STATE OF MAINE **DEPARTMENT OF ENVIRONMENTAL PROTECTION**



JANET T. MILLS

GOVERNOR



MELANIE LOYZIM COMMISSIONER

September 14, 2022

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

> Sent via electronic mail **Delivery confirmation requested**

Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0037524 RE: Maine Waste Discharge License (WDL) Application #W00009203-6G-C-M **Final MODIFICATION - MEPDES Permit**

Dear Mr. Foorman:

Enclosed please find a copy of your **final** Maine WDL/MEPDES permit Modification which was approved by the Department of Environmental Protection. Please read this permit and its attached conditions carefully. Compliance with this license will protect water quality.

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

If you have any questions regarding the matter, please feel free to call me at 446-3820.

Your Department compliance inspector copied below is also a resource that can assist you with compliance. Please do not hesitate to contact them with any questions.

Thank you for your efforts to protect and improve the waters of the great state of Maine!

Sincerely,

Cindy L. Dionne **Division of Water Quality Management** Bureau of Water Quality

AUGUSTA 17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017 (207) 287-7688 FAX: (207) 287-7826 (207) 941-4570 FAX: (207) 941-4584

BANGOR 106 HOGAN ROAD, SUITE 6 BANGOR, MAINE 04401

PORTLAND PORTLAND, MAINE 04103 (207) 822-6300 FAX: (207) 822-6303 (207) 764-0477 FAX: (207) 760-3143

PRESQUE ISLE 1235 CENTRAL DRIVE, SKYWAY PARK PRESQUE ISLE, MAINE 04769

Running Tide Technologies September 14, 2022 Page 2 of 2

Enc.

ec: Stuart Rose, MEDEP Pamela Parker, MEDEP Lori Mitchell, MEDEP Ellen Weitzler, USEPA Alex Rosenberg, USEPA Richard Carvalho, USEPA Nathan Chien, USEPA Sandy Mojica, USEPA



DEP INFORMATION SHEET Appealing a Department Licensing Decision

Dated: August 2021

Contact: (207) 314-1458

SUMMARY

This document provides information regarding a person's rights and obligations in filing an administrative or judicial appeal of a licensing decision made by the Department of Environmental Protection's (DEP) Commissioner.

Except as provided below, there are two methods available to an aggrieved person seeking to appeal a licensing decision made by the DEP Commissioner: (1) an administrative process before the Board of Environmental Protection (Board); or (2) a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (<u>35-A M.R.S. § 3451(4)</u>) or a general permit for an offshore wind energy demonstration project (<u>38 M.R.S. § 480-HH(1)</u>) or a general permit for a tidal energy demonstration project (<u>38 M.R.S. § 636-A</u>) must be taken to the Supreme Judicial Court sitting as the Law Court.

I. <u>Administrative Appeals to the Board</u>

LEGAL REFERENCES

A person filing an appeal with the Board should review Organization and Powers, <u>38 M.R.S. §§ 341-D(4)</u> and <u>346</u>; the Maine Administrative Procedure Act, 5 M.R.S. § <u>11001</u>; and the DEP's <u>Rule Concerning the</u> <u>Processing of Applications and Other Administrative Matters (Chapter 2), 06-096 C.M.R. ch. 2</u>.

DEADLINE TO SUBMIT AN APPEAL TO THE BOARD

Not more than 30 days following the filing of a license decision by the Commissioner with the Board, an aggrieved person may appeal to the Board for review of the Commissioner's decision. The filing of an appeal with the Board, in care of the Board Clerk, is complete when the Board receives the submission by the close of business on the due date (5:00 p.m. on the 30th calendar day from which the Commissioner's decision was filed with the Board, as determined by the received time stamp on the document or electronic mail). Appeals filed after 5:00 p.m. on the 30th calendar day from which the Commissioner's decision was filed with the Board as untimely, absent a showing of good cause.

