



STATE OF MAINE
DEPARTMENT OF
ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

July 11, 2018

Mr. Gordon Lane
Environmental and Wastewater Treatment Manager
Sappi North America
89 Cumberland Street
P.O. Box 5000 Street
Westbrook, ME. 04092

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0002321
Maine Waste Discharge License (WDL) #W002224-5N-H-R
Final Permit

Dear Mr. Lane:

Enclosed please find a copy of your **final** MEPDES permit and Maine WDL **renewal** which was approved by the Department of Environmental Protection. Please read this permit/license renewal and its attached conditions carefully. Compliance with this permit/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 287-7693. 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,

Gregg Wood
Division of Water Quality Management
Bureau of Water Quality

Enc.

cc: Lori Mitchell, DEP/CMRO Stuart Rose, DEP/SMRO
Sandy Mojica, USEPA Marelyn Vega, USEPA Olga Vergara, USEPA

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PRESQUE ISLE, MAINE 04769
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STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION
AUGUSTA, ME 04333

DEPARTMENT ORDER

IN THE MATTER OF

| | | |
|-------------------------------------|---|---------------------------|
| S.D. WARREN COMPANY |) | MAINE POLLUTANT DISCHARGE |
| WESTBROOK, CUMBERLAND COUNTY, MAINE |) | ELIMINATION SYSTEM PERMIT |
| PAPER MANUFACTURING |) | AND |
| ME0002321 |) | WASTE DISCHARGE LICENSE |
| W002224-5N-H-R |) | RENEWAL |
| APPROVAL | | |

Pursuant to the provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251, *et seq.* and Maine Law 38 M.R.S., Section 414-A *et seq.*, and applicable regulations, the Department of Environmental Protection (Department hereinafter) has considered the application of the S.D. WARREN COMPANY (SDW/permittee hereinafter), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

SDW has submitted a timely and complete application to the Department for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0002321/ Maine Waste Discharge License (WDL) #W002224-5N-F-R (permit hereinafter), which was issued by the Department on June 3, 2013, for a five-year term.

The permit application is to renew previously authorized discharges associated with the operations of a non-integrated mill complex (paper mill only) including treated process waste waters; treated storm water runoff; treated discharges associated with or resulting from essential or scheduled maintenance, start-ups, and shutdowns; treated spills and releases (whether anticipated or unanticipated) from anywhere in the permitted facility; non-contact cooling waters; and sandfilter backwash waters to the Presumpscot River, Class C, in Westbrook, Maine. The previous permit also authorized acceptance of wastewater from Biofine Renewables LLC and landfill leachate from Hunt Road Landfill for treatment and discharge, however the current application does not seek to renew these authorized discharges.

PERMIT SUMMARY

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

- 1) Changing the pH sample type from grab to continuous for Outfall 001 based on a request by the permittee.
- 2) Eliminating the monitoring and reporting requirements for *E. coli* bacteria, for Outfall 001 as the permittee has satisfactorily demonstrated to the Department through years of testing that *E. coli* bacteria test results do not exceed or have a reasonable potential to exceed ambient water quality standards.
- 3) Eliminating the limitations and monitoring and reporting requirements for total aluminum for Outfall 001, given an updated statistical evaluation of the most current 60-months of monitoring results indicate the discharge does not exceed or have a reasonable potential to exceed applicable AWQC.
- 4) Changing the sample type for temperature from measure to continuous for Outfalls 001 and 003 based on a request from the permittee.
- 5) Establishing a chronic no observed effect level (C-NOEL) limitation of 5.2% for the water flea and increasing the test frequency from 1/Year to 2/Year during surveillance level years as an updated statistical evaluation of the most current 60-months of monitoring results indicate the discharge does have a reasonable potential to exceed the critical chronic threshold of 5.2%.
- 6) Reducing the monitoring frequency for biochemical oxygen demand (BOD) and total suspended solids (TSS) for Outfall #001 from 4/Week to 3/Week based on statistical evaluation of the data for both parameters and utilizing USEPA and Department monitoring frequency reduction guidance.
- 7) Changing the monthly average and daily maximum TSS concentration limitation from 20 mg/L to Report only, and changing the sample type from grab to composite for Outfall 002.
- 8) Modifying the mass limit for Bis (2-Ethylhexyl) phthalate based on new data, and increasing the test frequency from 1/year to 2/year as an updated statistical evaluation of the most current 60-months of monitoring results indicate the discharge has a reasonable potential to exceed the human health (water & organisms) criteria of 0.8 ug/L.
- 9) Removing references to waste waters brought on site for treatment from Biofine Renewables and the Hunt Road Landfill, since the site no longer takes these wastes.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated June 5, 2018, and subject to the Conditions listed below, the Department makes the following conclusions:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.
3. The provisions of the State's antidegradation policy, 38 M.R.S. Section 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 natural resource, that water quality will be maintained and protected;
 - c. Where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;
 - d. Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification, that higher water quality will be maintained and protected; and
 - e. Where a discharge will result in lowering the existing 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.

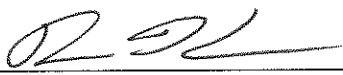
ACTION

THEREFORE, the Department APPROVES the above noted application of the S.D. WARREN COMPANY to discharge up to 10.0 MGD of treated process waste waters; treated storm water runoff; treated discharges associated with or resulting from essential or scheduled maintenance, start-ups, and shutdowns; treated spills and releases (whether anticipated or unanticipated) from anywhere in the permitted facility, to discharge up to 12.0 MGD of non-contact cooling waters, and discharge sandfilter backwash waters associated with the operations of a paper mill complex to the Presumpscot River, Class C, in Westbrook, Maine SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

1. "Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits," revised July 1, 2002, copy attached.
2. The attached Special Conditions, including any effluent limitations and monitoring requirements.
3. This permit becomes effective upon the date of signature below and expires at midnight five (5) years after that date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the terms and conditions of this permit and all subsequent modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [Maine Administrative Procedure Act, 5 M.R.S. § 10002 and Rules Concerning the Processing of Applications and Other Administrative Matters, 06-096 CMR 2(21)(A) (effective June 9, 2018)].

DONE AND DATED AT AUGUSTA, MAINE, THIS 11 DAY OF July, 2018.

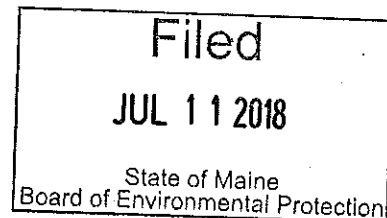
DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: 
for Paul Mercer, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application May 21, 2018

Date of application acceptance May 21, 2018



Date filed with Board of Environmental Protection _____.

This Order prepared by Irene Saumur and Gregg Wood, BUREAU OF WATER QUALITY

SPECIAL CONDITION

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge secondary treated waste waters from **Outfall #001** to Presumpscot River. Such discharges shall be limited and monitored by the permittee as specified below.

OUTFALL #001 – Secondary treated waste waters

| Effluent Characteristic | Discharge Limitations | | | | | Monitoring Requirements | |
|--|-----------------------|------------------|-----------------|----------------|-------------------|-------------------------|--------------------|
| | Monthly Average | Daily Maximum | Monthly Average | Weekly Average | Daily Maximum | Measurement Frequency | Sample Type |
| Flow (MGD) [50050] | 10.0 MGD [03] | Report MGD [03] | --- | --- | --- | Continuous [99/99] | Recorder [RC] |
| BOD ₅ [00310] | 1,700 #/day [26] | 3,240 #/day [26] | --- | --- | --- | 3/Week [03/07] | Composite [24] |
| TSS [00530] | 2,360 #/day [26] | 4,400 #/day [26] | --- | --- | --- | 3/Week [03/07] | Composite [24] |
| pH (Std. Unit) ^(1a) [00400] | --- | --- | --- | --- | 5.0 – 9.0 SU [12] | 1/Day [01/01] | Continuous [99/99] |
| Mercury (Total) ⁽²⁾ [71900] | --- | --- | 4.5 ng/L [3M] | --- | 6.8 ng/L [3M] | 1/Year [01/YR] | Grab [GR] |
| Temperature ^(1b) [00011] June 1 – September 30 | --- | --- | --- | --- | 100°F [15] | 1/Day [01/01] | Continuous [99/99] |
| October 1 – May 31 | --- | --- | --- | --- | 100°F [15] | --- | --- |
| Bis (2-Ethylhexyl) phthalate [39100] | 1.7 lbs/day [26] | --- | --- | Report ug/L | --- | 2/Year [02/YR] | Composite [24] |

SPECIAL CONDITION

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

SURVEILLANCE LEVEL - Beginning upon permit issuance and lasting through 24 months prior to permit expiration (Years 1, 2 & 3 of the term of the permit) and commencing again 12 months prior to permit expiration (Year 5 of the term of the permit).

| | | | | | Minimum Monitoring Requirements | |
|--|-----------------------------------|---------------------------------|-----------------------------------|---------------------------------|--|----------------------------------|
| | <u>Monthly Average</u> | <u>Daily Maximum</u> | <u>Monthly Average</u> | <u>Daily Maximum</u> | <u>Measurement Frequency</u> | <u>Sample Type</u> |
| Whole Effluent Toxicity ⁽³⁾ <u>Acute – NOEL</u> <i>Ceriodaphnia dubia</i> (Water flea) [TDA3B] <i>Salvelinus fontinalis</i> (Brook trout) [TDA6F] | --- | --- | --- | Report % [23] Report % [23] | 2/Year [02/YR] 1/Year [01/YR] | Composite [24] Composite [24] |
| <u>Chronic – NOEL</u> <i>Ceriodaphnia dubia</i> (Water flea) [TBP3B] <i>Salvelinus fontinalis</i> (Brook trout) [TBQ6F] | --- | --- | --- | 5.2 % [23] Report % [23] | 2/Year [02/YR] 1/Year [01/YR] | Composite [24] Composite [24] |
| Analytical chemistry ^(4,6) [51477] | --- | --- | --- | Report ug/L [28] | 1/Year [01/YR] | Composite/Grab [24] |

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd) – OUTFALL #001

SCREENING LEVEL - During the period beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee shall be limited and monitored by the permittee as specified below

| Effluent Characteristic | Discharge Limitations | | | | Minimum Monitoring Requirements | |
|--|-----------------------|---------------|-----------------|------------------|---------------------------------|---------------------|
| | Monthly Average | Daily Maximum | Monthly Average | Daily Maximum | Measurement Frequency | Sample Type |
| Whole Effluent Toxicity ⁽³⁾ | | | | | | |
| <u>Acute – NOEL</u> | | | | | | |
| <i>Ceriodaphnia dubia</i> (Water flea) [TDA3B] | --- | --- | --- | Report % [23] | 1/Quarter [01/90] | Composite [24] |
| <i>Salvelinus fontinalis</i> (Brook trout) [TDA6F] | --- | --- | --- | Report % [23] | 1/Quarter [01/90] | Composite [24] |
| <u>Chronic – NOEL</u> | | | | | | |
| <i>Ceriodaphnia dubia</i> (Water flea) [TBP3B] | --- | --- | --- | 5.2 % [23] | 1/Quarter [01/90] | Composite [24] |
| <i>Salvelinus fontinalis</i> (Brook trout) [TBQ6F] | --- | --- | --- | Report % [23] | 1/Quarter [01/90] | Composite [24] |
| Analytical chemistry ^(4,6) [51477] | --- | --- | --- | Report ug/L [28] | 1/Quarter [01/90] | Composite/Grab [24] |
| Priority Pollutant ^(5,6) [50008] | --- | --- | --- | Report ug/L [28] | 1/Year [01/YR] | Composite/Grab [24] |

SPECIAL CONDITIONS

A. OUTFALL #002 – Sand Filter Backwash

| Effluent Characteristic | Discharge Limitations | | | | Monitoring Requirements | |
|---------------------------------|--|--------------------------------------|--|--------------------------------------|--|------------------------------------|
| | <u>Monthly Average</u> as specified | <u>Daily Maximum</u> as specified | <u>Monthly Average</u> as specified | <u>Daily Maximum</u> as specified | <u>Measurement Frequency</u> as specified | <u>Sample Type</u> as specified |
| Flow [50050] | --- | 2.5 MGD [03] | --- | --- | 1/Day [01/01] | Estimate [ES] |
| Total Suspended Solids [00530] | --- | --- | Report | Report | 1/Month [01/30] | Composite [24] |
| Total Residual Chlorine [50060] | --- | --- | --- | 1.33 mg/L [19] | 1/Week [01/07] | Grab [GR] |
| pH (Standard Units) [00400] | --- | --- | --- | 5.0 – 9.0 SU (*) [12] | 1/Month [01/30] | Grab [GR] |

OUTFALL #003 – Non-contact cooling waters

| Effluent Characteristic | Discharge Limitations | | | | Minimum Monitoring Requirements | |
|-------------------------------------|--|--------------------------------------|---------------------------------------|--------------------------------------|--|------------------------------------|
| | <u>Monthly Average</u> as specified | <u>Daily Maximum</u> as specified | <u>Weekly Average</u> as specified | <u>Daily Maximum</u> as specified | <u>Measurement Frequency</u> as specified | <u>Sample Type</u> As specified |
| Flow [50050] | Report MGD [03] | 12.0 MGD [03] | --- | --- | 1/Day [01/01] | Continuous [99/99] |
| Temperature ^(1b) [00011] | --- | --- | --- | 110°F [15] | 1/Day [01/01] | Continuous [99/99] |
| pH (Standard Units) [00400] | --- | --- | --- | 5.0 – 9.0 SU (*) [12] | 1/Month [01/30] | Grab [GR] |

Footnotes:

(*) The pH of the effluent shall not be more than 0.5 standard units outside the background (precipitation/ambient receiving water) pH.

SPECIAL CONDITION

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL #0TL – Administrative outfall – Thermal load for Outfalls #001 and #003 collectively.

| Effluent Characteristic | Discharge Limitations | | | | Monitoring Requirements | | |
|--|-----------------------|---------------|-----------------|-----------------------------|-----------------------------|-----------------------|----------------|
| | Monthly Average | Daily Maximum | Monthly Average | Weekly Average | Daily Maximum | Measurement Frequency | Sample Type |
| Thermal Load ⁽⁷⁾ [00017] (June 1 – September 30) | — | — | — | 2.325 EE9 BTU's/Day [34] | 2.674 EE9 BTU's/Day [34] | 1/Day [01/01] | Calculate [CA] |

SPECIAL CONDITION

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

Outfall #001

Footnotes:

Sampling – Sampling and analysis must be conducted in accordance with; a) methods approved in 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services. Samples that are sent to another POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S. § 413 or laboratory facilities that analyze compliance samples in-house are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (last amended April 1, 2010). If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or as specified in this permit, all results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report.

(1) Continuous monitoring –

- a. **pH**- No individual excursion from the pH range values shall exceed 60 minutes or the total time during which pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month. The permittee is authorized to conduct grab sampling for pH in the event the continuous monitor is offline due to maintenance, malfunction or loss of power.
- b. **Temperature** - The permittee is authorized to conduct grab sampling for temperature in the event the continuous monitor is offline due to maintenance, malfunction or loss of power.

(2) **Mercury** – All mercury sampling required by this permit or required to determine compliance with interim limitations established pursuant to Department rule Chapter 519, must be conducted in accordance with EPA's "clean sampling techniques" found in EPA Method 1669, Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels. All mercury analysis shall be conducted in accordance with EPA Method 1631, Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry. See **Attachment A** for a Department report form for mercury test results. Compliance with the monthly average limitation established in Special Condition A of this permit will be based on the cumulative arithmetic mean of all mercury tests results that were conducted utilizing sampling Methods 1669 and analysis Method 1631E on file with the Department for this facility.

(3) **Whole Effluent Toxicity (WET)** - Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions set at levels to bracket the modified acute and chronic critical water quality thresholds of 5.2%), which provides an estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOEC. A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level with survival, reproduction and growth as the end points. The critical modified acute and chronic thresholds were derived as the mathematical inverse of the applicable acute and chronic dilution factors of 19:4:1.

