

#### STATE OF MAINE

#### Department of Environmental Protection

Paul R. LePage GOVERNOR

March 25, 2014

Mr. Wayne Chase Facilities Engineer Tasman Leather Group, LLC 9 Main Street, P.O. Box 400 Hartland, ME. 04943-0400 e-mail: wchasse@tlghartland.com

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0000108 Maine Waste Discharge License (WDL) Application #W001915-5R-G-R **Proposed Draft Permit** 

Dear Mr. Chase:

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

By copy of this letter, the Department is requesting comments on the proposed draft permit from various state and federal agencies, as required by our new regulations, and from any other parties who have notified the Department of their interest in this matter.

All comments must be received in the Department of Environmental Protection office on or before the close of business **Friday**, **April 25**, **2014**. Failure to submit comments in a timely fashion will result in the final document being issued as drafted. Comments in writing should be submitted to my attention at the following address:

Maine Department of Environmental Protection Bureau of Land & Water Quality Division of Water Quality Management 17 State House Station Augusta, ME 04333

AUGUSTA 17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017 (207) 287-3901 FAX: (207) 287-3435 RAY BLDG., HOSPITAL ST.

BANGOR 106 HOGAN ROAD BANGOR, MAINE 04401 (207) 941-4570 FAX: (207) 941-4584 PORTLAND 312 CANCO ROAD PORTLAND, MAINE 04103 (207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE 1235 CENTRAL DRIVE, SKYWAY PARK PRESQUE ISLE, MAINE 04769-2094 (207) 764-6477 FAX: (207) 764-1507

web site: www.maine.gov/dep

Patricia W. Aho COMMISSIONER If you have any questions regarding the matter, please feel free to call me at 287-7693.

Sincerely,

(0)

Gregg Wood Division of Water Quality Management Bureau of Land and Water Quality

Enc.

cc: Tanya Hovell, DEP/EMRO Barry Mower, DEP/CMRO Lori Mitchell, DEP/CMRO Alex Rosenberg, USEPA David Webster, USEPA David Pincumbe, USEPA Olga Vergara, USEPA Maine Department of Inland, Fisheries & Wildlife Maine Department of Marine Resources Ivy Frignoca, CLF



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

## **DEPARTMENT ORDER**

## IN THE MATTER OF

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TASMAN LEATHER GROUP, LLC HARTLAND, SOMERSET COUNTY, MAINE NON-CONTACT COOLING WATER #ME0000108 #W001915-5R-G-R **APPROVAL** 

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

Pursuant to the provisions of Title 33 USC, § 1251, Maine law 38 M.R.S.A. § 414-A, and applicable regulations, the Maine Department of Environmental Protection (Department hereinafter) has considered the application of the TASMAN LEATHER GROUP, LLC (Tasman/permittee hereinafter) with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

## **APPLICATION SUMMARY**

Tasman has submitted a timely and complete application to the Department for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0000108 / Maine Waste Discharge License (WDL) #W001915-5R-E-R, which was issued by the Department on June 11, 2009, to the Irving Tanning Company for a five-year term. The permit was subsequently transferred to Tasman Leather Group, LCC via MEPDES permit #ME0000108/WDL W001915-5R-F-T issued on June 8, 2011. The June 11, 2009, permit authorized the daily maximum discharge of up to 0.500 million gallons per day (MGD) of non-contact cooling water from a leather tanning facility to the West Branch of the Sebasticook River, Class C, in Hartland, Maine.

## PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions of the June 11, 2009 permit.

## CONCLUSIONS

BASED on the findings in the attached **PROPOSED DRAFT** Fact Sheet dated March 25, 2014, and subject to the Conditions listed below, the Department makes the following conclusions:

- 1. The discharge, either individually or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
- 2. The discharge, either individually 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.A. § 464(4)(F), will be met, in that:
  - (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;
  - (b) Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;
  - (c) The standards of classification of the receiving water body are met or not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;
  - (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification that higher water quality will be maintained and protected; and
  - (e) Where a discharge will result in lowering the existing water quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.
- 4. The discharge will be subject to effluent limitations that require application of best practicable treatment as defined in 38 M.R.S.A. § 414-A(1)(D).

## ACTION

THEREFORE, the Department APPROVES the application of TASMAN LEATHER GROUP LLC to discharge a maximum of up to 0.500 MGD of non-contact cooling water at a temperature not to exceed 90 degrees Fahrenheit from a leather tanning facility to the West Branch of the Sebasticook River, Class C, in Hartland, Maine, as described above, 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) 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.A. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(21)(A) (effective April 1, 2003)].

