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MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

AND

MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: **September 18, 2002**
Revised: **October 22, 2002**

PERMIT NUMBER: **ME0101443**
LICENSE NUMBER: **W000678-5M-G-M**

NAME AND ADDRESS OF APPLICANT:

TOWN OF HARTLAND
21 Academy Street
P.O. Box 280
Hartland, ME. 04943

COUNTY: **Somerset County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

Town of Hartland Water Pollution Control Facility
162 Pittsfield Avenue
P.O. 392
Hartland, ME. 04943

RECEIVING WATER/CLASSIFICATION: **West Branch of the Sebasticook River/Class C**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Dana Cooper**
(207) 938-4675

1. APPLICATION SUMMARY

a. Application: The applicant has applied to the Department for a modification and renewal of Department Waste Discharge License (WDL) #W000678-5M-E-R which was issued on December 22, 1999 and is due to expire on December 22, 2004. The town has requested the Department modify and renew the WDL to incorporate the terms and conditions of the

1. APPLICATION SUMMARY (cont'd)

Maine Pollutant Discharge Elimination System (MEPDES) Program. The WDL authorized the discharge of up to a monthly average flow of 1.5 million gallons per day (MGD) of secondary treated sanitary and tannery process waste waters from a municipal waste water treatment facility to the West Branch of the Sebasticook River, Class C, in Hartland, Maine.

On January 12, 2001, the Department received authorization from EPA to administer the National Pollutant Discharge Elimination System (NPDES) permitting program in Maine. From this point forward, the program will be referenced as the MEPDES permit program. NPDES permit #ME0101443 last issued on October 1, 1991, will be replaced upon issuance of a final MEPDES permit. Once replaced, all terms and conditions of the NPDES become null and void.

b. Permit Summary: This permitting action is similar to the 12/22/99 WDL action in that it is;

1. Carrying forward the monthly average flow limit of 1.5 MGD.

2. Carrying forward the monthly average and daily maximum water quality based mass and concentration limits for biochemical oxygen demand (BOD_5) and total suspended solids (TSS).

3. Carrying forward the daily maximum best practicable treatment (BPT) concentration limit for settleable solids.

4. Carrying forward the monthly average and daily maximum water quality based limits for *E. coli* bacteria.

5. Carrying forward the monthly average and daily maximum BPT based limits for total residual chlorine.

6. Carrying forward the daily maximum BPT concentration limit for oil & grease.

7. Carrying forward the seasonal monthly average water quality based limits for ammonia and the year-round limits for arsenic and chromium.

8. Carrying forward the chronic no observed effect level (C-NOEL) water quality based whole effluent toxicity (WET) limits for the water flea and brook trout.

9. Carrying forward the surveillance level testing requirements for chemical specific testing.

1. APPLICATION SUMMARY (cont'd)

This permitting action is different than the 12/22/99 WDL action in that it is;

10. Revising the daily maximum BPT pH limit based on a new Department regulation.

11. Eliminated the monthly average water quality based mass and concentration limits for copper and lead based on an updated statistical evaluation of test results for said parameters.

12. Establishing a new acute – no observed effect level (A-NOEL) water quality based WET limit for the brook trout lead based on an updated statistical evaluation of WET test results.

13. Eliminating sludge testing for 2,3,78 TCDD (dioxin) and 2,3,7,8 TCDF (furan).

14. Establishing a seasonal (June 1 – September 30) monitoring requiremment for total phosphorus for calendar year 2003.

15. Establishing daily maximum mass and concentration limits for total chromium to be consistent with the limits in the previous federal NPDES permit.

c. History: The most current licensing/permitting actions include the following:

June 27, 1984 - The Department issued WDL #W000678-47-A-R for a five year term.

June 29, 1984 - The EPA issued NPDES permit #ME0101443 for the discharge from the town's waste water treatment facility.

April 19, 1985 - The EPA issued a minor modification of NPDES permit #ME0101443 which required the Town to implement an Industrial Pretreatment Program due to the significant quantity of process waste water being conveyed to the waste water treatment facility by a local tannery.

May 21, 1985 - The Department administratively modified WDL #W000678-47-A-R by correcting a typographical error for the daily maximum mass limitation for Lead.

December 10, 1986 – The Board of Environmental Protection issued Water Level Order #L-013195-36-A-N which required a minimum flow of 40 cfs from Great Moose Lake. The Order states that the 40 cfs will take precedence over other items in the Order.

April 23, 1987 - The Department issued an amendment of WDL #W000678-47-A-R which extended the period of seasonal discontinuance of disinfection from October 1 to April 15 to October 1 to May 15 of each year.

1. APPLICATION SUMMARY (cont'd)

February 9, 1990 - A Superior Court Order was issued to the Town of Hartland which ordered the town to make significant improvements to physical and process control aspects of the waste water treatment facility.

December 5, 1990 – The town received approval from the Department to receive up to 5,000 gallons per day of septage from local septage haulers provided the septage was handled in accordance with the town's septage management plan submitted to the Department.

October 1, 1991 - The EPA issued a renewal of NPDES permit #ME0101443 for the Town of Hartland for a five year term.

March 13, 1992 - The EPA issued a minor modification of NPDES permit #ME0101443 which reduced the measurement frequency for total residual chlorine and acute whole effluent toxicity (A-NOEC) testing, imposed a less stringent limit for A-NOEC whole effluent toxicity testing, revised three footnotes and removed pesticide and PCB sampling for sludge testing. As a footnote, the Department formally notified the EPA that it was waiving certification of the permit modification because the Department had not issued a decision on the Town's pending application for renewal of the WDL. In a letter of October 1, 1991 from the Department to EPA, the Department indicated the delay in issuing the license was centered around developing site specific limits for ammonia and lead.

February 8, 1995 - The Department administratively modified WDL #W000678-47-A-R by notifying the Town of their testing obligation pursuant to Department Regulation, Chapter 530.5, *Surface Water Toxics Control Program* which was adopted on October 12, 1994.

April 29, 1996 - The Town of Hartland filed a joint application with the Department and EPA to renew the State WDL and federal NPDES permit. The Department acted on the application by issuing WDL # W000678-E-R on December 22, 1999 but the EPA never acted the town's application. As a result, the Town of Hartland's most current NPDES permit was last issued on October 1, 1991.

November 4, 1996 - The Department administratively modified the February 1990 Superior Court Order by relieving the Town of their obligation to continue to test for chemical oxygen demand (COD).

December 22, 1999 - The Department issued WDL renewal #W000678-5M-E-R for a five year term.

October 16, 2000 – The Town of Hartland and the Department finalized a document entitled, Great Moose Lake Water Level Management Plan. The purpose of the plan was to explain how the Town of Hartland is to operate the Morgan Dam and monitor the lake levels and minimum flow releases to comply with the Board of Environmental Protection's December 10, 1986 water level order for Great Moose Lake. The 10/16/00

1. APPLICATION SUMMARY (cont'd)

management plan required the town to install a primary water level staff gauge on the concrete abutment wall on the south side of the dam whereby water levels are monitored and recorded 1/ Week between April 1 and September 30 and 1/2Weeks between October 1 and March 30 to ensure compliance with the water level management plan. A permanent record of all water level readings are to kept at the Town Office.

January 12, 2001 – The Department received authorization from the EPA to administer the NPDES program in Maine.