SPECIAL CONDITION

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

Outfall #001

Footnotes:

- a. **Surveillance level testing** - Beginning upon permit issuance and lasting through 24 months prior to permit expiration (Years 1, 2 & 3 of the term of the permit) and commencing again 12 months prior to permit expiration (Year 5 of the term of the permit), the permittee must conduct surveillance level WET testing at a minimum frequency of twice per year (2/Year) for the water flea and once per year (1/Year) for the brook trout. Acute and chronic tests must be conducted on the water flea (*Ceriodaphnia dubia*) and the brook trout (*Salvelinus fontinalis*). Testing must be conducted in a different calendar quarter of each year such that a test is conducted in all four quarters of the year during the first four years of the term of this permit.
- b. **Screening level testing** - During the period beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee shall conduct screening level WET testing at a minimum frequency of once per quarter (1/Quarter) for both species. Acute and chronic tests shall be conducted on the water flea (*Ceriodaphnia dubia*) and the brook trout (*Salvelinus fontinalis*).

WET test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit, provided, however, that the permittee may review the toxicity reports for up to 10 business days of their receipt from the laboratory conducting the testing before submitting them. The permittee shall evaluate test results being submitted and identify to the Department possible exceedances of the critical acute and chronic water quality thresholds of 5.2%.

Toxicity tests must be conducted by an experienced laboratory approved by the Department. The laboratory must follow procedures as described in the following U.S.E.P.A. methods manuals as modified by Department protocol for the salmonids.

- a. Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Water to Freshwater Organisms, Fourth Edition, October 2002, EPA-821-R-02-013.
- b. Methods for Measuring the Acute Toxicity of Effluent and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, October 2002, EPA-821-R-02-012.

Results of WET tests shall be reported on the "Whole Effluent Toxicity Report – Fresh Waters" form included as **Attachment B** of this permit each time a WET test is performed. The permittee is required to analyze the effluent for the analytical chemistry parameters specified on the "WET and Chemical Specific Data Report Form" form included as **Attachment C** of this permit each time a WET test is performed.

SPECIAL CONDITION

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

Outfall #001

Footnotes:

(4) **Analytical chemistry** – Refers to a suite of chemicals in **Attachment C** of this permit.

- a. **Surveillance level testing** – Beginning upon permit issuance and lasting through 24 months prior to permit expiration (Years 1, 2 & 3 of the term of the permit) and commencing again 12 months prior to permit expiration (Year 5 of the term of the permit), the permittee shall conduct analytical chemistry testing at a minimum frequency of once per year (1/Year). As with WET testing, testing shall be conducted in a different calendar quarter of each year such that tests are conducted in all four quarters of the year during the first four years of the term of this permit.
- b. **Screening level testing** – During the period beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee shall conduct analytical chemistry testing at a minimum frequency of once per calendar quarter (1/Quarter) for four consecutive calendar quarters.

(5) **Priority pollutant testing** – Refers to a suite of chemicals in **Attachment C** of this permit

- a. **Surveillance level testing** - Department rule Chapter 530, *Surface Water Toxics Control Program*, does not establish routine surveillance level testing priority pollutant testing.
- b. **Screening level testing** - During the period beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee shall conduct screening level priority pollutant testing at a minimum frequency of once per year (1/Year).

(6) **Priority pollutant and analytical chemistry testing** - Must be conducted on samples collected at the same time as those collected for whole effluent toxicity tests when applicable. Priority pollutant and analytical chemistry testing shall be conducted using methods that permit detection of a pollutant at existing levels in the effluent or that achieve minimum reporting levels of detection as specified by the Department. See **Attachment C** of this permit for a list of the Department's reporting levels (RLs) of detection. All test results, even those detected below the Department's reporting limit shall be reported to the Department. Test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit, provided, however, that the permittee may review the toxicity reports for up to 10 business days of their receipt from the laboratory conducting the testing before submitting them. The permittee shall evaluate test results being submitted and identify to the Department, possible exceedances of the acute, chronic or human health AWQC as established in Department rule Chapter 584 *Surface Water Quality Criteria for Toxic Pollutants*. For the purposes of DMR reporting, enter a "1" for yes, testing done this monitoring period or "NODI-9" monitoring not required this period.

SPECIAL CONDITION

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

Outfall #0TL

- (7) **Thermal Load** – The weekly average and daily maximum thermal load from Outfalls #001 and #003 collectively, must be calculated in accordance with Special Condition G, *Thermal Mixing Zone*, of this permit. The limitations are in effect between June 1 and September 30 of each year. For the monthly Discharge Monitoring Report (DMR) reporting purposes, the permittee shall report the highest thermal load (expressed in BTU's/day) for any seven (7) consecutive days for each calendar month and the highest single day heat load (expressed in BTU's/day) for the calendar month.

B. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent must 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 must 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 must not impart visible discoloration, taste, turbidity, toxicity, radioactivity or other properties in the receiving waters which would impair the usages designated for the classification of the receiving waters.
4. Notwithstanding specific conditions of this license 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. TREATMENT PLANT OPERATOR

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

SPECIAL CONDITIONS

D. NOTIFICATION REQUIREMENT

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

1. Any substantial change (realized or anticipated) in the volume or character of pollutants being introduced into the waste water collection and treatment system.
2. For the purposes of this section, adequate notice must include information on:
 - a. The quality and quantity of waste water introduced to the waste water collection and treatment system; and
 - b. Any anticipated change in the quality and quantity of the waste water to be discharged from the treatment system.

E. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from Outfalls #001, #002 and #003 and from the sources identified in the May 21, 2018, application submitted to the Department for permit renewal. Discharges of waste water from any other point source are not authorized under this permit, but shall be reported in accordance with Standard Condition D(1)(f), *Twenty-four hour reporting*, of this permit.

F. OPERATIONS & MAINTENANCE (O&M) MANUAL

This facility must have a current written comprehensive Operation & Maintenance (O&M) Plan. The plan must provide a systematic approach by which the permittee must at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.

By December 31 of each year, or within 90 days of any process changes or minor equipment upgrades, the permittee must evaluate and modify the O&M Plan including site plan(s) and schematic(s) for the waste water treatment facility to ensure that it is up-to-date. The O&M Plan must be kept on-site at all times and made available to Department and EPA personnel upon request.

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

SPECIAL CONDITIONS

G. THERMAL MIXING ZONE

The zone of initial dilution for the thermal discharge from the Westbrook mill is described as beginning at Outfall 003 (river mile 6.5) and extending downstream a distance of approximately 0.75 miles (river mile 5.75). See **Attachment D** of this permit.

The mixing zone established by the Department for the thermal discharge from the Westbrook mill is described as beginning at a point 0.75 miles downstream of Outfall #003 (0.25 miles below Outfall 001) and extending downstream to the site of the former Smelt Hill Dam (river mile 0.00). See **Attachment D** of this permit.

The receiving waters shall not be tested for compliance with temperature standards within the designated zone of initial dilution or the established mixing zone.

The weekly rolling average and daily maximum thermal load limitations for Outfalls #001 and #003 combined, are in effect between June 1 and September 30 of each year. The weekly average thermal load limitation is $2.325 \times 10^{(9)}$ BTUs/day and the daily maximum thermal load is $2.674 \times 10^{(9)}$ BTUs/day. During the June 1 – September 30 time frame, the permittee must measure and record the Q_e , T_e and T_r on a daily basis. The permittee must calculate the thermal load from the mill on a daily basis in accordance with the following formulas:

$$\text{Thermal Load} = [(Q_{e001})(T_{e001} - T_r) + (Q_{e003})(T_{e003} - T_r)](8.34 \text{ lb/gal}) = \Sigma \text{BTU/day}$$

Q_e = Effluent flow in gallons (each outfall)

T_e = Effluent Temperature in °F (each outfall)

T_r = Upstream (mill intake) River Water Temperature in °F

The daily recorded and calculated values must be reported to the Department as an attachment to the Discharge Monitoring Reports (DMR's) for the months of June, July, August and September of each year.

As an exhibit to the application for the next permit renewal, the permittee must submit to the Department for review, an updated report that summarizes a literature search and cost/benefit analysis evaluating new technologies or process control measures currently available to reduce the heat load to the Presumpscot River with the goal to reduce or eliminate the formal mixing zone. In addition, the permittee must identify the highest 7 consecutive day thermal load discharged during the term of this permit.

SPECIAL CONDITIONS

H. 06-096 CMR 530(2)(D)(4) STATEMENT FOR REDUCED/WAIVED TOXICS TESTING

By December 31 of each calendar year, the permittee must provide the Department with a certification describing any of the following that have occurred since the effective date of this permit [*ICIS Code 75305*]: See **Attachment D** of the Fact Sheet for an acceptable certification form to satisfy this Special Condition.

- (a) Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge;
- (b) Changes in the operation of the treatment works that may increase the toxicity of the discharge; and
- (c) Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge.

In addition, in the comments section of the certification form, the permittee must provide the Department with statements describing;

- (d) Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge.
- (e) Increases in the type or volume of hauled wastes accepted by the facility.

The Department reserves the right to modify WET testing or other toxicity testing if new information becomes available that indicates the discharge may cause or have a reasonable potential to cause exceedances of ambient water quality criteria/thresholds.

SPECIAL CONDITIONS

I. MONITORING AND REPORTING

Electronic Reporting

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

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

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

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

J. REOPENING OF PERMIT FOR MODIFICATIONS

Upon evaluation of the tests results specified by 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 anytime 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.

K. SEVERABILITY

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

ATTACHMENT A

Maine Department of Environmental Protection

Effluent Mercury Test Report

Name of Facility: _____ Federal Permit # ME _____

Purpose of this test: ☐ Initial limit determination
☐ Compliance monitoring for: year _____ calendar quarter _____
☐ Supplemental or extra test

SAMPLE COLLECTION INFORMATION

| | | | | | |
|---|--|--|--|-----------------------|-------------|
| Sampling Date: | <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> | <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> | <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> | Sampling time: | _____ AM/PM |
| | mm | dd | yy | | |
| Sampling Location: _____ | | | | | |
| Weather Conditions: _____ | | | | | |
| Please describe any unusual conditions with the influent or at the facility during or preceding the time of sample collection: _____ | | | | | |
| Optional test - not required but recommended where possible to allow for the most meaningful evaluation of mercury results: _____ | | | | | |
| Suspended Solids | _____ mg/L | Sample type: | _____ | Grab (recommended) or | |
| | | | _____ | Composite | |

ANALYTICAL RESULT FOR EFFLUENT MERCURY

| | |
|--|---|
| Name of Laboratory: _____ | |
| Date of analysis: _____ | Result: <div style="border: 1px solid black; width: 50px; height: 20px; display: inline-block;"></div> ng/L (PPT) |
| Please Enter Effluent Limits for your facility | |
| Effluent Limits: Average = _____ ng/L | Maximum = _____ ng/L |
| Please attach any remarks or comments from the laboratory that may have a bearing on the results or their interpretation. If duplicate samples were taken at the same time please report the average. _____ | |

CERTIFICATION

| | |
|--|-------------|
| I certify that to the best of my knowledge the foregoing information is correct and representative of conditions at the time of sample collection. The sample for mercury was collected and analyzed using EPA Methods 1669 (clean sampling) and 1631 (trace level analysis) in accordance with instructions from the DEP. | |
| By: _____ | Date: _____ |
| Title: _____ | |

PLEASE MAIL THIS FORM TO YOUR ASSIGNED INSPECTOR

ATTACHMENT B

**MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
WHOLE EFFLUENT TOXICITY REPORT
FRESH WATERS**

Facility Name _____ MEPDES Permit # _____
Pipe # _____

Facility Representative _____ Signature _____

By signing this form, I attest that to the best of my knowledge that the information provided is true, accurate, and complete.

Facility Telephone # _____ Date Collected _____ Date Tested _____
mm/dd/yy mm/dd/yy

Chlorinated? _____ Dechlorinated? _____

| Results | % effluent | | Effluent Limitations | |
|---------|------------|-------|----------------------|--|
| | water flea | trout | A-NOEL | |
| A-NOEL | | | C-NOEL | |
| C-NOEL | | | | |

| Data summary | water flea | | | trout | |
|-------------------------|------------|------|------------|------------|------|
| | % survival | | no. young | % survival | |
| QC standard | A>90 | C>80 | >15/female | A>90 | C>80 |
| lab control | | | | | |
| receiving water control | | | | | |
| conc. 1 (%) | | | | | |
| conc. 2 (%) | | | | | |
| conc. 3 (%) | | | | | |
| conc. 4 (%) | | | | | |
| conc. 5 (%) | | | | | |
| conc. 6 (%) | | | | | |
| stat test used | | | | | |

place * next to values statistically different from controls

for trout show final wt and % incr for both controls

| Reference toxicant | water flea | | trout | |
|--------------------|------------|--------|--------|--------|
| | A-NOEL | C-NOEL | A-NOEL | C-NOEL |
| toxicant / date | | | | |
| limits (mg/L) | | | | |
| results (mg/L) | | | | |

Comments _____

Laboratory conducting test _____

Company Name _____ Company Rep. Name (Printed) _____

Mailing Address _____ Company Rep. Signature _____

City, State, ZIP _____ Company Telephone # _____

Report WET chemistry on DEP Form "ToxSheet (Fresh Water Version), March 2007."

ATTACHMENT C

**Maine Department of Environmental Protection
WET and Chem**

This form is for reporting laboratory data and facility information. Official compliance reviews will be done by DEP.

| | | | |
|--|---|--|--|
| Facility Name _____ | MEPDES # _____ | Facility Representative Signature _____ | |
| | Pipe # _____ | To the best of my knowledge this information is true, accurate and complete. | |
| Licensed Flow (MGD) _____ | Flow for Day (MGD) ⁽¹⁾ _____ | Flow Avg. for Month (MGD) ⁽²⁾ _____ | |
| Acute dilution factor _____ | Date Sample Collected _____ | Date Sample Analyzed _____ | |
| Chronic dilution factor _____ | Laboratory _____ | Telephone _____ | |
| Human health dilution factor _____ | Address _____ | | |
| Criteria type: M(arine) or Fresh _____ | Lab Contact _____ | Lab ID # _____ | |

Last Revision - July 1, 2015

ERROR WARNING! Essential facility information is missing. Please check required entries in bold above.