HOW TO SUBMIT AN APPEAL TO THE BOARD

An appeal to the Board may be submitted via postal mail or electronic mail and must contain all signatures and required appeal contents. An electronic filing must contain the scanned original signature of the appellant(s). The appeal documents must be sent to the following address.

Chair, Board of Environmental Protection c/o Board Clerk 17 State House Station Augusta, ME 04333-0017 ruth.a.burke@maine.gov The DEP may also request the submittal of the original signed paper appeal documents when the appeal is filed electronically. The risk of material not being received in a timely manner is on the sender, regardless of the method used.

At the time an appeal is filed with the Board, the appellant must send a copy of the appeal to: (1) the Commissioner of the DEP (Maine Department of Environmental Protection, 17 State House Station, Augusta, Maine 04333-0017); (2) the licensee; and if a hearing was held on the application, (3) any intervenors in that hearing proceeding. Please contact the DEP at 207-287-7688 with questions or for contact information regarding a specific licensing decision.

REQUIRED APPEAL CONTENTS

A complete appeal must contain the following information at the time the appeal is submitted.

- 1. *Aggrieved status*. The appeal must explain how the appellant has standing to bring the appeal. This requires an explanation of how the appellant may suffer a particularized injury as a result of the Commissioner's decision.
- 2. *The findings, conclusions, or conditions objected to or believed to be in error.* The appeal must identify the specific findings of fact, conclusions of law, license conditions, or other aspects of the written license decision or of the license review process that the appellant objects to or believes to be in error.
- 3. *The basis of the objections or challenge.* For the objections identified in Item #2, the appeal must state why the appellant believes that the license decision is incorrect and should be modified or reversed. If possible, the appeal should cite specific evidence in the record or specific licensing criteria that the appellant believes were not properly considered or fully addressed.
- 4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license to changes in specific license conditions.
- 5. *All the matters to be contested.* The Board will limit its consideration to those matters specifically raised in the written notice of appeal.
- 6. *Request for hearing.* If the appellant wishes the Board to hold a public hearing on the appeal, a request for hearing must be filed as part of the notice of appeal, and it must include an offer of proof regarding the testimony and other evidence that would be presented at the hearing. The offer of proof must consist of a statement of the substance of the evidence, its relevance to the issues on appeal, and whether any witnesses would testify. The Board will hear the arguments in favor of and in opposition to a hearing on the appeal and the presentations on the merits of an appeal at a regularly scheduled meeting. If the Board decides to hold a public hearing on an appeal, that hearing will then be scheduled for a later date.
- 7. New or additional evidence to be offered. If an appellant wants to provide evidence not previously provided to DEP staff during the DEP's review of the application, the request and the proposed supplemental evidence must be submitted with the appeal. The Board may allow new or additional evidence to be considered in an appeal only under limited circumstances. The proposed supplemental evidence must be relevant and material, and (a) the person seeking to add information to the record must show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process; or (b) the evidence itself must be newly discovered and therefore unable to have been presented earlier in the process. Requirements for supplemental evidence are set forth in <u>Chapter 2 § 24</u>.

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, and is made accessible by the DEP. Upon request, the DEP will make application materials available to review and photocopy during normal working hours. There may be a charge for copies or copying services.

- 2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing the appeal.* DEP staff will provide this information upon request and answer general questions regarding the appeal process.
- 3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed, the license normally remains in effect pending the processing of the appeal. Unless a stay of the decision is requested and granted, a licensee may proceed with a project pending the outcome of an appeal, but the licensee runs the risk of the decision being reversed or modified as a result of the appeal.