June 10, 2002 - The Town of Hartland submitted an application to the Department to modify and renew the 12/22/99 license #W000678-5M-E-R to incorporate the terms and conditions of the MEPDES program into the permit/license.

b. Source Description: The waste water treatment facility serves a population of approximately 1,300 people in the Town of Hartland. The treatment facility receives sanitary waste waters generated by residential, commercial and one significant industrial entity (Irving Tanning Company) in the Town of Hartland. The permittee has indicated that the Irving Tanning Company contributes 89% of the flow, biochemical oxygen demand and total suspended solids to the waste water treatment facility.

The sanitary sewer collection system consists of approximately twelve (12) miles of pipe with three (3) pump stations. There are no combined sewer overflow (CSO) points in the collection system. The collection system is both combined (40%) and separated (60%). The facility is authorized to receive up to 5,000 gallons per day of septage from local septage haulers.

c. Waste Water Treatment: The facility provides a secondary level of treatment via an activated sludge system. The treatment process includes a bar rack, comminutor, aerated wet well, two circular primary clarifiers, one aeration basin with coarse bubble diffused aeration, one aeration basin serving as a back-up basin, two secondary clarifiers and a chlorine contact tank. The facility does provide for dechlorination of the waste water before discharge to the receiving waters. Flow is measured via a parshall flume. See Attachment A for a schematic of the Hartland waste water treatment facility and the Irving Tanning Company pretreatment facility.

The effluent from the treatment facility is discharged to the receiving water via a high density polyethylene (HPDE) pipe measuring 14 inches in diameter with a diffuser 50 feet long. The diffuser consists of a perforated pipe with 1½ inch diameter perforations 13 inches on-center.

The facility has a plate and frame press for dewatering sludge. The sludge is disposed of in a secure landfill regulated by this Department under permit #L-003463-07-B-N.

2. CONDITIONS OF PERMITS

Maine law, 38 M.R.S.A. Section 414-A, requires that the effluent limitations prescribed for discharges require application of best practicable treatment, 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.A., Section 420, and Department Regulation Chapter 530.5, *Surface Water Toxics Control Program* requires the regulation of toxic substances at the levels set forth for Federal Water Quality Criteria as published by the U.S. Environmental Protection Agency pursuant to the Clean Water Act.

3. RECEIVING WATER STANDARDS

Maine law 38 M.R.S.A., §467(H)(2)(c) classifies the West Branch of the Sebasticook River as a Class C waterway at the point of discharge. Maine law, 38 M.R.S.A., §464(4), describes the standards for classification of Class C waterways.

4. EXISTING WATER QUALITY CONDITIONS

The 2000 State of Maine Dioxin Monitoring Report published by the Department states that smallmouth fish tissue sampling collected from the West Branch of the Sebasticook River (at the Route #2 bridge 3-4 miles below the Hartland discharge) contain concentrations of dioxin toxics equivalents (DTE) above the Department's fish monitoring threshold (FMT) and 103% of the Maine Bureau of Health's Fish Tissue Action Level for cancer (FTALc). Concentrations for 2,3,7,8 TCDD (dioxin) and DTE's in fish tissue were significantly higher at this sampling station than the reference (background) site at Great Moose Lake in years past. The report goes on to say that *"These results document a local source of dioxin to this reach of the river and most likely is the Irving Tanning discharge. Although the only sample reported (1996) showed no detectable amount of dioxin in effluent, low solubility and high bioconcentration of dioxin make effluent data less meaningful than sludge data. Sludge data from 1989 show measurable levels of TCDF (furan) but there are no newer sludge data to aid interpretation of current levels of discharge."*

Special Condition A, *Sludge Limitations and Monitoring Requirements Sludge Outfall #002*, of the previous licensing action required the Town of Hartland to monitor for 2,3,7,8-TCDD and 2,3,7,8-TCDF in the waste water treatment facility's sludge at a frequency of 1/Quarter (for one year). The sludge sampling for the four consecutive calendar quarters was considered a screening level of testing similar to the testing frequency required by the Department Regulation Chapter 530.5, *Surface Water Toxics Control Program*. The four data points were to be evaluated to determine if dioxin is presently being discharged at levels that are resulting in elevated levels of dioxin found in fish tissue downstream of the Hartland discharge.

4. EXISTING WATER QUALITY CONDITIONS (cont'd)

The Town of Hartland conducted the four sludge tests during calendar year 2000. The results have been published in Appendix #3 of the 2000 State of Maine Dioxin Monitoring Report which indicate the dioxin and furan levels are generally below 1.0 picograms/gram (pg/g) which is much lower than other facilities suspected of discharging small quantities of dioxin and furan. Given the low test results of calendar year 2000, the Department has made the determination that sludge testing is no longer necessary as a condition of this permit/license.

5. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

a. Flow – The previous licensing (12/22/99) established a monthly average flow limitation of 1.5 MGD, up from 1.2 MGD established in the 6/27/84 WDL. The flow limit of 1.5 MGD is being carried forward in this permitting action. The permittee requested the increase to accommodate anticipated increases in production at Irving Tanning. Irving Tanning currently operates 12 color wheels that process 9,000 sides per day and 12 smaller color wheels that process 9,000 splits per day. A split is the back portion of a cowhide that has been sliced into two pieces (sides and splits). The production increase has not been realized to date but the permittee has installed the necessary infrastructure to increase its sides production to approximately 11,250 per day and is awaiting favorable market conditions to proceed.

b. Dilution Factors - The Department established applicable dilution factors for the discharge in accordance with freshwater protocols established in Department Rule Chapter 530.5, *Surface Water Toxics Control Program*, October 1994. With a WDL flow limit of 1.5 MGD and a regulated flow of 40 cfs in the West Branch of the Sebasticook River (pursuant to Department Water Level Order #L-013195-36-A-N) the dilution factors are as follows:

Acute: 1Q10 = 40 cfs $\Rightarrow \frac{(40\text{ cfs})(0.6464) + (1.5\text{ MGD})}{(1.5\text{ MGD})} = 18.2:1$

Chronic: 7Q10 = 40 cfs $\Rightarrow \frac{(40\text{ cfs})(0.6464) + (1.5\text{ MGD})}{(1.5\text{ MGD})} = 18.2:1$

Harmonic Mean: = 74.2 cfs $\Rightarrow \frac{(74.2\text{ cfs})(0.6464) + (1.5\text{ MGD})}{(1.5\text{ MGD})} = 33.0:1$

These dilution factors are being carried forward in this permitting action.

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

Since Irving Tanning contributes approximately 90% of the flow and pollutant loading to the Hartland waste water treatment facility, this Department and EPA have determined in previous licensing/permitting actions that Hartland is subject to National Effluent Guidelines found at Part 425, *Leather Tanning and Finishing Point Source Category,* Subparts D, *Retan-Wet Finish Sides Subcategory* and Subpart I, *Retan-Wet Finish Splits Subcategory.* Federal regulation, 40 CFR Part 122.44(a) requires all parameters listed in the NEG's must be limited in a permitting/licensing action. For NEG Part 425, Subparts D & I, daily maximum limits have been established for BOD_5, TSS, Oil & Grease, total chromium and pH are listed as pollutants to be regulated. Permits issued by this Department apply the NEGS limits, water quality based limits or other Department best practicable treatment standards, whichever is most stringent.

c. BOD5 – The monthly average and daily maximum water quality based mass and concentration limits in the 12/22/99 WDL are being carried forward in this permitting action. For historical purposes, the text in the previous WDL citing the background on the derivation of the limits is being incorporated into this Fact Sheet and is as follows:

The 6/27/84 licensing action established monthly average mass and concentration limits (602 lbs/day, 60 mg/L respectively) and daily maximum mass and concentration limits of 1,317 lbs/day and 132 mg/L respectively. The license also contained a Special Condition that established a sliding scale for daily maximum BOD limits as a function of receiving water flows below 40 cfs. As a point of clarification, Department Water Level Order #L-013195-36-A-N established a minimum flow of 40 cfs was not issued until January 1986. According to the April 11, 1984, Fact Sheet attached to the NPDES draft permit, both monthly average and daily mass limits were based on production between 1980 and 1984 plus a loading allocation for the residential/commercial sanitary waste water generated. It is noted that the daily maximum mass limit of 1,317 lbs/day is very close to the 1,320 lbs/day recommended in the Department's 1981 document entitled, Sebasticook River Waste Load Allocation. Both the daily maximum and monthly average concentration limits were back-calculated from the mass limitations utilizing a permitted flow of 1.2 MGD.