FRESH WATER VERSION

Please see the footnotes on the last page.

| WHOLE EFFLUENT TOXICITY | | | | | Receiving Water or Ambient | Effluent Concentration (ug/L or as noted) | Reporting Limit Check | Possible Exceedence ⁽⁷⁾ | | |
|--|---|-----------------|-----------------------|--------------------------------------|----------------------------|---|-----------------------|------------------------------------|---------|--|
| Effluent Limits, % | | | | WET Result, % Do not enter % sign | | | | Acute | Chronic | |
| Acute Chronic | | | | | | | | | | |
| | Trout - Acute | | | | | | | | | |
| | Trout - Chronic | | | | | | | | | |
| | Water Flea - Acute | | | | | | | | | |
| | Water Flea - Chronic | | | | | | | | | |
| WET CHEMISTRY | | | | | | | | | | |
| | pH (S.U.) ⁽⁹⁾ | | | | | | | | | |
| | Total Organic Carbon (mg/L) | | | | (8) | | | | | |
| | Total Solids (mg/L) | | | | | | | | | |
| | Total Suspended Solids (mg/L) | | | | | | | | | |
| | Alkalinity (mg/L) | | | | (8) | | | | | |
| | Specific Conductance (umhos) | | | | | | | | | |
| | Total Hardness (mg/L) | | | | (8) | | | | | |
| | Total Magnesium (mg/L) | | | | (8) | | | | | |
| | Total Calcium (mg/L) | | | | (8) | | | | | |
| ANALYTICAL CHEMISTRY ⁽³⁾ | | | | | | | | Possible Exceedence ⁽⁷⁾ | | |
| Also do these tests on the effluent with WET. Testing on the receiving water is optional | | Reporting Limit | Effluent Limits, ug/L | | | Reporting Limit Check | Acute | Chronic | Health | |
| | | | Acute ⁽⁶⁾ | Chronic ⁽⁶⁾ | Health ⁽⁶⁾ | | | | | |
| | TOTAL RESIDUAL CHLORINE (mg/L) ⁽⁹⁾ | 0.05 | | | | NA | | | | |
| | AMMONIA | NA | | | | (8) | | | | |
| M | ALUMINUM | NA | | | | (8) | | | | |
| M | ARSENIC | 5 | | | | (8) | | | | |
| M | CADMIUM | 1 | | | | (8) | | | | |
| M | CHROMIUM | 10 | | | | (8) | | | | |
| M | COPPER | 3 | | | | (8) | | | | |
| M | CYANIDE, TOTAL | 5 | | | | (8) | | | | |
| | CYANIDE, AVAILABLE ^(3a) | 5 | | | | (8) | | | | |
| M | LEAD | 3 | | | | (8) | | | | |
| M | NICKEL | 5 | | | | (8) | | | | |
| M | SILVER | 1 | | | | (8) | | | | |
| M | ZINC | 5 | | | | (8) | | | | |

**Maine Department of Environmental Protection
WET and Chem**

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| PRIORITY POLLUTANTS ⁽⁴⁾ | | Effluent Limits | | | | Reporting Limit Check | Possible Exceedence ⁽⁷⁾ | | |
|------------------------------------|---|-----------------|----------------------|------------------------|-----------------------|--------------------------|------------------------------------|---------|--------|
| | | Reporting Limit | Acute ⁽⁶⁾ | Chronic ⁽⁶⁾ | Health ⁽⁶⁾ | | Acute | Chronic | Health |
| M | ANTIMONY | 5 | | | | | | | |
| M | BERYLLIUM | 2 | | | | | | | |
| M | MERCURY (5) | 0.2 | | | | | | | |
| M | SELENIUM | 5 | | | | | | | |
| M | THALLIUM | 4 | | | | | | | |
| A | 2,4,6-TRICHLOROPHENOL | 5 | | | | | | | |
| A | 2,4-DICHLOROPHENOL | 5 | | | | | | | |
| A | 2,4-DIMETHYLPHENOL | 5 | | | | | | | |
| A | 2,4-DINITROPHENOL | 45 | | | | | | | |
| A | 2-CHLOROPHENOL | 5 | | | | | | | |
| A | 2-NITROPHENOL | 5 | | | | | | | |
| A | 4,6-DINITRO-O-CRESOL (2-Methyl-4,6-dinitrophenol) | 25 | | | | | | | |
| A | 4-NITROPHENOL | 20 | | | | | | | |
| A | P-CHLORO-M-CRESOL (3-methyl-4-chlorophenol)+BBO | 5 | | | | | | | |
| A | PENTACHLOROPHENOL | 20 | | | | | | | |
| A | PHENOL | 5 | | | | | | | |
| BN | 1,2,4-TRICHLOROBENZENE | 5 | | | | | | | |
| BN | 1,2-(O)DICHLOROBENZENE | 5 | | | | | | | |
| BN | 1,2-DIPHENYLHYDRAZINE | 20 | | | | | | | |
| BN | 1,3-(M)DICHLOROBENZENE | 5 | | | | | | | |
| BN | 1,4-(P)DICHLOROBENZENE | 5 | | | | | | | |
| BN | 2,4-DINITROTOLUENE | 6 | | | | | | | |
| BN | 2,6-DINITROTOLUENE | 5 | | | | | | | |
| BN | 2-CHLORONAPHTHALENE | 5 | | | | | | | |
| BN | 3,3'-DICHLOROBENZIDINE | 16.5 | | | | | | | |
| BN | 3,4-BENZO(B)FLUORANTHENE | 5 | | | | | | | |
| BN | 4-BROMOPHENYLPHENYL ETHER | 5 | | | | | | | |
| BN | 4-CHLOROPHENYL PHENYL ETHER | 5 | | | | | | | |
| BN | ACENAPHTHENE | 5 | | | | | | | |
| BN | ACENAPHTHYLENE | 5 | | | | | | | |
| BN | ANTHRACENE | 5 | | | | | | | |
| BN | BENZIDINE | 45 | | | | | | | |
| BN | BENZO(A)ANTHRACENE | 8 | | | | | | | |
| BN | BENZO(A)PYRENE | 5 | | | | | | | |
| BN | BENZO(G,H,I)PERYLENE | 5 | | | | | | | |
| BN | BENZO(K)FLUORANTHENE | 5 | | | | | | | |
| BN | BIS(2-CHLOROETHOXY)METHANE | 5 | | | | | | | |
| BN | BIS(2-CHLOROETHYL)ETHER | 6 | | | | | | | |
| BN | BIS(2-CHLOROISOPROPYL)ETHER | 6 | | | | | | | |
| BN | BIS(2-ETHYLHEXYL)PHTHALATE | 10 | | | | | | | |
| BN | BUTYLBENZYL PHTHALATE | 5 | | | | | | | |
| BN | CHRYSENE | 5 | | | | | | | |
| BN | DI-N-BUTYL PHTHALATE | 5 | | | | | | | |
| BN | DI-N-OCTYL PHTHALATE | 5 | | | | | | | |
| BN | DIBENZO(A,H)ANTHRACENE | 5 | | | | | | | |
| BN | DIETHYL PHTHALATE | 5 | | | | | | | |
| BN | DIMETHYL PHTHALATE | 5 | | | | | | | |
| BN | FLUORANTHENE | 5 | | | | | | | |

**Maine Department of Environmental Protection
WET and Chem**

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| | | | | | | | | | | | |
|----|---|------|--|--|--|--|--|--|--|--|--|
| BN | FLUORENE | 5 | | | | | | | | | |
| BN | HEXACHLOROBENZENE | 5 | | | | | | | | | |
| BN | HEXACHLOROBUTADIENE | 5 | | | | | | | | | |
| BN | HEXACHLOROCYCLOPENTADIENE | 10 | | | | | | | | | |
| BN | HEXACHLOROETHANE | 5 | | | | | | | | | |
| BN | INDENO(1,2,3-CD)PYRENE | 5 | | | | | | | | | |
| BN | ISOPHORONE | 5 | | | | | | | | | |
| BN | N-NITROSODI-N-PROPYLAMINE | 10 | | | | | | | | | |
| BN | N-NITROSODIMETHYLAMINE | 5 | | | | | | | | | |
| BN | N-NITROSODIPHENYLAMINE | 5 | | | | | | | | | |
| BN | NAPHTHALENE | 5 | | | | | | | | | |
| BN | NITROBENZENE | 5 | | | | | | | | | |
| BN | PHENANTHRENE | 5 | | | | | | | | | |
| BN | PYRENE | 5 | | | | | | | | | |
| P | 4,4'-DDD | 0.05 | | | | | | | | | |
| P | 4,4'-DDE | 0.05 | | | | | | | | | |
| P | 4,4'-DDT | 0.05 | | | | | | | | | |
| P | A-BHC | 0.2 | | | | | | | | | |
| P | A-ENDOSULFAN | 0.05 | | | | | | | | | |
| P | ALDRIN | 0.15 | | | | | | | | | |
| P | B-BHC | 0.05 | | | | | | | | | |
| P | B-ENDOSULFAN | 0.05 | | | | | | | | | |
| P | CHLORDANE | 0.1 | | | | | | | | | |
| P | D-BHC | 0.05 | | | | | | | | | |
| P | DIELDRIN | 0.05 | | | | | | | | | |
| P | ENDOSULFAN SULFATE | 0.1 | | | | | | | | | |
| P | ENDRIN | 0.05 | | | | | | | | | |
| P | ENDRIN ALDEHYDE | 0.05 | | | | | | | | | |
| P | G-BHC | 0.15 | | | | | | | | | |
| P | HEPTACHLOR | 0.15 | | | | | | | | | |
| P | HEPTACHLOR EPOXIDE | 0.1 | | | | | | | | | |
| P | PCB-1016 | 0.3 | | | | | | | | | |
| P | PCB-1221 | 0.3 | | | | | | | | | |
| P | PCB-1232 | 0.3 | | | | | | | | | |
| P | PCB-1242 | 0.3 | | | | | | | | | |
| P | PCB-1248 | 0.3 | | | | | | | | | |
| P | PCB-1254 | 0.3 | | | | | | | | | |
| P | PCB-1260 | 0.2 | | | | | | | | | |
| P | TOXAPHENE | 1 | | | | | | | | | |
| V | 1,1,1-TRICHLOROETHANE | 5 | | | | | | | | | |
| V | 1,1,2,2-TETRACHLOROETHANE | 7 | | | | | | | | | |
| V | 1,1,2-TRICHLOROETHANE | 5 | | | | | | | | | |
| V | 1,1-DICHLOROETHANE | 5 | | | | | | | | | |
| V | 1,1-DICHLOROETHYLENE (1,1-dichloroethene) | 3 | | | | | | | | | |
| V | 1,2-DICHLOROETHANE | 3 | | | | | | | | | |
| V | 1,2-DICHLOROPROPANE | 6 | | | | | | | | | |
| V | 1,2-TRANS-DICHLOROETHYLENE (1,2-trans-dichloroethene) | 5 | | | | | | | | | |
| V | 1,3-DICHLOROPROPYLENE (1,3-dichloropropane) | 5 | | | | | | | | | |
| V | 2-CHLOROETHYL VINYL ETHER | 20 | | | | | | | | | |
| V | ACROLEIN | NA | | | | | | | | | |
| V | ACRYLONITRILE | NA | | | | | | | | | |
| V | BENZENE | 5 | | | | | | | | | |

**Maine Department of Environmental Protection
WET and Chem**

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| | | | | | | | | | | | |
|---|---|----|--|--|--|--|--|--|--|--|--|
| V | BROMOFORM | 5 | | | | | | | | | |
| V | CARBON TETRACHLORIDE | 5 | | | | | | | | | |
| V | CHLOROBENZENE | 6 | | | | | | | | | |
| V | CHLORODIBROMOMETHANE | 3 | | | | | | | | | |
| V | CHLOROETHANE | 5 | | | | | | | | | |
| V | CHLOROFORM | 5 | | | | | | | | | |
| V | DICHLOROBROMOMETHANE | 3 | | | | | | | | | |
| V | ETHYLBENZENE | 10 | | | | | | | | | |
| V | METHYL BROMIDE (Bromomethane) | 5 | | | | | | | | | |
| V | METHYL CHLORIDE (Chloromethane) | 5 | | | | | | | | | |
| V | METHYLENE CHLORIDE | 5 | | | | | | | | | |
| V | TETRACHLOROETHYLENE (Perchloroethylene or Tetrachloroethene) | 5 | | | | | | | | | |
| V | TOLUENE | 5 | | | | | | | | | |
| V | TRICHLOROETHYLENE (Trichloroethene) | 3 | | | | | | | | | |
| V | VINYL CHLORIDE | 5 | | | | | | | | | |

Notes:

(1) Flow average for day pertains to WET/PP composite sample day.

(2) Flow average for month is for month in which WET/PP sample was taken.

(3) Analytical chemistry parameters must be done as part of the WET test chemistry.

(3a) Cyanide, Available (Cyanide Amenable to Chlorination) is not an analytical chemistry parameter, but may be required by certain discharge permits .

(4) Priority Pollutants should be reported in micrograms per liter (ug/L).

(5) Mercury is often reported in nanograms per liter (ng/L) by the contract laboratory, so be sure to convert to micrograms per liter on this spreadsheet.

(6) Effluent Limits are calculated based on dilution factor, background allocation (10%) and water quality reserves (15% - to allow for new or changed discharges or non-point sources).

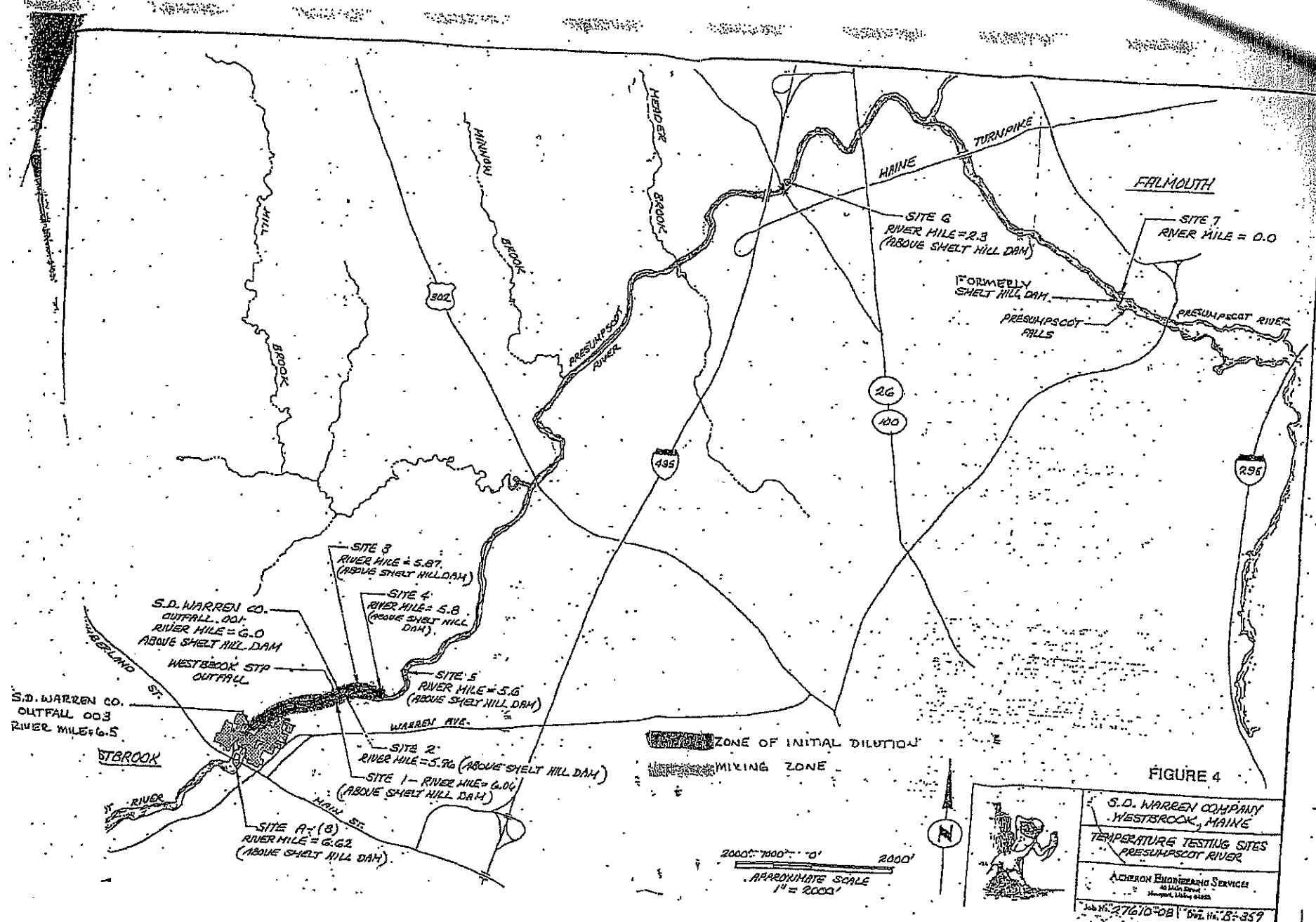
(7) Possible Exceedence determinations are done for a single sample only on a mass basis using the actual pounds discharged. This analysis does not consider watershed wide allocations for fresh water discharges.

(8) These tests are optional for the receiving water. However, where possible samples of the receiving water should be preserved and saved for the duration of the WET test. In the event of questions about the receiving water's possible effect on the WET results, chemistry tests should then be conducted.

(9) pH and Total Residual Chlorine must be conducted at the time of sample collection. Tests for Total Residual Chlorine need be conducted only when an effluent has been chlorinated or residual chlorine is believed to be present for any other reason.

Comments:

ATTACHMENT D



MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

A. GENERAL PROVISIONS

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

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

(a) They are not

- (i) Designated as toxic or hazardous under the provisions of Sections 307 and 311, respectively, of the Federal Water Pollution Control Act; Title 38, Section 420, Maine Revised Statutes; or other applicable State Law; or
- (ii) Known to be hazardous or toxic by the licensee.

