNSWICK (JUNC U.S.) 10 MI.

4845

4848

4730"



1998

313 ft

Image Date: 5/9/2010 43°46'44.51" N 70°01'02.62" W 887 0 ft 47236 1425 ft

Google Earth

Intake/Discharge
(Concrete Mooring,
3 submerged pumps
enclosed in steel mesh)