The September 30, 1991 NPDES permit increased the monthly average mass and concentrations for BOD to 660 lbs/day and 66 mg/L respectively. The Fact Sheet for the permit and a memorandum from the Department to EPA regarding the certification of that NPDES permit indicates that the mass limit of 660 lbs/day was established based on a waste load allocation. The concentration limit was again back-calculated based on the 660 lbs/day and a licensed flow of 1.2 MGD. As for the daily maximum mass BOD limit, EPA rounded off the 1,317 lbs/day in the previous NPDES permit to 1,320 lbs/day to be consistent with the State's waste load allocation.

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

This licensing action is carrying forward the mass and concentration limits as set forth in the Sepember 30, 1991 NPDES permit as both monthly average and mass limitations are based on water quality considerations. The sliding scale in the previous licensing action is being removed from the license and the minimum flow of 40 cfs from Great Moose Lake is a required minimum flow by Department Order #L-013195-36-A-N (January 1986). The licensee has formally requested the removal of the concentration limits based on the fact that production at the Irving Tanning facility fluctuates from month to month and that federal regulations do not require the imposition of concentration limits. The Department denies the licensee's request on the basis that appropriately derived concentration limits are a measure to ensure best practicable treatment is being instituted.

d. TSS – The monthly average and daily maximum technology based mass and concentration limits in the 12/22/99 WDL are being carried forward in this permitting action. For historical purposes, the text in the previous WDL citing the background on the derivation of the limits is being incorporated into this Fact Sheet and is as follows:

The daily maximum and monthly average mass limits of 1,887 lbs/day and 866 lbs/day respectively, for TSS in the previous licensing action (1984) were based on production at the Irving Tanning facility at that point in time. Concentration limits were established by back-calculating from the mass limits utilizing a WDL of 1.2 MGD. In the September 30, 1991 NPDES permit, the mass and concentration limits were increased proportionally to an increase in production. This licensing action is carrying forward the mass and concentration TSS limits established in the 9/30/91 NPDES permit. The licensee has formally requested the removal of the TSS concentration limits based on the same reasoning described above in the discussion on BOD limits. The Department is denying the request as it did for BOD.

e. Settleable Solids – The previous license established a daily maximum concentration 0.3 ml/L that is being carried forward in this permitting action and is considered a best practicable treatment limitation.

f. *E. Coli* bacteria - The monthly average and daily maximum limits of 142 colonies/100 ml and 949 colonies/100 ml respectively, in the previous licensing action are being carried forward in this permitting action. The limits are based on the State's Water Classification Program criteria for the receiving waters and requires application of the best practicable treatment technology.

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

g. Total Residual Chlorine (TRC) – The previous licensing action established monthly average and daily maximum best practicable treatment limits of 0.1 mg/L and 0.3 mg/L respectively that are being carried forward in this permitting action.

Limits on total residual chlorine are specified to ensure that ambient water quality standards are maintained and that best practicable treatment (BPT) technology is being applied to the discharge. The more stringent of the two limitations is established in permits. End-of-pipe water quality based concentration thresholds may be calculated as follows:

Parameter	Acute(A) Criterion	Chronic(C) Criterion	A & C Dilution Factor (A)	(C)	Thresholds Acute(1) Limit	Chronic(2) Limit
Chlorine	19 ug/L	11 ug/L	18.2:1	18.2:1	0.34 mg/L	0.20 mg/L

Footnotes:
(1) Daily maximum threshold.
(2) Monthly average threshold.

To meet the water quality based thresholds calculated above, the permittee must dechlorinate the effluent prior to discharge. The Department has established a daily maximum best practicable treatment limitation of 0.3 mg/L for facilities that need to dechlorinate their effluent unless calculated water quality based limits are lower than 0.3 mg/L. In the case of Hartland, the calculated water quality based is higher than 0.3 mg/l, thus the best practicable treatment limitation is imposed. As for the monthly average limitation, the Department's best practicable treatment limitation is 0.1 mg/L. Being that the calculated water quality based limit is higher than 0.1 mg/L, the best practicable treatment limitation is imposed.

h. Oil & Grease – The previous licensing action established a Department best practicable treatment limitation of 15 mg/L as a daily maximum limit which is being carried in this permitting action.

i. pH - The previous licensing action established a pH range limitation of 6.0 - 8.5 standard units. The limits were based on Maine Board of Environmental Protection Policy regarding the certification of NPDES permits and were considered best practicable treatment limitations. This permitting action is expanding the range limit from 6.0 – 8.5 to 6.0 –9.0 standard units pursuant to a new Department rule found at Chapter 525(3)(III)(c) and is the limit range is consistent with the range in the federal NEG's. The new limits are considered best practicable treatment.

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

j. Total phosphorus – Ambient water quality sampling conducted by the Department around the State of Maine during the last three to four years indicates that in-stream concentration of 30 ug/L to 50 ug/L [(best professional judgment (BPJ)] for total phosphorus is likely to cause or contribute to non-attainment of dissolved oxygen standards due to excessive algal growth fed by phosphorus in waterbodies, particularly Class B waterbodies. The non-attainment is usually limited to the summer months from June 1st – September 30th. Sampling of effluent from other municipally owned waste water treatment facilities around the State indicates that typical total phosphorus discharge levels range from 1.5 mg/L to 3.0 mg/L. At these levels, the chronic dilution factor would need to range from 50:1 to 100:1 to maintain an in-stream concentration at or about 30 ug/L. Being that the Hartland waste water treatment is dominated by flows and nutrient deficient process waste water from Irving Tanning, and has a chronic dilution factor of 18.2:1, this permitting action is establishing a 1/Week monitoring requirement for total phosphorus for June 1 – September 30 of calendar year 2003. The Department will evaluate the test results for the year to determine if the discharge exceeds or has a reasonable potential to exceed to 30 ug/L threshold and if limitations and or additional monitoring for total phosphorus is necessary for the remainder of the term of the permit.

k. Whole Effluent Toxicity (WET) and Chemical Specific Testing - – Maine Law, 38 M.R.S.A., Sections 414-A and 420, prohibits the discharge of effluents containing substances in amounts which 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 EPA. Department Rules, 06-096 CMR Chapter 530.5, *Surface Water Toxics Control Program*, set forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

WET and chemical specific (priority pollutant) testing, as required by Chapter 530.5, is included 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 waste water, 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. Chemical specific, or "priority pollutant (PP)," testing is required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health water quality criteria.

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

The Department issued a Fact Sheet on 2/1/95 which outlined Hartland's WET and chemical specific testing requirements under the Chapter 530.5 regulation. The regulation places the Hartland facility in the high frequency category for WET testing as the facility is required to adopt a pretreatment program under federal regulations and in the high frequency testing category for chemical specific testing as they are permitted to discharge greater than 1.0 MGD.