(b) The discharge of such materials will not violate applicable water quality standards.

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

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

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

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

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

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

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

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

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

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

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

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

B. OPERATION AND MAINTENANCE OF FACILITIES

1. General facility requirements.

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

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

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

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

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

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

5. Bypasses.

(a) Definitions.

- (i) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
- (ii) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

- (b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this section.

(c) Notice.

- (i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

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

6. Upsets.

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

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C. MONITORING AND RECORDS

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

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

3. Monitoring and records.

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

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D. REPORTING REQUIREMENTS

1. Reporting requirements.

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

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

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

- (A) Any unanticipated bypass which exceeds any effluent limitation in the permit.
- (B) Any upset which exceeds any effluent limitation in the permit.
- (C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours.

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

- (g) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (d), (e), and (f) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (f) of this section.
- (h) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

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

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

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

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

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

5. Publicly owned treatment works.

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

E. OTHER REQUIREMENTS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Maximum daily discharge limitation means the highest allowable daily discharge.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

AND

MAINE WASTE DISCHARGE LICENSE

Date: June 5, 2018

PERMIT NUMBER: ME0002321
LICENSE NUMBER: W002224-5N-H-R

NAME AND ADDRESS OF APPLICANT:

S.D. WARREN COMPANY
89 Cumberland Street, P.O. Box 5000
Westbrook, Maine 04098-1597

COUNTY: Cumberland County

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

Cumberland Street
Westbrook, Maine

RECEIVING WATER/CLASSIFICATION: Presumpscot River, Class C

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: Mr. Gordon Lane
(207) 856-4286
e-mail: Gordon.lane@sappi.com

1. APPLICATION SUMMARY

- a. Application: The S.D. Warren Company (SDW) has submitted a timely and complete application to the Department for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0002321/ Maine Waste Discharge License (WDL) #W002224-5N-H-R (permit hereinafter), which was issued by the Department on June 3, 2013, for five-year term. The permit application is to renew previously authorized discharges associated with the operations of a non-integrated mill complex (paper mill only) including treated process waste waters; treated storm water runoff; treated discharges associated with or resulting from essential or scheduled maintenance, start-ups, and shutdowns; treated spills and releases (whether anticipated or unanticipated) from anywhere in the permitted facility; non-contact cooling waters; and sandfilter backwash waters to the Presumpscot River, Class C, in Westbrook, Maine. The previous permit also authorized acceptance of wastewater from Biofine Renewables LLC and landfill leachate from Hunt Road Landfill for treatment and discharge, however the current application does not seek to renew these authorizations. See **Attachment A** of this Fact Sheet for a location map.

1. APPLICATION SUMMARY (cont'd)

- b. Source Description: SDW is engaged in the production of coated fine paper at the Westbrook mill. Total paper production, corrected for moisture and operating days, may be as high as 200 tons/day with the existing paper machine. Therefore, a production figure of 200 tons/per day is being utilized to calculate applicable technology based BOD and TSS limits in this permitting action.
- c. Waste Water Treatment: SDW discharges treated process waste waters, treated stormwater, non-contact cooling waters and sandfilter backwash waters to the Presumpscot River via three separate outfalls.

Outfall #001 - Process waste waters - The major waste streams contributing to this treated discharge include paper machine white waters, off-machine coating, utility operations, and stormwater.. The process waste waters are treated in one of two primary clarifiers, one large aeration basin with mechanical aerators, and final settling in one of two secondary clarifiers. Waste waters are conveyed to the Presumpscot River via a concrete "stairway" (for reaeration) and outfall pipe measuring 36" in diameter extending out into the middle of the river (on the bottom) with a diffuser configuration consisting of three 22" vertical ports.

Outfall #002 – Sandfilter back wash - Approximately 12.5 MGD of water is gravity extracted from the Presumpscot River and filtered by way of conventional sandfilters for use throughout the mill complex. The sandfilters are backwashed daily with approximately 2.5 MGD of filtered water. Solids collected in the filtering process are discharged back into the river via an exposed outfall pipe measuring 18" in diameter. The discharge is located upstream of the process waste water outfall described above.

Outfall #003 – Non-Contact Cooling Water -- Water withdrawn from the Presumpscot River and processed through the sandfilter system is used for condensing on the mill's turbine generators (heated non-contact cooling water) and for process water. Surplus non-contact cooling water not used as process water may be cooled in cooling towers, in a cooling spray pond, or be discharged to the river through Outfall #003. Outfall #003 is a 24" diameter pipe with three vertical diffusers. This discharge is located upstream of the Sandfilter back wash outfall described above.

2. PERMIT SUMMARY

- a. History: The most recent permitting/licensing actions include the following:

April 29, 1974 - The Department issued a Consent Order establishing a thermal mixing zone for the 15 MGD cooling water discharge from the mill. The thermal mixing zone was delineated as 370 feet long by 57 feet wide.

June 28, 1978 - The Department issued WDL #2224 for a five-year term.

September 14, 1983 - The Department issued a renewal of WDL #2224 for a five-year term.

September 29, 1983 - The U.S. Environmental Protection Agency (EPA) issued National Pollutant Discharge Elimination System (NPDES) permit #ME0002321 for a five-year term.

February 15, 1989 - A Superior Court Order was issued to resolve violations of water quality standards as well as terms, conditions and/or limitations stipulated in the SDW waste discharge license. The major elements of the Order required SDW to install and commence operation of cooling towers to reduce the heat load from Outfall #003 to the Presumpscot River, required SDW to conduct an in-stream water temperature monitoring program to determine the effects of the thermal discharge on the receiving waters and to conduct a sediment monitoring program to determine the contribution of the SDW effluent pollutant load to the Presumpscot River and estuary. All terms and conditions of the Order were completed to the satisfaction of the Department.

September 28, 1992 - The EPA issued a renewal of NPDES permit #ME0002321 for a five-year term.

October 26, 1992 - SDW appealed the Department's 9/24/92 Section 401 Water Quality Certification based on an objection to the river flow figure used in the calculation to establish an acute whole effluent toxicity limitation in the permit. No action was ever taken to resolve the appeal.

October 27, 1992 - SDW filed a Request for an Evidentiary Hearing with the EPA appealing the issuance of NPDES permit #ME0002321. No action was ever taken to resolve the appeal.

December 1995 through April 1998 - The Department and SDW convened numerous meetings and generated correspondence and work plans to identify and resolve outstanding issues surrounding the renewal of the WDL.

May 16, 1996 - The Department issued WDL #W002224-51-A-N establishing a thermal mixing zone from a point 0.75 miles downstream of Outfall #003 and extending downstream to the head of tide at the Smelt Hill Dam.

October 22, 1997 - SDW filed an application with the EPA to renew NPDES permit #ME0002321.

July 7, 1998 - The Department issued WDL #W002224-44-B-R for a five-year term.

2. PERMIT SUMMARY (cont'd)

November 30, 1998 – The EPA approved a Total Maximum Daily Load (TMDL) prepared by the Department for the Presumpscot River.

February 19, 1999 – The U.S. EPA issued NPDES permit #ME0002321 for a five-year term.

March 31, 1999 – The U.S. EPA issued NPDES permit #ME0002321, Administrative Order Docket No. 98-04 based upon facility monitoring data and the S.D. Warren statements that it would not be able to comply with effluent limitations for AOX, 2,3,7,8 TCDD, 2,3,7,8 TCDF, twelve phenolic compounds and chloroform in the NPDES permit #ME0002321 issued on 2/19/99.

June 28, 1999 – SDW permanently shut down kraft pulping operations at the Westbrook mill.

January 25, 2000 – The U.S. EPA issued a modification of NPDES Permit #ME0002321 reflecting the fact that on June 28, 1999, the S.D. Warren Company shutdown the kraft pulping operations, the #11 paper machine, the #19 power boiler and one off-machine coater.

March 23, 2000 – The Department issued a letter to the S.D. Warren Company that administratively modified WDL W002224-44-B-R by removing the requirement to conduct continuous instream temperature monitoring during the summer months as specified in Special Condition F, *Thermal Mixing Zone* of the WDL.

May 23, 2000 – The Department initiated a modification of the 7/7/98 WDL by establishing interim average and maximum limitations for mercury based on new statutes and a Department regulation entitled, Chapter 519, *Interim Effluent Limitations and Controls for the Discharge of Mercury*

January 12, 2001 - The Department received authorization from the U.S. EPA to administer the NPDES permitting program in Maine.

April 4, 2001 – The S.D. Warren Company submitted an application to the Department to modify WDL #W002224-44-B-R to reflect the terms and conditions of the NPDES permit modification issued by the U.S. EPA on 1/25/00.

April 17, 2001 – The Department issued a letter to the S.D. Warren Company that administratively modified WDL W002224-44-B-R by removing Special Condition C, *Macro-Invertebrate Study and Re-Opener* from the WDL.

January 16, 2002 – The Department of Marine Resources issued Order #L-20703-34-A-N approving the removal of the Smelt Hill Dam. The dam was removed in calendar year 2002.

July 2, 2002 – The Department issued combination MEPDES permit #ME0002321/WDL #W002224-5N-C-M modification and renewal for a five-year term.

January 22, 2004 - The Department issued an administrative modification of the 7/2/02 permit that corrected an error in the monitoring frequency for pH for Outfall #003.

2. PERMIT SUMMARY (cont'd)

December 17, 2004 – The Department issued an administrative modification of the 7/2/02 permit by eliminating Special Condition M, *Turbidity*, from the permit.

April 10, 2006 – The Department initiated a modification of the 7/2/07 MEPDES permit by revising the whole effluent toxicity (WET) testing and chemical specific testing requirements based on revised Department regulations entitled, Chapter 530, *Surface Water Toxics Control Program*, and Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, both promulgated on October 12, 2005.

May 24, 2006 – The Department authorized SDW to accept and treat up to 2,000 gpd of waste water from BioFine Renewables LLC located in Gorham, Maine.

December 21, 2007 – The Department issued combined MEPDES permit ME0002321/WDL #W002224-5N-D-R for a five-year term.

June 3, 2013 - The Department issued combined MEPDES permit ME0002321/WDL #W002224-5N-F-R for a five-year term.

September 5, 2013 – The Department issued a modification of the 6/3/13 permit that eliminated the water quality based limits for inorganic arsenic and the reporting requirements for total arsenic.

May 21, 2018 – SDW submitted a timely and complete application to the Department to renew combination MEPDES permit ME0002321/WDL #W002224-5N-F-R.

- b. Terms and conditions – This permitting action is carrying forward all the terms and conditions of the previous permit except that this permit is;
- 1) Changing the pH sample type from grab to continuous for Outfall 001 based on a request by the permittee.
 - 2) Eliminating the monitoring and reporting requirements for *E coli* bacteria, for Outfall 001 as the permittee has satisfactorily demonstrated to the Department through years of testing that *E. coli* bacteria test results do not exceed or have a reasonable potential to exceed ambient water quality standards.
 - 3) Eliminating the limitations and monitoring and reporting requirements for total aluminum for Outfall 001, given an updated statistical evaluation of the most current 60-months of monitoring results indicate the discharge does not exceed or have a reasonable potential to exceed applicable AWQC.
 - 4) Changing the sample type for temperature from measure to continuous for Outfalls 001 and 003 based on a request from the permittee.

2. PERMIT SUMMARY (cont'd)

- 5) Establishing a chronic no observed effect level (C-NOEL) limitation of 5.2% for the water flea and increasing the test frequency from 1/Year to 2/Year during surveillance level years as an updated statistical evaluation of the most current 60-months of monitoring results indicate the discharge does have a reasonable potential to exceed the critical chronic threshold of 5.2%.
- 6) Reducing the monitoring frequency for biochemical oxygen demand (BOD) and total suspended solids (TSS) for Outfall #001 from 4/Week to 3/Week based on statistical evaluation of the data for both parameters and utilizing USEPA and Department monitoring frequency reduction guidance.
- 7) Changing the monthly average and daily maximum TSS concentration limitation from 20 mg/L to Report only, and changing the sample type from grab to composite for Outfall 002.
- 8) Modifying the mass limit for Bis (2-Ethylhexyl) phthalate based on new data, and increasing the test frequency from 1/year to 2/year as an updated statistical evaluation of the most current 60-months of monitoring results indicate the discharge has a reasonable potential to exceed the human health (water & organisms) criteria of 0.8 ug/L.
- 9) Removing references to waste waters brought on site for treatment from Biofine Renewables and the Hunt Road Landfill, since the site no longer takes these wastes.

3. CONDITIONS OF PERMITS

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

4. RECEIVING WATER QUALITY STANDARDS

Maine law, 38 M.R.S., §467(9)(A)(4) states that at the point of discharge, the Presumpscot River is classified as a Class C waterway. Maine law, 38 M.R.S., §465(4) describes the classification standards for Class C waters as follows;

- A. *Class C waters must be of such quality that they are suitable for the designated uses of drinking water supply after treatment; fishing; agriculture; recreation in and on the water; industrial process and cooling water supply; hydroelectric power generation, except as prohibited under Title 12, section 403; navigation; and as a habitat for fish and other aquatic life.*
- B. *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*
- (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. 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. The department may negotiate and enter into agreements with licensees and water quality certificate holders in order to provide further protection for the growth of indigenous fish. Agreements entered into under this paragraph are enforceable as department orders according to the provisions of sections 347-A to 349.

Between May 15th and September 30th, the number of Escherichia coli bacteria of human and domestic animal origin in Class C waters may not exceed a geometric mean of 126 per 100 milliliters or an instantaneous level of 236 per 100 milliliters. In determining human and domestic animal origin, the department shall assess licensed and unlicensed sources using available diagnostic procedures. The board shall adopt rules governing the procedure for designation of spawning areas. Those rules must include provision for periodic review of designated spawning areas and consultation with affected persons prior to designation of a stretch of water as a spawning area.

4. RECEIVING WATER QUALITY STANDARDS

C. Discharges to Class C waters may cause some changes to aquatic life, except that the receiving waters must 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. This paragraph does not apply to aquatic pesticide or chemical discharges approved by the department and conducted by the department, the Department of Inland Fisheries and Wildlife or an agent of either agency for the purpose of restoring biological communities affected by an invasive species.

5. RECEIVING WATER CONDITIONS

A document entitled, *2016 Integrated Water Quality Monitoring and Assessment Report* (also known as the "305B Report") prepared by the Department pursuant to Section 305(b) of the Federal Water Pollution Control Act lists the Presumpscot River in Westbrook (ME0106000103_609R_01) in a table entitled, *Category 4-A, Rivers and Streams With Impaired Use Other Than Mercury, TMDL Completed*. The report indicates the impairment is recreational use due to episodic elevated *E. coli* bacteria levels caused by CSO discharges.

The 2016 305b Report also lists all freshwaters in a table entitled, *Category 4-A: Rivers and Streams with Impaired Use, TMDL Completed*. All freshwaters are impaired by atmospheric deposition of mercury. 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 Health and 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.

6. RECEIVING WATER FLOWS

The source of the Presumpscot River is Maine's second largest lake, Sebago Lake. Lake levels and the flow in the Presumpscot River are controlled by a dam and associated hydro-electric generating facility called the Eel Weir Hydro Project. The Eel Weir Project is owned and operated by the SDW Company and is licensed by the Federal Energy Regulatory Commission (FERC) as Project No. 2984.

The SDW mill is approximately 13 miles downstream of the Eel Weir Dam. With a minimum flow of 270 cfs (see Department Order #L-19937-33-J-N August 30, 2011) from the dam and the additional flow contribution of 30 cfs from the drainage area between the dam and the mill, the resultant 7Q10 flow at the mill is 300 cfs. It is noted the August 30, 2011 Order requires a minimum flow of 408 CFS between June 1 and September 30 of each year, typically the time of critical low flows in free flow rivers and streams and high temperatures.

As for the harmonic mean river flow, the Department has calculated 511 cfs as being the long term average river flow at the mill based on a statistical analysis of historic USGS gauge flow data for the Presumpscot River.