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

The Board will acknowledge receipt of an appeal, and it will provide the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials admitted by the Board as supplementary evidence, any materials admitted in response to the appeal, relevant excerpts from the DEP's administrative record for the application, and the DEP staff's recommendation, in the form of a proposed Board Order, will be provided to Board members. The appellant, the licensee, and parties of record are notified in advance of the date set for the Board's consideration of an appeal or request for a hearing. The appellant and the licensee will have an opportunity to address the Board at the Board meeting. The Board will decide whether to hold a hearing on appeal when one is requested before deciding the merits of the appeal. The Board's decision on appeal may be to affirm all or part, affirm with conditions, order a hearing to be held as expeditiously as possible, reverse all or part of the decision of the Commissioner, or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, the licensee, and parties of record of its decision on appeal.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court (see <u>38 M.R.S. § 346(1)</u>; 06-096 C.M.R. ch. 2; <u>5 M.R.S. § 11001</u>; and M.R. Civ. P. 80C). A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board Clerk at 207-287-2811 or the Board Executive Analyst at 207-314-1458 <u>bill.hinkel@maine.gov</u>, or for judicial appeals contact the court clerk's office in which the appeal will be filed.

Note: This information sheet, in conjunction with a review of the statutory and regulatory provisions referred to herein, is provided to help a person to understand their rights and obligations in filing an administrative or judicial appeal. The DEP provides this information sheet for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.



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

DEPARTMENT ORDER

IN THE MATTER OF

RUNNING TIDE TECHNO	DLOGIES, INC.	
HARPSWELL, CUMBERLAND COUNTY, ME		
OYSTER AQUACULTURE		
ME0037524		
W-009203-6G-C-M	APPROVAL	

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

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), the Department has considered a request for a modification from RUNNING TIDE TECHNOLOGIES, INC. (Running Tide/permittee) to modify combination Waste Discharge License (WDL) #W009203-6G-A-N/Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0037524 issued by the Department on April 16, 2019, for a five-year term and subsequently modified on June 5, 2020 (ME0037524/WDL #W009203-6G-B-M). The Department considered the request for a modification from Running Tide with its supporting data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

MODIFICATION REQUESTED

On February 16, 2022 the Department accepted as complete for processing an application from the permittee to relocate Outfall #001A by shortening the existing outfall pipe by approximately 250 feet to improve the hydraulics of the operation. [The request does not include an increase to the permitted flow or production capacity of the facility.]

MODIFICATION GRANTED/DENIED

- 1. The Department acknowledges the operating challenges of the permittee and hereby grants the request to modify the above-referenced permit. The following substantive revision has been made to Special Condition A. *Effluent Limitations and Monitoring Requirements*:
 - The Department revised the effluent limits for total residual chlorine to reflect the new dilution factors.

The Department has attached a revised Table A.1. *Effluent Limitations and Monitoring Requirements* for Outfall #001A to this permit modification. The Department has also attached a new outfall location map and wastewater process flow diagram submitted by the permittee as part of the Fact Sheet.

CONCLUSIONS

BASED on the findings herein and incorporated in the April 16, 2019 Permit, the June 5, 2020 Permit Modification, and the findings on Pages 1 and 2 of this Modification, 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 water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.
- 4. The discharge will be subject to effluent limitations that require application of best practicable treatment as defined in *Conditions of licenses*, 38 M.R.S. § 414-A(1)(D).

ACTION

THEREFORE, the Department APPROVES the request by RUNNING TIDE TECHNOLOGIES, INC. to modify MEPDES Permit #ME0037524/WDL #W009203-6G-A-N, issued by the Department on April 16, 2019 to modify Outfall #001A in 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 to MEPDES permit #ME0037524/WDL #W009203-6G-A-N, issued by the Department on April 16, 2019.
- 2. The attached Special Conditions, including any effluent limitations and monitoring requirements.
- 3. All terms and conditions of MEPDES permit #ME0037524/WDL #W009203-6G-A-N, issued by the Department on April 16, 2019 and the permit modification WDL #W009203-6G-B-M issued by the Department on June 5, 2020, not modified by this permitting action remain in effect and enforceable.
- 4. This modification becomes effective upon signature and expires on April 16, 2024, concurrent with #ME0037524/WDL #W009203-6G-A-N, issued by the Department on April 16, 2019. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the authorization to discharge, the terms and conditions of this permit, and all 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 C.M.R. ch. 2(21)(A) (amended June 9, 2018).