A recent review of Hartland's data indicates that they have fulfilled the Chapter 530.5 testing requirements to date. 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.

Department Rule Chapter 530.5 and Protocol E(1) of a document entitled *Maine Department of Environmental Protection, Toxicity Program Implementation Protocols*, dated July 1998, states that statistical evaluations shall be periodically performed on the most recent 60 months of WET and chemical specific data for a given facility to determine if water quality based limitations must be included in the permit.

Chapter 530.5 §C(2) states when a discharge *"...contains pollutants at levels that have a reasonable potential to cause or contribute to an ambient excursion in excess of a numeric or narrative water quality criterion, appropriate water quality based limits must be established in the permit upon issuance."*

Chapter 530.5 §C(3) also states that if data indicates that a discharge is causing an exceedence of applicable AWQC, then: *"(1) the Department must notify the licensee of the exceedence; (2) the licensee must submit a toxicity reduction evaluation (TRE) plan for review and approval within 30 days of receipt of notice and implement the TRE after Department approval; (3) the Department must modify the waste discharge license to specify effluent limits and monitoring requirements necessary to control the level of pollutant and meet receiving water classification standards within 180 days of the Department's approval of the TRE."*

On August 22, 2002, the Department conducted a statistical evaluation on the aforementioned tests results in accordance with the statistical approach outlined in EPA's March 1991 document entitled *Technical Support Document (TSD) for Water Quality Based Toxics Control*, Chapter 3.3.2 and Maine Department of Environmental Protection Guidance, July 1998, entitled *Toxicity Program Implementation Protocols*. The results of the 8/22/02 WET evaluation indicates that the **discharge exceeds (Exc) or has a reasonable potential (RP) to cause or contribute to exceedences of acute and or chronic numeric ambient water quality thresholds of 5.5% for the brook trout (*Salvelinus fontinalis*) and water flea (*Ceriodaphnia dubia*).**

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

The date and tests resulting in the reasonable potential determination are as follows:

Species	Test Date	Acute	Chronic
Water flea	5/4/99	---	8%(RP)
	11/16/99	---	8%(RP)
	2/22/00	---	8%(RP)
	2/6/01	---	8%(RP)
Brook Trout:	2/15/98	---	5% (Exc)
	3/23/99	8% (RP)	8% (RP)
	2/6/01	---	8%(RP)
	5/1/01	---	5.5%(RP)

Pursuant to Chapter 530.5 §C(2) & (3), the Department has established acute – no observed effect level (A-NOEL) for the brook trout and chronic - no observed effect level (C-NOEL) WET limits for the brook trout and water flea. The limits of 5.5% were derived by taking the mathematical inverse of the acute and chronic dilution factor of 18.2:1.

The statistical evaluation of the chemical specific test results, indicates that **the discharge has several test results that have a reasonable potential to exceed the chronic numeric ambient water quality criteria (AWQC) for ammonia and has one test result that exceeds human health criteria (both water & organisms and organisms only) for arsenic.** As for the remaining elements/compounds tested for, the data indicates that the discharge does not exceed or have a reasonable potential to violate numeric of narrative water quality standards. It is noted that a hardness value of 20 mg/L was utilized in evaluating metals that are hardness dependent.

In accordance with Chapter 530.5 §C(2), this permitting action establishes monthly average limits for the chemical specific parameters of concern based on the following calculations:

Parameter	Chronic[1] Criterion	Chronic Dilution Factor	Calculated EOP[2] Chronic Con.	Month Avg. Mass Limit
Ammonia	1.23 mg/L[3]	18.2:1	22.4 mg/L	280 lbs/day
Ammonia	2.7 mg/L[4]	18.2:1	49.1 mg/L	615 lbs/day
Arsenic	0.018 ug/L[5]	33.0:1[6]	0.59 ug/L	0.007 lbs/day
Chromium[7]	55.4 ug/L	18.2:1	1.0 mg/L	12.6 lbs/day

Example Calculation:

Ammonia - (1.23 mg/L)(18.2)(8.34)(1.5 MGD) = 280 lbs/day

$$\text{Arsenic - } \frac{(0.018\ \text{ug/L})(33.0)(8.34)(1.5\ \text{MGD})}{1000} = 0.007\ \text{lbs/day}$$

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

Footnotes:

1. Based on EPA's 1986 ambient water quality criteria (AWQC).
2. End-of-pipe.
3. June 1 – Oct 31. Criteria based on pH of 7.0 and temperature of 25°C.
4. Nov 1 – May 31. Criteria based on pH of 7.0 and temperature of 10°C.
5. Human health criteria.
6. Harmonic mean dilution factor.
7. Limits for chromium are being carried forward from the previous licensing as federal regulations require the imposition of a limit for parameters listed in the National Effluent Guidelines.

Concentration limits in the previous licensing action are being carried forward in this permitting action based on Department rule Chapter 523, §6(f)(2) which states that pollutants limited in terms of mass additionally may be limited in terms of other units of measurement and the permit shall require the permittee to comply with both limitations. In addition, *EPA's Technical Support Document For Water Quality Based Toxics Control*, March 1991, Chapter 5, Section 5.7, recommends that permit limits for both mass and concentration be specified for effluents discharging into waters with less than 100 fold dilution to ensure attainment of water quality standards. As not to penalize facilities for operating at flows less than permitted design flow of the waste water plant, the Department has increased the calculated concentration limit by a factor of 1.5. This represents an effluent concentration that is achievable through proper operation and maintenance of the treatment plant. Therefore, end-of-pipe concentration limits are as follows:

Parameter	Calculated EOP Concentration	Monthly Avg. Concentration Limit
Ammonia	22.4 mg/L[3]	33.6 mg/L
Ammonia	49.1 mg/L[4]	73.6 mg/L
Arsenic	0.59 ug/L	0.88 ug/L
Chromium	1.0 mg/L	1.5 mg/L

See applicable footnotes on the previous page.

1. Chromium (Total) – The NPDES permit issued by the EPA on September 30, 1991 and subsequently modified on March 13, 1992 contained both monthly average and daily maximum mass and concentration limits for total chromium. The Fact Sheet of the 9/30/91 NPDES permit indicates the limits were carried forward from the June 29, 1984 NPDES permit and were derived based on a review of the facility's past performance record. The limits in the 9/30/91 permit were more stringent than limits calculated based on ambient water quality criteria (AWQC) or technology based criteria established in applicable subparts (A, D, I & E) of the federal NEG Part 425.

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

The previous WDL (12/22/99) was in error by not establishing the daily maximum limitations for total chromium as federal regulation 40 CFR, Part 122.44(a) requires the permitting authority to establish all applicable limits for parameters listed in the NEG's. Therefore, this permitting action is establishing the daily maximum mass and concentration limits (34 lbs/day and 3.43 mg/L respectively) for total chromium that were included in the 9/30/91 NPDES permit.

The testing frequency established in Special Condition A of this permit for each parameter was based on a Department best professional judgment taking into consideration the frequency and severity of the exceedence(s) or reasonable potential to exceed AWQC.

6. PRETREATMENT

The permittee is required to administer a pretreatment program based on the authority granted under Federal regulations 40 CFR §122.44(j), 40 CFR Part 403 and section 307 of the Federal Water Pollution Control Act (Clean Water Act) and Department rule Chapter 528, Pretreatment Program. The permittee's pretreatment program received EPA approval on July 19, 1985 and as a result, appropriate pretreatment program requirements were incorporated into the previous National Pollutant Discharge Elimination System (NPDES) permit which were consistent with that approval and federal pretreatment regulations in effect when the permit was issued.