6. RECEIVING WATER FLOWS (cont'd)

Dilution factors associated with the discharge from the mill's waste water treatment facility were derived in accordance with freshwater protocols established in Department Rule Chapter 530, *Surface Water Toxics Control Program*, October of 2005. For the purposes of this permit, the Department has determined that the acute and chronic dilution factors are 19.4:1 and the harmonic dilution factor is 33.0:1. The dilution factors were derived using a mill flow of 10.0 MGD for Outfall #001, a 7Q10 of 300 cfs and a harmonic mean flow of 511 cfs (at the mill). The dilution factors are calculated as follows:

$$\text{Dilution Factor} = \frac{\text{River Flow (cfs)}(\text{Conv. Factor})}{\text{Plant Flow}}$$

$$\text{Acute: 1Q10} = 300 \text{ cfs} \quad \Rightarrow \frac{(300 \text{ cfs})(0.6464)}{10.0 \text{ MGD}} = 19.4:1$$

$$\text{Chronic: 7Q10} = 300 \text{ cfs} \quad \Rightarrow \frac{(300 \text{ cfs})(0.6464)}{10.0 \text{ MGD}} = 19.4:1$$

$$\text{Harmonic Mean:} = 511 \text{ cfs} \quad \Rightarrow \frac{(511 \text{ cfs})(0.6464)}{10.0 \text{ MGD}} = 33.0:1$$

7. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Effluent limitations and monitoring requirements in Special Condition A of this permitting action were derived as follows:

A. OUTFALL #001 - Process Waste Waters

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

- 1) Regulatory Basis: The discharge from SDW facility is subject to National Effluent Guidelines (NEG) found in 40 Code of Federal Regulations (CFR) Part 430 – *Pulp, Paper and Paperboard Manufacturing Point Source Category*. The regulation was revised on April 15, 1998 and reorganized 26 sub-categories in the previous regulation into 12 sub-categories by grouping mills with similar processes. Applicable Subparts of the new regulation for the SDW facility are limited to Subpart K, *Fine and Lightweight Papers From Purchased Pulp Subcategory*. The NEG's establish applicable limitations representing;

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

1) best practicable control technology currently available (BPT) for toxic and conventional pollutants for existing dischargers, 2) best conventional pollutant technology economically achievable (BCT) for conventional pollutants for existing dischargers, and 3) best available technology economically achievable (BAT) for toxic and non-conventional pollutants for existing dischargers. The regulation establishes limitations and monitoring requirements on the final outfall to the receiving waterbody. The regulation also establishes limitations based on several methodologies including monthly average and or daily maximum mass limits based on production of paper produced or concentration limitations based on BPT, BCT or BAT.

- 2) Flow – The previous permitting action contained a monthly average flow limitation of 10.0 MGD and a daily maximum reporting requirement for Outfall 001 based on the SDW facility operating a paper mill only and based on the statistical evaluation of flow data for the period 2002 – 2007, pulp mill post closure. This flow limit is considered representative of discharge flows with the facility at full production of 200 tons/day.

A review of the monthly average flow data as reported on the monthly Discharge Monitoring Reports (DMRs) submitted to the Department for the period January 2015 – January 2018 indicates the permittee has reported values as follows

Flow (DMRs = 37)

| Value | Limit (MGD) | Range (MGD) | Mean (MGD) |
|-----------------|-------------|-------------|------------|
| Monthly Average | 10.0 | 2.6 – 4.6 | 3.5 |
| Daily maximum | Report | 3.2 – 6.7 | 4.7 |

- 3) Production: Total paper production, corrected for moisture and operating days, may be as high as 200 tons/day with the existing paper machine. Therefore, a production figure of 200 tons/per day is being utilized to calculate applicable technology based BOD and TSS limits in this permitting action.
- 4) Biochemical Oxygen Demand (BOD₅) and Total Suspended Solids (TSS)– The previous permitting action contained year-round limitations for BOD₅ and year-round TSS based on a production figure of 200 tons/day and the applicable technology based criteria in the NEGs as follows:

| NEG BPT limits | BOD Avg | | BOD Max | | TSS Avg | | TSS Max | |
|------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| | lbs/ton | lbs/day | lbs/ton | lbs/day | lbs/ton | lbs/day | lbs/ton | lbs/day |
| Subpart K 200 ADTPD | 8.5 | 1,700 | 16.4 | 3,240 | 11.8 | 2,360 | 22.0 | 4,400 |

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

A. OUTFALL #001 - Process Waste Waters

A review of the monthly average BOD & TSS data as reported on the monthly DMRs submitted to the Department for the period January 2015 – January 2018 indicates values have been reported as follows:

BOD mass (DMRs = 37)

| Value | Limit (lbs/day) | Range (lbs/day) | Mean (lbs/day) |
|-----------------|-----------------|-----------------|----------------|
| Monthly Average | 1,700 | 53- 213 | 112 |
| Daily Maximum | 3,240 | 105 – 1,124 | 336 |

TSS mass (DMRs = 37)

| Value | Limit (lbs/day) | Range (lbs/day) | Mean (lbs/day) |
|-----------------|-----------------|-----------------|----------------|
| Monthly Average | 2,360 | 111 – 538 | 203 |
| Daily Maximum | 4,400 | 217 – 4,776 | 663 |

On April 19, 1996, the USEPA issued a guidance document entitled, “*Interim Guidance for Performance Based Reductions of NPDES Permit Monitoring Frequencies*” (USEPA 1996) as the basis for determining reduced monitoring frequencies. The guidance document was issued to reduce unnecessary reporting while at the same time maintaining a high level of environmental protection for facilities that have a good compliance record and pollutant discharges at levels below permit requirements. Monitoring requirements are not considered effluent limitations under section 402(o) of the Clean Water Act and therefore, anti-backsliding prohibitions would not be triggered by reductions in monitoring frequencies

According to Table I of the EPA Guidance, a 4/Week monitoring requirement can be reduced to 1/Week. The Department is making a best professional judgment that a monitoring frequency of 1/Week is not sufficient to determine on-going compliance at the facility. The Department recently adopted a policy to not reduce monitoring frequencies to more than 50% of their current monitoring frequency. Therefore, the monitoring frequency for BOD and TSS has been reduced to 3/Week in this permitting action.

5. pH – The previous permitting action established a pH range limitation of 5.0 – 9.0 standard units (su) along with a 1/Day monitoring requirement via a grab sample. The permittee is requesting the Department allow continuous monitoring, along with a footnote consistent with 40 CFR 401.17 pertaining to allowance for excursions, and a minimum requirement of a 1/Day grab sample requirement in the event the continuous monitor is down due to maintenance, malfunction, or loss of power. The Department is granting the request.

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

A. OUTFALL #001 - Process Waste Waters

A review of the monthly average pH data as reported on the monthly DMRs submitted to the Department for the period January 2015 – January 2018 indicates values have been reported as follows:

pH (DMRs 37)

| Value | Limit (su) | Minimum (SU) | Maximum (su) |
|-------|------------|--------------|--------------|
| Range | 5.0 – 9.0 | 6.5 | 8.1 |

Federal regulation 40 CFR Part 401.17 states in part that no individual excursion from the pH range values shall exceed 60 minutes or the total time during which pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month.

6. *E. coli* bacteria – The Fact Sheet of the 2007 permit contained the following language:
This permitting action is establishing new monthly average and daily maximum water quality based limitations with a 1/Week monitoring requirement for E. coli bacteria based n Class C water quality criteria. The Department is imposing the limitations as test result of landfill leachate that the SDW facility accepts from a commercial landfill indicates the presence of the bacteria. MEPDES permits for the Towns of Westbrook and Falmouth have bacteria limitations imposed on a year-round basis to protect an open shellfish harvesting area in the Mackworth Cove area. If after one year of monitoring the SDW demonstrates the discharge does not exceed or have a reasonable potential to exceed the AWQC for E. coli. bacteria, the Department will entertain a modification request by the permittee to remove the limitations and monitoring requirements.

The 2013 permit carried forward the limitations and monitoring requirement as the permittee reported excursions of *E. coli* bacteria limitations between 2007 and 2013. A review of the *E. coli* bacteria data as reported on the monthly DMRs submitted to the Department for the period January 2015 – January 2018 indicates values have been reported as follows:

E. coli. bacteria (DMRs = 37)

| Value | Limit (col/100 ml) | Range (col/100 ml) | Mean (col/100 ml) |
|-----------------|-----------------------|-----------------------|----------------------|
| Monthly Average | 126 | 1 – 89 | 6 |
| Daily Maximum | 949 | 1 – 200 | 24 |

Based on the data above, has satisfactorily demonstrated to the Department through years of testing that *E. coli* bacteria test results do not exceed or have a reasonable potential to exceed the monthly average and daily maximum water quality based limits established in the previous permit. Therefore, this permit is eliminating the year-round limitations and monitoring requirements from the previous permitting action.

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

A. OUTFALL #001 - Process Waste Waters

7. Temperature – The previous permitting action contained a year-round daily maximum limitation of 100°F based on information provided by SDW in a letter to EPA dated August 30, 1999. The permit only required the permittee to monitor the effluent for temperature during the period of June 1 – September 30 of each which is the critical time of the year for the potential impact to water quality. This permitting action is carrying forward the daily maximum limit at 100°F as being representative of the current discharge temperature.

A review of the monthly DMR data for temperature for the period January 2015 – January 2018 indicates values have been reported as follows;

Temperature (DMRs = 9)

| Value | Limit (°F) | Range (°F) | Mean (°F) |
|---------------|------------|------------|-----------|
| Daily maximum | 100 | 81 - 96 | 83 |

8. Whole Effluent Toxicity (WET) & Chemical-Specific Testing: Maine law, 38 M.R.S., Sections 414-A and 420, prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. Department Rules, 06-096 CMR Chapter 530, *Surface Water Toxics Control Program*, and Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants* set forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

WET, priority pollutant and analytical chemistry testing as required by Chapter 530, is included in this permit in order to fully characterize the effluent. This permit also provides for reconsideration of effluent limits and monitoring schedules after evaluation of toxicity testing results. The monitoring schedule includes consideration of results currently on file, the nature of the wastewater, existing treatment and receiving water characteristics.

WET monitoring is required to assess and protect against impacts upon water quality and designated uses caused by the aggregate effect of the discharge on specific aquatic organisms. Acute and chronic WET tests are performed on invertebrate and vertebrate species. Priority pollutant and analytical chemistry testing is required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health AWQC as established in Chapter 584.

Chapter 530 establishes four categories of testing requirements based predominately on the chronic dilution factor. The categories are as follows:

- 1) Level I – chronic dilution factor of <20:1.
- 2) Level II – chronic dilution factor of $\geq 20:1$ but <100:1.
- 3) Level III – chronic dilution factor $\geq 100:1$ but <500:1 or >500:1 and $Q \geq 1.0$ MGD
- 4) Level IV – chronic dilution >500:1 and $Q \leq 1.0$ MGD

7. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. OUTFALL #001 - Process Waste Waters

Department rule Chapter 530 (1)(D) specifies the criteria to be used in determining the minimum monitoring frequency requirements for WET, priority pollutant and analytical chemistry testing. Based on the Chapter 530 criteria, the SDW facility falls into the Level I frequency category as the facility has a chronic dilution factor of <20:1. Chapter 530(1)(D)(1) specifies that routine screening and surveillance level testing requirements are as follows:

Screening level testing – During the period beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement.

| Level | WET Testing | Priority pollutant testing | Analytical chemistry |
|-------|-------------|----------------------------|----------------------|
| I | 4 per year | 1 per year | 4 per year |

Surveillance level testing – Beginning upon permit issuance and lasting through 24 months prior to permit expiration (Years 1, 2 & 3 of the term of the permit) and commencing again 12 months prior to permit expiration (Year 5 of the term of the permit).

| Level | WET Testing | Priority pollutant testing | Analytical chemistry |
|-------|-------------|----------------------------|----------------------|
| I | 2 per year | None required | 4 per year |

A review of the data on file with the Department indicates that to date, SDW has fulfilled the WET and chemical-specific testing requirements of the former Chapter 530.5. See **Attachment B** of this Fact Sheet for a summary of the WET test results and **Attachment C** of this Fact Sheet for a summary of the chemical-specific test dates.

Chapter 530 §(3)(E) states “*For effluent monitoring data and the variability of the pollutant in the effluent, the Department shall apply the statistical approach in Section 3.3.2 and Table 3-2 of USEPA's "Technical Support Document for Water Quality-Based Toxics Control" (USEPA Publication 505/2-90-001, March, 1991, EPA, Office of Water, Washington, D.C.) to data to determine whether water-quality based effluent limits must be included in a waste discharge*

WET at levels that have a reasonable potential to cause or contribute to an exceedance of water quality criteria, appropriate water quality-based limits must be established in any licensing action.”

Chapter 530 §3 states, “*In determining if effluent limits are required, the Department shall consider all information on file and effluent testing conducted during the preceding 60 months. However, testing done in the performance of a Toxicity Reduction Evaluation (TRE) approved by the Department may be excluded from such evaluations.*”

7. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. OUTFALL #001 - Process Waste Waters

WET Evaluation

On March 19, 2018, the Department conducted a statistical evaluation on the most recent 60 months of WET tests results on file at the Department. The statistical evaluation indicates the discharge from the SDW waste water treatment facility has one C-NOEL test result of 5.2% on 7/31/14 for the water flea that has a reasonable potential to exceed the critical chronic water quality threshold of 5.2% (mathematical inverse of the acute and chronic dilution factor of 19:4). Therefore, a C-NOEL limit of 5.2% is being established in this permitting action.

Chapter 530 does not establish monitoring frequencies for parameters that exceed or have a reasonable potential to exceed AWQC. Monitoring frequencies are established on case-by-case basis given the timing, severity and frequency of occurrences of the exceedances or reasonable potential to exceed applicable critical water quality thresholds. Therefore, this permitting action is making a best professional judgment to establish the monitoring frequency for the water flea at the routine surveillance level frequency of 2/Year specified in 06-096 CMR Chapter 530.

As for the brook trout, Chapter 530 §(2)(D)(3)(c) states in part that for Level I facilities “...may reduce WET and chemical testing to once per year provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedances.” Based on the results of the 3/19/18 statistical evaluation, the permittee qualifies for the testing reduction for the brook trout. As a result, this permitting action is establishing surveillance level testing as follows:

Surveillance level - Beginning upon permit issuance and lasting through 24 months prior to permit expiration (Years 1, 2 & 3 of the term of the permit) and commencing again 12 months prior to permit expiration (Year 5 of the term of the permit).

| <u>Species</u> | <u>WET Testing</u> |
|----------------|--------------------|
| Water flea | 2/Year |
| Brook trout | 1/Year |

Surveillance level tests are to be conducted in a different calendar quarter of each year.

7. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. OUTFALL #001 - Process Waste Waters

Chapter 530 §(2)(D) states:

(4) All dischargers having waived or reduced testing must file statements with the Department on or before December 31 of each year describing the following.

- (a) Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge;*
- (b) Changes in the operation of the treatment works that may increase the toxicity of the discharge; and*
- (c) Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge.*

Special Condition I, 06-096 CMR 530(2)(D)(4) *Statement For Reduced/Waived Toxics Testing* of this permitting action requires the permittee to file an annual certification with the Department.

Screening level - During the period beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement.

| <u>Species</u> | <u>WET Testing</u> |
|----------------|--------------------|
| Water flea | 1/Quarter |
| Brook trout | 1/Quarter |

Analytical chemistry & priority pollutant testing evaluation

06-096 CMR 530 §4(C), states *"The background concentration of specific chemicals must be included in all calculations using the following procedures. The Department may publish and periodically update a list of default background concentrations for specific pollutants on a regional, watershed or statewide basis. In doing so, the Department shall use data collected from reference sites that are measured at points not significantly affected by point and non-point discharges and best calculated to accurately represent ambient water quality conditions."* The Department shall use the same general methods as those in section 4(D) to determine background concentrations. For pollutants not listed by the Department, an assumed concentration of 10% of the applicable water quality criteria must be used in calculations. The Department has very limited information on the background levels of metals in the water column in the Presumpscot River. Therefore, a default background concentration of 10% of the applicable water quality criteria is being used in the calculations of this permitting action.