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS 14 DAY OF September 2022. DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_ RJ

For Melanie Loyzim, Commissioner

Date of initial receipt of application February 8, 2022 Date of application acceptance February 16, 2022

FILED

SEPT 14, 2022

State of Maine **Board of Environmental Protection**

Date filed with Board of Environmental Protection

This Order was prepared by Elizabeth Andrews, Bureau of Water Quality.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge **treated oyster and hard clam hatchery wastewater from** <u>Outfall #001A</u> to Middle Bay. Such discharges are limited and must be monitored by the permittee as specified below ⁽¹⁾:

Effluent	Discharge Limitations				Minimum Monitoring Requirements	
Characteristic	Monthly <u>Average</u>	Daily <u>Maximum</u>	Monthly <u>Average</u>	Daily <u>Maximum</u>	Measurement <u>Frequency</u>	Sample <u>Type</u>
Flow [50050]	Report gpd [07]	150,000 gpd [07]			1/Month [01/30]	Measure [MS]
Total suspended solids (TSS) [00530]	2.2 lb/day [26]	3.6 lb/day [26]	6 mg/L [19]	10 mg/L [19]	1/Month [01/30]	Composite ⁽²⁾ [CP]
Total residual chlorine (TRC) ⁽³⁾ [50060]			0.10 mg/L [19]	0.03 mg/L [19]	1/Day [01/01]	Grab [GR]
Temperature [00011]		77°F [15]			1/Month [01/30]	Measure [MS]
Nitrate + nitrite (as N) [00630] (May 1 through Oct. 31)	Report lb/day [26]	Report lb/day [26]	Report mg/L [19]	Report mg/L [19]	2/Month [02/30]	24-Hour Composite [24]
Total Kjehldahl nitrogen (as N) [00625] (May 1 through Oct. 31)	Report lb/day [26]	Report lb/day [26]	Report mg/L [19]	Report mg/L [19]	2/Month [02/30]	24-Hour Composite [24]
pH (Std. Units) [00400]	The pH must not be less than 6.0 or greater than 9.0 at any time.			1/Week [01/07]	Grab [GR]	

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

<u>FOOTNOTES</u>: See Page 5 of the 4/16/2019 permit for applicable footnotes.

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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 if its obligation to comply with other applicable Federal, State or local laws and regulations.

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

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

B. OPERATION AND MAINTENACE OF FACILITIES

1. General facility requirements.

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

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

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

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

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

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

5. Bypasses.

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

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

(d) Prohibition of bypass.

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

6. Upsets.

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

C. MONITORING AND RECORDS

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

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

3. Monitoring and records.

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

D. REPORTING REQUIREMENTS

1. Reporting requirements.

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

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

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

- (ii) The following shall be included as information which must be reported within 24 hours under this paragraph.
 - (A) Any unanticipated bypass which exceeds any effluent limitation in the permit.
 - (B) Any upset which exceeds any effluent limitation in the permit.
 - (C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours.
- (iii) The Department may waive the written report on a case-by-case basis for reports under paragraph (f)(ii) of this section if the oral report has been received within 24 hours.
- (g) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (d), (e), and (f) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (f) of this section.
- (h) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

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

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

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

- (a) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (i) One hundred micrograms per liter (100 ug/l);
 - (ii) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - (iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
 - (iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

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

5. Publicly owned treatment works.

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

E. OTHER REQUIREMENTS

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

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

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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

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

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

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

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

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

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

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

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

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

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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

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

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

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

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

Maximum daily discharge limitation means the highest allowable daily discharge.