Since issuance of the previous NPDES permit, the State of Maine has been authorized by the EPA to administer the federal pretreatment program as part of receiving authorization to administer the NPDES program. Upon issuance of this MEPDES permit, the permittee is obligated to modify (if applicable) its pretreatment program to be consistent with current federal regulations and State rules. Those activities that the permittee must address include, but are not limited to, the following: (1) develop and enforce Department approved specific effluent limits (technically-based local limits - lasted approved by the EPA on May 13, 1999; (2) revise the local sewer-use ordinance or regulation, as appropriate, to be consistent with federal regulations and State rules; (3) develop an enforcement response plan; (4) implement a slug control evaluation program; (5) track significant non-compliance for industrial users; and (6) establish a definition of and track significant industrial users. These requirements are necessary to ensure continued compliance with the POTW's MEPDES permit and its sludge use or disposal practices.

6. PRETREATMENT (cont'd)

In addition to the requirements described above, this permit requires that within 180 days of the permit's effective date, the permittee shall submit to the Department in writing, a description of proposed changes to permittee's pretreatment program deemed necessary to assure conformity with current federal and State pretreatment regulations and rules respectively. These requirements are included in the permit (Special Condition N) to ensure that the pretreatment program is consistent and up-to-date with all pretreatment requirements in effect. Lastly, by December 1 of each calendar year, the permittee must submit a pretreatment report detailing the activities of the program for the twelve month period ending 60 days prior to the due date.

7. PUBLIC COMMENTS

Public notice of this application was made in the local newspaper on or about June 20, 2002. 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.

8. DEPARTMENT CONTACTS

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

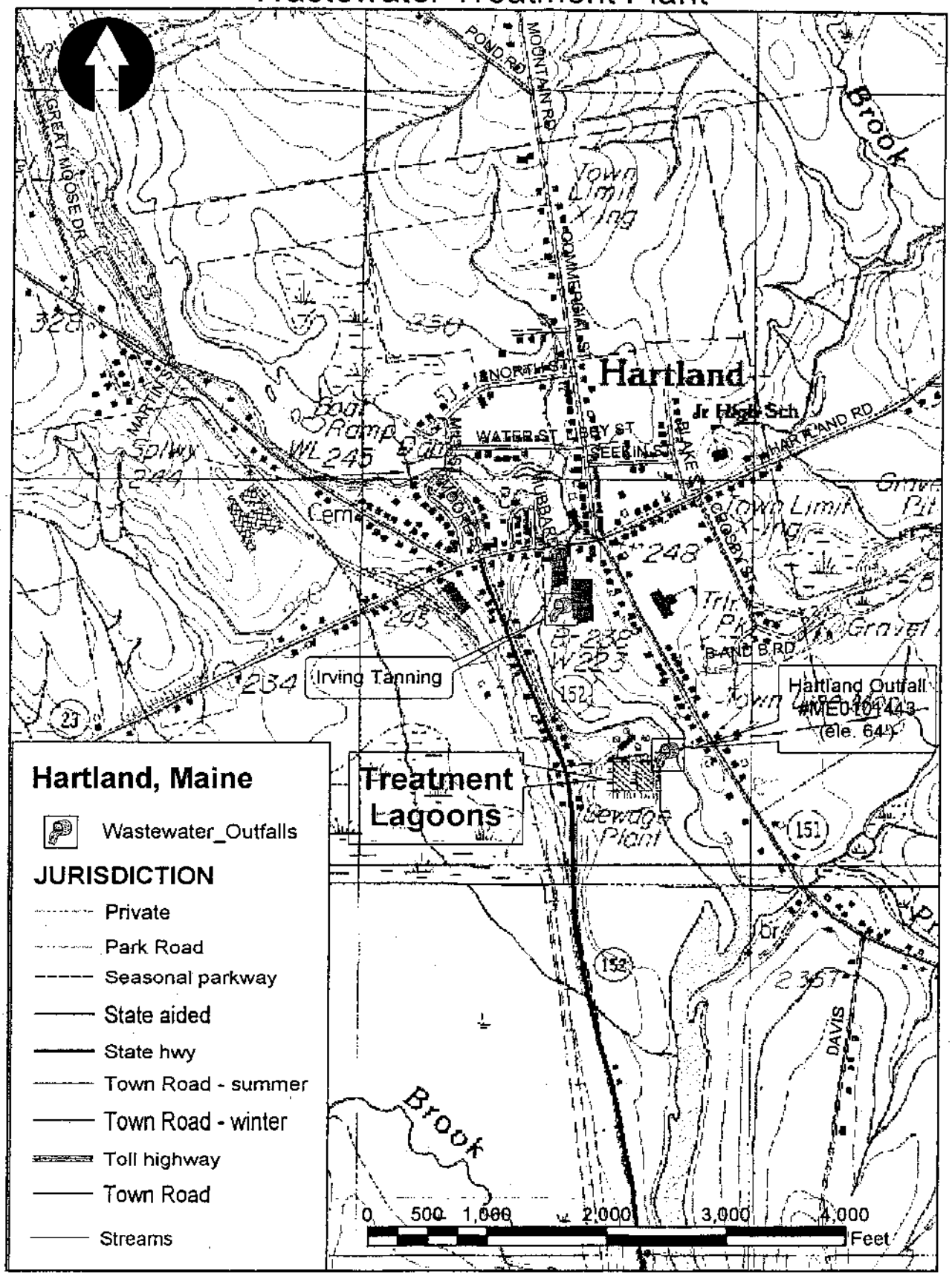
Gregg Wood
Division of Water Resource Regulation
Bureau of Land and Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017
Telephone (207) 287-3901

9. RESPONSE TO COMMENTS

During the period September 18, 2002 and October 18, 2002, the Department solicited comments on the proposed draft MEPDES permit and Maine WDL to be issued to the Town of Hartland for the proposed discharge. The Department did not receive comments from the licensee, state or federal agencies or interested parties that resulted in any substantive change(s) in the terms and conditions of the permit. Therefore, the Department has not prepared a Response to Comments.