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

A. OUTFALL #001 - Process Waste Waters

06-096 CMR 530 4(E), states, *"In allocating assimilative capacity for toxic pollutants, the Department shall hold a portion of the total capacity in an unallocated reserve to allow for new or changed discharges and non-point source contributions. The unallocated reserve must be reviewed and restored as necessary at intervals of not more than five years. The water quality reserve must be not less than 15% of the total assimilative quantity"*.

06-096 CMR 530 §4(F) states in part *"Where there is more than one discharge into the same fresh or estuarine receiving water or watershed, the Department shall consider the cumulative effects of those discharges when determining the need for and establishment of the level of effluent limits. The Department shall calculate the total allowable discharge quantity for specific pollutants, less the water quality reserve and background concentration, necessary to achieve or maintain water quality criteria at all points of discharge, and in the entire watershed. The total allowable discharge quantity for pollutants must be allocated consistent with the following principles.* The Presumpscot River has two permitted point sources dischargers of treated waste water, the PWD Westbrook facility and SDW facility. Therefore, the watershed approach to evaluating and establishing limits for toxic pollutants is applicable.

Evaluations must be done for individual pollutants of concern in each watershed or segment to assure that water quality criteria are met at all points in the watershed and, if appropriate, within tributaries of a larger river.

The total assimilative capacity, less the water quality reserve and background concentration, may be allocated among the discharges according to the past discharge quantities for each as a percentage of the total quantity of discharges, or another comparable method appropriate for a specific situation and pollutant. Past discharges of pollutants must be determined using the average concentration discharged during the past five years and the facility's licensed flow.

The previous permit established a water quality based monthly average limit of 1.1 lbs/day based on segment allocation methodology of calculating permits as there were two facilities discharging bis (2-ethylhexyl) phthalate at that time. SDW accounted for 68.78% of the quantity discharged and the Portland Water District Westbrook facility accounted for the remaining 31.22% of the total quantity. Therefore, utilizing the segment allocation methodology, the limitation for bis (2-ethylhexyl) phthalate for SDW facility was calculated as follows:

Bis 2-ethylhexhyl phthalate

Mass limits

Mean concentration (n=1) = 6 ug/L or 0.006 mg/L

Permit flow limit = 10.0 MGD

Historical average mass = (0.006 mg/L)(8.34)(10.0 MGD) = 0.50 lbs/day

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

A. OUTFALL #001 - Process Waste Waters

The 12/26/12 statistical evaluation indicated the historical average mass of bis 2-ethylhexyl phthalate discharged by the permittee's facility was 68.78% of the bis (2-ethylhexyl) phthalate discharged by the facilities on the Presumpscot River and its tributaries. Therefore, the permittee's segment allocation for bis (2-ethylhexyl) phthalate was calculated as 68.78% of the human health assimilative capacity of the river at PWD Westbrook, the most downstream facility on the Presumpscot River. The Department has calculated a human health assimilative capacity of 1.65 lbs/day of bis 2-ethylhexyl phthalate at PWD Westbrook, the most downstream discharger on the Presumpscot River.

The human health assimilative capacity (AC) at PWD Westbrook was calculated based on 75% of the applicable AWQC (taking into consideration the 10% reduction to account for background, 15% reduction for reserve, totaling 25%), critical low flow (Harmonic mean = 511 cfs). The calculations for bis 2-ethylhexyl phthalate are as follows:

Bis 2-ethylhexyl phthalate

Human health:

Harmonic mean @ PWD Westbrook = 511 cfs or 330 MGD

AWQC = 0.8 ug/L

$0.80 \text{ ug/L}(0.75) = 0.60 \text{ ug/L}$ or 0.00060 mg/L

Human health AC = $(330 \text{ MGD})(8.34 \text{ lbs/gal})(0.0006 \text{ mg/L}) = 1.65 \text{ lbs/day}$

Therefore, the mass segment allocations for bis 2-ethylhexyl phthalate for the permittee can be calculated as follows:

Monthly average: $(\text{Chronic assimilative capacity mass})(\% \text{ of total bis discharged})$
 $(1.65 \text{ lbs/day})(0.6878) = 1.14 \text{ lbs/day}$ or **1.1 lbs/day**

Pursuant to 06-096 CMR 530 §(3)(E), on 3/19/18, the Department conducted a statistical evaluation on the most recent 60 months of SDW's chemistry data. According to the 3/19/18 statistical evaluation (Report ID #978), the only pollutant that exceeds or has a reasonable potential to exceed AWQC is bis (2-ethylhexyl) phthalate. A test result of 35 ug/L on 5/16/17 has a reasonable potential to exceed the human health (water & organisms) criteria of 0.8 ug/L. Therefore, a monthly average limitation is being established in this permit. Though there are multiple dischargers on the river, an individual allocation is being utilized to calculate the permit limit as 100% of the allocation for bis (2-ethylhexyl) phthalate is dedicated to SDW. The calculation is as follows:

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

A. OUTFALL #001 - Process Waste Waters

Bis (2-ethylhexyl) phthalate

HH AWQC (water and organisms) = 0.8 ug/L

Chronic dilution factor = 33:1

EOP concentration = [Dilution factor x 0.75 x AWQC] + [0.25 x AWQC]

EOP = [33 x 0.75 x 0.8 ug/L] + [0.25 x 0.8 ug/L] = 20 ug/L

Based on a permitted flow of 10 MGD, EOP mass limits are as follows:

Mass limitation - $\frac{(20 \text{ ug/L})(8.34)(10 \text{ MGD})}{1000} = 1.7 \text{ lbs/day}$

Therefore, this permit is establishing a monthly average mass limitation of 1.7 lbs/day. See section 8, *Anti-backsliding*, of this Fact Sheet. This permit is establishing a monitoring frequency of 2/Year which is equivalent to a routine surveillance level of monitoring for analytical chemistry.

Surveillance level testing – Beginning upon permit issuance and lasting through 24 months prior to permit expiration (Years 1, 2 & 3 of the term of the permit) and commencing again 12 months prior to permit expiration (Year 5 of the term of the permit).

| Level | Priority pollutant testing | Analytical chemistry |
|-------|----------------------------|----------------------|
| I | None required | 1 per year |

Screening level testing – During the period beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement.

| Level | Priority pollutant testing | Analytical chemistry |
|-------|----------------------------|----------------------|
| I | 1 per year | 4 per year |

As with WET testing, Special Condition I, 06-096 CMR 530(2)(D)(4) *Statement For Reduced/Waived Toxics Testing* of this permitting action requires the permittee to file an annual certification with the Department.

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

A. OUTFALL #001 - Process Waste Waters

- h. Mercury: Pursuant to Maine law, 38 M.R.S. §420 and Department rule, 06-096 CMR Chapter 519, *Interim Effluent Limitations and Controls for the Discharge of Mercury*, the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee on May 23, 2000, thereby administratively modifying WDL # W002224-5N-B-R by establishing interim monthly average and daily maximum effluent concentration limits of 4.5 parts per trillion (ppt) and 6.8 ppt, respectively, and a minimum monitoring frequency requirement of four tests per year for mercury.

Maine law 38 M.R.S., §420 1-B,(B)(1) states that a facility is not in violation of the AWQC for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413, subsection 11. A review of the Department's data base for the period September 1998 through the present (n = 64) indicates the permittee has been in compliance with the interim limits for mercury (with one exception on 7/23/03) as results have been reported as follows;

Mercury (n = 64)

| Value | Limit (ng/L) | Range (ng/L) | Mean (ng/L) |
|------------------|--------------|--------------|-------------|
| Average, Maximum | 4.5 / 6.8 | 0.13 – 8.54 | 2.1 |

Pursuant to Maine law 38, M.R.S. §420, sub-§1-B, ¶F, the Department issued a modification on February 6, 2013, to the 12/21/07 permit by reducing the monitoring frequency for mercury from 4/Year to 1/Year given the permittee has maintained at least 5 years of mercury testing data.

9. Total phosphorus—*Waste Discharge License Conditions*, 06-096 CMR 523 specifies that water quality based limits are necessary when it has been determined that a discharge has a reasonable potential to cause or contribute to an excursion above any State water quality standard including State narrative criteria.¹ In addition, 06-096 CMR 523 specifies that water quality based limits may be based upon criterion derived from a proposed State criterion, or an explicit State policy or regulation interpreting its narrative water quality criterion, supplemented with other relevant information which may include: EPA's Water Quality Standards Handbook, October 1983, risk assessment data, exposure data, information about the pollutant from the Food and Drug Administration, and current EPA criteria documents.²

¹ *Waste Discharge License Conditions*, 06-096 CMR 523(5)(d)(1)(i) (effective date January 12, 2001)

² 06-096 CMR 523(5)(d)(1)(vi)(A)

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

A. OUTFALL #001 - Process Waste Waters

USEPA's Quality Criteria for Water 1986 (Gold Book) puts forth an in-stream phosphorus concentration goal of less than 0.100 mg/L in streams or other flowing waters not discharging directly to lakes or impoundments, to prevent nuisance algal growth. The use of the 0.100 mg/L Gold Book goal is consistent with the requirements of 06-096 CMR 523 noted above for use in a reasonable potential (RP) calculation.

Based on the above rationale, the Department has chosen to utilize the Gold Book goal of 0.100 mg/L. It is the Department's intent to continue to make determinations of actual attainment or impairment based upon environmental response indicators from specific water bodies. The use of the Gold Book goal of 0.100 mg/L for use in the RP calculation will enable the Department to establish water quality based limits in a manner that is reasonable and that appropriately establishes the potential for impairment, while providing an opportunity to acquire environmental response indicator data, numeric nutrient indicator data, and facility data as needed to refine the establishment of site-specific water quality-based limits for phosphorus. Therefore, this permit may be reopened during the term of the permit to modify any reasonable potential calculation, phosphorus limits, or monitoring requirements based on site-specific data.

For the background concentration in the Presumpscot River just upstream of the S.D. Warren (SDW) paper mill discharge, the Department utilized 0.017 mg/L based on ambient water quality monitoring conducted during the summer of 2014 and is being utilized as a background value in reasonable potential calculations in the development of this permit.

As for effluent concentration, this Fact Sheet is utilizing a mean effluent concentration of 2.6 mg/L for PWD and 0.2 mg/L for SDW based on data collected by the permittee during the summer of 2014. The statistical evaluation is taking into consideration both discharges due to their close proximity to each other.

Using the following calculation and criteria, the PWD Westbrook facility does not exceed or have a reasonable potential to exceed EPA's Gold Book value of 0.100 mg/L but does have a reasonable potential to exceed the Department's 06-096 CMR Chapter 583 draft criteria of 0.033 mg/L for Class C waters. The calculations are as follows:

$$Cr = \frac{QeCe + QsCs}{Qr}$$

| | | |
|--|---|-------------------|
| Qe = PWD effluent flow i.e. facility design flow | = | 4.54 MGD |
| Ce = PWD effluent pollutant concentration | = | 2.6 mg/L (2014) |
| Qe = SDW effluent flow i.e. facility design flow | = | 10.0 MGD |
| Ce = SDW effluent pollutant concentration | = | 0.2 mg/L (2014) |
| Qs = 7Q10 flow of receiving water | = | 194 MGD (300 cfs) |
| Cs = upstream concentration | = | 0.017 mg/L (2014) |
| Qr = receiving water flow | = | 195.5 MGD |
| Cr = receiving water concentration | = | ? |

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

A. OUTFALL #001 - Process Waste Waters

$$\text{Cr} = \frac{(4.54 \text{ MGD} \times 2.6 \text{ mg/L}) + (10 \text{ MGD} \times 0.2 \text{ mg/L}) + (194 \text{ MGD} \times 0.017 \text{ mg/L})}{208.5 \text{ MGD}} = 0.082 \text{ mg/L}$$

$$\text{Cr} = 0.082 \text{ mg/L} < 0.100 \text{ mg/L} \Rightarrow \text{No reasonable potential}$$

$$\text{Cr} = 0.082 \text{ mg/L} > 0.033 \text{ mg/L} \Rightarrow \text{Yes reasonable potential}$$

Given the level of phosphorus discharge from the SDW facility is 150 times lower than PWD facility, this permit is not requiring a phosphorus monitoring requirement for SDW. It is noted the MEPDES permit for the PWD facility was reissued in calendar year 2017 with a monitoring requirement for total phosphorus.

B. OUTFALL #002 (Filter Backwash)

- 1) Flow - The previous permitting action contained a daily maximum flow limit of 2.5 MGD that is being carried forward in this permitting action. A review of the monthly DMRs submitted to the Department for the period January 2015 – January 2018 indicates values have been reported as follows:

Flow (DMRs = 37)

| Value | Limit (MGD) | Range (MGD) | Mean (MGD) |
|---------------|-------------|-------------|------------|
| Daily maximum | 2.5 | 2.5 – 2.5 | 2.5 |

- 2) Total Suspended Solids – The previous permitting action contained monthly average and daily maximum concentration limits of report only, that are being carried forward in this permitting action and are considered a Department best practicable treatment determination for such a discharge. A review of the monthly DMRs submitted to the Department for the period January 2015 – January 2018 indicates values have been reported as follows:

TSS (DMRs = 37)

| Value | Limit (mg/L) | Range (mg/L) | Mean (mg/L) |
|-----------------|--------------|--------------|-------------|
| Monthly average | 20 | 0.07 – 18 | 2.8 |
| Daily maximum | 60 | 0.07 – 30 | 3.2 |

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

B. OUTFALL #002 (Filter Backwash)

- 3) Total Residual Chlorine (TRC) – The previous permitting action contained a water quality based daily maximum concentration limit of 1.33 mg/L as a result of statistical evaluation of the TRC data reported in the 10/97 NPDES permit application indicated that the discharge had a reasonable potential to exceed acute and chronic AWQC. However, because the discharge is an intermittent discharge, it was evaluated and limited based on acute conditions. A daily maximum limitation of 1.33 mg/L was established based on a dilution factor of 70:1 and the acute AWQC for chlorine of 19 ug/L. The dilution factor was derived using a discharge flow of 2.5 MGD and a receiving water flow of 176 MGD. (1Q10 = 300 cfs or 194 MGD minus the process water withdrawal of 18.0 MGD equals 176 MGD).

A review of the monthly DMRs submitted to the Department for the period January 2015 – January 2018 indicates values have been reported as follows:

TRC (DMRs = 37)

| Value | Limit (mg/L) | Range (mg/L) | Mean (mg/L) |
|---------------|--------------|--------------|-------------|
| Daily maximum | 1.33 | 0.41 – 1.3 | 0.9 |

- 4) pH - The pH range of 5.0 - 9.0 standard units (SU) in the previous permitting action is being carried forward in this permitting action and remains representative of the discharge. A review of the monthly DMRs submitted to the Department for the period January 2015 – January 2018 indicates values have been reported as follows:

pH (DMRs = 37)

| Value | Limit (su) | Minimum (su) | Maximum (su) |
|-------|------------|--------------|--------------|
| Range | 5.0 – 9.0 | 6.1 | 8.0 |

C. OUTFALL #003 (Non-contact Cooling Water)

- 1) Flow - The previous permitting action contained a daily maximum flow limitation of 12.0 MGD and a reporting requirement for the monthly average flow. The daily maximum flow limitation and the monthly average reporting requirement are being carried forward in this permitting action as they remain representative of the discharge.

A review of the monthly DMRs submitted to the Department for the period January 2015 – January 2018 indicates values have been reported as follows:

Flow (DMRs = 37)

| Value | Limit (MGD) | Range (MGD) | Mean (MGD) |
|-----------------|-------------|-------------|------------|
| Monthly average | 12.0 | 3.5 – 8.4 | 5.9 |
| Daily maximum | Report | 5.1 – 11.9 | 8.3 |

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

C. OUTFALL #003 (Non-contact Cooling Water)

- 2) Temperature – The previous permitting action contained a daily maximum temperature limit of 110°F. The limitation is being carried forward in this permit and is considered representative of the discharge.