DONE AND DATED AT AUGUSTA, MAINE, THIS \_\_\_\_\_DAY OF \_\_\_\_\_, 2014.

## DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:\_\_\_

Patricia W. Aho, Commissioner

## PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: January 21, 2014 .

Date of application acceptance: January 21, 2014 .

Date filed with Board of Environmental Protection

This order prepared by Gregg Wood, BUREAU OF LAND AND WATER QUALITY

Tasman Proposed Draft Permit & FS 20143/25/14

#### SPECIAL CONDITIONS

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge non-contact cooling waters<sup>(1)</sup> from <u>Outfall 002A</u> to the West Branch of the Sebasticook River. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Minimum Monitoring Requirements <sup>(2)</sup>	
	<u>Monthly Average</u> As specified	Daily Maximum As specified	Measurement Frequency As specified	Sample Type As specified
Flow [50050]		0.500 MGD <sup>(3)</sup> [03]	Continuous <sup>(2)</sup> [99/99]	Totalizer [TM]
Temperature [00011]		90 <sup>0</sup> F <sup>(3)</sup> [15]	1/Week <sup>(2)</sup> [01/07]	Grab [GR]
pH [00400]		6.0-8.5 S.U. <sup>(3,4)</sup> [12]		

Footnotes:

- (1) The discharge shall contain only non-contact cooling waters to which nothing has been added but heat.
- (2) Monitoring requirements are seasonal and apply from June 1 September 30 of each year. Test results for flow, temperature and or pH collected between October 1 May 31 do not have to be reported directly to the Department but shall be recorded and kept on site and made available to Department and USEPA staff upon request.
- (3) Limitations are in effect on a year round basis.
- (4) The pH of the discharge may be outside of the range of 6.0 8.5 standard units provided it is not more than 0.5 standard units outside of the background pH of the intake water for the facility at the time of sampling or 0.5 standards units outside the limitation range of 6.0 9.0 standard units. To determine compliance with this provision, the permittee must sample and document the ambient pH of the intake water if a pH result of the discharge is reported outside of the range limitation of 6.0 8.5 standard units.

## **SPECIAL CONDITIONS**

### **B. NARRATIVE EFFLUENT LIMITATIONS FOR ALL OUTFALLS**

- 1. The effluent shall not contain a visible oil sheen, foam, or floating solids at any time which would impair the usages designated for the classification of the receiving waters.
- 2. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life; or which would impair the usages designated for the classification of the receiving waters.
- 3. The discharge shall not impart color, taste, turbidity, toxicity, radioactivity or other properties which cause those waters to be unsuitable for the designated uses and characteristics ascribed to their class.
- 4. Notwithstanding specific conditions of this permit, the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

## C. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only: 1) in accordance with the permittee's General Application for Waste Discharge License, accepted for processing on January 21, 2014; 2) in accordance with the terms and conditions of this permit; and 3) via Outfall #002A. Discharges of wastewater from any other point source are not authorized under this permit, and shall be reported in accordance with Standard Condition B(5), *Bypasses*, of this permit.

## **D. NOTIFICATION REQUIREMENT**

In accordance with Standard Condition D, the permittee shall notify the Department of any substantial change in the volume or character of pollutants being discharged.

#### SPECIAL CONDITIONS

#### E. MONITORING AND REPORTING

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report (DMR) forms provided by the Department. If you are receiving hard-copy DMR forms by mail, the completed, returned forms must be postmarked on or before the thirteenth (13<sup>th</sup>) day of the month or hand-delivered to the Department's Regional Office such that the DMR's are received by the Department on or before the fifteenth (15<sup>th</sup>) day of the month following the completed reporting period. A signed copy of the DMR and all other reports required herein shall be submitted to the Department assigned inspector (unless otherwise specified by the Department) at the following address:

Department of Environmental Protection Eastern Maine Regional Office Bureau of Land and Water Quality Division of Water Quality Management 106 Hogan Road Bangor, Maine 04401

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

#### F. REOPENING OF PERMIT FOR MODIFICATION

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.