Hartland Pollution Control Facility

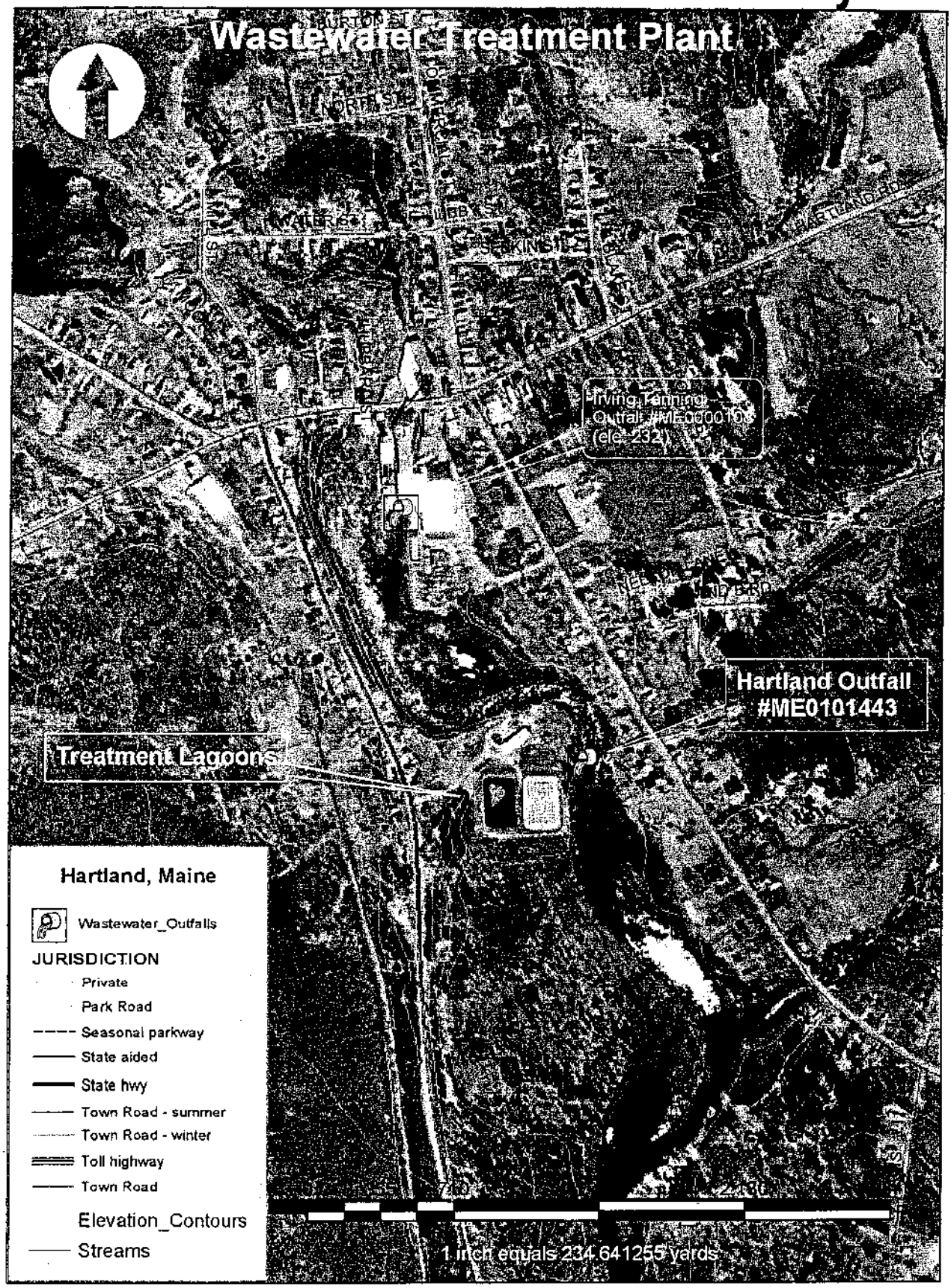
Wastewater Treatment Plant



This Plan Prepared by Maine DEP
DS:o; Version 1.0; 17SEP02

1 inch equals 1,202.363018 feet

Hartland Pollution Control Facility



This Plan Prepared by Maine DEP
DS:o: Version 1.0: 17Sep02

ATTACHMENT A

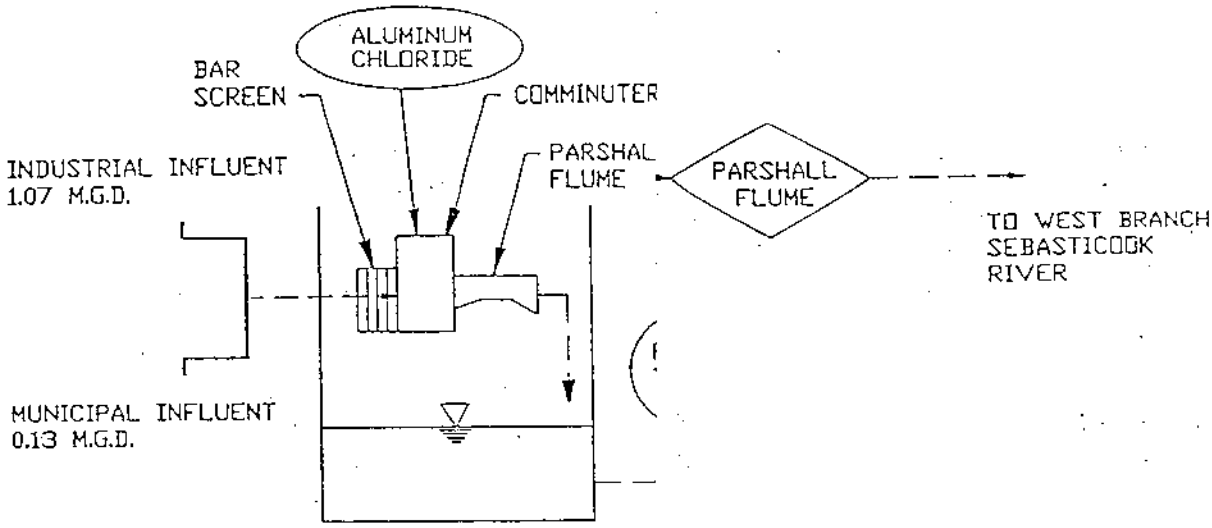


FIGURE 2

TOWN of HARTLAND HARTLAND, MAINE			
POTW FLOW SCHEMATIC			
ACHERON ENGINEERING SERVICES Engineering, Environmental & Geologic Consultants Newport, Maine - Winthrop, Maine			
JOB NO:	1929	DWG NO:	B-552
SCALE:	NONE	DATE:	2/5/96

FILE: B-552
1=L T.A.B.

ATTACHMENT B

HARTLAND
SEBASTICOOK RIVER

Flow: 1.5 MGD
Chronic dilution: 18.2:1
Acute dilution: 18.2:1

08/22/2002

Species	Test	Test Result %	Sample Date
WATER FLEA	C_NOEL	25	02/27/1992
WATER FLEA	A_NOEL	50	05/07/1992
WATER FLEA	C_NOEL	<4.4	05/07/1992
WATER FLEA	A_NOEL	100	06/25/1992
WATER FLEA	C_NOEL	44	06/25/1992
WATER FLEA	C_NOEL	4.4	06/25/1992
WATER FLEA	A_NOEL	100	08/16/1992
WATER FLEA	C_NOEL	100	08/16/1992
WATER FLEA	A_NOEL	50	11/05/1992
WATER FLEA	C_NOEL	25	11/05/1992
WATER FLEA	A_NOEL	50	02/11/1993
WATER FLEA	C_NOEL	10	02/11/1993
WATER FLEA	A_NOEL	50	05/06/1993
WATER FLEA	C_NOEL	20	05/06/1993
WATER FLEA	C_NOEL	25	05/06/1993
WATER FLEA	A_NOEL	100	08/12/1993
WATER FLEA	C_NOEL	44	08/12/1993
WATER FLEA	C_NOEL	<4.4	08/12/1993
FATHEAD	A_NOEL	100	10/28/1993
FATHEAD	C_NOEL	100	10/28/1993
WATER FLEA	A_NOEL	100	10/28/1993
WATER FLEA	C_NOEL	<4.4	10/28/1993
WATER FLEA	A_NOEL	100	11/18/1993
WATER FLEA	C_NOEL	100	11/18/1993
WATER FLEA	A_NOEL	25	02/10/1994
WATER FLEA	C_NOEL	25	02/10/1994
WATER FLEA	A_NOEL	25	05/22/1994
WATER FLEA	C_NOEL	4.4	05/22/1994
WATER FLEA	A_NOEL	100	08/18/1994
WATER FLEA	C_NOEL	5	08/18/1994
WATER FLEA	A_NOEL	25	11/01/1994
WATER FLEA	C_NOEL	25	11/01/1994
WATER FLEA	A_NOEL	25	02/02/1995
WATER FLEA	C_NOEL	10	02/02/1995
FATHEAD	A_NOEL	10	03/16/1995
FATHEAD	C_NOEL	10	03/16/1995
TROUT	C_NOEL	49	04/12/1995
TROUT	LC50	>100	04/12/1995
WATER FLEA	C_NOEL	49	04/12/1995
WATER FLEA	LC50	>100	04/12/1995
TROUT	A_NOEL	50	05/01/1995