A review of the monthly DMR data for temperature for the period January 2015 – January 2018 indicates values have been reported as follows:

Temperature (DMRs = 37)

| Value | Limit (°F) | Range (°F) | Mean (°F) |
|---------------|------------|------------|-----------|
| Daily maximum | 110 | 79 - 97 | 88 |

- 3) pH - The pH range of 5.0 - 9.0 standard units (SU) in the previous permitting action is being carried forward in this permitting action and remains representative of the discharge. A review of the monthly DMRs submitted to the Department for the period January 2009 – December 2011 indicates values have been reported as follows:

pH (DMRs = 37)

| Value | Limit (su) | Minimum (su) | Maximum (su) |
|-------|------------|--------------|--------------|
| Range | 5.0 – 9.0 | 6.0 | 7.8 |

D. OUTFALL #0TL – Thermal Load

1. Thermal Load - Weekly average and daily maximum thermal load limitations in the June 3, 2013 permitting action were derived based on a methodology established in a statute promulgated in June of 1995 but has since been repealed. As a point of clarification, the limits apply to the total thermal load associated with Outfall #001 plus Outfall #003. A thermal mixing zone was established in May of 1996 as the thermal load discharged from the mill exceeded (and still does) the assimilative capacity of the Presumpscot River a 7Q10 low flow conditions (300 cfs). The assimilative capacity of the river can be calculated as follows:

$$(300 \text{ cfs})(0.6464 \frac{\text{MGD}}{\text{cfs}}) = 194 \text{ MGD or } 194,000,000 \text{ gallons}$$

$$(194,000,000 \text{ gallons})(8.34 \frac{\text{lbs}}{\text{gal}})(0.5 \text{ } ^\circ\text{F}) = 8.090 \times 10^8 \text{ BTU/day}$$

On May 17, 1996, the Department's issued a WDL establishing the formal thermal mixing zone beginning at Outfall #003 (upstream of Outfall #001) and extending downstream approximately 6.5 miles to the former Smelt Hill Dam. The thermal load limitations at that time were derived in accordance with the criterion established in an emergency legislative action of June 1995, Public Law 1995, Chapter 312, An Act to Establish Temperature Limits For Certain Existing Discharges.

7. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

D. OUTFALL #0TL – Thermal Load

The previous permitting action also contained Special Condition F, *Thermal Mixing Zone*, which in part required SDW to conduct annual continuous in-stream temperature monitoring to assess the impact of the mill's thermal discharge on the receiving water and to accurately define the physical extent of the mixing zone established in the license.

During the summer of 1999, SDW conducted continuous in-stream temperature monitoring to assess the impact of the mill's thermal discharge on the receiving water and to accurately define the physical extent of the mixing zone established in the license.

On March 23, 2000, the Department issued a letter to SDW stating that it had reviewed the temperature information collected and made the determination that the mixing zone established in the 1996 license was necessary and its physical extent down to the former Smelt Hill Dam was appropriate.

Maine law, 38 M.R.S., §464(4)(I) (since repealed) required the Department to establish the thermal limits in permitting actions such that the quantity of heat discharged during a 7-day period may not exceed the maximum heat discharged in any 7-day period between January 1, 1989 and January 11, 1995 and that the amount of heat discharged on any single day may not exceed 1.15 times the maximum 7-day average. The 7-day maximum quantity of heat discharged must protect existing uses. Based on this criterion, the Department established the original weekly average thermal load limit of 4.881×10^9 BTU's/day and a daily maximum limitation of 5.613×10^9 BTU's/Day in the 7/7/98 WDL. In the 7/7/02 MEPDES permit modification/renewal, the Department reduced the weekly average thermal load limit to 3.517×10^9 BTU's/day (based on data from 7/6/98 – 7/12/98) and a daily maximum limitation of 4.04×10^9 BTU's/Day.

In keeping with the methodology/criteria established in the repealed statute, SDW provided the Department with updated thermal loadings for June 1 –September 30 beginning June 2002 through September 2006. The highest 7-day thermal load of 2.325×10^9 BTU's/Day (8/20/05-8/26/05) was multiplied by a factor of 1.15 which yields a daily maximum thermal load of 2.674×10^9 BTU's/Day which was established in the previous permit (12/21/07). However, SDW indicated in a letter dated October 19, 2007, that it was investigating the possibility of converting the No. 3 recovery boiler (currently mothballed) into a solid fuel boiler to burn a biomass product (carbon-neutral fuel). The conversion and restarting of the boiler would require maintaining the same thermal limits as the 7/7/98 WDL. The permittee requested 12-18 months to investigate the potential reuse of the boiler. The Department granted the permittee's request and as a result, established two tiers of thermal load limits in the 12/21/07 permit. Beginning June 1, 2008 and lasting through September 30, 2008, the permittee was limited to a weekly average thermal load of 3.517 BTUs/day and a daily

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

D. OUTFALL #0TL – Thermal Load

maximum thermal load of 4.04 BTUs/day. Unless the permittee presented a firm proposal to the Department to restart the No.3 recovery boiler, beginning June 1, 2009, the weekly average thermal load limitation would be reduced to 2.325 BTUs/day and the daily maximum thermal load would be reduced to 2.674 BTUs/day. The boiler project was never realized. Therefore, the thermal discharge limits were 2.325 BTUs/day as a weekly average and 2.674 BTUs/day as a daily maximum.

In a letter dated March 19, 2013, the permittee stated that the thermal loadings cited above do not reflect normal operating conditions at the mill complex. During this timeframe, the New England Energy market experienced a significant decline in electrical demand due to a recession in the US economy resulting in lower than normal thermal discharges. The permittee has requested the thermal load limitations from the previous permitting action be carried forward in this permit as they are representative of the facility at full operating conditions. The Department granted said request and carried forward the monthly average and daily maximum limits in the permit renewal issued on June 3, 2013.

A review of the monthly DMR data for temperature for the period June 2015 – September 2017 indicates values have been reported as follows;

Thermal loading (DMRs = 12)

| Value | Limit (10 ⁹ BTU/day) | Range (10 ⁹ BTU/day) | Mean (10 ⁹ BTU/day) |
|----------------|------------------------------------|------------------------------------|-----------------------------------|
| Weekly Average | 2.325 | 0.5 – 2.78 | 1.34 |
| Daily maximum | 2.674 | 0.6 – 3.17 | 1.55 |

The permittee has been seasonally (June 1 – September 30) monitoring upstream river temperatures and flows as well as discharge temperatures and flows since the calendar year 2000. In addition, the permittee has been calculating the daily thermal impact to the receiving caused by the thermal discharge to the river.

As an exhibit to its application for permit renewal, SDW submitted an analysis of the thermal data collected during the summers of 2013 – 2017. The data for the most current permit term (2013-2017) is included in the application for permit renewal. The data indicates there has been a 57% decrease in the average thermal discharge from Outfalls #001 and Outfall #003 from the 2007-2011 period to the 2013 – 2017 period. The highest 7-day rolling average temperature for said period is 2.77×10^9 BTU's/day, indicating the limitations established in the previous permit remain representative of the discharge. The permittee also made reference to its 2012 Thermal Load Reduction Feasibility Analysis Report in which alternatives were evaluated to reduce the heat rejected to the river. In today's dollars, construction of cooling towers for Outfall #001 (\$2,200,000 – \$3,100,00) and Outfall #003 (\$4,000,00 - \$5,800,000) total \$6,200,000 - \$8,900,000. SDW's cost/benefit analysis indicates the investment in cooling

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

D. OUTFALL #0TL -- Thermal Load

towers is not prudent given the downstream temperature will be reduced to less than 66°F a total of less than one day per year during the summer permit period compared to the current condition. Therefore, the thermal load limitations and the mixing zone are being carried forward in this permitting action.

2. 316(b) Cooling water intake structures - Section 316(b) of the Clean Water Act mandates the NPDES permits ensure the location, design, construction and capacity of cooling water intake structures reflect the best technology available to minimize adverse environmental impacts. Such impacts include death or injury to aquatic organisms by impingement (being pinned against screens or other parts of a cooling water intake structure) or entrainment (being drawn into cooling water systems and subjected to thermal, physical or chemical stresses).

Although an NPDES permit for a facility with regulated discharges would typically also need to include requirements under CWA § 316(b) for any associated cooling water intake structures (CWISs), Maine DEP's permits are not required to do so under the CWA because Maine DEP has not yet been authorized to administer CWA § 316(b). In 2001, EPA Region 1 authorized the Maine DEP to administer the NPDES permit program, except for the permitting of CWISs under CWA § 316(b). Because the state had not yet adopted legislation or regulations to implement CWA § 316(b) at the time of the Region's approval, Region 1 approved Maine's NPDES program on a partial, phased basis pursuant to CWA § 402(n)(4). Until this remaining portion of NPDES authorization is complete, Region 1 is responsible for making NPDES permitting determinations under CWA § 316(b), including where CWA § 316(b) applies and, in the situations where it applies, the resultant permit conditions. Until the state is authorized to implement CWA § 316(b), Maine DEP issues NPDES permits addressing all issues other than § 316(b) and Region 1 is responsible for issuing supplemental permits to address CWISs under § 316(b), if § 316(b) is applicable. Although, it might be ideal to have the state and Region 1 issue such permits jointly or simultaneously, accomplishing this would be very difficult administratively and would slow down permit updating effort overall. Furthermore, there is no expressed or implied legal requirement that the permits be issued jointly or simultaneously, and neither Region 1 nor Maine ever indicated that the permits would be handled in this manner.

8. ANTI-BACKSLIDING

Federal regulation 40 CFR, §122(l) contains the criteria for what is often referred to as the anti-backsliding provisions of the Federal Water Pollution Control Act (Clean Water Act). In general, the regulation states that except for provisions specified in the regulation, effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards or conditions in the previous permit. Applicable exceptions include (1) material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation and (2) information is available which was not available at the time of the permit issuance (other than revised regulations, guidance or test methods) and which would justify the application of less stringent effluent limitations at the time of permit issuance.

8. ANTI-BACKSLIDING (cont'd)

This permitting action is increasing the monthly average water quality based mass limitation for bis (2-ethylhexyl) phthalate based on a statistical evaluation of the most current 60 months of test results pursuant to 06-096 CMR Chapter 530. The Department has made the determination that increasing the limitation is based on new information that was not available at the time of the previous permitting action.

9. ANTI-DEGRADATION - IMPACT ON RECEIVING WATER QUALITY

Maine's anti-degradation policy is included in 38 M.R.S. Section 464(4)(F) and addressed in the *Conclusions* section of this permit. Pursuant to the policy, where a new or increased discharge is proposed, the Department shall determine whether the discharge will result in a significant lowering of existing water quality. Increased discharge means a discharge that would add one or more new pollutants to an existing effluent, increase existing levels of pollutants in an effluent, or cause an effluent to exceed one or more of its current licensed discharge flow or effluent limits, after the application of applicable best practicable treatment technology.

As permitted, the Department has determined that with an increase in the monthly average water quality based limitation for bis (2-ethylhexyl) phthalate, the existing and designated water uses will be maintained and protected and the discharge will not cause or contribute to the failure of the Presumpscot River to meet standards for Class C classification.

10. PUBLIC COMMENTS

Public notice of this application was made in the Portland Press Herald newspaper on or about May 21, 2018. The Department receives public comments on an application until the date a final agency action is taken on that application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

11. DEPARTMENT CONTACTS

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

Gregg Wood
Department of Environmental Protection
Bureau of Water Quality
Division of Water Quality Management
State House Station #17
Augusta, ME. 04333
E-mail: gregg.wood@maine.gov

12. RESPONSE TO COMMENTS

During the period June 5, 2018, through the issuance date of the permit/license, the Department solicited comments on the proposed draft permit/license to be issued for the discharge(s) from the permittee's facility. The Department received written comments on the draft permit from the Friends of Casco Bay in an electronic mail message dated July 5, 2018. Therefore, the Department has prepared responses to the comments as follows.

Comment #1: Thermal Discharge - The commenter asked if the permittee should be required to conduct studies designed to identify best available technology designed to reduce or eliminate the impacts of thermal pollution?

Response #1: - Special Condition G, *Thermal Mixing Zone*, of the permit is designed to do exactly what the commenter is suggesting. Special Condition G requires the permittee to submit an updated report that summarizes a literature search and cost/benefit analysis evaluating new technologies or process control measures currently available to reduce the heat load to the Presumpscot River with the goal to reduce or eliminate the formal mixing zone. The report is required to be submitted as an exhibit to the application for the next permit renewal.

Comment #2 – 316B (Intake structures) – The commenter states that Section 316(b) of the Clean Water Act mandates the NPDES permits ensure the location, design, construction and capacity of cooling water intake structures reflect the best technology available to minimize adverse environmental impacts. Such impacts include death or injury to aquatic organisms by impingement (being pinned against screens or other parts of a cooling water intake structure) or entrainment (being drawn into cooling water systems and subjected to thermal, physical or chemical stresses).

The commenter requests that the Fact Sheet reflect the current delineation of authority between the EPA and DEP with respect to cooling waters and any imminent actions to transfer authority from the EPA to DEP.

Response #2 - Although an NPDES permit for a facility with regulated discharges would typically also need to include requirements under CWA § 316(b) for any associated cooling water intake structures (CWISs), Maine DEP's permits are not required to do so under the CWA because Maine DEP has not yet been authorized to administer CWA § 316(b). In 2001, EPA Region 1 authorized the Maine DEP to administer the NPDES permit program, except for the permitting of CWISs under CWA § 316(b). Because the state had not yet adopted legislation or regulations to implement CWA § 316(b) at the time of the Region's approval, Region 1 approved Maine's NPDES program on a partial, phased basis pursuant to CWA § 402(n)(4). Until this remaining portion of NPDES authorization is complete, Region 1 is responsible for making NPDES permitting determinations under CWA § 316(b), including where CWA § 316(b) applies and, in the situations where it applies, the resultant permit conditions. Until the state is authorized to implement CWA § 316(b), Maine DEP issues NPDES permits addressing all issues other than § 316(b) and Region 1 is responsible for issuing supplemental permits to address CWISs under § 316(b), if § 316(b) is applicable. Although, it might be ideal to have the state and Region 1 issue such permits jointly or simultaneously, accomplishing this would be very difficult administratively and would slow down permit updating effort overall. Furthermore, there is no expressed or implied legal requirement that the permits be issued jointly or simultaneously, and neither Region 1 nor Maine ever indicated that the permits would be handled in this manner.

12. RESPONSE TO COMMENTS (cont'd)

Comment #3 – Production - This section explains that total paper production at the mill, corrected for moisture and operating days, may be as high as 200 tons/day. The permit therefore sets BOD and TSS limits at that level. *Draft Fact Sheet at 2/28*. Could the Fact Sheet contain more detail including the actual or mean average paper production at the facility and an explanation regarding why setting the limits at 200 tons/day, when the mill may not operate at that level, is protective of water quality? If that limit is not protective of water quality during periods of typical mill operation, the permit should be revised.

Response #3 – All MEPDES permits are written with limitations based on an evaluation of worse case conditions. In this particular case, 200 tons/day of production is the maximum production that the facility anticipates realizing during the five-year term of the permit. In addition, pursuant to Maine law, 38 M.R.S. §464(4) states, “Except as otherwise provided in this paragraph, for the purpose of computing whether a discharge will violate the classification of any river or stream, the assimilative capacity of the river or stream must be computed using the minimum 7-day low flow which can be expected to occur with a frequency of once in 10 years. The department may use a different flow rate only for those toxic substances regulated under section 420. To use a different flow rate, the department must find that the flow rate is consistent with the risk being addressed.”

Therefore, the Department’s Bureau of Water Quality, Division of Environmental Assessment evaluated the discharge at full production and 7Q10 conditions and determined all water quality standards will be achieved under these worse case conditions. Therefore, the discharge from any level of production \leq 200 tons/day will attain water quality standards also.

Comment #4 – Temperature - This section, pertaining to temperature from Outfall #1, could also contain more detail. It relies upon information in a 1999 letter from the permittee to EPA to set a maximum limit on temperature. Due to climate change, as a general rule, the ambient temperatures of receiving waters have risen. What, if any, studies of the receiving water body have been conducted since 1999 to ensure that thermal discharges from the mill are not degrading water quality? Is the season of June 1- September 30 still the “critical time of year?” We suspect the season may need to be extended by a month or two.