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

(a) After promulgation of standards of performance under section 306 of CWA which are applicable to such source, or

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

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

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

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

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

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

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

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

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

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

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

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

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT AND WASTE DISCHARGE LICENSE

FINAL FACT SHEET

Date: September 14, 2022

MEPDES PERMIT:ME0037524WASTE DISCHARGE LICENSE:W009203-6G-C-M

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 sean@runningtide.com (710) 660-4978

1. APPLICATION SUMMARY

On February 16, 2022, the Department of Environmental Protection (Department) accepted as complete for processing, an application from Running Tide Technologies, Inc. (Running Tide/permittee) to modify combination Waste Discharge License (WDL) #W009203-6G-A-N/Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0037524 issued by the Department on April 16, 2019, for a five-year term and subsequently modified on June 5, 2020 (ME0037524/WDL #W009203-6G-B-M). The permittee requested a permit modification to relocate Outfall #001A by shortening the existing outfall pipe by approximately 250 feet to improve the hydraulics of the operation. [The request does not include an increase to either the permitted flow or permitted production capacity of the facility.]

2. PERMIT SUMMARY

a. <u>History</u>: The significant licensing actions and milestones for the Running Tide facility in Harpswell are:

December 22, 2018 – The permittee submitted 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.

December 2, 2019 – The permittee submitted an application to revise MEPDES permit ME0037524/WDL #W009203-6G-A-N to increase the daily discharge flow limit from 43,200 gallons per day (gpd) to 150,000 gpd.

June 5, 2020 – The Department issued modification MEPDES permit ME0037524/WDL #W009203-6G-B-M which increased the daily flow limit to 150,000 gpd.

February 8, 2022 - The permittee submitted an application to modify permit WDL #W009203-6G-A-N/MEPDES #ME0037524 (and its subsequent modification) to relocate Outfall #001A.

b. <u>Source description and wastewater treatment</u>: Running Tide Technologies operates an America oyster and hard clam hatchery, including the spawning of eggs and culture of larvae and spat to approximately 2 mm in length. Running Tide acquires broodstock from Rutgers in Duxbury, MA and locations in Maine, which the permittee holds and ripens for several weeks and spawns. The permittee manages the broodstock waters in accordance with the Maine Department of Marine Resources (MEDMR) requirements, using sterilization (chlorination), neutralization (dechlorination), and discharge. Once sterilized and neutralized, the broodstock waters combine with other facility wastewater before discharge. Upon spawning, the permittee moves the fertilized embryos to flow-through culture systems where incubation and larval development occur until strictly controlled environmental conditions. Running Tide provides algae-based food for their cultures.

2. PERMIT SUMMARY (con't)

The permittee uses water from the Atlantic Ocean (Middle Bay) for its supply water, which it treats with the following treatment processes:

- Filtration (to 5 microns)
- Heating (to 25°C)
- pH adjustment (using sodium carbonate)
- Disinfection (ultraviolet disinfection)
- Desalination

Before discharging wastewater to Middle Bay, the permittee provides the following treatment:

- Disinfection and dechlorination of broodstock quarantine tank wastewater (using sodium hypochlorite and sodium thiosulfate, respectively)
 - The broodstock quarantine tank disinfection and dechlorination processes are intermittent, batch processes that result in a maximum of 2,000 gpd of wastewater. This dechlorinated broodstock quarantine tank cleaning water is combined with the other facility wastewater over approximately 1.5 to 2.5 hours.
- Filtration (to 500 microns)
- Filtration (to 5 microns)
- Cooling (using a heat exchanger)

A small experimental kelp aquaculture lease is suspended in the waters surrounding the discharge point.

Running Tide's MEPDES permit authorizes it to discharge up to a daily maximum of 150,000 gpd of treated process wastewater to Middle Bay. The permittee does not discharge sanitary wastewater; personnel use an on-site composting toilet.

Attachment A of this fact sheet provides a process flow diagram for the facility's water management. Attachment B shows the location of the facility. Attachment C of this fact sheet provides the new location of Outfall #001A.