#### G. SEVERABILITY

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

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

### FACT SHEET

Date: March 25, 2014

PERMIT NUMBER: ME0000108 LICENSE NUMBER: W001915-5R-G-R

NAME AND ADDRESS OF APPLICANT:

#### TASMAN LEATHER GROUP, LLC 9 Main Street P. O. Box 400 Hartland, Maine 04943-0400

COUNTY:

**Somerset County** 

NAME AND ADDRESS WHERE DISCHARGE(S) OCCUR(S):

## 9 Main Street Hartland, Maine 04943-0400

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: Mr. Wayne Chasse Facilities Engineer (207) 553-3700 ext. 220

## 1. APPLICATION SUMMARY

<u>Application</u>: Tasman Leather Group, LLC (Tasman hereinafter) has submitted a timely and complete application to the Department for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0000108 / Maine Waste Discharge License (WDL) #W001915-5R-E-R, which was issued by the Department on June 11, 2009, to the Irving Tanning Company for a five-year term. The permit was subsequently transferred to Tasman Leather Group, LCC via MEPDES permit #ME0000108/WDL W001915-5R-F-T issued on June 8, 2011. The June 11, 2009 permit authorized the daily maximum discharge of up to 0.500 million gallons per day (MGD) of non-contact cooling water from a leather tanning facility to the West Branch of the Sebasticook River, Class C, in Hartland, Maine.

# 1. APPLICATION SUMMARY (cont'd)

b. <u>Source Description:</u> Tasman is a leather tanning facility that processes previously tanned hides and skins or unhaired and tanned splits into finished leather by a retan-wet finishing process. Tasman estimates long-term average raw material combined figure of sides and splits per day is 268,000 lbs. Sides production is estimated to be 6,200 sides/day (136,400 lbs./day) and splits production is estimated to be 5,980 splits/day (131,600 lbs./day). Current production at the Hartland facility is significantly lower than the facility's production capability of 462,000 lbs./day. All process waste waters from the tanning process are conveyed to the Town of Hartland's waste water treatment facility after pretreatment at Tasman via screening, chemical addition, flow monitoring and pH adjustment.

Source water is obtained from an intake pipe in the West Branch of the Sebasticook River. Non-contact cooling waters discharged to the receiving water are generated in chillers and vacuum dryers within the mill complex. Tasman recycles as much of this cooling water as possible by reusing it in the dyeing process. No chemicals are added to the cooling waters. Non-contact cooling waste waters from the dyeing process are conveyed to the Hartland waste water treatment facility as process waste waters. The dyeing process depends on the daily production levels and the type of leather dyed. All other non-contact cooling waters are discharged to the receiving water via Outfall #002A.

Tasman's January 21, 2014, application for permit renewal (USEPA Form 2E) indicates that the maximum effluent temperature during the winter is 80°F and during the summer is 89°F based on current operating practices.

c. <u>Waste Water Treatment</u>: Non-contact cooling water receives no formal treatment prior to discharge as the only pollutant of concern is heat. The non-contact cooling water is discharged to the West Branch of the Sebasticook River via a 24-inch diameter corrugated metal pipe that is placed in an abandoned raceway for the mill.

A map showing the location of the Tasman facility and Hartland Pollution Control Facility, which treats process waste waters generated by Tasman, is included as **Attachment A** of this Fact Sheet.

## 2. PERMIT SUMMARY

- a. <u>Terms and Conditions:</u> This permitting action is carrying forward all the terms and conditions of the previous permitting action.
- b. <u>History:</u> This section provides a summary of recent, relevant licensing/permitting actions that have been completed for Tasman's Hartland facility.

January 12, 2001 – The Department received authorization from the U. S. Environmental Protection Agency (USEPA) to administer the National Pollutant Discharge Elimination System (NPDES) permit program in Maine. From this point forward, the program has been referenced as the MEPDES permit program and permit #ME0000108 (same as the NPDES permit number) has been utilized as the primary reference number for the facility.

## 2. PERMIT SUMMARY (cont'd)

June 11, 2009 – The Department issued WDL #W001915-5R-E-R to Irving Tanning Company (former owner) for the discharge of 0.500 MGD of non-contact cooling waters to the West Branch of the Sebasticook River in Hartland, Maine. The June 11, 2009 permit superseded WDL #W001915-5R-D-R issued on June 5, 2004, WDL #W001915-5R-C-R issued on June 4, 1999, WDL #W001915-43-B-R issued on June 8, 1988, and WDL #1915 issued on February 23, 1983.

January 21, 2014 – Tasman submitted a timely and complete application to the Department for renewal of the June 11, 2009 MEPDES permit. The application was accepted for processing on January 21, 2014, and was assigned WDL #W001915-5R-G-R / MEPDES #ME0000108.