HARTLAND
SEBASTICOOK RIVER

Flow: 1.5 MGD
Chronic dilution: 18.2:1
Acute dilution: 18.2:1

Species	Test	Test Result %	Sample Date	
TROUT	C_NOEL	25	05/01/1995	
WATER FLEA	A_NOEL	10	05/01/1995	
WATER FLEA	C_NOEL	5	05/01/1995	
TROUT	A_NOEL	100	08/08/1995	
TROUT	C_NOEL	100	08/08/1995	
WATER FLEA	A_NOEL	100	08/08/1995	
WATER FLEA	C_NOEL	10	08/08/1995	
FATHEAD	A_NOEL	100	11/07/1995	
FATHEAD	C_NOEL	100	11/07/1995	
WATER FLEA	A_NOEL	100	11/07/1995	
WATER FLEA	C_NOEL	50	11/07/1995	
TROUT	A_NOEL	25	02/20/1996	
TROUT	C_NOEL	25	02/20/1996	
WATER FLEA	A_NOEL	100	02/20/1996	
WATER FLEA	C_NOEL	25	02/20/1996	
FATHEAD	A_NOEL	100	05/16/1996	
FATHEAD	C_NOEL	100	05/16/1996	
WATER FLEA	A_NOEL	50	05/16/1996	
WATER FLEA	C_NOEL	25	05/16/1996	
TROUT	A_NOEL	100	08/13/1996	
TROUT	C_NOEL	100	08/13/1996	
WATER FLEA	A_NOEL	100	08/13/1996	
WATER FLEA	C_NOEL	25	08/13/1996	
FATHEAD	A_NOEL	30	10/31/1996	
FATHEAD	C_NOEL	25	10/31/1996	
WATER FLEA	A_NOEL	100	10/31/1996	
WATER FLEA	C_NOEL	10	10/31/1996	
TROUT	A_NOEL	25	02/12/1997	
TROUT	C_NOEL	<5	02/12/1997	
WATER FLEA	A_NOEL	25	02/12/1997	
WATER FLEA	C_NOEL	10	02/12/1997	
FATHEAD	A_NOEL	10	05/15/1997	
FATHEAD	C_NOEL	10	05/15/1997	
WATER FLEA	A_NOEL	25	05/15/1997	
WATER FLEA	C_NOEL	10	05/15/1997	
TROUT	A_NOEL	100	08/12/1997	
TROUT	C_NOEL	100	08/12/1997	
WATER FLEA	A_NOEL	100	08/12/1997	
WATER FLEA	C_NOEL	50	08/12/1997	
FATHEAD	A_NOEL	25	11/17/1997	BEGIN 60 MONTH
FATHEAD	C_NOEL	10	11/17/1997	EVALUATION

Species	Test	Test Result %	Sample Date
WATER FLEA	A_NOEL	50	11/17/1997
WATER FLEA	C_NOEL	10	11/17/1997
TROUT	A_NOEL	10	02/15/1998
TROUT	C_NOEL	5 Ex. ✓	02/15/1998
WATER FLEA	A_NOEL	25	02/15/1998
WATER FLEA	C_NOEL	10	02/15/1998
FATHEAD	A_NOEL	10	05/05/1998
FATHEAD	C_NOEL	10	05/05/1998
WATER FLEA	A_NOEL	25	05/05/1998
WATER FLEA	C_NOEL	10	05/05/1998
TROUT	A_NOEL	100	08/11/1998
TROUT	C_NOEL	100	08/11/1998
TROUT	LC50	>100	08/11/1998
WATER FLEA	A_NOEL	100	08/11/1998
WATER FLEA	C_NOEL	50	08/11/1998
WATER FLEA	LC50	>100	08/11/1998
FATHEAD	A_NOEL	100	11/03/1998
FATHEAD	C_NOEL	100	11/03/1998
WATER FLEA	A_NOEL	100	11/03/1998
WATER FLEA	C_NOEL	10	11/03/1998
TROUT	A_NOEL	8 RP ✓	03/23/1999
TROUT	C_NOEL	8 RP ✓	03/23/1999
WATER FLEA	A_NOEL	25	03/23/1999
WATER FLEA	C_NOEL	8 RP ✓	03/23/1999
FATHEAD	A_NOEL	100	05/04/1999
FATHEAD	C_NOEL	100	05/04/1999
WATER FLEA	A_NOEL	100	05/04/1999
WATER FLEA	C_NOEL	8 RP ✓	05/04/1999
TROUT	A_NOEL	100	08/10/1999
TROUT	C_NOEL	50	08/10/1999
WATER FLEA	A_NOEL	100	08/10/1999
WATER FLEA	C_NOEL	50	08/10/1999
FATHEAD	A_NOEL	50	11/16/1999
FATHEAD	C_NOEL	25	11/16/1999
WATER FLEA	A_NOEL	25	11/16/1999
WATER FLEA	C_NOEL	8 RP ✓	11/16/1999
TROUT	A_NOEL	50	02/22/2000
TROUT	C_NOEL	25	02/22/2000
WATER FLEA	A_NOEL	50	02/22/2000
WATER FLEA	C_NOEL	8 RP ✓	02/22/2000
TROUT	A_NOEL	50	08/22/2000

Species	Test	Test Result %	Sample Date
TROUT	C_NOEL	50	08/22/2000
WATER FLEA	A_NOEL	50	08/22/2000
WATER FLEA	C_NOEL	50	08/22/2000
TROUT	A_NOEL	50	11/07/2000
TROUT	C_NOEL	50	11/07/2000
WATER FLEA	A_NOEL	50	11/07/2000
WATER FLEA	C_NOEL	25	11/07/2000
TROUT	A_NOEL	50	02/06/2001
TROUT	C_NOEL	8 RP ✓	02/06/2001
WATER FLEA	A_NOEL	50	02/06/2001
WATER FLEA	C_NOEL	8 RP ✓	02/06/2001
TROUT	A_NOEL	50	05/01/2001
TROUT	C_NOEL	5.5 RP ✓	05/01/2001
WATER FLEA	A_NOEL	50	05/01/2001
WATER FLEA	C_NOEL	50	05/01/2001
TROUT	A_NOEL	50	08/07/2001
TROUT	C_NOEL	50	08/07/2001
WATER FLEA	A_NOEL	50	08/07/2001
WATER FLEA	C_NOEL	50	08/07/2001
TROUT	A_NOEL	50	11/07/2001
TROUT	C_NOEL	50	11/07/2001
WATER FLEA	A_NOEL	50	11/07/2001
WATER FLEA	C_NOEL	50	11/07/2001
TROUT	A_NOEL	50	02/05/2002
TROUT	C_NOEL	8 RP ✓	02/05/2002
WATER FLEA	A_NOEL	50	02/05/2002
WATER FLEA	C_NOEL	50	02/05/2002
TROUT	A_NOEL	50	05/01/2002
TROUT	C_NOEL	50	05/01/2002
WATER FLEA	A_NOEL	50	05/01/2002
WATER FLEA	C_NOEL	50	05/01/2002