- c. <u>Terms and conditions:</u> This permit modification carries forward all the terms and conditions of the previous permitting actions except that it:
 - 1) Revises the total residual chlorine effluent limits from a daily maximum of 0.39 mg/L to 0.03 mg/L and the monthly average limit from 0.23 mg/L to 0.1 mg/L based on new dilution factors for the new outfall location.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

- a. <u>Dilution factors</u>: *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.
 - (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's Division of Environmental Assessment estimated the dilution factors for the new outfall location (Table 1) based on:

- the daily maximum flow design criterion of 150,000 gpd; and
- Best Professional Judgment (BPJ) using on the amended discharge characteristics associated with the proposed outfall modifications.

Table 1Dilution factors for Middle Bay

Туре	Dilution Factor
Acute	2:1
Chronic	15:1
Far-field	100:1

b. <u>Total residual chlorine (TRC)</u>: The permit requires the permittee to monitor the effluent for TRC whenever a chlorine-based or sodium hypochlorite-based compound is used.

Department permitting actions impose the more stringent of either a water quality-based or best practicable technology (BPT)-based limit. End-of-pipe (EOP) acute and chronic water quality-based effluent limits (WQBELSs) may be calculated as follows:

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (con't)

• *Water quality-based effluent limits:* Using the dilution factors that Table 1 provides and the water quality criteria from *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 C.M.R. ch. 584 (Appendix A, Table II; last amended February 16, 2020), EOP WQBELs for TRC are as follows:

Acute WQ = acute criterion) × acute diltion factor) Acute WQ = $(0.013 \frac{mg}{mg}) \times 2$ = $0.03 \frac{mg}{mg}$

• *Technology-based effluent limit (TBEL):* The Department uses a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine-based compounds. For facilities that need to dechlorinate the discharge to meet water quality-based thresholds, the Department uses daily maximum and monthly average BPT limits of 0.3 mg/L and 0.1 mg/L, respectively. Running Tide dechlorinates prior to discharge.

The technology-based daily maximum limit of 0.3 mg/L is less stringent than the acute water quality-based limit. Therefore, the water quality-based daily maximum limit of 0.03 mg/L applies. The technology-based monthly average limit of 0.1 mg/L is more stringent than the chronic water quality-based limit of 0.11 mg/L.

Therefore, the following limits are established in this permit modification:

- Daily maximum TRC: 0.03 mg/L as Cl₂
- Monthly average TRC: 0.10 mg/L as Cl₂
- h. <u>Temperature:</u> The permittee's application information states that Running Tide heats influent water from Middle Bay to approximately 25°C. Treated wastewater from the operation goes through a heat recovery (exchanger) system to reduce the temperature before discharge.

Regulations Relating to Temperature 06-096 C.M.R. ch. 582 (effective May 4, 1996) states: "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."

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (con't)

The Department reviewed the temperature effluent limitation in the context of the new outfall location and the amended far-field dilution factor. For temperature, the Department considers the far-field impacts of the discharge because 06-096 C.M.R. ch. 582 defines the temperature increases:

- as occurring outside the mixing zone, and
- as the <u>monthly</u> mean of the daily maximum

Far-field dilution factors are applicable to pollutants that have the potential for more subtle and or systemic types of effects on the flora or fauna of a marine ecosystem, and/or pollutants that exert their influence on broader time scales. Unlike the CORMIX model that is supported by Department rules and USEPA technical support documents for estimating near-field acute and chronic dilution factors, there currently are no state or federal rules or statutes that designate acceptable methodologies to model far-field dilution. Therefore, modeling personnel must use BPJ to select modeling tools that are most appropriate for a particular receiving water and discharge characteristics.