## 3. CONDITIONS OF PERMITS

Maine law, 38 M.R.S.A. § 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, 38 M.R.S.A. § 420 and 06-096 CMR 530 require the regulation of toxic substances not to exceed levels set forth in 06-096 CMR 584 (effective October 9, 2005), and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

## 4. RECEIVING WATER QUALITY STANDARDS

Maine law, 38 M.R.S.A., § 467(4)(H)(2)(b) classifies the West Branch of the "Sebasticook River, West Branch main stem, from the outlet of Great Moose Lake to its confluence with the East Branch, including all impoundments", which includes the river at the point of discharge, as Class C waters. Maine law, 38 M.R.S.A., § 465(3) describes the standards for Class C waters.

Maine law 38 M.R.S.A. §465(4)(B) (as amended via P.L. 2005, Chapter 409) states in part, *The dissolved oxygen content of Class C water may be not less than 5 parts per million or 60% of saturation, whichever is higher, except that in identified salmonid spawning areas where water quality is sufficient to ensure spawning, egg incubation and survival of early life stages, that water quality sufficient for these purposes must be maintained. In order to provide additional protection for the growth of indigenous fish, the following standards apply.* 

- (1) The 30-day average dissolved oxygen criterion of a Class C water is 6.5 parts per million using a temperature of 22 degrees centigrade or the ambient temperature of the water body, whichever is less, if:
  - (a) A license or water quality certificate other than a general permit was issued prior to March 16, 2004 for the Class C water and was not based on a 6.5 parts per million 30-day average dissolved oxygen criterion; or

## 4. RECEIVING WATER QUALITY STANDARDS (cont'd)

- (b) A discharge or a hydropower project was in existence on March 16, 2005 and required but did not have a license or water quality certificate other than a general permit for the Class C water.
  - (1)This criterion for the water body applies to licenses and water quality certificates issued on or after March 16, 2004.
  - (2) In Class C waters not governed by subparagraph (1), dissolved oxygen may not be less than 6.5 parts per million as a 30-day average based upon a temperature of 24 degrees centigrade or the ambient temperature of the water body, whichever is less. This criterion for the water body applies to licenses and water quality certificates issued on or after March 16, 2004.

Maine law 38 M.R.S.A. §465(4) (as amended via P.L. 2005, Chapter 409) also states in part Discharges to Class C waters may cause some changes to aquatic life, provided that the receiving waters shall be of sufficient quality to support all species of fish indigenous to the receiving waters and maintain the structure and function of the resident biological community.

Maine law 38 M.R.S.A, §464(13) states, "Measurement of dissolved oxygen in riverine impoundments. Compliance with dissolved oxygen criteria in existing riverine impoundments must be measured as follows.

- A. Compliance with dissolved oxygen criteria may not be measured within 0.5 meters of the bottom of existing riverine impoundments
- B. Where mixing is inhibited due to thermal stratification in an existing riverine impoundment, compliance with numeric dissolved oxygen criteria may not be measured below the higher of:
  - (1) The point of thermal stratification when such stratification occurs; or
  - (2) The point proposed by the department as an alternative depth for a specific riverine impoundment based on all factors included in section 466, subsection 11-A and for which a use attainability analysis is conducted if required by the United States Environmental Protection Agency

For purposes of this paragraph, "thermal stratification" means a change of temperature of at least one degree Celsius per meter of depth, causing water below this point in an impoundment to become isolated and not mix with water above this point in the impoundment.

C. Where mixing is inhibited due to natural topographical features in an existing riverine impoundment, compliance with numeric dissolved oxygen criteria may not be measured within that portion of the impoundment that is topographically isolated. Such natural topographic features may include, but not be limited to, natural deep holes or river bottom sills.

## 4. RECEIVING WATER QUALITY STANDARDS (cont'd)

Notwithstanding the provisions of this subsection, dissolved oxygen concentrations in existing riverine impoundments must be sufficient to support existing and designated uses of these waters. For purposes of this subsection, "existing riverine impoundments" means all impoundments of rivers and streams in existence as of January 1, 2001 and not otherwise classified as GPA.

## 5. RECEIVING WATER CONDITIONS

<u>The State of Maine 2010 Integrated Water Quality Monitoring and Assessment Report</u>, (Report) prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists relevant segments of the of the Sebasticook River as "Category 5-A: Rivers and Streams Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)." Impairment in this context refers to a fish consumption advisory due to the presence of dioxin from upstream sources. The Department has no information that the discharge of non-contract cooling water from the Tasman facility causes or contributes to the non-attainment status for the presence of dioxin.