Response #4 – The permittee has been seasonally (June 1 – September 30) monitoring upstream river temperatures and flows as well as discharge temperatures and flows since the calendar year 2000. In addition, the permittee has been calculating the daily thermal impact to the receiving caused by the thermal discharge to the river. The data for the most current permit term (2013-2017) is included in the application for permit renewal. The data indicates there has been a 57% decrease in the average thermal discharge from Outfalls #001 and Outfall #003 from the 2007-2011 period to the 2013 – 2017 period. As a result, a reduction in the thermal loading is viewed as an improvement in water quality not a degradation.

As for extending the thermal load limitations into October and November, the historical data indicates upstream river temperatures tend to drop off below the critical threshold in Department rule Chapter 584 after mid-September. Therefore, extending the season for thermal load limitations is not warranted.

12. RESPONSE TO COMMENTS (cont'd)

Comment #5 – Bis 2–ethylhexyl phthalate - The analysis in this section of the Fact Sheet appears to be based on general methodology set forth in 06-096 CMR 530§(3)(E). Given the toxic nature of these chemicals and the evolving state of knowledge regarding their impacts on aquatic organisms and the marine environment, has the Department conducted any studies regarding the impacts of these discharges on the organisms that reside in the receiving water? Moreover, does the Department have any data that shows the amount of phthalates that might reach Casco Bay? What studies or guidance document is the Department relying upon to set the human health assimilative capacity?

Response #5 – The Department has conducted studies regarding impacts of these discharges on organisms that reside in the Presumpscot River. The Department has three biomonitoring stations below the discharges from the SDW facility and the City of Westbrook's waste water treatment facility. The results are as follows:

| Station | Miles below dischargers | Receiving water classification | Year sampled | Attain standards? | Classification attained |
|---------|-------------------------|--------------------------------|--------------|-------------------|-------------------------|
| #456 | 0.3 miles | C | 2000 | Y | B |
| #72 | 1.5 miles | C | 2015 | Y | B |
| #802 | 4.5 miles | C | 2005 | Y | B |

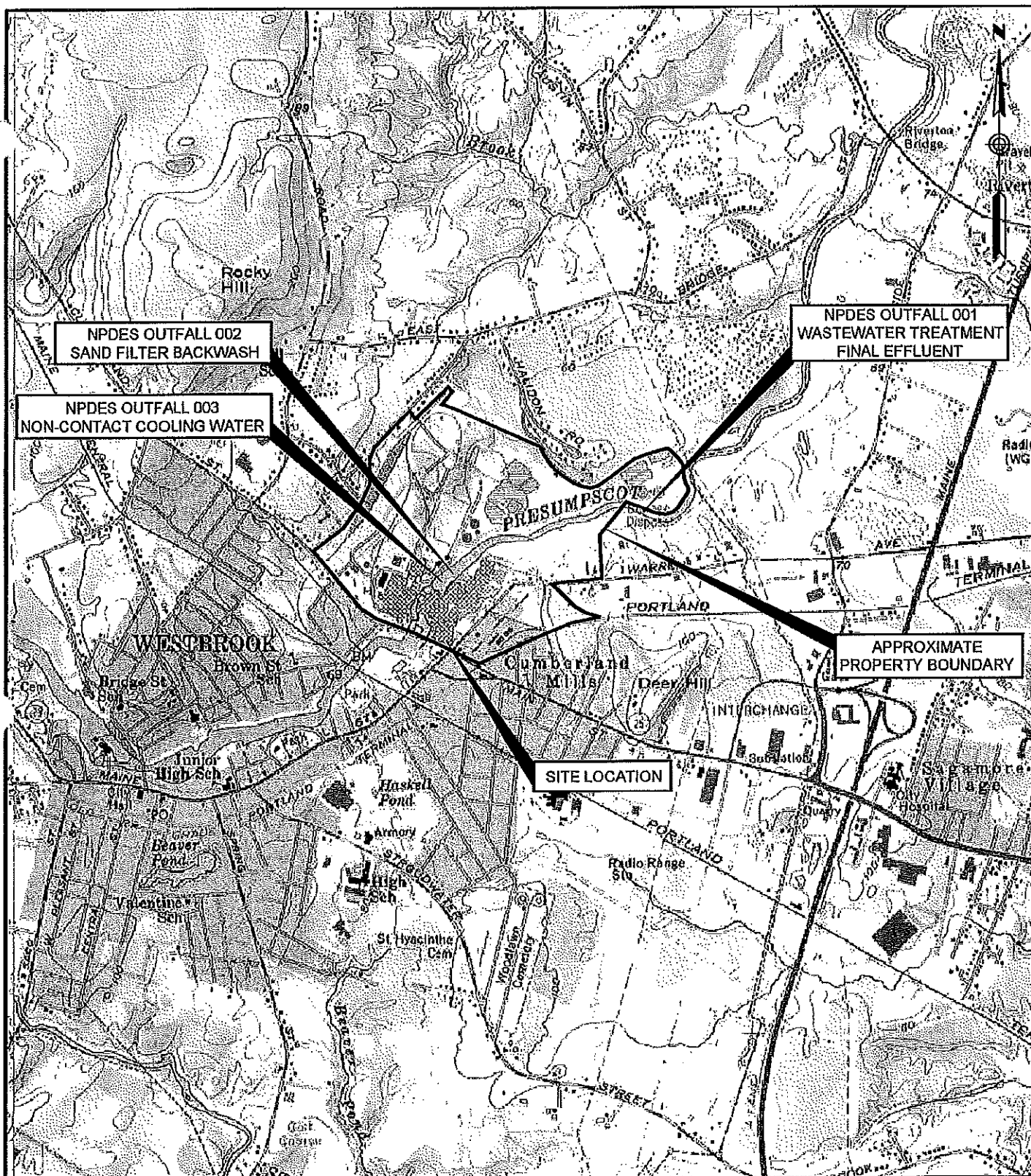
The Department relies on 06-096 CMR 584, *Surface Water Quality Criteria for Toxic Pollutants* (November 2005) to set the human health assimilative capacity. Chapter 584 establishes human health (water & organisms) ambient water quality criteria of 0.8 ug/L for bis 2–ethylhexyl phthalate. With a harmonic mean receiving water flow of 511 cfs (330 MGD), the human health assimilative capacity is calculated as follows:

$$\frac{(330 \text{ MGD})(0.8 \text{ ug/L})(8.34 \text{ lbs/gal})}{(1,000 \text{ ug/mg})} = 2.2 \text{ lbs/day}$$

Comment #6 – Outfall #003 - Please see our above comments regarding this subject. In addition, the Department relies upon a 2012 report to set thermal limits. May we please receive a copy of the 2012 report referenced in the Fact Sheet.

Response #6 – On Monday, July 9, 2018, the Department provided the commenter with the 2012 report referred to in the comment above.

ATTACHMENT A



SOURCE: TOPOI ©2001 National Geographic Holdings, Inc.

2000' 0 2000' 4000'

BAR SCALE

1" = 2000'

CHECK GRAPHIC SCALE BEFORE USING



41 HUTCHINS DRIVE
PORTLAND, MAINE 04102
800.426.4292 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

SITE LOCATION MAP

DESIGNED BY: PFF
DRAWN BY: PFF

CHECKED BY: KLT
22539101U1.dwg

S.D. WARREN
WESTBROOK, MAINE

MEPDES PERMIT RENEWAL

JOB NO: 225391.01
DATE: DECEMBER 2012
SCALE: AS NOTED

FIGURE 1

ATTACHMENT B

3/19/2018

WET TEST REPORT

Data for tests conducted for the period

19/Mar/2013 - 19/Mar/2018



SAPPI (WESTBROOK)

NPDES= ME000232

Effluent Limit: Acute (%) = 5.293

Chronic (%) = 5.293

| Species | Test | Percent | Sample date | Critical % | Exception | RP |
|------------|--------|---------|-------------|------------|-----------|----|
| TROUT | A_NOEL | 100 | 07/31/2014 | 5.293 | | |
| TROUT | A_NOEL | 100 | 06/17/2015 | 5.293 | | |
| TROUT | A_NOEL | 100 | 06/16/2016 | 5.293 | | |
| TROUT | A_NOEL | 100 | 09/13/2016 | 5.293 | | |
| TROUT | A_NOEL | 100 | 11/30/2016 | 5.293 | | |
| TROUT | A_NOEL | 100 | 05/16/2017 | 5.293 | | |
| TROUT | C_NOEL | 100 | 07/31/2014 | 5.293 | | |
| TROUT | C_NOEL | 100 | 06/17/2015 | 5.293 | | |
| TROUT | C_NOEL | 100 | 06/16/2016 | 5.293 | | |
| TROUT | C_NOEL | 100 | 09/13/2016 | 5.293 | | |
| TROUT | C_NOEL | 100 | 11/30/2016 | 5.293 | | |
| TROUT | C_NOEL | 100 | 05/16/2017 | 5.293 | | |
| WATER FLEA | A_NOEL | 100 | 07/31/2014 | 5.293 | | |
| WATER FLEA | A_NOEL | 100 | 06/17/2015 | 5.293 | | |
| WATER FLEA | A_NOEL | 100 | 06/16/2016 | 5.293 | | |
| WATER FLEA | A_NOEL | 100 | 09/13/2016 | 5.293 | | |
| WATER FLEA | A_NOEL | 100 | 11/30/2016 | 5.293 | | |
| WATER FLEA | A_NOEL | 100 | 05/16/2017 | 5.293 | | |
| WATER FLEA | C_NOEL | 5.15 | 07/31/2014 | 5.293 | Y | |
| WATER FLEA | C_NOEL | 100 | 06/17/2015 | 5.293 | | |
| WATER FLEA | C_NOEL | 100 | 06/16/2016 | 5.293 | | |
| WATER FLEA | C_NOEL | 100 | 09/13/2016 | 5.293 | | |
| WATER FLEA | C_NOEL | 100 | 11/30/2016 | 5.293 | | |
| WATER FLEA | C_NOEL | 100 | 05/16/2017 | 5.293 | | |

ATTACHMENT C

4/27/2018

PRIORITY POLLUTANT DATA SUMMARY

Date Range: 27/Apr/2013 - 27/Apr/2018

Facility Name: **SAPPI (WESTBROOK)**NPDES: **ME0002321**

| Test Date | Monthly (Flow MGD) | Daily | Total Test Number | Test # By Group | | | | | | Clean | Hg |
|------------|-----------------------|-------|----------------------|-----------------|----|----|----|----|----|-------|----|
| | | | | M | V | BN | P | O | A | | |
| 11/06/2013 | 4.21 | 4.31 | 22 | 10 | 0 | 1 | 0 | 11 | 0 | F | 0 |
| 07/31/2014 | 4.54 | 4.41 | 22 | 10 | 0 | 1 | 0 | 11 | 0 | F | 0 |
| 06/17/2015 | 3.57 | 3.21 | 22 | 10 | 0 | 1 | 0 | 11 | 0 | F | 0 |
| 06/16/2016 | 0.04 | 0.06 | 133 | 13 | 28 | 46 | 25 | 10 | 11 | F | 0 |
| 09/13/2016 | 4.00 | 4.50 | 19 | 9 | 0 | 0 | 0 | 10 | 0 | F | 0 |
| 11/30/2016 | 2.79 | 3.12 | 19 | 9 | 0 | 0 | 0 | 10 | 0 | F | 0 |
| 05/16/2017 | 2.76 | 3.09 | 20 | 9 | 0 | 1 | 0 | 10 | 0 | F | 0 |
| 03/14/2018 | 3.19 | 3.27 | 20 | 9 | 0 | 1 | 0 | 10 | 0 | F | 0 |

Key:

A = Acid O = Others P = Pesticides
 BN = Base Neutral M = Metals V = Volatiles

ATTACHMENT D

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAPTER 530.2(D)(4) CERTIFICATION

MEPDES# _____ Facility Name _____

| Since the effective date of your permit, have there been; | | NO | YES Describe in comments section |
|---|---|--------------------------|--|
| 1 | Increases in the number, types, and flows of industrial, commercial, or domestic discharges to the facility that in the judgment of the Department may cause the receiving water to become toxic? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 | Changes in the condition or operations of the facility that may increase the toxicity of the discharge? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 | Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 | Increases in the type or volume of hauled wastes accepted by the facility? | <input type="checkbox"/> | <input type="checkbox"/> |

COMMENTS:

Name (printed): _____

Signature: _____ Date: _____

This document must be signed by the permittee or their legal representative.

This form may be used to meet the requirements of Chapter 530.2(D)(4). This Chapter requires all dischargers having waived or reduced toxic testing to file a statement with the Department describing changes to the waste being contributed to their system as outlined above. As an alternative, the discharger may submit a signed letter containing the same information.

Scheduled Toxicity Testing for the next calendar year

| Test Conducted | 1 st Quarter | 2 nd Quarter | 3 rd Quarter | 4 th Quarter |
|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| WET Testing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Priority Pollutant Testing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Analytical Chemistry | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other toxic parameters ¹ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Please place an "X" in each of the boxes that apply to when you will be conducting any one of the three test types during the next calendar year.

¹ This only applies to parameters where testing is required at a rate less frequently than quarterly.



DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: March 2012

Contact: (207) 287-2811

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's ("DEP") Commissioner: (1) in an administrative process before the Board of Environmental Protection ("Board"); or (2) in 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 (35-A M.R.S.A. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S.A. § 480-HH(1)) or a general permit for a tidal energy demonstration project (38 M.R.S.A. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

This INFORMATION SHEET, in conjunction with a review of the statutory and regulatory provisions referred to herein, can help a person to understand his or her rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

The laws concerning the DEP's *Organization and Powers*, 38 M.R.S.A. §§ 341-D(4) & 346, the *Maine Administrative Procedure Act*, 5 M.R.S.A. § 11001, and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 CMR 2 (April 1, 2003).

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written appeal within 30 days of the date on which the Commissioner's decision was filed with the Board. Appeals filed after 30 calendar days of the date on which the Commissioner's decision was filed with the Board will be rejected.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, c/o Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017; faxes are acceptable for purposes of meeting the deadline when followed by the Board's receipt of mailed original documents within five (5) working days. Receipt on a particular day must be by 5:00 PM at DEP's offices in Augusta; materials received after 5:00 PM are not considered received until the following day. The person appealing a licensing decision must also send the DEP's Commissioner a copy of the appeal documents and if the person appealing is not the applicant in the license proceeding at issue the applicant must also be sent a copy of the appeal documents. All of the information listed in the next section must be submitted at the time the appeal is filed. Only the extraordinary circumstances described at the end of that section will justify evidence not in the DEP's record at the time of decision being added to the record for consideration by the Board as part of an appeal.

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

Appeal materials must contain the following information at the time submitted:

1. *Aggrieved Status.* The appeal must explain how the person filing the appeal has standing to maintain an appeal. This requires an explanation of how the person filing the appeal 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.* Specific references and facts regarding the appellant's issues with the decision must be provided in the notice of appeal.
3. *The basis of the objections or challenge.* If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.
5. *All the matters to be contested.* The Board will limit its consideration to those arguments specifically raised in the written notice of appeal.
6. *Request for hearing.* The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing on the appeal is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.
7. *New or additional evidence to be offered.* The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered by the Board in an appeal only when the evidence is relevant and material and that the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process or that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2.

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, made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide opportunity for photocopying materials. There is 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 your appeal.* DEP staff will provide this information on request and answer questions regarding applicable requirements.
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. A license holder may proceed with a project pending the outcome of an appeal but the license holder 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 formally acknowledge receipt of an appeal, including the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials accepted by the Board Chair as supplementary evidence, and any materials submitted in response to the appeal will be sent to Board members with a recommendation from DEP staff. Persons filing appeals and interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, a license holder, and interested persons of its decision.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court, see 38 M.R.S.A. § 346(1); 06-096 CMR 2; 5 M.R.S.A. § 11001; & 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. Failure to file a timely appeal will result in the Board's or the Commissioner's decision becoming final.

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.A. § 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's Executive Analyst at (207) 287-2452 or for judicial appeals contact the court clerk's office in which your appeal will be filed.

Note: 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.