The following summarizes the Department's evaluation of temperature effluent limitation and the discharge's impacts on the receiving water at the new outfall location:

- Given the inputs:
 - Far-field dilution factor (from Table 1 of this fact sheet): 100:1
 - Effluent flow: 0.150 MGD
 - Daily maximum effluent temperature limit: 77°F

 Ambient receiving water temperatures (from <u>https://www.seatemperature.org/north-america/united-states/harpswell-center.htm</u>, accessed April 13, 2022)

- June September
 - Min: 51.8°F (June)
 - Max: 65.4°F (August)
- October May
 - Min: 36.4°F (March)
 - Max: 58.2°F (October)
- The Department estimated the volume of the receiving water from the following equation, where V is volume:

$$Dilution factor = \frac{\left(V_{effluent} + V_{receiving water}\right)}{V_{effluent}}$$

The resulting far-field receiving water volume is 14.85 MG.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (con't)

• The Department estimated the water temperature at the edge of the far-field area using the following equation, where T is temperature:

$$T_{blend} = \frac{\left(V_{effluent}T_{effluent} + V_{receiving water}T_{receiving water}\right)}{\left(V_{effluent} + V_{receiving water}\right)}$$

• The Department calculated the resulting change in receiving water temperature using the following equation:

$$\Delta T = T_{blend} - T_{receiving water}$$

Table 2 summarizes the blended water temperature and temperature changes during the time periods defined by 06-096 C.M.R. ch. 582, which the Department estimated using the equations and inputs above.

Time and Condition	Tblend (°F)	ΔT (°F)	
June through September			
June	52.1	0.25	
August	65.5	0.12	
October through May			
March	36.8	0.41	
October	58.4	0.19	

Note: The calculated temperature values in this table are based on the daily maximum limit of 77°F. From June 2019 through April 2022, the permittee reported effluent temperatures ranging from 41 to 77°F, and an average of 60°F.

Under the minimum and maximum receiving water ambient temperature conditions in the two time periods defined by 06-096 C.M.R. ch. 582, the Department has calculated that with the current temperature effluent limit, the resulting water temperature at the edge of the far-field zone will be less than 85°F and the temperature increase due to the effluent will be less than 1.5°F.

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 <u>*Times Record*</u> newspaper on or about <u>February 8, 2022</u>. 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 C.M.R. ch. 522 (effective January 12, 2001).

9. DEPARTMENT CONTACTS

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

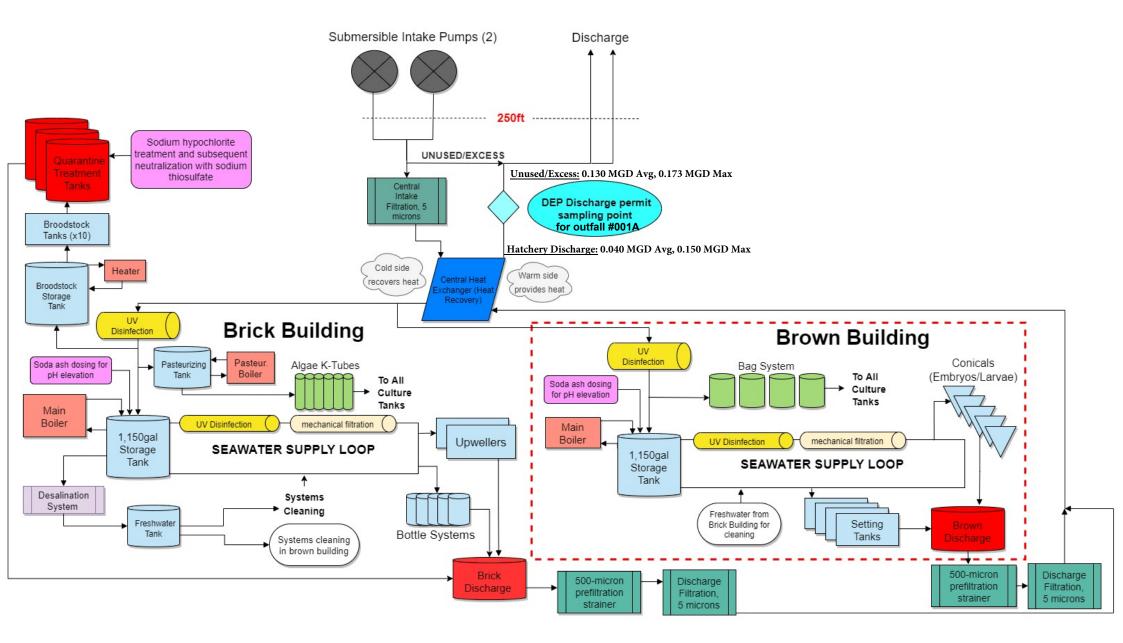
Cindy L. Dionne Division of Water Quality Management Bureau of Water Quality Department of Environmental Protection 17 State House Station Augusta, Maine 04333-0017 Telephone: (207) 446-3820 e-mail: <u>cindy.1.dionne@maine.gov</u>