The 2010 Report also lists the Sebasticook River as "*Category 5-D: Rivers and Streams Impaired by Legacy Pollutants.*" Impairment in this context refers to the presence of polychlorinated biphenyls (PCBs) in some fish tissues. The presence of PCBs is not typically associated with any identifiable source but is rather a legacy of practices that predate the national ban on the use of PCB in 1979. The Department has no information that the discharge from of non-contract cooling waters from Irving causes or contributes to this non-attainment status.

The 2010 Report also lists Maine's fresh waters as "*Category 4-A: Rivers and Streams with Impaired Use, TMDL Completed.*" All freshwaters formerly listed in Category 5-C are moved to Category 4-A (TMDL Completed) due to USEPA approval of a Regional Mercury TMDL. Impairment in this context refers to a statewide fish consumption advisory due to elevated levels of mercury in some fish tissues. The Report states, "*Impairment caused by atmospheric deposition of mercury; a regional scale TMDL has been approved. Maine has a fish consumption advisory for fish taken from all freshwaters due to mercury. Many waters, and many fish from any given water, do not exceed the action level for mercury. However, because it is impossible for someone consuming a fish to know whether the mercury level exceeds the action level, the Maine Department of Human Services decided to establish a statewide advisory for all freshwater fish that recommends limits on consumption. Maine has already instituted statewide programs for removal and reduction of mercury sources.*"

Pursuant to 38 M.R.S.A. § 420(1-B)(B), "a facility is not in violation of the ambient criteria for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413 subsection 11." Pursuant to 06-096 CMR 519(1)(A)(2), the discharge of non-contact cooling water from the Irving facility is exempt from interim mercury limits, and the Department has no information that this discharge causes or contributes to the mercury impairment.

## 6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

a. <u>Flow</u>: The previous permitting action established, and this permitting action is carrying forward, a year-round daily maximum discharge flow limitation of 0.500 MGD for Outfall #002A, which is considered representative of the highest flow rate anticipated from the discharge. Flow monitoring results need only be submitted to the Department during the critical warm season period of June through September, although the permittee must monitor and retain flow records for the entire year.

A summary of the discharge flow data as reported on the Discharge Monitoring Reports (DMRs) submitted to the Department for Outfall #002A for the period of June through September for calendar years 2009-2013 is as follows:

Flow	(DMRs=16)

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Daily Maximum	0.500	0.041 - 0.261	0.123

b. <u>Temperature</u>: The previous permitting action established, and this permitting action is carrying forward, a year-round daily maximum effluent temperature limitation of 90° F to ensure that the discharge complies with the requirements of *Regulations Relating to Temperature*, 06-096 CMR 582 (last amended February 18, 1989).

06-096 CMR 582 states that no discharge of pollutants shall cause the ambient temperature of any freshwater body, as measured outside a mixing zone, to be raised more than 5 degrees Fahrenheit. The rule also limits a discharger to an in-stream temperature increase ( $\Delta T$ ) of 0.5° F above the ambient receiving water temperature when the weekly average temperature of the receiving water is greater than or equal to 66° F or when the daily maximum temperature is greater than or equal to 73° F. The temperature thresholds are based on USEPA water quality criterion for the protection of brook trout and Atlantic salmon. The weekly average temperature threshold of 66° F was derived to protect for normal growth of the brook trout and the daily maximum temperature threshold of 73° F protects for the survival of juveniles and adult Atlantic salmon during the summer months. As a point of clarification, the Department interprets the term "weekly average temperature" to mean a seven (7) day rolling average. To promote consistency, the Department also interprets the  $\Delta T$  of 0.5° F as a weekly rolling average criterion when the receiving water temperature is  $>66^{\circ}$  F and  $<73^{\circ}$  F. When the receiving water temperature is >73°F, compliance with the  $\Delta T$  of 0.5° F is evaluated on a daily basis.

A summary of the effluent temperature data as reported on the Discharge Monitoring Reports (DMRs) submitted to the Department for Outfall #002A for the period of June through September for calendar years 2009-2013 is as follows:

Value	Limit (°F)	Range (°F)	Mean (°F)
Daily Maximum	90	83 - 94	87

#### **Temperature (DMRs=16)**

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

*Classification of Maine waters*, 38 M.R.S.A. § 464(4)(D), states that the assimilative capacity of a receiving water shall be calculated utilizing a seven-day low event with a recurrence interval of ten years that is often referred to as the 7Q10. The Department has determined that the 7Q10 flow of the West Branch of the Sebasticook River is 40 cfs (25.86 MGD) based on the required minimum low flow release from Great Moose Lake.