ATTACHMENT C

Sample Date: 02/12/1997
Plant flows provided

Total Tests: 136
Missing Compounds: 0
Tests With High DL: 2

mon.(MGD) = 0.900
day(MGD) = 1.000

M = 1 V = 0 A = 0
BN = 0 P = 1 other = 0

Sample Date: 05/15/1997
Plant flows provided

Total Tests: 137
Missing Compounds: 0
Tests With High DL: 25

mon.(MGD) = 1.000
day(MGD) = 1.270

M = 0 V = 0 A = 0
BN = 0 P = 25 other = 0

Sample Date: 08/12/1997
Plant flows provided

Total Tests: 138
Missing Compounds: 0
Tests With High DL: 2

mon.(MGD) = 0.820
day(MGD) = 1.000

M = 1 V = 0 A = 0
BN = 0 P = 1 other = 0

Sample Date: 11/17/1997
Plant flows provided

Total Tests: 136
Missing Compounds: 0
Tests With High DL: 1

mon.(MGD) = 0.710
day(MGD) = 1.000

M = 1 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 02/15/1998
Plant flows provided

Total Tests: 136
Missing Compounds: 0
Tests With High DL: 1

mon.(MGD) = 0.990
day(MGD) = 0.295

M = 1 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 05/05/1998
Plant flows provided

Total Tests: 136
Missing Compounds: 0
Tests With High DL: 27

mon.(MGD) = 0.690
day(MGD) = 1.143

M = 0 V = 0 A = 4
BN = 9 P = 14 other = 0

Sample Date: 06/08/1998
Plant flows provided

Total Tests: 82
Missing Compounds: 42
Tests With High DL: 0

mon.(MGD) = 0.818
day(MGD) = 0.798

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 08/11/1998
Plant flows provided

Total Tests: 136
Missing Compounds: 0
Tests With High DL: 0

mon.(MGD) = 0.724
day(MGD) = 1.160

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 11/03/1998
Plant flows provided

Total Tests: 136
Missing Compounds: 0
Tests With High DL: 0

mon.(MGD) = 0.524
day(MGD) = 0.706

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 03/23/1999
Plant flows provided

Total Tests: 136
Missing Compounds: 0
Tests With High DL: 0

mon.(MGD) = 1.078
day(MGD) = 1.310

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 05/04/1999
Plant flows not provided

Total Tests: 136
Missing Compounds: 0
Tests With High DL: 0

M = 0	V = 0	A = 0
BN = 0	P = 0	other = 0

Sample Date: 08/10/1999
Plant flows not provided

Total Tests: 136
Missing Compounds: 0
Tests With High DL: 0

M = 0	V = 0	A = 0
BN = 0	P = 0	other = 0

Sample Date: 11/16/1999
Plant flows not provided

Total Tests: 136
Missing Compounds: 0
Tests With High DL: 0

M = 0	V = 0	A = 0
BN = 0	P = 0	other = 0

Sample Date: 08/22/2000
Plant flows not provided

Total Tests: 136
Missing Compounds: 0
Tests With High DL: 0

M = 0	V = 0	A = 0
BN = 0	P = 0	other = 0

Sample Date: 08/07/2001
Plant flows provided

Total Tests: 136
Missing Compounds: 0
Tests With High DL: 0

mon.(MGD)= 0.410
day(MGD)= 0.619

M = 0	V = 0	A = 0
BN = 0	P = 0	other = 0

PP Data for "Hits" Only

ARTLAND
EBASTICOOK RIVER

MMONIA
o MDL

4 RP's
No Exc

	Conc, ug/l	MDL	Sample Date	Date Entered
	190.000000	NS	05/01/2001	10/11/2001
	260.000000	NS	11/03/1998	01/20/1999
	350.000000	NS	11/07/2000	03/07/2001
	970.000000	NS	08/10/1999	09/15/1999
	980.000000	NS	08/11/1998	12/17/1998
	1010.00000	NS	08/07/2001	10/24/2001
	1060.00000	NS	08/22/2000	09/27/2000
	1420.00000	NS	05/04/1999	06/24/1999
	1800.00000	NS	11/07/2001	06/04/2002
	2240.00000	NS	11/16/1999	01/06/2000
	2400.00000	NS	08/12/1997	10/14/1997
	2730.00000	NS	02/07/2001	05/08/2001
	3620.00000	NS	02/05/2002	05/08/2002
	~~32400.0000~~	~~NS~~	~~11/17/1997~~	~~10/04/1998~~
RP	38240.0000	NS	02/22/2000	04/14/2000
	~~49000.0000~~	~~NS~~	~~02/12/1997~~	~~09/22/1997~~
RP	50000.0000	NS	03/23/1999	05/12/1999
RP	50000.0000	NS	05/05/1998	12/28/1998
	~~58000.0000~~	~~NS~~	~~05/15/1997~~	~~11/20/1997~~
RP	89000.0000	NS	02/15/1998	12/23/1998
<	60.000000	NS	05/01/2002	06/21/2002

RSENIC
DL = 5 ug/l

Exc
No RP's

	Conc, ug/l	MDL	Sample Date	Date Entered
Below RL	2.000000	OK	08/22/2000	10/17/2000
Below RL	3.000000	OK	08/07/2001	10/29/2001
	~~8.000000~~	~~OK~~	~~02/12/1997~~	~~03/24/1997~~
Exc	10.000000	OK	05/05/1998	07/06/1998
<	5.000000	OK	11/16/1999	01/12/2000
<	5.000000	OK	08/10/1999	09/21/1999
<	5.000000	OK	05/15/1997	06/27/1997
<	5.000000	OK	02/15/1998	03/25/1998
<	5.000000	OK	08/12/1997	10/14/1997
<	5.000000	OK	11/17/1997	12/29/1997
<	5.000000	OK	05/04/1999	06/29/1999
<	5.000000	OK	08/11/1998	09/22/1998
<	5.000000	OK	11/03/1998	12/21/1998
<	5.000000	OK	03/23/1999	05/06/1999

HROMIUM
DL = 10 ug/l

No RP's
No Exc.

Conc, ug/l	MDL	Sample Date	Date Entered
160.000000	OK	05/15/1997	06/27/1997
270.000000	OK	08/22/2000	09/27/2000
290.000000	OK	11/07/2000	03/07/2001
310.000000	OK	08/07/2001	10/24/2001
~~320.000000~~	~~OK~~	~~11/16/1999~~	~~01/06/2000~~
340.000000	OK	11/07/2001	06/04/2002
347.000000	OK	08/11/1998	09/22/1998
390.000000	OK	02/07/2001	05/08/2001
400.000000	OK	05/04/1999	06/24/1999
440.000000	OK	02/12/1997	03/24/1997
450.000000	OK	11/03/1998	12/21/1998
460.000000	OK	05/01/2001	10/11/2001

PP Data for "Hits" Only

ARTLAND

EBASTICOOK RIVER

HROMIUM

DL = 10 ug/l

no exc.

no RP's*

Conc, ug/l	MDL	Sample Date	Date Entered
520.000000	OK	05/05/1998	07/06/1998
530.000000	OK	08/10/1999	09/15/1999
590.000000	OK	02/05/2002	05/08/2002
600.000000	OK	02/15/1998	03/25/1998
600.000000	OK	02/22/2000	04/14/2000
600.000000	OK	08/12/1997	10/14/1997
760.000000	OK	03/23/1999	05/06/1999
*RP1070.00000	OK	11/17/1997	12/29/1997

* WILL LIKELY BE OUTSIDE 60 MONTH EVALUATION WINDOW UPON ISSUANCE OF THE PERMIT