10. RESPONSE TO COMMENTS

During the period of August 9, 2022, through the issuance date of the final permit, the Department solicited comments on the Proposed draft MEPDES Modification permit to be issued to Running Tide Technologies, Inc. for the proposed discharge. The Department did not receive any other comments that resulted in any substantive change(s) in the terms and conditions of the permit. Therefore, a response to comments is not included.

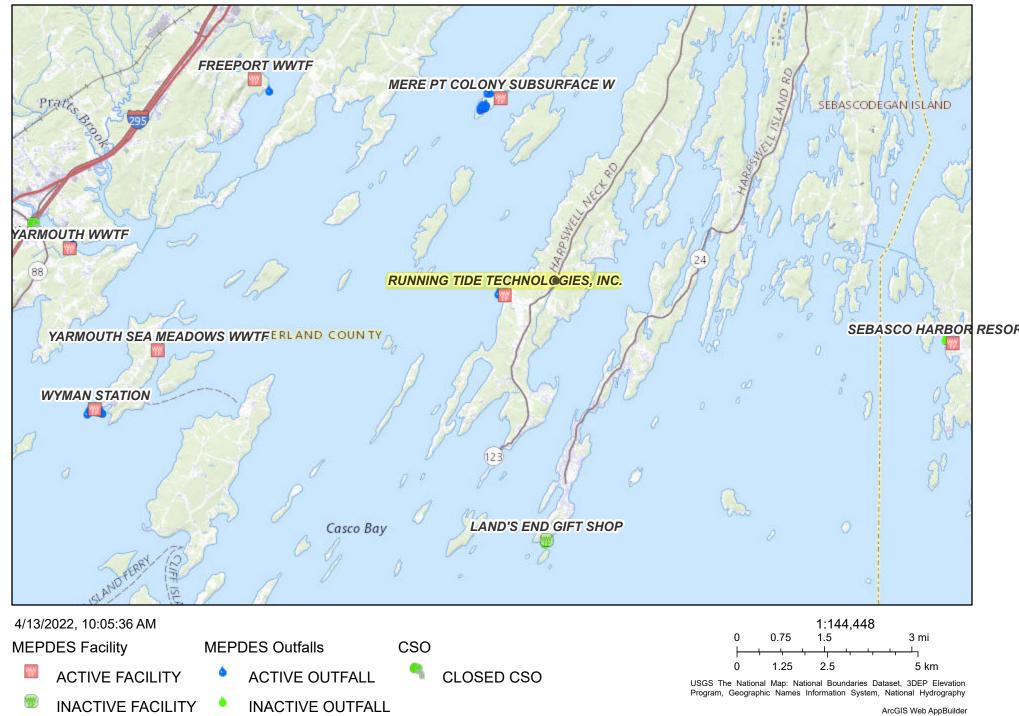
ATTACHMENT A

Attachment A - Process Flow Diagram



ATTACHMENT B

ArcGIS Web Map



USGS National Map 3D Elevation Program (3DEP) | MaineDMR | MEDMR | Meine DEP | USGS TNM - National Hydrography Dataset. Data Refreshed April, 2022. | MainelT GIS, Maine GeoLibrary, MaineDOT, USGS, USDC, US Census Bureau | Maine GeoLibrary |

ATTACHMENT C