The assimilative capacity of the West Branch of the Sebasticook River (thermal load that would cause the river to increase by  $0.5^{\circ}$ F) at the critical 7Q10 low flow can be calculated as follows:

 $(40 \text{ cfs})(0.6464)(0.5^{\circ}\text{F})(8.34 \text{ lbs./gallon})(10^{6} \text{ gallons}) = 1.07 \text{ x } 10^{8} \text{ BTU/day}$ 

The maximum effluent temperature (X°F) that at the full permitted flow rate of 500,000 GPD for Outfall #002A will, by itself, comply with the weekly rolling average limit of  $0.5^{\circ}$ F (when the receiving water is  $\geq 66^{\circ}$ F and  $<73^{\circ}$ F) and not exceed the assimilative capacity of the West Branch of the Sebasticook River (4.0 x  $10^{7}$  BTU/day) may be calculated as follows:

 $(500,000 \text{ GPD})(X^{\circ}F - 66^{\circ}F)(8.34 \text{ lbs/gal}) = 1.07 \text{ x } 10^8 \text{ BTU/day}$ 

## <u>1.07 x 10<sup>8</sup> BTU/day</u> (500,000 GPD)(8.34 lbs./gal)

 $= 26^{\circ}F$ X = 66^{\circ}F + 26^{\circ}F Maximum Effluent Temperature, X°F, = 92°F

When the receiving water is >73°F, the temperature difference of 0.5°F is a daily maximum limit and the maximum allowable effluent temperature for Outfall #002A is  $73^{\circ}F + 26^{\circ}F = 99^{\circ}F$ .

Based on the permitted flow and temperature limits of 0.500 MGD and 90°F, respectively, and a 7Q10 low flow of 40 cfs, calculations indicate that the maximum instream temperature difference will be 0.44°F. The calculation is as follows:

 $\frac{(90^{\circ} \text{ F})(0.500 \text{ MGD}) + (66^{\circ} \text{ F})(40 \text{ cfs})(0.6464)}{(0.500 \text{ MGD}) + (40 \text{ cfs})(0.6464)} = 66.44^{\circ} \text{ F}$ 

Thus, the maximum effluent temperature limitation of 90°F is sufficiently stringent to ensure that under maximum discharge conditions and critical 7Q10 low flow stream conditions, the discharge will not cause or contribute to violations of the temperature criteria established by 06-096 CMR 582.

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

This permitting action is carrying forward the minimum monitoring frequency requirements of once per week during the critical warm season of June 1 through September 30 of each year. Effluent temperature results need only be submitted to the Department during the critical warm season period of June through September, although the permittee must monitor and retain for a period of at least 3 years temperature records for the entire year.

c. <u>pH</u>: The technology-based pH range limit of 6.0-8.5 standard units is being carried forward in this permitting action based on 38 M.R.S.A. § 464(4)(A)(5). The pH of the discharge may be outside of the range of 6.0 - 8.5 standard units provided it is not more than 0.5 standard units outside of the background pH of the intake water for the facility at the time of sampling or 0.5 standards units outside the limitation range of 6.0 - 9.0 standard units. To determine compliance with this provision, the permittee must sample and document the ambient pH of the intake water if a pH result of the discharge is reported outside of the range limitation of 6.0 - 8.5 standard units. Routine monitoring and reporting of pH is not required; however, should the permittee obtain monitoring results for pH, the results shall be recorded and the most recent 3 complete years of pH data must be retained on site for Department and USEPA inspection.

# 7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

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

# 8. PUBLIC COMMENTS

Public notice of this application was made in the <u>Morning Sentinel</u> newspaper on or about <u>January 15, 2014</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 shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to *Application Processing Procedures for Waste Discharge Licenses*, 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:

Gregg Wood Division of Water Quality Management Bureau of Land & Water Quality Department of Environmental Protection 17 State House Station Augusta, Maine 04333-0017 Telephone: (207) 287-7659 Fax: (207) 287-7693 e-mail: gregg.wood@maine.gov

# **10. RESPONSE TO COMMENTS**

# ATTACHMENT A

